



ANNUAL REPORT

CONTENT

| | |
|---|------------|
| FACULTY OF ELECTRICAL ENGINEERING AND INFORMATION TECHNOLOGY | 3 |
| STUDY PROGRAMS AND FACULTY MANAGEMENT | 5 |
| INSTITUTE OF AUTOMOTIVE MECHATRONICS | 9 |
| INSTITUTE OF COMPUTER SCIENCE AND MATHEMATICS | 34 |
| INSTITUTE OF CONTROL AND INDUSTRIAL INFORMATICS | 53 |
| INSTITUTE OF ELECTRICAL ENGINEERING | 75 |
| INSTITUTE OF ELECTRONICS AND PHOTONICS | 91 |
| INSTITUTE OF NUCLEAR AND PHYSICAL ENGINEERING | 129 |
| INSTITUTE OF POWER AND APPLIED ELECTRICAL ENGINEERING | 154 |
| INSTITUTE OF TELECOMMUNICATIONS | 191 |
| OFFICE FOR EUROPEAN UNION PROGRAMS | 211 |
| INSTITUTE OF COMMUNICATION AND APPLIED LINGUISTICS | 218 |
| TECHNOLOGICAL INSTITUTE OF SPORTS | 223 |
| SPECIALIZED CENTRES | 229 |

FACULTY OF ELECTRICAL ENGINEERING AND INFORMATION TECHNOLOGY

<http://www.fei.stuba.sk>

Profile of the Faculty

The Faculty of Electrical Engineering and Information Technology of STU is one of the seven faculties of the Slovak University of Technology, the oldest and largest university of technology in Slovakia. Its substantial lines are modern, internationally accepted university study, intensive scientific and development research and cooperation with academic and industrial partners in Slovakia and abroad.

The beginnings of the Faculty of Electrical Engineering and Information Technology are dating back to the year 1940, when by the Government Decree at the Slovak University of Technology was established the Department of Mechanical and Electrical Engineering. By the opening the Department of Electrical Engineering in the year 1941, actually began the history of electrical higher education in Slovakia. In the year 1994 the Faculty of Electrical Engineering was renamed to the Faculty of Electrical Engineering and Information Technology.

Faculty of Electrical Engineering and Information Technology of STU in the long term ranks among the largest educational institutions in Slovakia and in the area of education of technical engineers has a long tradition. The Faculty of Electrical Engineering and Information Technology of STU is also the largest educational faculty focused on the raising of the university – educated professionals in the field of electrical engineering, informatics and information technologies. Study programs with their composition reflect the technical development as well as trends in society. They consist of interlinked system that highly covers the needs of labor market in Slovakia and abroad. Many of our graduates have found application as top professionals in the field and perform also top management positions.

Students besides gain in high – quality knowledge during the study are in a position to be involved in the process of solving of research projects and also projects for commercial practice. This may begin their careers already during their studies. Students of the faculty thereby are able to receive the possibility to complete a part of the study at foreign universities with which the Faculty of Electrical Engineering and Information Technology signed agreements on bilateral cooperation. The Faculty at the same time develops with universities abroad cooperation in research and technological cooperation. The year after year relatively large group of the students complete one or two semesters at one of the technical university abroad.

By completing any of the Faculty study programs it is possible to gain an excellent potential for a good quality job in a wide spectrum of professions. Employment figure of the graduates of the Faculty comes up to hundred percent every year. This means a great prospect ahead for students within Slovakia and European Union.

The Faculty of Electrical Engineering and Information Technology of STU consists of ten institutes:

- **Institute of Automotive Mechatronics (IAMT)** was established on July 1, 2013.
- **Institute of Computer Science and Mathematics (ICSM)** was established on May 1, 2011 and created from: Department of Applied Informatics and Information Technology and Department of Mathematics
- **Institute of Control and Industrial Informatics (ICII)** was established on March 3, 2006 by a fusion of three departments: Department of Automation and Control, Department of Automatic Control Systems and Department of

Economics and Management, the last one being detached from the ICII in April 1, 2007.

- **Institute of Electrical Engineering (IEE)** was established on May 1, 2011 and created from: Department of Electromagnetic Theory and Department of Measurement.
- **Institute of Electronics and Photonics (IEP)** was established on May 1, 2011 and created from: Department of Microelectronics and Department of Radio and Electronics.
- **Institute of Nuclear and Physical Engineering (INPE)** was established on May 1, 2011 and created from: Department of Physics and Department of Nuclear Physics and Technology.
- **Institute of Power and Applied Electrical Engineering (IPAEE)** was established on May 1, 2011 and created from: Department of Electrical Machines and Devices, Department of Electrical Power Engineering, Department of Electrotechnology and Department of Mechanics.
- **The Institute of Telecommunications (IT)** was established on May 1, 2011 and was created from previous: Department of Telecommunications.
- **Institute of Communication and Applied Linguistics (ICAL)** was established on April 1, 1991.
- **Technological Institute of Sports (TIS)** was established in year 1993.

The primary goal of Faculty institutes and is to link high quality education with research and development. Faculty of Electrical Engineering and Information Technology of STU in Bratislava has sustained its position as a major centre of research and development.

Information and telecommunication systems and technologies, electronics and electrical engineering and their applications, automated systems and methods of their control, power and nuclear engineering, application mechatronics are considered as most important scientific and research areas at FEI STU. Science and research at the Faculty of Electrical Engineering and Information Technology has to be primarily oriented on them.

As far as grant success rate is concerned, the Faculty belongs to the most successful institutions in Slovakia. This position must result in the quality that will be reflected in national and international projects, publications in CC international scientific journals, quotations, patents as well as participation of the Faculty teachers and researchers in practical applications of latest technologies as well as in creating new development concepts of different sectors of Slovak national economy.

In the area of science and research the Faculty is also focused on funding science and research by involving Faculty staff in all forms of VEGA, KEGA and APVV projects, competence centers, centers of excellence, EU framework programs, bilateral and other international projects, government contracts as well as by funding from other sources. The main focus is also placed to involve undergraduate and postgraduate students in research at the Faculty and in research centers in Slovakia and abroad. The number of PhD. students who successfully completed their studies at FEI also represents a measurable indicator of quality. Quality is also reflected in individual teachers' and researchers' efforts the Faculty can benefit from.

STUDY PROGRAMS AND FACULTY MANAGEMENT



Bachelor (Bc.) programs:

Applied Informatics
Automotive Electronics
Electrical Engineering
Electronics
Industrial Informatics
Telecommunication

Master (Ing.) programs:

Applied Informatics
Applied Mechatronics
Cybernetics
Measurement and Information
Technology
Microelectronics
Physical Engineering
Power Engineering
Radioelectronics
Robotics
Telecommunication

PhD. programs:

Applied Informatics
Applied Mathematics
Automation and Control
Condensed Matter Physics and
Acoustics
Cybernetics
Electromagnetic Theory
Electrotechnology and Materials
Heavy Current Engineering
Measurement Science
Mechatronics
Metrology
Microelectronics
Nuclear Power Engineering
Physical Engineering
Power Engineering
Radioelectronics
Telecommunication



Dean:
prof. RNDr. Gabriel Juhás, PhD.

Vice-deans:



prof. Ing. Peter Ballo, PhD.
(until 30.06.2013)



Ing. Martin Foltin, PhD.
(until 30.06.2013)



doc. Ing. Vladimír Jančárik, PhD.



doc. Dr. Ing. Miloš Oravec



doc. Ing. Jarmila Pavlovičová, PhD.



doc. Ing. Milan Žiška, PhD.

Scientific Council



Chairman:
prof. RNDr. Gabriel Juhás, PhD.



Vice-chairman
doc. Ing. Milan Žiška, PhD.

Members

prof. Ing. Peter Ballo, PhD.
(until 30.6.2013)
prof. Ing. Ivan Baroňák, PhD.
prof. Ing. Július Cirák, CSc.
doc. Ing. Pavel Čičák, PhD.
prof. Ing. Daniel Donoval, DrSc.
prof. RNDr. Otokar Grošek, PhD.
prof. Ing. Peter Hubinský, PhD.
doc. Ing. Vladimír Jančárik, PhD.
prof. Ing. František Janíček, PhD.
prof. Ing. Jozef Jasenek, PhD.
prof. Ing. Štefan Kozák, PhD.
doc. RNDr. Ľubomír Marko, PhD.
prof. RNDr. Ľudovít Molnár, DrSc.
prof. Ing. Ján Murgaš, PhD.
prof. Ing. Justín Murín, DrSc.
doc. Dr. Ing. Miloš Oravec
doc. Ing. Jarmila Pavlovičová, PhD.

prof. Ing. Robert Redhammer, PhD.
prof. Ing. Vladimír Slugeň, DrSc.
prof. Ing. Viktor Smieško, PhD.
prof. Ing. František Uherek, PHD.

External members

Ing. Miroslav Barus, PhD.
prof. Ing. Milan Dado, PhD.
doc. Ing. Ivan Hejda, PhD.
Ing. Emil Krondiak, PhD.
prof. RNDr. Jozef Masarik, DrSc.
prof. Ing. Karol Matiaško, PhD.
doc. Ing. Jozef Novák, DrSc.
doc. Ing. Mylan Tyšler, DrSc.
Ing. Otto Verbich, PhD.
prof. Ing. Liberios Vokorokos, PhD

Academic Senate



Chairman:

Prof. Ing. František Uherek, PhD.

Chamber of employees

Chairman until 22.11.2013:

doc. Ing. Peter Drahoš, PhD.

Chairman from 22.11.2013:

doc. Ing. Mikuláš Bittera, PhD.

PhDr. Jarmila Belasová, PhD.

doc. Ing. Mikuláš Bittera, PhD.

doc. Ing. Peter Bokes, PhD,

doc. Ing. Peter Drahoš, PhD.

PaedDr. Aleš Dunajčík

doc. Ing. Žaneta Eleschová, PhD. (until 22.11.2013)

doc. Ing. Róbert Hinca, PhD.

prof. Ing. Peter Hubinský, PhD.

Ing. Erik Chromý, PhD.

Ing. Matúš Jókay, PhD.)

doc. Ing. Vladimír Kutiš, PhD. (until 22.11.2013)

doc. Ing. Rastislav Róka, PhD.

doc. RNDr. Boris Rudolf, PhD.

prof. Ing. Viera Stopjaková, PhD.

prof. Ing. František Uherek, PhD.

doc. Ing. Elemír Ušák, PhD.

New members (from 22.11.2013)

doc. Ing. Anton Beláň, PhD.

Ing. Juraj Paulech, PhD.

Ing. Peter Poljovka, PhD.

doc. Ing. Danica Rosinová, PhD.

prof. Ing. Anton Vitko, PhD.

Chamber of students

Chairman: Ing. Peter Beňo

Ing. Peter Beňo

Ing. Michal Hanic

Martin Horniak (until 22.11.2013)

Ing. Martin Jagelka (until 22.11.2013)

Andrej Ralbovský (until 22.11.2013)

Marek Rapčík (until 22.11.2013)

Ľubomír Sládek (until 22.11.2013)

Filip Tehlár (until 22.11.2013)

New members (from 22.11.2013)

Patrik Jagelka

Peter Šimek

Jakub Štefančák

Bc. Tomáš Štibraný

Ing. Ján Uhrík

Adam Weinzettl

Tomáš Závodník

INSTITUTE OF AUTOMOTIVE MECHATRONICS

<http://www.uamt.fei.stuba.sk/>



Director of the Institute:

prof. Ing. Štefan Kozák, PhD.

Tel: +421-2-602 91 281

Fax: +421-2-654 29 734

e-mail: stefan.kozak@stuba.sk

Vice- Director for Science and Research:

prof. Ing. Justín Murín, DrSc.

Vice- Director for Teaching:

prof. Ing. Mikuláš Huba, PhD.

Secretary:

Katarína Beringerová

Office:

Katarína Kermietová

General Information

The Institute of Automotive Mechatronics (IAMT) at the Faculty of Electrical Engineering and Information Technology was established in July 2013 to bring into focus research and education in Applied Mechatronics, especially in automotive mechatronics. Human potential and a long-lasting research tradition in automation, mechanics, materials science, information and communication technologies are key attributes of the Institute.

IAMT consists of 4 departments:

Department of Applied Mechanics and Mechatronics,

Department of Information, Communication and Control Systems,

Department of Electronics, Microcomputers and PLC Systems,

Department of E-mobility, Automation and Drive Systems.

The Institute of Automotive Mechatronics (IAMT) offers modern courses in automation, mechanics, electronics and computer science. Its research and teaching activities are directed at development and application of modelling, simulation and control methods for mechatronic engineering systems and processes. IAMT has good experience in industry - academia cooperation as well as in international cooperation, which will be very

helpful for the preparation and launching of new projects, and development of modern courses in Mechatronics.

Research and education at IAMT are oriented mainly at automotive mechatronics. Systems in automotive engineering, such as break and steering systems, automatic transmissions, suspension systems, and engine management distinguish themselves through complex electronic-mechanic interaction. Automotive mechatronic engineers must feel at home in all areas of automotive engineering, as well as in automotive mechanics and automotive electronics.

Mechatronics is an interdisciplinary subject that combines mechanical engineering, informatics and electrical engineering disciplines. In automotive engineering, mechatronic components feature key functions in various application areas. Examples are conventional, hybrid, and electric powertrains, vehicle dynamics control, applications in active vehicle safety, comfort functions (e.g. seat systems), as well as a variety of implemented sensors and actuators. Mechatronic Engineering is the engineering discipline concerned with the research, design, implementation and maintenance of intelligent engineered products and processes enabled by the integration of mechanical, electronic, computer, and software engineering technologies.

Mechatronic systems in automotive engineering, such as break and steering systems, automatic transmissions, suspension systems, and engine management distinguish themselves through complex electronic-mechanic interaction. Automotive mechatronic engineers must feel at home in all areas of automotive engineering, as well as in automotive mechanics and automotive electronics.

Departments of the Institute of Automotive Mechatronics

Department of Applied Mechanics and Mechatronics

Head of the department
Deputy-head

prof. Ing. Justín Murín, DrSc.
doc. Ing. Vladimír Kutiš, PhD.

Department of Information, Communication and Control Systems

Head of the department
Deputy-head

doc. Ing. Danica Rosinová, PhD.
doc. Ing. Katarína Žáková, PhD.

Department of Electronics, Microcomputers and PLC Systems

Head of the department
Deputy-head

doc. Ing. Peter Drahoš, PhD.
doc. Ing. Ján Šturcel, PhD.

Department of E-Mobility, Automation and Drive Systems

Head of the department
Deputy-head

prof. Ing. Mikuláš Huba, PhD.
prof. Ing. Viktor Ferencey, PhD.

I. STAFF

| | |
|--------------------------------------|---|
| Professors | prof. Ing. Viktor Ferencey, PhD., prof. Ing. Mikuláš Huba, PhD., prof. Ing. Štefan Kozák, PhD., prof. Ing. Justín Murín, DrSc., |
| Associate Professors | doc. Ing. Peter Drahoš, PhD., doc. Ing. Alena Kozáková, PhD., doc. Ing. Vladimír Kutiš, PhD., doc. Ing. Peter Podhoranský, PhD., doc. Ing. Danica Rosinová, PhD., doc. Ing. Ján Šturcel, PhD., doc. Ing. Katarína Žáková, PhD. |
| Assistant Professors | Ing. Igor Bélai, PhD., Ing. Pavol Bisták, PhD., Ing. Martin Bugár, PhD., Ing. Ján Cigánek, PhD., Ing. Vladimír Goga, PhD., Ing. Juraj Hrabovský, PhD., Ing. Mária Hypiusová, PhD., Ing. Štefan Chamraz, PhD., Ing. Marek Kukučka, PhD., Ing. Juraj Matej, PhD., Ing. Juraj Paulech, PhD., Ing. Tibor Sedlár, Ing. Peter Ťapák, PhD. |
| Research Workers | doc. Ing. Peter Fuchs, PhD., Ing. Róbert Fric, PhD., Ing. Jakub Osuský, PhD., Ing. Vladimír Popelka |
| Technical Staff | Katarína Beringerová, František Erdödy, Mgr. Iveta Flickingerová, Katarína Kermietová (office) |
| PhD. Students | Ing. Branislav Dvorščák, Ing. Tomáš Frťala, Ing. Gabriel Gálik, Ing. Roman Gogola, Ing. Peter Guzmický, Ing. Oto Haffner, Ing. Ivan Holič, Ing. Tomáš Huba, Ing. Jakub Jakubec, Ing. Zoltán Janík, Ing. Michal Kocúr, Ing. Róbert Krasňanský, Ing. Erik Kučera, Ing. Juraj Madarás, Ing. Tomáš Malatinec, Ing. Emil Mojto, Ing. Filip Noge, Ing. Martin Nováček, Ing. Peter Olšovský, Ing. Anton Pytel, Ing. Eduard Ribar, Ing. Dávid Soós, Ing. Vladimír Staňák, Ing. Peter Valach |
| PhD. Students (external form) | Ing. Jakub Bendžala, Ing. Florian Dietze, Ing. Peter Heretík, Ing. Peter Karas, Ing. Vladimír Popelka, Ing. Tibor Sedlár, Ing. Ľuboš Staňák, Ing. Harald Szöky |

II. EQUIPMENT

II.1 Teaching and Research Laboratories

The 3 specialized joint laboratories at FEI STU were established for education of students in the study programs Automotive Electronics (Bc.), Applied Mechatronics (MSc.) and Automotive Mechatronics (MSc.).

Equipment: The laboratories are materially supplied from joint resources of the FEI STU and the supporters: Schneider Electric Slovakia, s.r.o., PSA Peugeot Citroën Slovakia, and Volkswagen Slovakia, a.s. – suppliers of

mechtronic components, systems and equipment. Teaching modules for automotive mechatronics were provided by the LITO –DIDAKTIC company.

Laboratories were built for teaching courses in automotive mechatronics, electronics, and applied mechatronics. They are equipped with modules of functional parts of modern automotive mechatronic systems that can be connected to a distributed networked control and communication system. Individual modules of mechanical and electronic components and systems of a car are linked to computer, sensor and actuator systems. On the walls of classrooms, functional tables of electrical and electronic systems used in mechatronic applications will be placed. In the forward part of the laboratory, there will be a car for demonstrating functionalities of different components as well as control and diagnostics of individual subsystems (ABS, ASR, navigation systems, combustion control, control unit of the motor) including all input and output signals.

Demonstrations activities in joint laboratories:

- Trainings for PSA (for Schneider Electric) – 250 PSA workers within 4 years at 3 levels: experts, maintenance, operators)
- Assembling – design algorithms, control and visualisation (welding, painting and assembly processes)
- Diagnostics software design (fault diagnostic, components and subsystems, reconfiguration processes)

Other laboratories:

- Actuators Laboratory
- CAD CS Laboratory
- Centre of Designing and Computational Mechanics
- Digital Signal Processing Laboratory (education)
- Electronics Laboratory
- European Customer Training Centre – Texas Instruments (DSP TMS320C2xx, TMS370, TMS320C5x, TMS320C6xxx, MSP430)
- Industrial Automation Laboratory
- Joint Laboratories of Applied Mechatronics
- Laboratory ESF – EDUCTV (education)
- Laboratory of Bio-informatics and Info-Medicine
- Laboratory of Embedded Control Systems
- Laboratory of PLC
- Laboratory of Medical Electronics Instrumentation
- Laboratory of Mechanics of Strength and Deformable Bodies
- Laboratory of Modeling and Simulation for Mechatronic Systems
- Laboratory of Radio Communication Technology (education)
- Laboratory of Signal Processors and Microcontrollers Applications (for education)
- Laboratory of Signal Processors and Microcontrollers Applications (for research and collaborations with prax)
- Laboratory of Signal Processors and Microcontrollers Applications (for PhD. Students and students projects)
- Laboratory of Thermopower Machines and Devices
- Mechatronics Laboratory

- Multimedia Systems Laboratory
- Nonlinear Systems Laboratory
- Research laboratory in Medical Engineering
- Sensors Laboratory
- SIEMENS Automation Technology Laboratory

II.2 Special Instruments, Equipment, Computers and Tools

- Mechanical Setup Position Control Plant
- Laboratory Models: Inverted Pendulum, Crane, Helicopter Rack, Helicopter Model, Thermal Plant, Thermo-optical Model, Magnetic Levitation Syst., Two - Tank System, Three - Tank System, Two - Tank System with Two Pumps, Shell and Tube Heat Exchanger, Rotary Pendulum, Propeller Pendulum
- Digital Signal Processor Board for Real-Time Control
- Embedded MicroComputer Systems development tools for Atmel, Freescale, Intel
- Programmable Controllers: MicroLogix, Honeywell, Modicon
- Networked Control System with CAN Bus & Ether CAT
- DC Servo Drive System
- HW: ControlLogix PLC, CompactLogix, HMI
- XCode Developer Tool
- Spartan-6 FPGA SP601 Evaluation Kit
- Measuring device Quantum X
- Insert Press Monitoring System DMF-P V3
- Boiler Gas Analyser Industrial Combustion Optimiser Neotronics
- Experimental Impulse Turbine F800 - Hilton, Ltd. England
- Advantech PC-LabCard PCI 1710 with equipment
- Digital Oscilloscope RIGOL DS1052E
- Waveform Generator RIGOL DG1012
- Horizon Fuel Cell Software Adaptor
- ACU point impedance map meter
- BioLab ATR meter
- Iridoscope
- Precise Registration / Calibration Electricity Meter
- Precise Digital Network Analyser and Standard Meter PEM 6711
- DL8000 Digital Deep Level Transient Spectrometer, BIO-RAD system
- Microwave Network Analyser HP 8408 S + HP83421A Lightwave Source (20 GHz)
- Semiconductor Parameter Analyzer, Agilent 4155C
- Arbitrary Function Generator TEKTRONIX AFG3252 (240 MHz, 2 channel)
- Digital Oscilloscope TEKTRONIX TDS20225
- Digital Oscilloscope TEKTRONIX (200 MHz, 4 channel)
- Automatic Impedance Matching System for High-power Industrial Applications
- CST - 3D Structure Electromagnetic Simulator (University licence)
- Power Line Communication Modem Kits

III. TEACHING

III.1 Undergraduate Study (Bc.)

Subject, semester, hours per week for lectures and for seminars or practical exercises, name of the lecturer.

| | | |
|--|-------------------|----------------------------------|
| Introduction to Engineering | (1st sem., 2-2h) | K. Žáková |
| Introd. into Engineering and Techn.Documentation | (1st sem, 2-2h) | V. Kutiš, J. Paulech |
| Introd. into Engineering and Techn.Documentation | (1st sem., 2-2h) | V. Kutiš, T. Sedlár |
| CAD in Technical Documentation | (opt. sem., 1-3h) | R. Fric |
| Computer Architecture | (2nd sem., 3-2h) | R. Ravas, Š.Chamraz, P. Fodrek |
| Automatic Control Theory 1 | (3rd sem., 2-3h) | M. Huba |
| Cybernetics 1 | (3rd sem., 2-2h) | D. Rosinová |
| Design of Web Applications | (4th sem., 2-2h) | K. Žáková |
| Electronics for Control Systems | (4th sem., 2-2h) | J. Šturcel, R. Balogh |
| Instrumentation of Control Systems | (4th sem., 3-2h) | J. Šturcel, Š. Chamraz |
| Optimization | (5th sem., 2-2h) | D. Rosinová |
| Monolithic Microcontrollers | (5th sem., 2-2h) | J. Šturcel, Š. Chamraz |
| Sensor Systems for Cars | (5th sem., 2-2h) | V. Tvarožek, J. Šturcel |
| Introduction to Modeling and Simulation | (5th sem., 3-2h) | V. Kutiš, A. Beláň |
| Mechanics (for Electrotechnics) | (5th sem., 3-2h) | J. Murín |
| Continuum Mechanics | (5th sem., 2-2h) | J. Murín |
| Mechanical parts and systems | (5th sem., 2-2h) | V. Kutiš, T. Sedlár |
| Radiocommunication Techniques | (5th sem., 2-2h) | P. Podhoranský |
| Microwave Techniques | (5th sem., 3-2h) | V. Štofanič, P. Podhoranský |
| Industrial Communication Bus | (6th sem., 2-2h) | P. Drahoš |
| Industrial Communication Systems | (6th sem., 3-2h) | M. Žalman, I. Béla |
| Nonlinear Systems | (6th sem., 2-3h) | M. Huba |
| Automation 2 | (6th sem., 2-2h) | M. Žalman, I. Béla, J. Dúbravský |
| Computational Engineering | (6th sem., 2-2h) | V. Kutiš |
| Design of Vehicles | (6th sem., 2-2h) | J. Matej |
| Mechanics (for Automotive Electronics) | (6th sem., 2-2h) | J. Murín |
| Microwave Engineering and Radio Communications | (6th sem., 3-2h) | P. Podhoranský |

III.2 Graduate Study (Ing.)

| | | |
|-------------------------------|------------------|------------------------|
| Optimal Control | (1st sem., 3-2h) | A. Kozáková |
| Theory of Automatic Control 3 | (1st sem., 3-2h) | M. Huba |
| Sensors and Microsystems | (1st sem., 3-2h) | V. Tvarožek, P. Drahoš |
| CAD of Control Systems | (1st sem., 3-2h) | J. Šturcel, P. Drahoš |
| Matlab in Power Systems | (1st sem., 2-3h) | Š. Kozák |
| Linear Systems Control | (1st sem., 3-2h) | Š. Kozák, M. Hypiusová |
| Digital Control Methods | (1st sem., 3-2h) | Š. Kozák, A. Kozáková |

Development Program. Environments for

| | | |
|--|------------------|---|
| Mechatr.Systems | (1st sem., 3-2h) | Š. Kozák, P. Fuchs, M. Kukučka |
| Internet and Intranet Applications | (1st sem., 2-3h) | K. Žáková |
| CAE of Mechatronic Systems (for robotics) | (1st sem., 3-2h) | V. Goga |
| CAE of Mechatronic Systems (for mechatronics) | (1st sem., 3-2h) | J. Murín, V. Goga |
| Nanomechanics | (1st sem., 2-3h) | V. Kutiš |
| Nuclear Power Facilities | (1st sem., 2-2h) | V. Kutiš |
| Applied Mechanics | (1st sem., 2-2h) | J. Murín |
| Computer Field Problems Solution | (1st sem., 2-2h) | J. Murín |
| Finite Element Methods for Mechatronics | (1st sem., 2-3h) | J. Murín |
| Numerical Solution of Field Theory Problems (for robotics) | (1nd sem., 3-2h) | J. Murín |
| Vehicle Dynamics | (1st sem., 2-2h) | V. Ferencey |
| Microcontrollers | (1st sem., 3-2h) | P. Fuchs |
| Sensors, Circuits and Devices of Medical Electronics | (1st sem., 3-2h) | M. Kukučka |
| Designing of Luminaires | (2nd sem., 3-2h) | R. Fric |
| Multiphysical processes in Mechatronics | (2nd sem., 2-3h) | V. Kutiš |
| Numerical Solution of Field Theory Problems (for math. comp. modeling) | (2nd sem., 3-2h) | J. Murín |
| Power Units of Automobiles | (2nd sem., 3-2h) | V. Ferencey |
| Computational Solution of Field Theory Problem | (2nd sem., 3-2h) | J. Murín |
| Designing by Higher CAD Systems | (2nd sem., 1-3h) | R. Fric |
| Recording Techniques | (2nd sem., 3-2h) | P. Podhoranský |
| Signal Processors | (2nd sem., 3-2h) | P. Fuchs |
| Sensor Systems in CIM | (2nd sem., 3-2h) | J. Šturcel, R. Balogh |
| Multimedia in control | (2nd sem., 3-2h) | M. Huba, P. Bisták |
| Multimedia | (2nd sem., 2-3h) | M. Huba, P. Bisták |
| Modeling and Simulation of Mechatronic Systems | (2nd sem., 2-3h) | Š. Kozák, J. Cigánek |
| Control of Complex Systems | (2nd sem., 3-2h) | D. Rosinová |
| Designing of luminaries | (3rd sem., 2-2h) | J. Murín, R. Fric |
| Electric Drives Mechatronics Systems | (3rd sem., 2-2h) | Ľ. Hüttner, I. Bélai, M. Uhrík |
| Database and Visualization Systems | (3rd sem., 2-3h) | Z.Králová, J. Cigánek |
| Distributed Embedded Comp. Systems | (3rd sem., 3-2h) | J. Šturcel, P. Drahoš, R. Balogh, Š.Chamraz |
| Smart Sensor Systems | (3rd sem., 3-2h) | J. Šturcel |
| Advanced Methods of Contr. of Mechatr. Systems | (3rd sem., 3-2h) | Š. Kozák, J. Paulusová |
| Virtual Prototyping of Mechatronic Systems | (3rd sem., 2-3h) | J. Matej, V. Kutiš |
| Diagnostic Methods and Systems in Medicine | (3rd sem., 3-2h) | M. Kukučka, J. Půčík |
| Radio Technologies and Networks | (3rd sem., 3-2h) | P. Podhoranský, V. Štofanič |
| Biomechatronic Systems | (3rd sem., 2-2h) | Z. Krajčušková, M. Kukučka |
| Telematics and Control | (4th sem., 3-2h) | M. Huba, P. Bisták |
| PLC Systems in Mechatronics | (4th sem., 2-2h) | J. Šturcel, L. Kőrösi, J. Osuský |
| Advanced Power Units of Automobiles | (4th sem., 2-2h) | V. Ferencey |
| Design of Complex Mechatronic Systems Cigánek | (4th sem., 2-2h) | V. Ferencey, Š. Kozák, J. Murín, J. Cigánek |

III.3 Undergraduate Study (Bc.) Distance Learning Method

| | | |
|--|------------|---------------------------------|
| Introduction into Engineering | (1st sem.) | K. Žáková |
| Introduction into Engineering and Technical Documentation | (1st sem.) | J. Murín, T. Sedlár |
| Computer Architecture | (2nd sem.) | R. Ravas, Š. Chamraz, P. Fodrek |
| Mechanics | (3rd sem.) | J. Murín |
| Automatic Control Theory 1 | (5th sem.) | M. Huba, D. Sovišová |
| Introduction to Modeling and Simulation | (5th sem.) | V. Kutiš, A. Beláň |
| Instrumentation of Control Systems | (6th sem.) | J. Šturcel, P. Drahoš |
| Optimization | (7th sem.) | D. Rosinová |
| Monolithic Microcontrollers | (7th sem.) | J. Šturcel, Š. Chamraz |
| Industrial Communication Systems | (8th sem.) | M. Žalman, I. Bélai |
| Nonlinear Systems | (8th sem.) | M. Huba, D. Sovišová |

III.4 Graduate Study (Ing.) Distance Learning Method

| | | |
|---|------------|-----------------------|
| Optimal Control | (1st sem.) | A. Kozáková |
| Matlab in Power Systems | (1st sem.) | Š. Kozák |
| Telematics and Control | (1st sem.) | M. Huba, P. Bisták |
| Applied Mechanics | (1st sem.) | J. Murín |
| CAE of Mechatronic Systems | (1st sem.) | V. Goga |
| Nuclear Power Facilities | (1st sem.) | V. Kutiš |
| Numerical Solution of Field Theory Problems (robotics) | (1st sem.) | J. Murín |
| Complex System Control | (2nd sem.) | D. Rosinová |
| Sensor Systems in CIM | (2nd sem.) | J. Šturcel, R. Balogh |
| Designing of Luminaries | (3rd sem.) | J. Murín, R. Fric |
| Telematics and Control | (4th sem.) | M. Huba, P. Bisták |

IV. RESEARCH PROJECTS

IV.1 National Scientific Projects

- Robust MPC for Hybrid Systems, VEGA 1/1105/11. Duration: 2011-2013 (Š. Kozák)
- Research and Progress New Information Technologies on Prediction and Solving Crisis Situation and Population Safety, ITMS 26240220060. Duration: 2011-2013 (Š. Kozák)
- Advanced Control Methods based on FPGA Structures, APVV-0772-12. Duration: 2013-2017 (A. Kozáková)
Modern methods for network control systems, VEGA 1/2256/12. Duration: 2012-2015 (J. Murgaš, deputy head: D. Rosinová)
- Advanced methods of robust and optimal control, VEGA 1/1241/12. Duration: 2012-2015 (V. Veselý, deputy head: A. Kozáková)
- Computer aided robust nonlinear control design, APVV-0343-12. Duration: 2013-2017 (M. Huba)
- Online laboratory for teaching automatic control subjects, KEGA 032STU-4/2013. Duration: 2013 – 2015 (K. Žáková)
- Advanced Methods and Simulations of SMART Mechatronic Systems, APVV-0246-12. Duration: 2013-2016 (J. Murín)
- Computational Modelling of Mechanical and Mechatronic Parts Made of New Composites with Varying Properties, VEGA 1/0534/12. Duration: 2012-2014 (J. Murín)

- Advanced Piezoelectric MEMS Pressure Sensors, APVV-0450-10. Duration: 2011-2014 (V. Kutiš)
- CAE Laboratory for New Study Program Applied Mechatronics, KEGA 015STU-4/2012. Duration: 2012-2014 (V. Kutiš)
- Applied Research of Plasmathermic Processes. Operational programme of EU, Geothermal Anywhere Ltd. aMnd STU in Bratislava, ITMS 26240220070. Duration: 2011-2014 (P. Podhoranský)
- New design approaches for VLSI implementations of neurochips and their use for signal processing in bioapplications and neuroimplants, VEGA 1/0987/12. Duration: 2012-2014 (D. Ďuračková, deputy head: M. Kukučka)
- Implementation „on-chip“ testing methods of hybrid integrated circuits and systems in nanotechnology., VEGA 1/0823/13. Duration: 2012-2014 (V. Stopjaková, member: M. Kukučka)

IV.2 International Scientific Projects

- Advanced Control Algorithms and Methods for Industrial Plants, SK-BG-0035-10 Duration: 2012-2013 (V. Veselý, deputy head: J. Osuský)
- Modelling methods for technical dynamic systems – under the Erasmus Programme of the Lifelong Learning Programme, Agreement No. LLP/IP – 230/04/13 Durations: 2013-2014 (K. Žáková)
- Numerical and Experimental Analyses of Non-uniform Torsion of Beam Constructions, SK-AT-0001-12 Duration: 2013-2014 (J. Murín)

IV.3 Other National Scientific Projects

- Support of real-time control in remote laboratories, RRČ-VL, Duration: 2013 (Z. Janík)
- Control algorithms of energy recovery for electromobile braking, ALRIREK, Duration: 2013 (V. Staňák)
- Electronic control system of hybrid source system, 2012et002. Duration: 2013 (V. Staňák)
- Autonomous car model 6x6 with driving direction control software, Duration: 2013 (J. Madarás)
- Battery Management System (BMS) for small electrical scooter with hybrid source system, Benefaction Volkswagen Slovakia 048/12, Duration: 2013 (E. Ribar)
- Modern System for Digital Signal Processing in Radio Electronic, Measurement and Biomedicine Applications, Multimedia and Vehicular Technology. AV 4/102/07 FEI (P. Fuchs)

V. COOPERATION

V.1 Cooperation in Slovakia

- ABB, s.r.o., Bratislava
- Academy of Sciences, Bratislava
- Alexander Dubček University of Trenčín
- AOS, Liptovský Mikuláš
- Applied Meters Inc., Prešov
- Applied Precision, Bratislava
- Armed Forces Academy of General Milan Rastislav Štefánik, Liptovský Mikuláš
- ATEC Ltd., Bratislava
- B&R, Ltd., Nové Mesto n. V.
- BEZ, a.s., Bratislava
- ControlTech Industrial Automation Ltd., Trnava
- Center for Advanced Human Studies, Bratislava
- Clinics of anesthesiology and intensive medicine, Children's faculty hospital, Bratislava
- DATALAN Bratislava, Ltd.
- Defense and Strategy Studies Institute, a.s.

- Delta Energy Systems, s.r.o., Nová Dubnica
- Department of acupuncture, Faculty of medicine, Slovak medical university, Bratislava
- E-Academia Slovaca, n.o., Bratislava
- Elkond HHK, a.s., Trstená
- ENEL, a.s., Slovakia E-Academia Slovaca, n.o., Bratislava
- Emerson Ltd., Bratislava
- EVPU Nova Dubnica a.s.,
- Faculty of Architecture, Slovak University of Technology in Bratislava
- Faculty of Medicine, Comenius University, Bratislava
- Faculty of Mechanical Engineering ŽU Žilina
- Geothermal Anywhere JSC, Bratislava
- Honeywell Ltd., Bratislava
- HIS SENZOR Ltd., Prešov
- Institute of Informatics, Slovak Academy of Sciences, Bratislava
- Institute of Construction and Architecture, Slovak
- Institute of Electrical Engineering, Slovak Academy of Sciences, Bratislava
- Institute of Materials Machine & Mechanics, Slovak Academy of Sciences, Bratislava
- Institute of Materials Research, Slovak Academy of Sciences, Košice
- Institute of Measurement Science, Slovak Academy of Sciences, Bratislava
- Institute of Metrology, Bratislava
- Institute of Physics, Slovak Academy of Sciences, Bratislava
- Intenzíva, Education and training centre, Bratislava
- International Laser Centre, Bratislava
- IPT, s.r.o., Pezinok
- Johnson Controls Ltd., Bratislava
- Kiwa, s.r.o., Nitra
- Krížik GBI JSC, Prešov
- Legrand Slovakia
- MicroStep Ltd., Bratislava
- Ministry of Interior of the Slovak Republic
- MyEnergy, a.s., Bratislava
- Nuclear Power Plants Research Institute (VÚJE a.s.) Trnava
- Nuclear Power Plants (SE-EBO) Jaslovské Bohunice
- Nuclear Power Plants (SE-EMO) Mochovce
- OMS, s.r.o., Senica
- Osram Slovakia, s.r.o., Nové Zámky
- PPA Energo Ltd., Bratislava
- Regotrans Rittmeyer, s.r.o., Bratislava
- SAP Slovakia, Ltd.
- SEZ Dolný Kubín, a.s.
- Schneider Electric Slovakia, Ltd.
- Schneider Electric Slovakia, s.r.o., Bratislava
- Siemens Ltd., Bratislava
- Slovak Electricity Transmission System (SEPS a.s.) Bratislava
- Slovak Institute of Technical Normalization, Bratislava
- Slovak Power Company (SE - Enel a.s.) Bratislava
- Slovakodata, Inc., Bratislava
- SPP – Slovtransgaz Inc., Nitra
- Special Software and Systems, Bratislava
- SWH – Siemens Business Service, Bratislava
- Škoda Auto Slovakia, s.r.o., Bratislava
- Technical University of Košice
- Termoreg, s.r.o., Bratislava

- UMB Banská Bystrica
- University Hospital, Bratislava - Prof. Dérer Hospital, Bratislava, Ružinov Hospital, Bratislava
- University of Agriculture, Nitra
- University of Technology, Košice
- University of Žilina
- Volkswagen Slovakia Inc., Bratislava
- Vonsch Brezno, Ltd.
- VUJE Inc., Trnava

V.2 International Cooperation

- Arzamas Polytechnic Institute of R. E. Alekseev Nizhny Novgorod State Technical University
- Budapest University of Technology and Economics, Budapest, Hungary
- Czech Technical University of Prague, Czech Republic
- Department of Mathematical Sciences, Chalmers University of Technology, Gothenburg, Sweden
- Electronics Research Institute, National Research Center, Giza, Egypt
- European Organization for Nuclear Research (CERN), Beams Department, RF Group, Feedback and Beam Control Section
- Faculdade de Engenharia da Universidade do Porto, Portugal
- Faculty of Automatics, Technical University Sofia, Bulgaria
- Faculty of Industrial Organisation and Management, Silesian Technical University, Gliwice, Poland
- FACHHOCHSCHULE KÄRNTEN Gemeinnützige Privatstiftung, Austria
- Fern Universität - Hagen, Germany
- Heilbronn University, Germany
- Humusoft Ltd., Praha, Czech Republic
- Hungarian Fuzzy Association, Hungary
- IIASA Laxenburg, Austria
- Institute de Recherche en Communications et Cybernetique, C.N.R.S, Nantes, France
- Institute for Problems of Mechanical Engineering, St.Petersburg, Russia
- Institute of Information Theory and Automation, Academy of Sciences of the Czech Republic, Prague, Czech Republic
- Institute of Cybernetics at Tallinn University of Technology, Tallinn, Estonia
- Institute of Photonics and Electronics of the ASCR, Czech Republic
- MicrEpsilon, Bechyně, Czech Republic
- Norwegian University of Science and Technology, Trondheim, Norway
- Profibus International, Germany
- Schneider Electric, Germany
- Strasbourg University, BETA, Strasbourg, France
- Technical University Chemnitz, Germany
- Technical University of Ancona, Italy
- Technical University of Brno, Czech Republic
- Technical University of Graz, Austria
- Technical University Ilmenau, Germany
- Technical University of Liberec, Czech Republic
- Technical University of Ostrava, Czech Republic
- Technical University of Pardubice, Czech Republic
- Technical University of Tomas Bata in Zlín, Czech Republic
- Technical University of Vienna, Austria
- Technical University Riga
- TEXAS INSTRUMENTS Deutschland GmbH, Freising, Germany
- Texas Instruments, Inc, USA
- University College of Swansea, United Kingdom
- University of Defence, Brno, Czech Republic

- University of Maribor, Slovenia
- University of Bochum, Germany
- University of Defence, Czech Republic
- University of Zagreb, Croatia
- Vienna University of Technology, Austria
- Visteon, Nový Jičín, Czech Republic
- VŠB Ostrava, Czech Republic
- Word University Programme ARM Microcontrollers, UK
- West Bohemian University, New Technology Center, Pilsen, Czech Republic

V.3 Collaboration with industry and other institutions

- EVPU Nová Dubnica, research in mechatronics, navigation, visualization and vehicle camera systems
- Institute of Informatics SAV, Crisis Project – cooperation in development of six wheels vehicle with electrodrives
- Technological Institute in Bratislava – HW and SW modules development for intelligent building
- Design and implementation of the original nerve stimulator in cooperation with Department of neurosurgery, Faculty of Medicine, Comenius University, Bratislava, (2011-2013), coordinator: P. Fuchs
- New low power mixed signal processors MSP430 and their applications. Contract about collaboration with commercial sector, FEI STU Bratislava – Applied Meters, a.s., Prešov, (2012-2013), coordinator: P. Fuchs
- Council for Broadcasting and Retransmission
- The Research Institute of Posts and Telecommunications, Banska Bystrica

VI. THESES

VI.1 Masters Theses

no new graduates from 1st July 2013

VI.2 PhD Theses

- [1] Holič I.: Robust control of dynamic systems (D. Rosinová)
- [2] Hrabovský J.: Multiscale Modeling and Simulation of Free Vibration of FGM Beams (J. Murín)
- [3] Paulech J: Development of New Link and Beam Finite Elements Made of FGM for Electro-Thermo-Structural Analyses (V. Kutiš)

VII. OTHER ACTIVITIES

Conferences organized by the Institute members:

- 15th Conference of Doctoral Students ELITECH`13 (A. Kozáková, D. Rosinová, K. Žáková)

Other events:

Conferences Participation, Membership in Committees:

- AT&P Journal (J. Šturcel – Editorial Board member)
- Cooperation with Encyclopaedic Institute of thev Slovak Academy of Sciences on the Slovak Encyclopaedia (Lexical Group Cybernetics) (A. Kozáková, D. Rosinová, J. Šturcel, K. Žáková)
- Journal of Cybernetics and Informatics (Š. Kozák – Editor in Chief, D. Rosinová - Managing Editor)
- Slovak Society for Cybernetics and Informatics at SAS: Š. Kozák – chair of Main Committee, M. Huba – vice-chair, A. Kozáková – secretary)

- Special Track "IT and Engineering Pedagogy" at IGIP International Conference on Engineering Pedagogy (ITEP'13), 13-15 March 2013, Berlin, Germany (K. Žáková – member)
- CSEDU 2013, 5th International Conference on Computer Supported Education, 6-8 May 2013, Aachen, Germany (K. Žáková – PC member)
- TSP 2013: 36th International Conference on Telecommunications and Signal Processing, July 2nd-4th, 2013, in Rome, Italy (M.Kukučka – reviewer, PC member)
- The 2nd Experiment@ International Conference, September 18-20 2013, Coimbra, Portugal (M. Huba, K. Žáková – PC members)
- 12th IFAC/IEEE Conference on Programmable Devices and Embedded Systems (PDeS 2013), September 25-27 2013, Velke Karlovice, Czech Republic (M. Huba, K. Žáková – IPC members)
- 11th International Conference on Emerging eLearning Technologies and Applications (ICETA 2013), October 24-25 2013, The High Tatras, Slovakia (M. Huba, K. Žáková – PC members)
- 1st International Conference (CISPÉE) under the theme: "Engineering Education: Challenges for Innovation", 31 Oct-1 Nov 2013, Oporto, Portugal (K. Žáková – PC member)

VIII. MEMBERSHIP IN INSTITUTIONS/COMMITTEES

VIII.1 Membership in National Institutions/Committees

- STU Bratislava, Faculty of Informatics and Information Technology (Š. Kozák, member of Scientific Board)
- Paneuropean University Bratislava, Faculty of Informatics (M. Huba, member of Scientific Board)
- Institute of Informatics Slovak Academy of Sciences (Š. Kozák, member of Scientific Board)
- International Association of Online Engineering (K. Žáková, executive committee member)
- Co-chairman in Slovak Society for Mechanics (J. Murín)
- Slovak Society for Mechanics (V. Kutiš)
- Vice President of Association of the Defence Industry of the Slovak Republic (V. Ferencey)
- Membership in the Editorial Board of Journal: Mechanical Engineering (J. Murín)
- Member of Scientific Council of the FEI STU (J. Murín)
- Member of Academic Board of FEI STU in Bratislava (V. Kutiš)
- European University Program TEXAS INSTRUMENTS (P. Fuchs - member, lecturer)
- IFMBE, The International Federation for Medical and Biological Engineering (M. Kukučka - member)
- International Scientific Committee New Trends in Signal Processing (P. Fuchs - member)
- Slovak National Accreditation Service (P. Podhoranský)

VIII.2 Membership in International Institutions/Committees

- IEEE The Institute of Electrical and Electronics Engineers, Inc. (M. Huba)
- IEE The Institute of Electrical Engineers, Inc. (Š. Kozák, M. Huba)
- IFAC Technical Committee: TC 2.3 Nonlinear Control Systems (M. Huba - member)
- IFAC Technical Committee: TC 2.4 Optimal Control (A. Kozáková - member)
- IFAC Technical Committee: TC 2.5 Robust Control (M. Huba - member)
- IFAC Technical Committee: TC 3.1 Computers for Control (Š. Kozák - member)
- IFAC Technical Committee: TC 3.2 Computational Intelligence in Control (Š. Kozák - member)
- IFAC Technical Committee TC 5.4 Large Scale Complex Systems (A. Kozáková - member)
- IFAC Technical Committee TC 5.4 Large Scale Complex Systems (D. Rosinová - member)
- IFAC TC Education Liaisons (A. Kozáková - member)
- IFAC Technical Committee on Control Education (M. Huba - member)
- European Coordination Committee for Artificial Intelligence-ECCAI (Š. Kozák - member)
- European Association of Distance Teaching Universities – EADTU (M. Huba - board member)
- Profibus International (P. Drahoš)

- Profibus International (I. Bélai - member)
- Slovak Society for Cybernetics and Informatics-SSKI (Š. Kozák, chairman, M. Huba - vicechair)
- Chair of Slovak branch of Central European Association for Computational Mechanics (CEACM) (J. Murín)
- European Community on Computational Methods in Applied Sciences (ECCOMAS) (J. Murín)
- International Association for Computational Mechanics (IACM) (J. Murín)
- Central European Association for Computational Mechanics (CEACM) (V. Kutiš)
- Institute for Mechanics of Materials and Structures, TU Vienna, Austria (J. Murín)
- Member of the States Representatives Group on the Hydrogen and Fuel Cells programs in Europe (V. Ferencey)
- Membership in the Editorial Board of Journal: Recent Patents on Engineering (J. Murín)
- SBIMI SLS, Society for Biomedical Engineering and Medical Informatics, Scientific Secretary of SBIMI SLS (M. Kukučka - scientific secretary & member)
- Scientific Committee Communication and Information Technologies (P. Fuchs - member)

IX. PUBLICATION

IX.1 Journals

- [1] BOŽEK, P. - GOGA, V. - KORSHUNOV, A.: Robot Arm Control Based on INS with the Support of Simulation in MATLAB/Simulink. In: Vestnik lževskogo gosudarstvennogo tehničeskogo universiteta. - ISSN 1813-7903. - Vol. 60, No. 4 (2013), p. 20-25. (in English)
- [2] DRAHOŠ, P. - KUTIŠ, V. - LENICKÝ, R.: Thermocouple Sensor Influence on Temperature Field in SMA Actuator. In: Applied Mechanics and Materials. - ISSN 1660-9336. - Vol. 394 (2013), p. 50-56. (in English)
- [3] DROPPA, P. - VANČO, M. - FERENCEY, V.: Response of Structure to Ballistic Load. In: AIMT - Advances in Military Technology. - ISSN 1802-2308. - Vol. 7, No. 2 (2013), p. 93-110. (in English)
- [4] FERENCEY, V. - MADARÁS, J. - BUGÁR, M.: The Needs and Perspectives of the Research and Education in the Field of Electromobility. In: Elektro. - ISSN 1210-0889. - Vol. 2013, Suppl.: Perspektivy elektromobility, (2013), p. 6-7. (in Slovak)
- [5] GLASA, M. - PAULECH, J.: The Computer Models of MOV for Electric and Thermal Analysis. In: Energetika. - ISSN 0375-8842. - Vol. 63, No. 2 (2013), p. 85-89. (in Slovak)
- [6] GOGA, V.: Cellular Solids: Solid Foams and Honeycomb Structures. In: Materials Engineer. - ISSN 1337-8953. - Vol. 5 (2013), online. (in Slovak)
- [7] GOGA, V.: Determination of Plane Stress Using Finite Element Method and by Experimental Measurement. In: Strojnícky časopis = Journal of Mechanical engineering. - ISSN 0039-2472. - Vol. 64, No. 1 (2013), p. 39-50. (in English)
- [8] GOGA, V.: Finite Element Model of the Strain Gauge for Determining Uniaxial Tension. In: Sborník vědeckých prací Vysoké školy báňské - Technické univerzity Ostrava. - ISSN 1210-0471. - Vol. 59, No. 2 (2013), p. 65-73. (in English)
- [9] GOGA, V.: Mechanical Vibration, Chapter 2: Free Vibration of Undamped 1-DOF Linear System, Part 2: Dynamics of Vibration. In: Posterus. - ISSN 1338-0087. - Vol. 6, Iss. 1 (2013), online [5] p. (in English)
- [10] GOGA, V. - BOŽEK, P.: Regulation of Mechanical Systems. In: Strojárstvo - Strojnírenství. - ISSN 1335-2938. - Vol. 17, No. 3 (2013), p. 90-91. (in Slovak)
- [11] GOGA, V. - BOŽEK, P.: Robot Arm Control Based on Simulation Supported by INS. In: Strojárstvo - Strojnírenství. - ISSN 1335-2938. - Vol. 17, No. 5 (2013), p. 138-140, [146-148]. (in Slovak)
- [12] GOGA, V. - PAULECH, J. - VÁRY, M.: Cooling of Electrical Cu Conductor with PVC Insulation - Analytical, Numerical and Fluid Flow Solution. In: Journal of Electrical Engineering. - ISSN 1335-3632. - Vol. 64, No. 2

- (2013), p. 92-99. (in English)
- [13] HUBA, M.: Comparing 2DOF PI and Predictive Disturbance Observer Based Filtered PI Control. In: Journal of Process Control. - ISSN 0959-1524. - Vol. 23 (2013), p. 1379-1400. (in English)
- [14] HUBA, M.: Performance Measures, Performance Limits and Optimal PI Control for the IPDT Plant. In: Journal of Process Control. - ISSN 0959-1524. - Vol. 23 (2013), p. 500-515. (in English)
- [15] HUBA, T. - MALATINEC, T. - HUBA, M.: Propeller-Pendulum for Nonlinear UAVs Control. In: International Journal of Online Engineering. - ISSN 1861-2121. - Vol. 9, Iss. 1 (2013), p. 42-46. (in English)
- [15] HYPIUSOVÁ, M. - KAJAN, S.: Robust Controller Design Using Edge Theorem and Genetic Algorithm. In: International Review of Automatic Control. - ISSN 1974-6059. - Vol. 6, No. 2 (2013), p. 194-200. (in English)
- [17] JAKUBEC, J. - PAULECH, J. - KUTIŠ, V. - MOJTO, E. - GOGA, V.: Coupled CFD-Structural Analysis of Solar Panel Parking Spot. In: Transfer inovácií. - ISSN 1337-7094. - No. 28 (2013), p. 39-40. (in English)
- [18] JAKUBEC, J. - KUTIŠ, V. - PETRISKA, M.: Simplified Model of WWER-440 Fuel Assembly for Thermo-Hydraulic Analysis. In: Posterus. - ISSN 1338-0087. - Vol. 6, Iss. 2 (2013), online [8] p. (in English)
- [19] JANÍK, Z. - ŽÁKOVÁ, K.: A Contribution to Real-Time Experiments in Remote Laboratories. In: International Journal of Online Engineering. - ISSN 1861-2121. - Vol. 9, Iss. 1 (2013), p. 7-11. (in English)
- [20] KAJAN, S. - DIDEKOVÁ, Z. - KOZÁK, Š. - LINDER, M.: Neural Genetic Control Algorithm of Nonlinear Systems. In: International Review of Automatic Control. - ISSN 1974-6059. - Vol. 6, No. 2 (2013), p. 206-210. (in English)
- [21] KÖRÖSI, L. - KOZÁK, Š.: New Genetic Algorithm for Neural Network Structure Optimization. In: International Review of Automatic Control. - ISSN 1974-6059. - Vol. 6, Iss. 1 (2013), p. 9-13. (in English)
- [22] KOZÁK, Š. - DVORŠČÁK, B.: Application of PLC Mitsubishi in Control of Hydraulic System. In: ATP Journal. - ISSN 1335-2237. - Vol. 20, No. 4 (2013), p. 12-13. (in Slovak)
- [23] KRASŇANSKÝ, R.: Model Predictive Control via Multiparametric Programming: Analysis and Design using MPT Toolbox. In: Posterus. - ISSN 1338-0087. - Vol. 6, Iss. 8 (2013), online [15] p. (in English)
- [24] KUGLER, S. - FOTIU, P.A. - MURÍN, J.: The Numerical Analysis of FGM Shells with Enhanced Finite Elements. In: Engineering Structures. - ISSN 0141-0296. - Vol. 49 (2013), p. 920-935. (in English)
- [25] KUKUČKA, M.: Teaching Center of Texas Instruments. In: OKO časopis. - ISSN 1338-4511. - Vol. 2013, Iss. 2 (2013), p. 11. (in Slovak)
- [26] KUKUČKA, M. - KRAJČUŠKOVÁ, Z. - STOPJAKOVÁ, V. - ĎURAČKOVÁ, D. - WEISSE, A.: The Influence of the Skin Fatigue, its Perspiration and the Time of Stimulation in Measurement of the Active Point on Human Skin. In: Lékař a technika. - ISSN 0301-5491. - Vol. 43, No. 3 (2013), p. 19-25. (in English)
- [27] KUTIŠ, V. - GÁLIK, G. - RÝGER, I. - MURÍN, J. - HRABOVSKÝ, J. - PAULECH, J. - LALINSKÝ, T.: Piezoelectric Analysis of SAW Sensor Using Finite Element Method. In: Sborník vědeckých prací Vysoké školy báňské - Technické univerzity Ostrava. - ISSN 1210-0471. - Vol. 59, No. 1 (2013), p. 33-38, Art. No. 1932. (in English)
- [28] MATEJ, J. - HARMATA, J.: Parallel Electric Assist Control Strategy in Hybrid Vehicle. In: Posterus. - ISSN 1338-0087. - Vol. 6, Iss. 7 (2013), online. (in Slovak)
- [29] MATEJ, J. - HARMATA, J.: Simulation and Control of Hybrid Electric Vehicle. In: Posterus. - ISSN 1338-0087. - Vol. 6, Iss. 6 (2013), online [7] p. (in Slovak)
- [30] MATEJ, J. - LACZKÓ, A.: Fuel Consumption Analysis of Motor Vehicle. In: Posterus. - ISSN 1338-0087. - Vol. 6, Iss. 1 (2013), online [6] p. (in English)
- [31] MATEJ, J.: Ideal and Real Forces on Automobile Driving Wheels. In: Posterus. - ISSN 1338-0087. - Vol. 6, Iss. 4 (2013), online [9] p. (in Slovak)
- [32] MATEJ, J.: Parameters that Affect Automobile Fuel Consumption. In: Posterus. - ISSN 1338-0087. - Vol. 6, Iss. 3 (2013), online [5] p. (in English)
- [33] MATEJ, J.: Simulation of the Engine and Automobile Driveability during a Driving Cycle. In: Posterus. - ISSN 1338-0087. - Vol. 6, Iss. 2 (2013), online [9] p. (in English)
- [34] MURÍN, J. - AMINBAGHAI, M. - KUTIŠ, V. - HRABOVSKÝ, J.: Modal Analysis of the Fgm Beams with Effect of Axial

- Force under Longitudinal Variable Elastic Winkler Foundation. In: Engineering Structures. - ISSN 0141-0296. - Vol. 49 (2013), p. 234-247. (in English)
- [35] MURÍN, J. - AMINBAGHAI, M. - HRABOVSKÝ, J. - KUTIŠ, V. - KUGLER, S.: Modal Analysis of the FGM Beams with Effect of the Shear Correction Function. In: Composites Part B: Engineering. - ISSN 1359-8368. - Vol. 45, Iss. 1 (2013), p. 1575-1582. (in English)
- [36] MURÍN, J. - SEDLÁR, T. - PAULECH, J. - KUTIŠ, V. - JANÍČEK, F.: Steel Constructions of the Transmission System, Quality and Preconditions of their Exact Production at EXC3. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 19, No. 6 (2013), p. 14-15. (in Slovak)
- [37] NGUYEN, Q.T. - VESELÝ, V. - ROSINOVÁ, D.: Design of Robust Model Predictive Control with Input Constraints. In: International Journal of Systems Science. - ISSN 0020-7721. - Vol. 44, Iss. 5 (2013), p. 896-907. (in English)
- [38] OLŠOVSKÝ, P. - PODHORANSKÝ, P. - FUCHS, P.: Analysis and Modeling of Synchronization in QPSK System. In: Slaboproudý obzor. - ISSN 0037-668X. - Vol. 69, No. 2 (2013), p. 7-14. (in Slovak)
- [39] OSUSKÝ, J. - HYPIUSOVÁ, M.: Hydraulic Turbine Model Controlled by Multimodel Robust Controller. In: International Journal on Engineering Applications. - ISSN 2281-2881. - Vol. 1, Iss. 1 (2013), p. 74-85. (in English)
- [40] PAULECH, J. - MURÍN, J. - HRABOVSKÝ, J. - KUTIŠ, V.: New Link Finite Element for Electro-Thermal Analyses of FGM Materials. In: Sborník vědeckých prací Vysoké školy báňské - Technické univerzity Ostrava. - ISSN 1210-0471. - Vol. 59, No. 1 (2013), p. 59-64, Art. No. 1937. (in English)
- [41] PAULECH, J. - GOGA, V. - VÁRY, M.: Various Solutions to Determine Cooling of Electric Copper Conductor with PVC Insulation. In: Strojnícky časopis = Journal of Mechanical engineering. - ISSN 0039-2472. - Vol. 64, No. 1 (2013), p. 1-15. (in English)
- [42] RIBAR, E.: Electric Scooter from the FEI STU Workshop - "Feiter 1". In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 19, No. 1 (2013), Suppl. Volt, p. 16. (in Slovak)
- [43] STAŇÁK, V. - BUGÁR, M. - GLASA, M.: Accumulation of Electric Energy from Renewable Energy Sources in the VRFB Plant. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 19, No. 2 (2013), p. 10-13. (in Slovak)
- [44] STAŇÁK, V.: Background to the Development of Electromobility. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 19, No. 2 (2013), Suppl. Volt, p. 6-7. (in Slovak)
- [45] STAŇÁK, V. - RIBAR, E. - TSOUMANIS, A.: Computer Simulation of Propulsion System for Small Electric Vehicle. In: Technológ. - ISSN 1337-8996. - Vol. 5, No. 4 (2013), p. 179-182. (in English)
- [46] STAŇÁK, V. - RIBAR, E.: Ten Questions and Answers about Electromobility. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 19, No. 5 (2013), Suppl. Volt, p. 12-14. (in Slovak)
- [47] STAŇÁK, V.: Regenerative Braking as a Method to Improve Efficiency of Electric Vehicle. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 19, No. 4 (2013), Suppl. Volt, p. 12-14. (in Slovak)
- [48] STAŇÁK, V.: Selected Aspects in Perspective of Development of Electric Mobility. In: Posterus. - ISSN 1338-0087. - Vol. 6, Iss. 7 (2013), online. (in Slovak)
- [49] ŠTEVO, S. - OSUSKÝ, J.: The Way to Smart Grid. In: iDB Journal. - ISSN 1338-3337. - Vol. 3, No. 1 (2013), p. 34-37. (in Slovak)
- [50] ŠTEVO, S. - OSUSKÝ, J.: The Way to Smart Grid (2). In: iDB Journal. - ISSN 1338-3337. - Vol. 3, No. 3 (2013), p. 40-41. (in Slovak)
- [51] ŤAPÁK, P. - HUBA, M. - MASÁR, I.: Nonlinear Control Systems E-learning Course Support. In: International Journal of Online Engineering. - ISSN 1861-2121. - Vol. 9, Iss. 1 (2013), p. 38-41. (in English)
- [52] VANKO, G. - HUDEK, P. - ZEHETNER, J. - DZUBA, J. - CHOLEVA, P. - KUTIŠ, V. - VALLO, M. - RÝGER, I. - LALINSKÝ, T.: Bulk Micromachining of SiC Substrate for MEMS Sensor Applications. In: Microelectronic Engineering. - ISSN 0167-9317. - Vol. 110 (2013), p. 260-264. (in English)
- [53] VESELÝ, V. - ROSINOVÁ, D. - NGUYEN, Q.T.: Networked Output Feedback Robust Predictive Controller Design.

- In: International Journal of Innovative Computing, Information and Control. - ISSN 1349-4198. - Vol. 9, No. 10 (2013), p. 3941-3953. (in English)
- [54] VESELÝ, V. - PULEVA, T. - OSUSKÝ, J.: Gain Scheduling Control Design for Hydro Generator. In: International Review of Automatic Control. - ISSN 1974-6059. - Vol. 6, No. 3 (2013), p. 241-246. (in English)
- [55] VESELÝ, V. - OSUSKÝ, J.: Robust Multivariable Generalized Predictive Control Design. In: International Journal of Innovative Computing, Information and Control. - ISSN 1349-4198. - Vol. 9. No. 8 (2013), p. 3377-3389. (in English)
- [56] VESELÝ, V. - OSUSKÝ, J.: Robust Control System Design in Frequency Domain. In: Archives of Control Sciences. - ISSN 1230-2384. - Vol. 23, No. 1 (2013), p. 61-78. (in English)
- [57] VESELÝ, V. - ROSINOVÁ, D.: Robust PID-PSD Controller Design: BMI Approach. In: Asian Journal of Control. - ISSN 1561-8625. - Vol. 15, Iss. 2 (2013), p. 469-478. (in English)

IX.2 Conference Proceedings

- [1] BALOGH, Š. - LEHOCKI, F. - IVANIŠ, D. - KUČERA, E. - LAJTMAN, M. - MIŇO, I.: Data Processing from mHealth Patient Data Acquisition Related to Extracting Structured Data from EH Records. In: Wireless Mobile Communication and Healthcare : 3rd International Conference MobiHealth 2012. Paris, France, November 21-23. 2012. - Berlin Heidelberg : Springer, 2013. - ISBN 978-3-642-37892-8. - p. 255-262. (in English)
- [2] BÉLAI, I. - ŽALMAN, M.: Design and Verification of Novel Adaptive Controller in Speed Servo Drive. 2013 International Conference on Process Control : Štrbské Pleso, Slovakia, June 18-21, 2013. - Piscataway : IEEE, 2013. - ISBN 978-80-227-3951-1. - CD-ROM, p. 298-303. (in English)
- [3] BISTÁK, P.: Advanced Remote Laboratory for Control Systems Based on Matlab and .NET Platform. In: ICETA 2013 : 11th IEEE International Conference on Emerging eLearning Technologies and Applications. Starý Smokovec, Slovakia, October 24-25, 2013. - [Piscataway] : IEEE, 2013. - ISBN 978-1-4799-2161-4. - p. 35-39. (in English)
- [4] BISTÁK, P. - ŽÁKOVÁ, K.: Rapid Design of Simple Remote Laboratory Using Matlab. In: ICETA 2013 : 11th IEEE International Conference on Emerging eLearning Technologies and Applications. Starý Smokovec, Slovakia, October 24-25, 2013. - [Piscataway] : IEEE, 2013. - ISBN 978-1-4799-2161-4. - p. 41-45. (in English)
- [5] BISTÁK, P.: Virtual and Remote Laboratories as an Important Educative Instrument in E-Learning. In: E-Learning in the EU Education Agenda Case of Slovakia and Moldova : collection of Papers from the International Conference. Chisinau, Moldova, 25 April 2013. - Svätý Jur : Academia Istropolitana Nova, 2013. - S. 71-73. (in English)
- [6] BÚC, D. - KOVÁČ, J. - ČAPLOVIČOVÁ, M. - MURÍN, J. - KRÁLOVIČ, V. - NOVÁK, J.: RF Magnetron Deposition of ZnO ThinFilms on Positioned GaP Nanowires. In: IVC - 19th International Vacuum Congress : Paris, France, September 9-13, 2013. - [s.l.] : IUVESTA, 2013. - p. 2297-2298. (in English)
- [7] BUCZ, Š. - KOZÁKOVÁ, A. - VESELÝ, V.: A New Robust PID Controller Design Technique Using Bode-Interpolation. In: International Carpathian Control Conference : Rytro, Poland, May 26-29, 2013. - ISBN 978-1-4673-4490-6. - p. 21-26. (in English)
- [8] BUCZ, Š. - KOZÁKOVÁ, A. - VESELÝ, V.: PID Tuning Using B-parabolas: A Tool to Translate Time Domain Performance Specification into Frequency Domain Performance Measure. In: International Carpathian Control Conference : Rytro, Poland, May 26-29, 2013. - ISBN 978-1-4673-4490-6. - p. 15-20. (in English)
- [9] BUGÁR, M. - DANKO, J. - MADARÁS, J.: Modeling of the Electric Vehicle Longitudinal Dynamics by MATLAB-MSC.ADAMS co-Simulation. In: Setkání uživatelů programů MSC. Software 2013. Brno, Czech Republic, 5 - 6 .6. 2013. - Brno : MSC.Software, 2013. - ISBN 978-80-260-4173-3. - CD ROM, [8] p. (in English)
- [10] CIBA, M. - SEKAJ, I.: Genetic Algorithm Operations Applied to Ant Colony Optimization. In: MENDEL 2013 : 19th International Conference on Soft Computing; Brno, Czech Republic; 26-28 June 2013. - Brno : Brno University of Technology, 2013. - ISBN 978-80-214-4755-4. - p. 105-110. (in English)

- [11] CIGÁNEK, J. - NOGE, F.: Fuzzy Logic Control of Robotic Arm. In: RAAD 2013 : 22nd International Workshop on Robotics in Alpe-Adria-Danube Region. Proceedings. September 11-13, 2013, Portorož, Slovenia. - Ljubljana : Jožef Stefan Institute, 2013. - ISBN 978-961-264-064-4. - p. 327-333. (in English)
- [12] CIGÁNEK, J. - NOGE, F. - KOZÁK, Š. - DÚBRAVSKÝ, J.: Modeling and Control of Robotic Arm Using Fuzzy Logic. In: 3rd International Conference on Advanced Control Circuits and Systems (ACCS' 013) ; 2nd International Conference on New Paradigms in Electronics & Information Technology (PEIT ' 013) : Luxor, Egypt, 30 November - 3 December 2013. - Luxor : Electronics Research Institute, 2013. - CD-ROM, 7 p. (in English)
- [13] DANKO, J. - BUGÁR, M. - MADARÁS, J. - MILESICH, T.: Structure of Control System of Hybrid Powertrain for Tracked Vehicle. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 19, Special Issue : Conference ELOSYS, Trenčín, Slovak Republic, 15.-18.10.2013, p. 80-83. (in English)
- [14] DARVAŠI, P. - MURÍN, J.: Modeling and Simulation of MEMS Systems using FEM. In: ŠVOČ 2013 : Students Conference. Bratislava, 23. April 2013. - Bratislava : FEI STU, 2013. - ISBN 978-80-227-3909-2. - p. 64-69. (in Slovak)
- [15] FERENECY, V. - MADARÁS, J. - BUGÁR, M.: Analysis of the Electric Vehicle Driving Dynamics Using co-Simulation. In: Transport Means 2013 : Proceedings of the 17th international conference. Kaunas, Lithuania, October 24-25, 2013. - Kaunas : University of Technology, 2013. - ISSN 1822-296X. - CD-ROM, p. 193-196. (in English)
- [16] FERENECY, V. - MADARÁS, J. - BUGÁR, M.: Modeling and Application of the Electric Generator Drive through a Vehicle Microturbine for Military System. In: Armament and Technics of Land Forces 2013 : 19th International Scientific Conference. Liptovský Mikuláš, Slovak Republic, 13.-14. 11. 2013. - Liptovský Mikuláš : Armed Forces Academy of General Milan Rastislav Štefánik, 2013. - ISBN 978-80-8040-482-6. - p. 139. (in English)
- [17] FERENECY, V. - MADARÁS, J. - BUGÁR, M.: Modeling and Simulation of the Hybrid - Electric Power Sources for Unmanned Ground Vehicle. In: 3rd International Conference on Advanced Control Circuits and Systems (ACCS' 013) ; 2nd International Conference on New Paradigms in Electronics & Information Technology (PEIT ' 013) : Luxor, Egypt, 30 November - 3 December 2013. - Luxor : Electronics Research Institute, 2013. - CD-ROM, 8 p. (in English)
- [18] FERENECY, V. - STAŇÁK, V. - BUGÁR, M. - MADARÁS, J.: Perspectives of Development of Electric Mobility. In: Renewable Energy Sources 2013 : 4th International Scientific Conference OZE 2013. Tatranské Matliare, Slovakia, May 21-23, 2013. - Bratislava : STU, 2013. - ISBN 978-80-89402-64-9. - p. 183-188. (in English)
- [19] FERENECY, V.: Systems for Control Operational Processes in Unmanned Ground Robotic Vehicles. In: Application of Electronics, Energetics, Informatics and Mechatronics in Special Technics and Crisis Management. - ELENEM 2013 : Trenčín, 15.-18.10.2013. - Trenčín : Alexander Dubček University of Trenčín, 2013. - ISBN 978-80-8075-601-7. - p. 85-90. (in English)
- [20] GÁLIK, G. - KUTIŠ, V.: Modeling and Simulations of Saw Sensor. In: ŠVOČ 2013 : Students Conference. Bratislava, 23. April 2013. - Bratislava : FEI STU, 2013. - ISBN 978-80-227-3909-2. - p. 43-47. (in Slovak)
- [21] GAŽO, M. - KOZÁK, Š. - DÚBRAVSKÝ, J.: Magnetic Levitation Systems Modeling and Control. In: 3rd International Conference on Advanced Control Circuits and Systems (ACCS' 013) ; 2nd International Conference on New Paradigms in Electronics & Information Technology (PEIT ' 013) : Luxor, Egypt, 30 November - 3 December 2013. - Luxor : Electronics Research Institute, 2013. - CD-ROM, 6 p. (in English)
- [22] GAŽO, M. - KOZÁK, Š.: Mechatronic System of Levitation System. In: 2013 International Conference on Process Control. Štrbské Pleso, Slovakia, June 18-21, 2013. - Piscataway : IEEE, 2013. - ISBN 978-80-227-3951-1. - CD-ROM, p. 75-78. (in English)
- [23] GLASA, M. - HÜTTNER, Ľ. - STAŇÁK, V.: The Possibilities of Overvoltage Protection of Photovoltaic Sources. In: Renewable Energy Sources 2013 : 4th International Scientific Conference OZE 2013. Tatranské Matliare, Slovakia, May 21-23, 2013. - Bratislava : STU, 2013. - ISBN 978-80-89402-64-9. - p. 381-386. (in English)
- [24] GOGA, V. - BOŽEK, P.: Application of INS to Mechatronic Systems Control and Regulation Using Virtual Dynamic Models. In: 2013 International Conference on Process Control : Štrbské Pleso, Slovakia, June 18-21, 2013. - Piscataway : IEEE, 2013. - ISBN 978-80-227-3951-1. - CD-ROM, p.185-189. (in English)
- [25] GOGA, V.: Finite Element Analysis of the Strain Gauge Measurement. In: Applied Mechanics 2013 : 15th

- International Scientific Conference. Velké Karlovice, Czech Republic, April 15-18, 2013. - Ostrava : VŠB - Technical University, 2013. - ISBN 978-80-248-2978-4. - CD ROM, [2] p. (in English)
- [26] GOGA, V.: Plane Stress - Finite Element Analysis and Experimental Measurement. In: Experimental Stress Analysis : 51th International Conference. Litoměřice, Czech Republic, June 11-13, 2013. - Ústí nad Labem : Univerzita J.E.Purkyně, 2013. - ISBN 978-80-7414-579-7. - CD-ROM, [8] p. (in English)
- [27] GOGA, V.: Simulation of the Strain Gauge Measurement Using ANSYS. In: Techsoft Engineering ANSYS 2013 : User's Meeting and Conference. Mikulov, Czech Republic, May 29-31, 2013. - Prague : Arcadea, 2013. - ISBN 978-80-905040-2-8. - p. 47-54. (in English)
- [28] GOGA, V.: Stress Analysis Performed by Finite Element Simulation of the Strain Gauge Measurement in ANSYS. In: 21st SVS FEM ANSYS Users' Group Meeting and Conference 2013 : Luhačovice, Czech Republic, 12.-14.6.2013. - Brno : SVS FEM s.r.o, 2013. - ISBN 978-80-905525-0-0. - online, [9] p. (in English)
- [29] HARMATA, J. - MATEJ, J.: Design and Control of Variable Driving Forces of the Hybrid Electric Vehicle. In: ŠVOČ 2013 : Students Conference. Bratislava, 23. April 2013. - Bratislava : FEI STU, 2013. - ISBN 978-80-227-3909-2. - p. 39-42. (in Slovak)
- [30] HERETÍK, P. - MURÍN, J. - HALAJ, M.: Induction Motor Torque and Acceleration Calculation. In: ELITECH'13 : 15th Conference of Doctoral Students. Bratislava, Slovakia, 5 June 2013. - Bratislava : STU, 2013. - ISBN 978-80-227-3947-4. - CD-ROM, [6] p. (in English)
- [31] HOLIČ, I. - ROSINOVÁ, D. - VESELÝ, V.: Robust Decentralized PI Controller Design Based on Subsystem Pole Placement. In: Large Scale Complex Systems Theory and Applications : 13th IFAC Symposium. Shanghai, China, July 7-10, 2013. - Shanghai : IFAC, 2013. - ISBN 978-3-902823-39-7. - p. 260-265. (in English)
- [32] HOLIČ, I. - ROSINOVÁ, D.: Robust PI Controller Design for Coupled-Tank Process: LMI Approach. In: 2013 International Conference on Process Control : Štrbské Pleso, Slovakia, June 18-21, 2013. - Piscataway : IEEE, 2013. - ISBN 978-80-227-3951-1. - CD-ROM, p. 147-151. (in English)
- [33] HOLIČ, I. - ILKA, A.: Robust State Feedback Controller Design for DC-Motor System. In: ACE 2013 : 10th IFAC Symposium on Advances in Control Education. Scheffield, UK, August 28-30, 2013. - Oxford : Elsevier, 2013. - ISBN 978-3-902823-43-4. - p. 120-125. (in English)
- [34] HRABOVSKÝ, J. - MURÍN, J.: Influence of the Axial Force on the Eigenfrequency of the FGM Beam. In: ELITECH'13 : 15th Conference of Doctoral Students; Bratislava, Slovakia, 5 June 2013. - Bratislava : STU, 2013. - ISBN 978-80-227-3947-4. - CD-ROM, [4] p. (in English)
- [35] HRABOVSKÝ, J. - MURÍN, J. - KUTIŠ, V. - PAULECH, J.: Modal Analysis of FGM Beam Structures. In: Applied Mechanics 2013 : 15th International Scientific Conference. Velké Karlovice, Czech Republic, April 15-18, 2013. - Ostrava : VŠB - Technical University of Ostrava, 2013. - ISBN 978-80-248-2978-4. - CD-ROM, [2] p. (in English)
- [36] HRABOVSKÝ, J. - MURÍN, J. - AMINBAGHAI, M. - KUTIŠ, V.: Stiffness Optimization of the Functionally Graded Material Microactuator . In: APCOM 2013. Applied Physics of Condensed Matter : 19th International Conference. Štrbské Pleso, Slovak Republic, June 19-21, 2013. - Bratislava : STU, 2013. - ISBN 978-80-227-3956-6. - p. 203-206. (in English)
- [37] HRIBIK, J. - BORIŠ, M. - FUCHS, P.: Average Value Evaluation of the Distorted Pulse Signal. In: IMEKO 2013 : TC-4 Symposium on Measurements of Electrical Quantities and 17th IWADC Workshop on Advances in Instrumentation and Sensors Interoperability. Barcelona, Spain, July 18-19, 2013. - Barcelona : Universitat Politècnica de Catalunya, 2013. - ISBN 978-84-616-5438-3. - p. 102-107. (in English)
- [38] HRIBIK, J. - BOBEK, P. - FUCHS, P.: Repetition Rate Method of the Air Flow Velocity Measurement. In: Radioelektronika 2013 : 23th Conference Radioelektronika 2013. Pardubice, Czech republic; 16-17 April 2013. - Pardubice : University of Pardubice, 2013. - ISBN 978-1-4673-5517-9. - p. 166-168. (in English)
- [39] HUBA, M. - ROVANOVÁ, Ľ. - MARKO, Ľ.: From Automatic Feedback Systems to MOOCs. In: ICETA 2013 : 11th IEEE International Conference on Emerging eLearning Technologies and Applications. Starý Smokovec, Slovakia, October 24-25, 2013. - [Piscataway] : IEEE, 2013. - ISBN 978-1-4799-2161-4. - p. 151-158. (in English)
- [40] HUBA, M. - MALATINEC, T. - HUBA, T.: Laboratory Experiments for Robust Constrained UAVs Control. In: ACE

- 2013 : 10th IFAC Symposium on Advances in Control Education. Scheffield, UK, August 28-30, 2013. - Oxford : Elsevier, 2013. - ISBN 978-3-902823-43-4. - p. 262-267. (in English)
- [41] HUBA, M.: Modular PID -Controller Design with Different Filtering Properties. In: IECON 2013 : 39th Annual Conference of the IEEE Industrial Electronics Society. Vienna, Austria, 10-13 November 2013. - Vienna : IEEE, 2013. - ISBN 978-1-4799-0223-1. - p. 3607-3612. (in English)
- [42] HUBA, M.: Open Flexible PD-Controller Design for Different Filtering Properties. In: IECON 2013 : 39th Annual Conference of the IEEE Industrial Electronics Society. Vienna, Austria, 10-13 November 2013. - Vienna : IEEE, 2013. - ISBN 978-1-4799-0223-1. - p. 3666-3672. (in English)
- [43] HUBA, M.: Performance Portrait Method: A New CAD Tool. In: ACE 2013 : 10th IFAC Symposium on Advances in Control Education. Scheffield, UK, August 28-30, 2013. - Oxford : Elsevier, 2013. - ISBN 978-3-902823-43-4. - p. 315-320. (in English)
- [44] HYPIUSOVÁ, M. - KAJAN, S.: PID Controller Design by Modified Ziegler-Nichols Method. In: Technical Computing Prague 2013 : 21th Annual Conference Proceedings. Prague, 13 November 2013. - Prague : Institute of Chemical Technology, 2013. - ISBN 978-80-7080-863-4. - CD-ROM [5] p. (in English)
- [45] HYPIUSOVÁ, M. - BEKEŠ, T.: Robust Controller Design for Modular Servo System with Saving Power. In: Proceedings of Technical University of Sofia. - ISSN 1311-0829. - Vol. 63, Iss. 5 : Science Days. Sozopol, Bulgaria, September 2-5, 2013. - Sofia : Technical University of Sofia, 2013, p. 27-36. (in English)
- [46] CHAMRAZ, Š.: Basic Structures of the Controllers. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 19, Special Issue : Conference ELOSYS, Trenčín, 15.-18.10.2013, p. 23-27. (in Slovak)
- [47] JAKUBEC, J. - MOJTO, E. - PAULECH, J. - KUTIŠ, V.: CFD and Structural Study of Solar Panel. In: ELITECH'13 : 15th Conference of Doctoral Students; Bratislava, Slovakia, 5 June 2013. - Bratislava : STU, 2013. - ISBN 978-80-227-3947-4. - CD-ROM, [3] p. (in English)
- [48] JAKUBEC, J. - MOJTO, E. - PAULECH, J. - KUTIŠ, V. - MURÍN, J.: Coupled CFD and Structural Study of Solar Panel. In: Renewable Energy Sources 2013 : 4th International Scientific Conference OZE 2013. Tatranské Matliare, Slovakia, May 21-23, 2013. - Bratislava : STU, 2013. - ISBN 978-80-89402-64-9. - p. 403-408. (in English)
- [49] JANÍČEK, F. - LIŠKA, M. - PERNÝ, M. - SMITKOVÁ, M. - STAŇÁK, V. - VÁRY, M.: Laboratories of the Institute of Power and Applied Electrical Engineering and their Usage for Primary and Secondary Schools. In: Renewable Energy Sources 2013 : 4th International Scientific Conference OZE 2013. Tatranské Matliare, Slovakia, May 21-23, 2013. - Bratislava : STU, 2013. - ISBN 978-80-89402-64-9. - p. 213-216. (in English)
- [50] JANÍK, Z. - ŽÁKOVÁ, K.: One Example of RTAI-Based Remote Experiment. In: IN-TECH 2013 : Proceedings of International Conference on Innovative Technologies, Budapest, Hungary 10.-13.09.2013. - Rijeka : Faculty of Engineering University of Rijeka, 2013. - ISBN 978-953-6326-88-4. - p. 273-276. (in English)
- [51] JASAŇ, P. - MURÍN, J. - HRABOVSKÝ, J.: Homogenization of Effective Material Properties of a Beam Element with Double-Symetrie Cross Section. In: ŠVOČ 2013 : Students Conference. Bratislava, 23. April 2013. - Bratislava : FEI STU, 2013. - ISBN 978-80-227-3909-2. - p. 33-38. (in Slovak)
- [52] KAJAN, S. - HYPIUSOVÁ, M.: Genetic and Robust Controller Design Methods for Uncertain SISO Systems. In: Technical Computing Prague 2013 : 21th Annual Conference Proceedings. Prague, 13 November 2013. - Prague : Institute of Chemical Technology, 2013. - ISBN 978-80-7080-863-4. - CD-ROM [5] p. (in English)
- [53] KÖRÖSI, L. - KOZÁK, Š.: An Effective Application of Soft Computing Methods for Hydraulic Process Control. In: Soft Computing Models in Industrial and Environmental Applications : 7th International Conference - SOCO '12. Ostrava, Czech Republic, September 5-7, 2012. - Heidelberg : Springer Verlag, 2013. - (Advances in Intelligent Systems and Computing, Vol. 188). - ISBN 978-3-642-32921-0. - p. 379-388. (in English)
- [54] KÖRÖSI, L. - PAULUSOVÁ, J. - KOZÁK, Š.: PLC Online Control Using Orthogonal Neural Network. In: MENDEL 2013 : 19th International Conference on Soft Computing; Brno, Czech Republic; 26-28 June 2013. - Brno : Brno University of Technology, 2013. - ISBN 978-80-214-4755-4. - p. 227-232. (in English)
- [55] KÖRÖSI, L. - NÉMETH, V. - PAULUSOVÁ, J. - KOZÁK, Š.: RBF Neural Network for Identification and Control Using PAC. In: International Joint Conference SOCO'13-CISIS'13-ICEUTE'13 : Salamanca, Spain, September 11-13, 2013.

- Springer International Publishing, 2013. - ISBN 978-3-319-01853-9. - p. 329-337. (in English)
- [56] KOZÁK, Š.: From Control Theory to the Practical Algorithms. In: SKAKal 2013 : Meeting of the departments of automation, cybernetics and informatics of Technical universities in SR and CR . Rajecké Teplice, Slovak Republic, 11.-13.9.2013. - Žilina : EDIS, 2013. - ISBN 978-80-554-0746-3. - p. 12-21. (in Slovak)
- [57] KOZÁK, Š.: Mechatronization of Processes in E-Mobility. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 19, Special Issue : Conference ELOSYS, Trenčín, 15.-18.10.2013, p. 150-154. (in Slovak)
- [58] KOZÁK, Š.: Present Trends in Complex Process Control Development and Applications. In: 3rd International Conference on Advanced Control Circuits and Systems (ACCS' 013) ; 2nd International Conference on New Paradigms in Electronics & Information Technology (PEIT ' 013) : Luxor, Egypt, 30 November - 3 December 2013. - Luxor : Electronics Research Institute, 2013. - CD-ROM, 8 p. (in English)
- [59] KOZÁKOVÁ, A. - VESELÝ, V.: A Unified Frequency Domain Method for Designing Robust Decentralized Controllers. In: Large Scale Complex Systems Theory and Applications : 13th IFAC Symposium. Shanghai, China, July 7-10, 2013. - Shanghai : IFAC, 2013. - ISBN 978-3-902823-39-7. - p. 266-271. (in English)
- [60] KOZÁKOVÁ, A. - BUCZ, Š.: Multiloop Control of a Drum Boiler. In: 3rd International Conference on Advanced Control Circuits and Systems (ACCS' 013) ; 2nd International Conference on New Paradigms in Electronics & Information Technology (PEIT ' 013) : Luxor, Egypt, 30 November - 3 December 2013. - Luxor : Electronics Research Institute, 2013. - CD-ROM, 6 p. (in English)
- [61] KRAJČUŠKOVÁ, Z. - KUKUČKA, M. - ĎURAČKOVÁ, D. - STOPJAKOVÁ, V.: Individual Student's Projects Focusing on Biomedical Engineering. In: Trends in Biomedical Engineering 2013 : Podbanské, Slovak Republic, 3.-5.7.2013. - Košice : Technical University, 2013. - ISBN 978-80-8086-208-4. - p. 20-22. (in Slovak)
- [62] KRAJČUŠKOVÁ, Z. - KUKUČKA, M. - ĎURAČKOVÁ, D. - STOPJAKOVÁ, V.: Unconventional Reliability Growth Models-Comparison and Evaluation. In: Radioelektronika 2013 : 23rd Conference Radioelektronika 2013; Pardubice, Czech Republic; 16-17 April 2013. - Pardubice : University of Pardubice, 2013. - ISBN 978-1-4673-5517-9. - p. 176-180. (in English)
- [63] KRASŇANSKÝ, R. - DVORŠČÁK, B.: Design and Implementation of FPGA-Based PID Controller. In: 3rd International Conference on Advanced Control Circuits and Systems (ACCS' 013) ; 2nd International Conference on New Paradigms in Electronics & Information Technology (PEIT ' 013) : Luxor, Egypt, 30 November - 3 December 2013. - Luxor : Electronics Research Institute, 2013. - CD-ROM, 6 p. (in English)
- [64] KRASŇANSKÝ, R. - VALACH, P.: Explicit Model Predictive Control of a System with Hybrid Dynamics. In: 3rd International Conference on Advanced Control Circuits and Systems (ACCS' 013) ; 2nd International Conference on New Paradigms in Electronics & Information Technology (PEIT ' 013) : Luxor, Egypt, 30 November - 3 December 2013. - Luxor : Electronics Research Institute, 2013. - CD-ROM, 6 p. (in English)
- [65] KRASŇANSKÝ, R. - DVORŠČÁK, B.: Hybrid Modeling and Predictive Control: MLD Approach. In: ELITECH'13 : 15th Conference of Doctoral Students. Bratislava, Slovakia, 5 June 2013. - Bratislava : STU, 2013. - ISBN 978-80-227-3947-4. - CD-ROM, [6] p. (in English)
- [66] KUGLER, S. - FOTIU, P.A. - MURÍN, J.: On Consistent Estimations of Drilling Rotations in Shell Elements. In: Shell Structures: Theory and Applications : 10th SSTA Conference. Gdańsk, Poland, 16-18 October 2013, Volume 3. - London : Taylor & Francis Group, 2013. - ISBN 978-1-138-00082-7. - p. 413-416. (in English)
- [67] KUKUČKA, M. - TEPLAN, M. - ONDREJKOVIČOVÁ, A.: Impedance Maps of Acupuncture Points. In: The First Energetic Medicine Natural Therapy International Academic Salon : Beijing, China; 18-19 May 2013. - World Outstanding Medical Association, 2013. - p. 31. (in English)
- [68] KUKUČKA, M. - KRAJČUŠKOVÁ, Z. - STOPJAKOVÁ, V. - ĎURAČKOVÁ, D.: The Influence of the Amplitude of Driving Signal in Measurement of the Active Points on Human Skin. In: Radioelektronika 2013 : 23rd Conference Radioelektronika 2013; Pardubice, Czech republic; 16-17 April 2013. - Pardubice : University of Pardubice, 2013. - ISBN 978-1-4673-5517-9. - p. 170-175. (in English)
- [69] KUKUČKA, M. - KRAJČUŠKOVÁ, Z. - STOPJAKOVÁ, V. - ĎURAČKOVÁ, D. - WEISSE, A.: The Influence of the Skin Fatigue, its Perspiration and the Time of Stimulation in Measurement of the Active Points on Human Skin. In: Trends in Biomedical Engineering 2013 : Podbanské, Slovak Republic, 3.-5.7.2013. - Košice : Technical

- University, 2013. - ISBN 978-80-8086-208-4. - p. 61-66. (in English)
- [70] KUTIŠ, V. - GÁLIK, G. - RÝGER, I. - MURÍN, J. - HRABOVSKÝ, J. - PAULECH, J. - LALINSKÝ, T.: FEM Analysis of SAW Sensor. In: Applied Mechanics 2013 : 15th International Scientific Conference. Velké Karlovice, Czech Republic, April 15-18, 2013. - Ostrava : VŠB - Technical University, 2013. - ISBN 978-80-248-2978-4. - CD ROM, [2] p. (in English)
- [71] KUTIŠ, V. - GÁLIK, G. - RÝGER, I. - PAULECH, J. - MURÍN, J. - HRABOVSKÝ, J. - LALINSKÝ, T.: FEM Model of Surface Acoustic Wave Sensor with Sensitive Layer. In: 21st SVS FEM ANSYS Users' Group Meeting and Conference 2013 : Luhačovice, Czech Republic, 12.-14.6.2013. - Brno : SVS FEM s.r.o, 2013. - ISBN 978-80-905525-0-0. - online, [7] p. (in English)
- [72] KUTIŠ, V. - GÁLIK, G. - RÝGER, I. - PAULECH, J. - MURÍN, J. - HRABOVSKÝ, J. - LALINSKÝ, T.: Modal and Transient Analysis of SAW MEMS Sensor. In: APCOM 2013. Applied Physics of Condensed Matter : 9th International Conference. Štrbské Pleso, Slovak Republic, June 19-21, 2013. - Bratislava : STU, 2013. - ISBN 978-80-227-3956-6. - p. 221-225. (in English)
- [73] KUTIŠ, V. - JAKUBEC, J. - MOJTO, E. - PAULECH, J. - MURÍN, J.: Parametric Study of Bypass of VVER 440 Fuel Assembly. In: Computational Mechanics 2013 : 29th Conference with International Participation. Špičák, Czech Republic, November 4-6, 2013. - Pilsen : University of West Bohemia, 2013. - ISBN 978-80-261-0282-3. - p. 73-74. (in English)
- [74] KUTIŠ, V. - DZUBA, J. - PAULECH, J. - MURÍN, J. - HRABOVSKÝ, J. - LALINSKÝ, T.: Piezoelectric Analysis of MEMS Pressure Sensor. In: APCOM 2013. Applied Physics of Condensed Matter : 19th International Conference. Štrbské Pleso, Slovak Republic, June 19-21, 2013. - Bratislava : STU, 2013. - ISBN 978-80-227-3956-6. - p. 225-228. (in English)
- [75] KUTIŠ, V. - GÁLIK, G. - MURÍN, J. - RÝGER, I. - PAULECH, J. - HRABOVSKÝ, J. - LALINSKÝ, T.: Piezoelectric FEM Analysis of Surface Acoustic Wave Sensor. In: Computational Plasticity XII. Fundamentals and Applications : 12th International Conference on Computational Plasticity-Fundamentals and Applications. Barcelona, Spain, 3-5 September 2013. - Barcelona : International Center for Numerical Methods in Engineering, 2013. - ISBN 978-84-941531-5-0. - CD-ROM, [7] p. (in English)
- [76] KUTIŠ, V. - MOJTO, E. - JAKUBEC, J. - PAULECH, J. - URBAN, P.: VFD Analysis of VVER 440 Fuel Assembly. In: Techsoft Engineering ANSYS 2013 : User's Meeting and Conference. Mikulov, Czech Republic, May 29-31, 2013. - Prague : Arcadea, 2013. - ISBN 978-80-905040-2-8. - p. 87-94. (in English)
- [77] LUKÁČ, M. - KUTIŠ, V.: Piezoelectric Analysis of MEMS Pressure Sensor in Software ANSYS. In: ŠVOČ 2013 : Students Conference. Bratislava, 23. April 2013. - Bratislava : FEI STU, 2013. - ISBN 978-80-227-3909-2. - p. 53-58. (in Slovak)
- [78] LUŠŤOŇ, D. - MURÍN, J. - HRABOVSKÝ, J.: Modal Analysis of 3D Composite Beam. In: ŠVOČ 2013 : Students Conference. Bratislava, 23. April 2013. - Bratislava : FEI STU, 2013. - ISBN 978-80-227-3909-2. - p. 48-52. (in Slovak)
- [79] MADARÁS, J. - BUGÁR, M. - FERENČEY, V.: Electronic Differential System Analysis Using Co-Simulation. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 19, Special Issue : Conference ELOSYS, Trenčín, 15.-18.10.2013, p. 167-170. (in English)
- [80] MADARÁS, J. - BUGÁR, M. - FERENČEY, V.: Information Support for Modelling of the Processes in Mobile Robotics System. In: TRANSFER 2013 : 14th International Conference. Trenčianske Teplice, Slovak Republic, October 17-18, 2013. - Trenčín : Alexander Dubček University of Trenčín, 2013. - ISBN 978-80-8075-607-9. - CD ROM, [6] p. (in English)
- [81] MADARÁS, J. - BUGÁR, M.: Management and Control the Drive of an Electric Generator Through a Vehicle Microturbine. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 19, Special Issue : Conference ELOSYS, Trenčín, 15.-18.10.2013, p. 76-79. (in English)
- [82] MOJTO, E. - JAKUBEC, J. - PAULECH, J. - KUTIŠ, V. - MURÍN, J.: Application of CFD in Renewable Energy Sources. In: Renewable Energy Sources 2013 : 4th International Scientific Conference OZE 2013. Tatranské Matliare, Slovakia, May 21-23, 2013. - Bratislava : STU, 2013. - ISBN 978-80-89402-64-9. - p. 273-276. (in English)

- [83] MOJTO, E. - JAKUBEC, J. - PAULECH, J. - KUTIŠ, V.: CFD Study of Wind Turbines Mutual Influence. In: ELITECH'13 : 15th Conference of Doctoral Students; Bratislava, Slovakia, 5 June 2013. - Bratislava : STU, 2013. - ISBN 978-80-227-3947-4. - CD-ROM, [3] p. (in English)
- [84] MURÍN, J. - SEDLÁR, T. - GOGA, V. - PAULECH, J. - KUTIŠ, V. - AMINBAGHAI, M. - MANG, H.: Measurement of Non-Uniform Torsion of Closed Thin-Walled Cross-Section Beam. In: New Trends in Statics and Dynamics of Buildings : 11th International Conference. Bratislava, Slovak Republic, 3.-4.10. 2013. - Bratislava : Slovak University of Technology, 2013. - ISBN 978-80-227-4040-1. - p. 147-149. (in English)
- [85] MURÍN, J. - AMINBAGHAI, M. - HRABOVSKÝ, J. - KUTIŠ, V.: New Beam Finite Element for Dynamic Analysis of Functionally Graded Material Structures. In: APCOM 2013. Applied Physics of Condensed Matter : 19th International Conference. Štrbské Pleso, Slovak Republic, June 19-21, 2013. - Bratislava : STU, 2013. - ISBN 978-80-227-3956-6. - p. 207-210. (in English)
- [86] MURÍN, J. - AMINBAGHAI, M. - KUTIŠ, V. - MANG, H.: New 3D-Beam Finite Element Including Non-Uniform Torsion with the Secondary Torsion Moment Deformation Effect. In: Computational Plasticity XII. Fundamentals and Applications : Proceedings of the XII International Conference on Computational Plasticity-Fundamentals and Applications. Barcelona, Spain, 3-5 September 2013. - Barcelona : International Center for Numerical Methods in Engineering, 2013. - ISBN 978-84-941531-5-0. - CD-ROM, [12] p. (in English)
- [87] MURÍN, J. - HRABOVSKÝ, J. - KUTIŠ, V. - PAULECH, J.: The New Finite Elements for Mechanical Analysis of Beam Structures Made of the Functionally Graded Materials. In: Computational Mechanics 2013 : 29th Conference with International Participation. Špičák, Czech Republic, November 4-6, 2013. - Pilsen : University of West Bohemia, 2013. - ISBN 978-80-261-0282-3. - p. 85-86. (in English)
- [88] MURÍN, J. - AMINBAGHAI, M. - HRABOVSKÝ, J. - KUTIŠ, V.: Torsional Free Vibration of FGM Beams. In: Euromech Colloquium 541 : New Advances in the Nonlinear Dynamics and Control of Composites for Smart Engineering Design. Senigallia, Italy, June 3-6, 2013. - Ancona : Clua Edizioni, 2013. - ISBN 978-88-87965-72-8. - p. 1-6. (in English)
- [89] MURÍN, P. - MURÍN, J. - PAULECH, J.: Electro-Thermal Analysis of an Industrial Pin-Plug. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 19, Special Issue : Conference ELOSYS, Trenčín, 15.-18.10.2013, p. 171-173. (in English)
- [90] PAULECH, J. - GOGA, V. - VÁRY, M.: Cooling of Vertically Arranged Insulated Electric Conductor by Free Convection. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 19, Special Issue : Conference ELOSYS, Trenčín, 15.-18.10.2013, p. 174-177. (in English)
- [91] PAULECH, J. - MURÍN, J. - HRABOVSKÝ, J. - KUTIŠ, V.: New FGM Finite Element for Electro-Thermal Analyses. In: Applied Mechanics 2013 : 15th International Scientific Conference. Velké Karlovice, Czech Republic, April 15-18, 2013. - Ostrava : VŠB - Technical University, 2013. - ISBN 978-80-248-2978-4. - CD ROM, [2] p. (in English)
- [92] PAULECH, J. - HRABOVSKÝ, J. - MURÍN, J. - KUTIŠ, V.: New Finite Link Element for Thermoelectric Analysis of FGM Materials. In: ELITECH'13 : 15th Conference of Doctoral Students. Bratislava, Slovakia, 5 June 2013. - Bratislava : STU, 2013. - ISBN 978-80-227-3947-4. - CD-ROM, [5] p. (in English)
- [93] PAULECH, J. - JAKUBEC, J. - KUTIŠ, V. - MOJTO, E.: Solar Panel for Parking Spot - Coupled CFD and Structural Study. In: 21st SVS FEM ANSYS Users' Group Meeting and Conference 2013 : Luhačovice, Czech Republic, 12.-14.6.2013. - Brno : SVS FEM s.r.o, 2013. - ISBN 978-80-905525-0-0. - online, [6] p. (in English)
- [94] PYTEL, A. - KOZÁK, Š. - DÚBRAVSKÝ, J.: On-line Predictive Controller for Gas Turbine. In: 3rd International Conference on Advanced Control Circuits and Systems (ACCS' 013) ; 2nd International Conference on New Paradigms in Electronics & Information Technology (PEIT ' 013) : Luxor, Egypt, 30 November - 3 December 2013. - Luxor : Electronics Research Institute, 2013. - CD-ROM, 5 p. (in English)
- [95] RIBAR, E. - MURÍN, J.: Mathematical Model of a Supercapacitor Cell. In: ELITECH'13 : 15th Conference of Doctoral Students. Bratislava, Slovakia, 5 June 2013. - Bratislava : STU, 2013. - ISBN 978-80-227-3947-4. - CD-ROM, [5] p. (in English)
- [96] RIBAR, E. - BUGÁR, M. - STAŇÁK, V.: Propulsion System Design for a Small Electric Scooter with Hybrid Energy Storage. In: Renewable Energy Sources 2013 : 4th International Scientific Conference OZE 2013. Tatranské

- Matliare, Slovakia, May 21-23, 2013. - Bratislava : STU, 2013. - ISBN 978-80-89402-64-9. - p. 301-306. (in English)
- [97] ROSINOVÁ, D. - VALACH, P.: Two Tank Energy Storage System: Robust Switched System Control with Input Constraints. In: Proceedings of Technical University of Sofia. - ISSN 1311-0829. - Vol. 63, Iss. 5 : Science Days. Sozopol, Bulgaria, September 2-5, 2013. – Sofia : Technical University of Sofia, 2013, p. 17-26. (in English)
- [98] SOÓS, D.: Robust Control of IPDT Plant with Performance Portrait. In: ELITECH'13 : 15th Conference of Doctoral Students. Bratislava, Slovakia, 5 June 2013. - Bratislava : STU, 2013. - ISBN 978-80-227-3947-4. - CD-ROM, [6] p. (in English)
- [99] STAŇÁK, V. - BUGÁR, M. - RIBAR, E. - MADARÁS, J. - NOGE, F.: Propulsion System of Advanced Electric Vehicle. In: Renewable Energy Sources 2013 : 4th International Scientific Conference OZE 2013. Tatranské Matliare, Slovakia, May 21-23, 2013. - Bratislava : STU, 2013. - ISBN 978-80-89402-64-9. - p. 317-322. (in English)
- [100] STAŇÁK, V.: Recovery of Kinetic Energy During Braking of an Electric Vehicle. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 19, Special Issue : Conference ELOSYS, Trenčín, 15.-18.10.2013, p. 200-204. (in English)
- [101] STAŇÁK, V. - RIBAR, E.: Technical Description of Electric Vehicle Conversion. In: TRANSFER 2013 : 14th International Conference. Trenčianske Teplice, Slovak Republic, October 17-18, 2013. - Trenčín : Alexander Dubček University of Trenčín, 2013. - ISBN 978-80-8075-607-9. - CD ROM, 8 p. (in English)
- [102] ŠTEVO, S. - OSUSKÝ, J.: Small Photovoltaic Power Plant - Model, Simulation and Consumption Optimization. In: Proceedings of Technical University of Sofia. - ISSN 1311-0829. - Vol. 63, Iss. 5 : Science Days. Sozopol, Bulgaria, September 2-5, 2013. – Sofia : Technical University of Sofia, 2013, p. 37-46. (in English)
- [103] ŠTURCEL, J. - DRAHOŠ, P.: Microtechnology in Automotive Sensors. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 19, Special Issue : Conference ELOSYS, Trenčín, 15.-18.10.2013, p. 205-209. (in Slovak)
- [104] ŤAPÁK, P.: Disturbance Observer Based Controllers in Constrained PID Control Course. In: ICETA 2013 : 11th IEEE International Conference on Emerging eLearning Technologies and Applications. Starý Smokovec, Slovakia, October 24-25, 2013. - [Piscataway] : IEEE, 2013. - ISBN 978-1-4799-2161-4. - p. 375-379. (in English)
- [105] TEPLAN, M. - KUKUČKA, M. - ONDREJKOVIČOVÁ, A.: Impedance Analysis of Acupuncture Points. In: Acupunctura Bohemo Slovaca. - ISSN 1335-5627. - No. 2 : XXVII. Congressus acupuncturae Bohemiae et Slovaciae. Znojmo, 31.5.-2.6.2013 (2013), on-line. (in Slovak)
- [106] TEPLAN, M. - KUKUČKA, M. - ONDREJKOVIČOVÁ, A. - IVANIČ, B.: Impedance Maps of Accupuncture Points. In: ICMART 2013 : International Medical Congress and Medical Accupuncture and Related Techniques Therapeutic Options during 2nd Half of Life. Viena, Austria, Nov. 29 - Dec.1, 2013. - Vienna : ÖGA, 2013. - p. 74. (in English)
- [107] TSOUMANIS, A. - STAŇÁK, V.: Electric Mobility Based on Permanent Magnet DC Motors Using Lithium Batteries. In: ELITECH'13 : 15th Conference of Doctoral Students; Bratislava, Slovakia, 5 June 2013. - Bratislava : STU, 2013. - ISBN 978-80-227-3947-4. - CD-ROM, [6] p. (in English)
- [108] VALAH, D. - GOGA, V.: Two-Dimensional Stress Analysis. In: ŠVOČ 2013 : Students Conference. Bratislava, 23. April 2013. - Bratislava : FEI STU, 2013. - ISBN 978-80-227-3909-2. - p. 59-63. (in English)
- [109] VALACH, P. - KRASŇANSKÝ, R.: Robust Stabilization of Switched Two-Tank System Model via State Feedback PI Controller. In: 2013 International Conference on Process Control : Štrbské Pleso, Slovakia, June 18-21, 2013. - Piscataway : IEEE, 2013. - ISBN 978-80-227-3951-1. - CD-ROM, p. 445-450. (in English)
- [110] VALACH, P.: State Feedback Stabilization with Input Constraints of Switched System. In: ELITECH'13 : 15th Conference of Doctoral Students. Bratislava, Slovakia, 5 June 2013. - Bratislava : STU, 2013. - ISBN 978-80-227-3947-4. - CD-ROM, [5] p. (in English)
- [111] VESELÝ, V. - ROSINOVÁ, D. - ILKA, A.: Decentralized Gain-Scheduling Controller Design: Polytopic System Approach. In: Large Scale Complex Systems Theory and Applications : 13th IFAC Symposium. Shanghai, China, July 7-10, 2013. - Shanghai : IFAC, 2013. - ISBN 978-3-902823-39-7. - p. 401-406. (in English)

- [112] VESELÝ, V. - OSUSKÝ, J. - GUZMICKÝ, P.: Design of Gain Scheduled Control in Frequency Domain. In: 2013 International Conference on Process Control : Štrbské Pleso, Slovakia, June 18-21, 2013. - Piscataway : IEEE, 2013. - ISBN 978-80-227-3951-1. - CD-ROM, p. 292-297. (in English)
- [113] VESELÝ, V. - ILKA, A. - KOZÁKOVÁ, A.: Frequency Domain Gain Scheduled Controller Design for SISO Systems. In: 2013 International Conference on Process Control : Štrbské Pleso, Slovakia, June 18-21, 2013. - Piscataway : IEEE, 2013. - ISBN 978-80-227-3951-1. - CD-ROM, p. 439-444. (in English)
- [114] VINCZE, T. - VANKO, G. - KUTIŠ, V.: Modeling of Robust Pressure Sensor Based on the Progressive Semiconductor Materials. In: ŠVOČ 2013 : Students Conference. Bratislava, 23. April 2013. - Bratislava : FEI STU, 2013. - ISBN 978-80-227-3909-2. - p. 29-32. (in Slovak)
- [115] ŽÁKOVÁ, K.: Easy Development of Web Based Simulations. In: exp.at'13 : 2nd Experiment@International Conference - Online Experimentation. Coimbra, Portugal, September 18-20, 2013. - Coimbra : University of Coimbra, 2013. - ISBN 978-1-4799-2741-8. - p. 83-87. (in English)
- [116] ŽÁKOVÁ, K. - PIŠTEJ, J. - BISTÁK, P.: Online Tool for Students' Source Code Plagiarism Detection. In: ICETA 2013 : 11th IEEE International Conference on Emerging eLearning Technologies and Applications. Starý Smokovec, Slovakia, October 24-25, 2013. - [Piscataway] : IEEE, 2013. - ISBN 978-1-4799-2161-4. - p. 415-419. (in English)

IX.3 Books

- [1] FERENECY, V. - VALA, M. - BUGÁR, M.: Mechatronic Management Systems of Dynamics Moving Cars. - Bratislava : Slovak University of Technology Press, 2013. - 224 p. - ISBN 978-80-227-4048-7. (in Slovak)

IX.4 Part of Books

- [1] DANKO, J. - MILESICH, T. - BUGÁR, M. - MADARÁS, J.: Characteristic Model of a Shock Absorber in an Unmanned Ground Vehicle. In: Scientific Proceedings Faculty of Mechanical Engineering STU Bratislava. - ISSN 1338-1954. - Vol. 20/2012. - Bratislava : STU, 2013, p. 37-43. (in English)
- [2] FERENECY, V. - BUGÁR, M. - MADARÁS, J.: The Possibilities of Simulating a UGV 'S Agility and Drivability. In: Scientific Proceedings Faculty of Mechanical Engineering STU Bratislava. - ISSN 1338-1954. - Vol. 20/2012. - Bratislava : STU, 2013, p. 51-57. (in English)

IX.5 Textbooks

- [1] GOGA, V.: CAE of the Mechatronic Systems: Modeling and Simulations Using MSC ADAMS Software. Part I.: Kinematics. - Bratislava : Slovak University of Technology Press, 2013. - 126 p. - ISBN 978-80-227-4054-8. (in Slovak)

IX.6 Patents and Standards

- [1] FERENECY, V. - BUGÁR, M. - MADARÁS, J.: Remote-Controlled Vehicle with Hybrid Powertrain : Patent No: 6615, Mediation Date : 21.10.2013. - 11 p. (in Slovak)
- [2] LELÁK, J. - MURÍN, J. - JANÍČEK, F. - HARSÁNYI, Z.: A Heat Flow Kompensator : Patent No.: 6551, Mediation Date : 2.10.2013. - 5 p. (in Slovak)
- [3] SEDLÁR, T. - MURÍN, J. - KRÁLOVIČ, V. - KALAŠ, A.: Universal Device for Measurement of Torsion of Beams : Patent No.: 6389, Mediation Date : 22.1.2013. - 10 p. (in Slovak)

INSTITUTE OF COMPUTER SCIENCE AND MATEHEMATICS

<http://www.fei.stuba.sk/>



Director of the Institute:

prof. Ing. Otokar Grošek, PhD.

Tel: +421-2-602 91 226

Fax: +421-2-654 20 415

e-mail : otokar.grosek@stuba.sk

Deputy director:

doc. RNDr. Ľubomír Marko, PhD.

e-mail: lubomir.marko@stuba.sk

Tel: + 421-2-654 27 351

Fax : +421-2-654 20 415

Institute Secretary and Head of Administration Office:

Zuzana Šabíková

e-mail: zuzana.sabikova@stuba.sk

Tel: +421-2-602 91 266

Fax: +421-2-654 20 415

General Information

On May 1, 2011 was established the Institute of Computer Science and Mathematics as a union of two former Departments at FEI STU, namely Department of Informatics and Information Technology and Department of Mathematics. In fact we can count our history from the creation of the Department of Applied Informatics and Information Technology at FEI STU on Feb 1, 2004. During this short period have finished 611 Bachelors, 318 Masters (Engineers) and 9 PhD. students. The study program Applied Informatics possesses deep theoretical and methodological knowledge and practical skills from the essential areas of the core of Informatics. Further knowledge from measurement, data capture, processing and transmission of information and diagnostic of systems is included to the program. A graduate will also have knowledge about information and communication networks, will understand methods of modeling and simulation of systems and processes. To achieve this target, courses from the core fields of Information Systems and Software Engineering interlace with courses divided into four majors: Security of Information Technologies, Biometrics, Modeling and Simulation of Event Systems, and IT in Control and Decision Making. During the study principles

of individual and team scientific work and research, formulation of problems, their solution and presentation are emphasized, respectively. A broad professional career in the different branches of science, research, industry and services is open for graduates, like auditing large information and communication systems, design security systems to protect sensitive data, modeling of work-flow processes, and embedded systems, and design and use information systems and software products in the area of control engineering in various practical application domains. The Institute consists of 3 Departments, namely Department of IT Security, Department of Software Engineering and Department of Mathematics.

Departments of Institute of Computer Science and Mathematics

Department of IT Security

Department chair: doc. Ing. Pavol Zajac, PhD

e-mail: pavol.zajac@stuba.sk

Tel: +421-2-602 91 181

Fax: +421-2-654 20 415

Short history

The cryptology education at EF SVŠT began in 1984 with a course "*Secret communication in computer networks*" for postgraduate study (PhD) as the first in former Czechoslovakia. In 1986 O. Grošek (EF SVŠT) and K. Nemoga (MÚ SAV) established a new research seminar CRYPTO, and except a short break 1989-1993, it is still a main center of cryptology research at FEI STU. In 1995 started a course *Ciphering* for students, along with the first Bachelor's projects and Diploma Theses in this area. Since the same year we had graduate students in the field of 25-11-9 Applied Informatics, and also (since 1997) 11-14-9 Applied Mathematics with the major Cryptology.

The first Masters degree programme in the field of Security of Information Technologies was established in 2000/01 by the Department of Mathematics in cooperation with the former Department of Applied Informatics and Information Technology. After the creation of FIIT STU in 2003, the cryptology group of prof. Grošek created a core of the Department of Applied Informatics and Information Technology at FEI STU on Feb 1, 2004. On May 1, 2011 the Institute of Computer Science and Mathematics was established as a union of two former Departments at FEI STU. Since that time Crypto-group has formed the core of the Department of IT Security.

Awards 2013

- Filip Machovec: Adaptive Steganography and the ABCDE Method, KEYMAKER, CZ - third place

Activities 2013

- Support for organization of conference: Central European Conference on Cryptology 2013 (Telč, CZ, 26.-28.6.2013)

Directions, Future Trends, and Priorities

In the year 2013 we were able to increase the involvement of the Department in various research projects. The main research priorities indicated by the projects are:

- side channel attacks (APVV, and NATO grant)
- security of mobile devices (VEGA grant)

In 2014 we plan to improve the Laboratory of IT Security with the help of sponsors to include the measurement devices for the side channel research. We also plan a new laboratory focused on malware protection research.

We continue the continual improvements of the educational process. We investigate the option to introduce new courses for students of non-security specializations. Furthermore, we try to increase the involvement of security-specialized students in our research activities.

Department of Software Engineering

Department chair: prof. RNDr. Gabriel Juhás, PhD.

Tel:+421 -2-602 91 135

e-mail: gabriel.juhás@stuba.sk

Fax:+421-2-602 91 415

Short history

History of the Department of Software Engineering began in February 2004 along with the development of the Department of Applied Informatics and Information Technology to teach students in the field of Advanced Web Technology. In September 2005 there was established a group of associated professor G. Juhás working in modeling, analysis, synthesis and verification of a wide range of event systems in various application areas. Other fields of research are architecture and software development, biometrics, eHealth and telemedicine. In 2009, the first Masters degree student in the field of Modeling and Synthesis of Event Systems has finished. In 2011, the group became a part of the Institute of Computer Science and Mathematics, and was named Department of Software Engineering.

Machine Learning Group is active at the Department of Software Engineering, Institute of Computer Science and Mathematics. It consists of university teachers and PhD students at the Department, who together with the undergraduate students works mainly in the following areas:

- machine learning for biometrics
 - face recognition
 - iris recognition
- machine learning for communication networks
 - classification of traffic in communication networks
 - prediction of video traffic in communication networks

Machine Learning Group cooperates closely with the partners performing research in the above mentioned areas in Slovakia, as well as abroad, e.g. Politecnico di Torino (<http://www.polito.it/>), Vrije Universiteit Brussel (<http://www.vub.ac.be/>). Through Group's involvement in HBBNext 7th Frame Programme project (<http://www.hbb-next.eu>) it closely cooperates with both the academia and private companies throughout the Europe.

All the relevant information about Machine Learning Group (people, software systems, scientific projects, publications) can be found on its homepage <http://www.uim.elf.stuba.sk/kaivt/MLgroup>.

Activities 2013

- conference organization: 1st IEEE EMBS Summer School on Emerging Technologies and Applications in Telemedicine (Smolenice, SR, 26.-31.8.2013)

Directions, Future Trends, and Priorities

Telemedicine represents innovative shift in delivering medical services with application of information and communication technologies outside the health institutions. Applications of telemedicine services include mobile and wearable technologies to support tele-health for management of chronic conditions and support general well being from infants to elderly. Other domains of tele-health systems research (including nonclinical domains) are in the scope of ongoing efforts to create the ground for identification and discussion of technological, social, cultural, economic and other drivers to gain wide acceptability of telemedicine services and systems.

National Centre of Telemedicine Services (NCTS) was opened on 1.12.2011 at Slovak University of Technology in Bratislava, Faculty of Electrical Engineering and Information Technology (FEI STU). Strategic partner of the NCTS is IBM Slovakia with important support to the Centre from Slovak Medical Chamber and WHO office in Slovakia.

Research and development in the Centre is aimed on the “complete loop system” including remote data collection (biomedical telemetry devices), data transmission and analytics to support experts review and feedback to medical personnel and the patients. International state-of-the-art in related research domains is delivered through the close collaboration with distinguished experts in the field of biomedical engineering and health informatics – prof. Cerutti, prof. Allen, prof. Zhang (CUHK, China), prof. Akay (UH, USA) and other researchers grouped under NCTS’s Scientific Advisory Board.

Tele-monitoring services are developed by the NCTS with close cooperation with its medical partners include acquisition of vital signs related to, e.g. blood pressure, body temperature, glycemia, ECG. The complex picture of patient status is completed with GPS data and VOIP tele-consultations. Management of patient conditions is supported by clinicians’ applications related to management of acquired data and alarm generation supporting the prompt feedback to the patient and provision of professional help. The specific characterization of application is based on the requirements of medical personnel, related clinical process and target group (for example diabetes management, elderly citizens).

Department of Mathematics

Department chair: doc. RNDr. Ľubomír Marko, PhD.

e-mail: lubomir.marko@stuba.sk

Tel: +421-2-654 27 351

Fax: +421-2-654 20 415

Department chair: doc. RNDr. Ľubomír Marko, PhD.

e-mail: lubomir.marko@stuba.sk

Tel: +421-2-654 27 351

Fax: +421-2-654 20 415

Short history

The Origin of the Department of Mathematics is the same as the origin of the Slovak Technical School of M.R. Štefánik (1938) and the first rector was mathematician Jur Hronec too. In 1951 the Institutes of mathematics were united into the unique Department of mathematics of Slovak University of Technology (SVŠT), which

was associated to Faculty of Electrical Engineering of SVŠT (EF SVŠT). The first head of the Department of Mathematics became academician Š. Schwarz. In 1984 the residence of EF SVŠT moved to Mlynská dolina (Bratislava). We remember famous researchers to be employed at the Department, namely professors Hronec, Schwarz, Jakubík, Švec, Greguš, Mišík, Kluvánek, Riečan, Znáam, Eliáš, Ivan, Šulka, Gatial, Porubský, Horák, Riečanová. In 2011 the Department of mathematics was incorporated to the Institute of Informatics and Mathematics.

Activities 2013

-conference organization: 9th Workshop on Functional Analysis and its Applications in Mathematical Physics and Optimal (Nemecká, SR, 9.-14.9.2013)

Directions, Future Trends, and Priorities

- Increased grant funding of the department.
- Continual improvement of educational process in mathematics.
- Improvement of pedagogical work with students, especially in the first semester.

I. STAFF

Professors

prof. RNDr. Igor Bock, PhD., prof. RNDr. Otokar Grošek, PhD., prof. RNDr. Gabriel Juhás, PhD.

Associate Professors

doc. RNDr. Jaroslav Fogel, PhD., doc. RNDr. Ľubomír Marko, PhD., doc. RNDr. Oľga Nánásiová, PhD., doc. RNDr. Karol Nemoga, PhD., doc. RNDr. Vladimír Olejček, PhD., doc. Dr. Ing. Miloš Oravec, doc. RNDr. Boris Rudolf, PhD., doc. RNDr. Ladislav Satko, PhD., doc. Ing. Michal Šrámka, PhD., PhD., doc. Ing. Milan Vojvoda, PhD., doc. RNDr. Peter Volauf, PhD., doc. RNDr. Michal Zajac, PhD., doc. Ing. Pavol Zajac, PhD.

Assistant Professors

Ing. Štefan Balogh, RNDr. Igor Brilla, PhD., RNDr. Viera Čerňanová, PhD., RNDr. Karla Čipková, PhD., Ing. Alexander Hambalík, PhD., Ing. Mgr. Matúš Jókay, PhD., RNDr. Mária Kečkemetyová, PhD., RNDr. Igor Kossaczký, PhD., RNDr. Eva Kostrecová, PhD., Ing. Fedor Lehocki, PhD., RNDr. Ivica Marinová, PhD., Ing. Vladislav Novák, Mgr. Dávid Pancza, PhD., RNDr. Elena Pastuchová, PhD., Mgr. Marcel Polakovič, PhD., Mgr. Marek Sýs, PhD., Mgr. Zuzana Ševčíková, Mgr. Michal Zakopčan, PhD.

Research Workers

Ing. Csaba Cserba, Ing. Ondrej Gallo, Ing. Igor Kazlov, Ing. Stanislav Marček, prof. RNDr. Zdenka Riečanová, PhD.

Technical Staff

Zuzana Šabíková (Head), Emília Komžíková, Mgr. Zuzana Šedová

PhD. Students

Ing. Eugen Antal, Ing. Michal Braško, Ing. Lucia Cibulková, Ing. Csaba Cserba, Mgr. Tomáš Fabšič, Ing. Ondrej Gallo, Ing. Dávid Hrbatý, Ing. Viliam Hromada, Ing. Vojtěch Jirka, Ing. Igor Kazlov, Ing. Pavol Marák, Ing. Stanislav Marček, Ing. Ján Mazanec, Ing. Ľuboš Omelina, Ing. Alexandra Posoldová, Ing. Marek Repka, Mgr. Viktória Rozborová, Ing. Andrej Savka, Ing. Juraj Varga, Ing. Milan Zelina, Mgr. Tomáš Žilka

II. EQUIPMENT

II. 1 Teaching and Research Laboratories

- IT Sec Laboratory
- DIEDC - Database Information Education and Demonstration Center
- Laboratory of Medical Informatics
- Laboratory of Communication Networks
- Experimental Laboratory of Institute
- Library of Department of mathematics

II. 2 Special Measuring Instruments and Computers

- HP Proliant ML 150
2x CPU INTEL XEON 2,8 GHz, RAM 12 GB, HDD 35 GB
- MSDN Academic Alliance (MSDN AA) = Microsoft Developers Network Academic Alliance

III. TEACHING

III.1 Undergraduate Study (Bc.)

Subject, semester, hours per week for lectures and for seminars or practical exercises, name of the lecturer:

| | | |
|---------------------------------------|------------------|--|
| Algorithms and Programming | (1st sem. 3-2 h) | P. Zajac/M. Drozda, Kossaczky |
| Analysis and Complexity of Algorithms | (6th sem. 3-1 h) | M. Vojvoda |
| Basics of Finance | (2nd sem. 1-2 h) | M. Zákopčan |
| Calculus 1 | (1st sem. 4-2 h) | M. Zajac/ B. Rudolf E.Pastuchová/T. Žilka M. Kečkemetyová/V. |
| Rozborová Calculus 2 | (2nd sem. 4-2 h) | L. Satko/K. Čipková I. Brilla/V. Čerňanová/B. Rudolf |
| Calculus 3 | (3rd sem. 3-2 h) | Ľ. Marko/P. Volauf |
| Calculus 4 | (4th sem. 3-2 h) | V. Olejček/D. Pancza |
| Classical Ciphers | (4th sem. 2-2 h) | O. Grošek |

| | | |
|------------------------------------|----------------------|---|
| Communication Network 1 | (4th sem. 3-1 h) | M.Oravec |
| Communication Network 2 | (6th sem. 4-1 h) | A.Hambalík |
| Computer Crimes | (6th sem. 2-2 h) | E. Kostrecová |
| Cryptography | (5th sem. 2-2 h) | O. Grošek |
| Database Systems | (3rd sem. 3-2 h) | M.Vojvoda |
| Design of Database Systems | (4th sem. 3-1 h) | I.Kossaczký |
| Fast Algorithms | (6th sem. 2-2 h) | K. Nemoga |
| Information Security | (3rd sem. 2-2 h) | E. Kostrecová |
| Introduction to Computer Science | (4th sem. 3-2 h) | O. Grošek |
| Management of IT projects | (5th sem. 2-2 h) | F. Lehocki |
| Mathematical Analysis1 | (1st sem. 4-2 h) | Ľ. Marko/ M. Zákopčan |
| Linear Algebra | (1st sem. 2-2 h) | M. Zajac |
| Logic Systems | (1st sem. 4-1 h) | V. Olejček/D. Pancza/ M.Polakovič/V. Čerňanová |
| Object Oriented Programming | (3rd sem. 3-2 h) | V. Novák |
| Operating Systems | (3rd sem. 3-2 h) | M. Jókay |
| Partial Differential Equations | (4th sem. 2-2 h) | I. Bock |
| Probability and Statistics | (6th sem. 2-2 h) | P. Volauf |
| Programming Techniques | (2nd sem. 3-2 h) | M. Sýs |
| Seminar Calculus 1 | (1st sem. 0-2 h) | L. Satko/B. Rudolf M. Kečkemétyová |
| Seminar Calculus 2 | (2nd sem. 0-2 h) | L. Satko/I. Brilla/B. Rudolf |
| Software Application Development | (3rd+5th sem. 2-2 h) | M. Šrámka |
| Software Architecture | (6th sem. 2-2 h) | I. Kossaczký |
| Statistical Methods in Informatics | (4th sem. 3-2 h) | E. Pastuchová/I. Marinová |
| Workflow Management Systems | (6th sem. 2-2 h) | F. Lehocki |

III.2 Graduate Study (Ing.)

| | | |
|---|----------------------|---------------------------|
| Analysis and Synthesis of Event Systems | (2nd sem. 3-2 h) | G. Juhás |
| Basics of Macroeconomic Theory | (1st sem. 3-2 h) | M. Zákopčan |
| Biometrics | (3rd sem. 3-2 h) | M.Oravec |
| Ciphers in Communication Networks | (1st sem. 3-2 h) | K. Nemoga |
| Coding | (1st sem. 3-1 h) | K. Čipková |
| Coding Theory | (1st sem. 3-1 h) | K. Čipková |
| Computer Graphics | (1st sem. 3-2 h) | M. Sýs |
| Cryptanalysis | (3rd sem. 3-2 h) | M.Vojvoda/ P.Zajac/ M.Sýs |
| Design of Ciphers | (2nd sem. 3-2 h) | P. Zajac |
| Formal Methods | (3rd sem. 3-2 h) | J. Fogel |
| Functional Analysis II | (4th sem. 2-2 h) | M. Zajac |
| Fuzzy Systems | (1st sem. 3-2 h) | P. Volauf |
| Machine Learning and Neural Networks | (1st+3rd sem. 3-2 h) | M. Oravec |
| Mathematics | (1st sem. 3-2 h) | I. Bock |
| Modelling and Simulations of Event Systems | (1st sem. 3-2 h) | G. Juhás |
| Partial Differential Equations – -Numerical Method of Solution | (1st sem. 2-2 h) | I. Bock |

| | | |
|---|------------------|-----------|
| Partial Differential Equations | (1st sem. 3-2 h) | I. Bock |
| Practice of Security of Information Systems | (2nd sem. 3-2 h) | M. Šramka |
| System Programming | (1st sem. 3-2 h) | J. Fogel |
| Theory of Fuzzy Systems | (1st sem. 3-2 h) | P. Volauf |

III.3 Undergraduate and Graduate Study for Foreign Students (in English Language)

| | | |
|---|--|--------------|
| Basics of Finance | | M. Zákopčan |
| Calculus 1 | | M. Zákopčan |
| Calculus 2 | | I. Brilla |
| Communication Network | | Š. Balogh |
| Computer Architecture | | M. Jókay |
| Databases Systems | | I. Kossaczky |
| Design of Database Systems | | I. Kossaczky |
| Discrete Mathematics | | I. Marinová |
| Information Security | | M. Jókay |
| Linear Algebra | | M. Zajac |
| Logic Systems | | M. Polakovič |
| Object Oriented Programming | | V. Novák |
| Operating Systems | | M. Jókay |
| Programming Techniques | | V. Hromada |
| Statistical Methods in Informatics | | O. Grošek |
| Software Application Development | | M. Šrámka |
| Introduction into Engineering and Technical Documents | | Z. Ševčíková |

III.4 Distance Study

| | | |
|----------------------------|-------------------------|-------------|
| Algorithms and Programming | (1st sem. 6x2h konzul.) | A. Hambalík |
| Calculus | (1st sem. 6x2h konzul.) | I. Bock |
| Calculus 1 | (1st sem. 6x2h konzul.) | I. Brilla |
| Calculus 2 | (2nd sem. 6x2h konzul.) | I. Brilla |
| Calculus 3 | (3rd sem. 6x2h konzul.) | Ľ. Marko |
| Calculus 3 | (3rd sem. 6x2h konzul.) | P. Volauf |
| Calculus 4 | (4th sem. 6x2h konzul.) | V. Olejček |
| Logic Systems | (1st sem. 6x2h konzul.) | D. Pancza |

III.5 Postgraduate Study

| | | |
|---|--|--------------|
| Applications and extensions of Petri Nets | | G. Juhás |
| Cryptanalysis | | P. Zajac |
| Cryptography in computer networks | | K. Nemoga |
| Digital Image Processing - Theory and Methodology of Applications in Informatics | | M. Oravec |
| Discrete Mathematics | | I. Marinová |
| Finite fields | | O. Grošek |
| Elements of Functional Analysis | | Z. Riečanová |

| | |
|--|--------------|
| Mathematics for PhD Students | I. Bock |
| Quantum Structures | Z. Riečanová |
| Random number generators | O. Grošek |
| Statistical Methods of Data Analysis | P. Volauf |
| Statistics | V. Olejček |
| Stochastic processes and methods | V. Olejček |
| Theory and Applications of Neural Networks | M. Oravec |
| Topological Methods in Quantum Structures | Z. Riečanová |

IV. RESEARCH PROJECTS

IV.1 National Scientific Projects

- Modernization of Education Process in Basic and Grammar Schools., ITMS: 26110130083, 26140130013 and ITMS: 26110130084, 26140130084, certified lector in the project, Duration: 2008 – 2013 (A. Hambalík)
- Centre of Excellence of SMART Technologies, Systems and Services II, ITMS: 26240120029, Duration: 01.01.2010 – 31.12.2013 (G. Juhás)
- Measuring, communication and information systems for monitoring of cardiovascular risk in hypertension patients, APVV 0513-10 Duration: 1.05.2011-30.06.2014 (F. Lehocki)
- Modelling uncertainty quantum structures, states, fuzzy relations and evaluators with application in the Probability Theory. VEGA 1/0297/11. Duration: 01.01.2011 – 31.12.2014 (Z. Riečanová)
- Dynamic Contact Task, VEGA 1/0426/12 Duration: 01.2012-21.12.2015 (I. Bock)
- Uncertainty from the point of view of probability theory, algebra, self-adjoint operators and quantum structures, APVV-0178-11, Duration: 01.07.2012 – 31.12. 2015 (Z. Riečanová)
- Digital Signatures Power Analysis Attack and Countermeasures, APVV-0586-11 Duration: 01.08.2012 - 31.07.2015 (O. Grošek)
- Knowledge discovery - large data structuring with support decision, OPVaV - ITMS : 262402 20063, Duration: 2011-2013 (G. Juhás)
- Competence centre of intelligent technologies, OPVaV - ITMS : 262402 20072 Duration: 09/2011-12/2014 (G. Juhás)
- Proposal of Advanced Methods of Biometric Recognition Based on Face and Iris Images- VEGA 1/0529/13-Duration: 2013-2016 (M. Oravec)
- Privacy on mobile devices- VEGA 1/0173/13- Duration: 2013-2015 (P. Zajac)

IV.2 International Scientific Projects

- Secure Implementation of Post-Quantum Cryptography, NATO– NPD: SfP 984520 Duration: 2013-2015 (O. Grošek)
- HBB-NEXT Next-Generation Hybrid Broadcast Broadband, FP7-ICT-2011-7-287848 Duration: 2011–2013 (M. Oravec)
- ERASMUS Educational Project – Bilateral Agreement for the academic year 2012/14 SOCRATES programme - HIGHER EDUCATION

V. COOPERATION

V.1 Cooperation in Slovakia

- National Security Authority, Bratislava
- Faculty of Mathematics, Physics and Informatics, Comenius University, Bratislava
- Association of the Infovek Project, Ministry of Education of the Slovak Republic – Project of Informatization of Regional School – PIRŠ
- Slovak Research and Development Agency, Bratislava
- Faculty of Chemical and Food Technology, STU, Bratislava
- Technical University, Zvolen
- J. Selye University, Komárno
- Bratislava Metodical and Pedagogical Centre
- Trenčín Metodical and Pedagogical Centre
- Virtual Academy of Bratislava Self-Governing Region
- University of Constantin the Philosopher, Nitra
- Department of Engineering Pedagogy and Psychology, MtF STU Bratislava
- Ministry of Finance of the SR
- Institute of Measurement, Slovak Academy of Sciences, Bratislava
- Slovak Standards Institute
- Ministry of Health of the SR, Strategic Targets of Health
- Security Authority of the Ministry of Defence of the SR
- Institute of Forensic Science of Police Corps, Bratislava
- ÚIPŠ Bratislava
- Elfa, Ltd. Košice
- Datalan, Ltd. Bratislava
- Centre of Distance Education (SDV ICV CUP REK), Bratislava
- Centire, Ltd. Bratislava
- Mathematical Institute, Slovak Academy of Sciences, Bratislava
- Faculty of Management, Comenius University, Bratislava
- Department of Mathematics and Descriptive Geometry, Faculty of Civil Engineering, STU, Bratislava
- Department of Structural Mechanics, Faculty of Civil Engineering, STU, Bratislava
- Department of Mathematical Analysis, FMPI, Comenius University, Bratislava
- Department of Mathematics, Armed Forces Academy, Liptovský Mikuláš
- Department of Mathematics, Faculty of Mechanical Engineering, STU, Bratislava
- Institute of Information Engineering, Automation and Mathematics, Faculty of Chemical and Food Technology, STU, Bratislava

V.2 International Cooperation

- Institute of Informatics, Academy of Sciences of the Czech Republic, Prague, CzR
- University of LA LAGUNA, Department of Statistics, Operations Research and Computing, Tenerife, Spain
- Department of Information Systems Security, Concordia University College of Alberta, Canada
- Faculty of Informatics MU Brno, CzR
- Department of Mathematics, Faculty of Electrical Engineering, ČVUT Prague, CzR
- Lehrstuhl fuer Angewandte Informatik, Katholische Universitaet Eichstaett-Ingolstadt, Germany
- Fachgruppe Simulation und Modellierung, Institut fuer Systems Engineering, Universitaett Hannover, Germany
- Florida Atlantic University, Boca Raton, Florida, USA
- Department of Mathematics, University of Washington, Tacoma, Washington, USA
- Institute for Experimental Mathematics, University of Essen, Germany
- Department of Mathematics and Science, Indiana State University, USA
- Eszterházy Károly College, Eger, Hungary

- AINTEK A.E, Greece
- Virginia Tech, Blacksburg, Virginia, USA
- McMaster University, Hamilton, Canada
- University of Waterloo, Canada
- University of Toronto, Canada
- Universität Augsburg, Germany
- Institut for Informatikk, Universitetet i Bergen, Norway
- Laboratoire Hubert Curien, Université Jean Monnet, Saint –Etienne, France
- Ecole Nationale de Police, Montbéliard, France
- Technische Universiteit Eindhoven, Eindhoven, The Netherlands
- University of Southampton, UK
- MINT, Emmy Noether Verein, Ulm, Germany
- Institut für Algebra und Computermathematik TU Vienna, Austria
- Department of Mathematics, FEE CTU, Prague, CzR
- Academy of Sciences of the Czech Republic, Prague, CzR
- Department of Mathematics, Faculty of Natural Sciences of MU, Brno, CzR
- Institut de Mathématique, Université Louis Pasteur, Strasbourg, France
- Math. Institute, Polish Academy of Sciences, Warsaw, Poland
- University of Ljubljana, Slovenia
- Institute of Nuclear Physics, Academy of Sciences of the Czech Republic , Rez near Prague, CzR
- Department of Mathematics, Zhejiang University Hangzhou, China

VI. THESES

VI.1 Masters Theses

Masters theses supervised at the Institute of Computer Science and Mathematics. The names of supervisors are in brackets.

- [1]Arbet P.: eHealth applications for monitoring diabetic patients (F. Lehocki)
- [2]Bachňák Z.: Implementation of selected integration methods for the application needs to monitor corporate client portfolio in the bank (F. Lehocki)
- [3]Baranec F.: Smartphone security (E. Antal)
- [4]Bednárík S.: Modular Environment for the Efficient Management of LAN Servers with Optional Parameters (A. Hambalík)
- [5]Belák M.: Integration of business rules on IBM Operation Decision Manager platform to application for monitoring corporate client portfolio in bank (Š. Balogh)
- [6]Belko R.: Usage of genetic algorithms in steganography and steganalysis (M. Vojvoda)
- [7]Bezák F.: Solving of mechanical construction tasks using evolutionary algorithms (I. Sekaj)
- [8]Boďa M.: Use of WebGL for online laboratories (K. Žáková)
- [9]Brodeková J.: Feature selection for application recognition of machine learning methods (M. Zelina)
- [10]Čavoj M.: Steganographic system for mobile devices (M. Jókay)
- [11]Ďorda M.: Development and implementation of application allowing telepresence in commission's closed session (O. Grošek)
- [12]Fecko M.: Solution to the integration of business services for monitoring the portfolio of bank corporate clients (F. Lehocki)
- [13]Ferenc J.: Parallel execution of statistical tests (M. Jókay)

- [14]Ferianc M.: Transformation medical data into knowledge structures (Z. Ševčíková)
- [15]Firáč J.: Selecting interval sizes of PDU for network traffic classification (M. Zelina)
- [16]Fischer M.: Security Information and Event Management (E. Kostrecová)
- [17]Furek M.: Characteristic properties of fingerprints and palm prints and automatic print recognition (A. Hambalík)
- [18]Gazdík M.: Security of mobile platforms (J. Varga)
- [19]Grgáč M.: Analysis of Petri nets transitions (Z. Ševčíková)
- [20]Groško O.: Implementation of application for monitoring of corporate client portfolio in the bank based on IBM Business Process Manager platform (Š. Balogh)
- [21]Hámorník L.: Generating new patterns for biometric facial image recognition (M. Oravec)
- [22]Haspra T.: Integration of application for decision making and monitoring of corporate portfolio of bank clients on IBM Operational Decision Manager platform (Š. Balogh)
- [23]Holubiczky V.: Secure communication with microprocessor (P. Zajac)
- [24]Horváthová M.: Methods of detection of error rate of the measured values (I. Kazlov)
- [25]Huray V.: High availability databases (I. Kossaczky)
- [26]Ivaniš D.: Kernel Integrity Monitor (Š. Balogh)
- [27]Janošková M.: Algorithms for „hard knapsack" problem (M. Vojvoda)
- [28]Karácsony M.: Automated fingerprint characteristics processing (A. Hambalík)
- [29]Kašša V.: Modular environment for efficient management of Unix-Linux server with optional parameters (A. Hambalík)
- [30]Kordík M.: MDA in making of health information systems (I. Kossaczky)
- [31]Košdy M.: Steganographic file system based on JPEG files (M. Jókay)
- [32]Kučera E.: Application of Petri nets for modelling and control of storage systems (L. Mrafko)
- [33]Lajtman M.: Data sorting in databases using Kohonen networks (S. Kajan)
- [34]Liner L.: Using GPS in smartphone (Z. Ševčíková)
- [35]Lucza V.: Real-time iris recognition using vector extensions of processors and graphics cards (L. Omelina)
- [36]Matiašovský A.: Module of the pedagogical process of faculty (V. Jančarík)
- [37]Matkovski P.: Analysis of offline attacks an hashed passwords (Š. Balogh)
- [38]Matula M.: Using Petri's network in the business environment (Z. Ševčíková)
- [39]Martiš R.: Analysis of the non-sequential behaviour of Petri nets (V. Jančarík)
- [40]Masliš M.: Knowledge representation and mapping from ontology using data mining techniques (Š. Balogh)
- [41]Meluš P.: Cross-platform development environment for C++ with a simple refactoring (V. Novák)
- [42]Mikušová A.: Transformation of VHDL into signal transition graph (O. Gallo)
- [43]Minaříková P.: Interface for cascading classifier (S. Marček)
- [44]Miňo I.: Process Synthesis Using Genetic Programming (I. Kazlov)
- [45]Nasr-Alldeen N. A. I.: McEliece Cryptosystem (K. Nemoga)
- [46]Nedeliak Ľ.: Integration of bank services using process and service automization (F. Lehocki)
- [47]Németh T.: Editor-visualizer of communication protocols (A. Hambalík)
- [48]Ondroš M.: ARX ciphers (P. Zajac)
- [49]Panek P.: Knowledge Discovery in medical data (Z. Ševčíková)
- [50]Pap K.: Utilizing ICT in the rehabilitation process (F. Lehocki)
- [51]Paľo D.: Mobile application to control devices connected to the ARDUINO platform (O. Gallo)
- [52]Pavlíček T.: Visual environment of parallel programming in C# (I. Kazlov)
- [53]Pittner V.: E-learning system for teaching C language (S. Marček)

- [54]Račko T.: Modular Scheduling Allocation System Based on a Database System and an Application Running on Application Server with Sophisticated GUI (M. Rástocký)
- [55]Rásó E.: Automated system for recognition of originality of images (A. Hambalík)
- [56]Sebestyén K.: Visual parallel programming environment in the Java language (I. Kazlov)
- [57]Sedláček M.: Application 4D alarm for mobile platform WP8 (R. Vargic)
- [58]Skyčák M.: Divide and conquer of stream cipher A5/1(M. Vojvoda)
- [59]Škríp P.: Synthesis of asynchronous circuits from Petri nets (O. Gallo)
- [60]Šoltis L.: Program analysis focusing on malware detection (Š. Balogh)
- [61]Šrank R.: Creation of parallel application for simulation of crystalline and amorphous structures (P. Ballo)
- [62]Švarc J.: Mobile Application Development (E. Antal)
- [63]Tekel' A.: Potential ways of using Location based services in mobile devices (B. Mišota)
- [64]Tomčík O.: Interactivity in virtual reality (Z. Ševčíková)
- [65]Vašíček I.: Possibilities of using localization services in mobile devices (B. Mišota)
- [66]Valuš M.: Development and implementation of application supporting e-voting in a private session of a committee (O. Grošek)
- [67]Világi P.: Development of new framework for PHP (O. Gallo)
- [68]Vizár D.: Construction of Latin Squares (M. Sýs)
- [69]Zajac M.: Face image recognition application on a mobile device (M. Oravec)

VI.2 PhD. Theses

- [1] Michal Mikuš: Homomorphic Cryptosystems (O. Grošek)

VI.3 Habilitation Theses

- [1] Milan Vojvoda: A contribution to cryptanalysis

VI.4 Inauguration Talk

- [1] Miloš Oravec: Machine Learning Methods for Feature Extraction a Clasification

VII. OTHER ACTIVITIES

- Seminar: Crypto (O. Grošek)
- Seminar: Machine Learning (M. Oravec)
- Seminar: Quantum structures (Z. Riečanová)
- Seminar: Variational inequalities and optimal control on mechanics (I. Bock)
- Seminar: Ordinary differential equations (B. Rudolf)
- Seminar: Mathematics Applications (O. Nánásiová)
- Reviewer of ZentralblattMath (K. Nemoga, O. Grošek)

VIII. MEMBERSHIP IN INSTITUTIONS/COMMITTEES

VIII.1 Membership in National Institution/Committees

- Member of – SSKI – Slovak Society for Cybernetics and Informatics (J.Fogel)
- Member of – SBIMI - Society of Biomedical Engineering and Medical Informatics (F.Lehocki)
- Member of – TC 37 of SÚTN (Slovak Standards Institute) (F.Lehocki)

- Member of – JSMF- Union of Slovak Mathematicians and Physicists (I. Bock, M. Kečkemétyová, I. Marinová, V. Olejček, P.Volauf, E. Pastuchová, B. Rudolf, M.Polakovič, Z. Riečanová, M. Zajac, J.Fogel, O. Grošek, K. Nemoga)
- Member of – Slovak Society for mechanics (I. Bock, I. Brilla, Ľ. Marko)
- Member of – Slovak Statistical and Demographic Society (E. Pastuchová)
- Member of- Mathematica Slovaca, Springer (editors: I.Bock, M. Zajac)

VIII.2 Membership in International Institution/Committees

- Member of AMS – American Mathematical Society (O. Grošek, I. Bock, V. Olejček, Z. Riečanová)
- Member of SIAM – Society for Industrial and Applied Mathematics (O. Grošek, V. Olejček, Ľ. Marko, K. Nemoga)
- Member of IACR- International Association for Cryptologic Research (K. Nemoga)
- Member of - IEEE (Institute of Electrical and Electronics Engineers) Institution of Engineering and Technology (M. Oravec)
- Member of - The European Association for the Transfer of Technologies, Innovation and Industrial Information (F. Lehocki)
- Member of IEEE (Institute of Electrical and Electronics Engineers) Engineering in Medicine and Biology Society (F. Lehocki)
- Member of ISIMM - International Society for the Interaction of Mechanics and Mathematics (I. Brilla)
- Member of IQSA - International Quantum Structures Association (Z. Riečanová, V. Olejček)
- Member of Bernoulli's Society (Z. Riečanová, V. Olejček)
- Member of IACM - International Association for Computational Mechanics (I. Brilla, Ľ. Marko)
- Member of - Emmy Noether Society (Z. Riečanová, I. Marinová, E. Pastuchová)
- Member of - GAMM - Gesellschaft für Angewandte Mathematik und Mechanik (I. Bock)
- Member of - ISSMO - Society for Structural and Multidisciplinary Optimization (I. Bock)

Membership in Editorial Boards of International Journals

- Member of - Tatra Mountains Mathematical Publications, publisher: Mathematical Institut of SAS, (O. Grošek, K. Nemoga – managing editor)
- Member of - Zentralblath Math, publisher: De Gruyter, (K. Nemoga - managing editor of the Slovak Unit)
- Member of - Journal of Mathematical Cryptology, (O. Grošek)
- Member of - Central European Journal of Computer Science (CEJCS), publisher: Versita, co-published with (Springer Verlag, (M. Oravec – editor)
- Member of - Transactions on Petri Nets and Other Models of Concurrency (Publisher : Springer Verlag), (G. Juhás)
- Member of -Tatra Mountains Mathematical Publications, SAS (editor: Z.Riečanová)

IX. PUBLICATIONS

IX.1 Journals

- [1] ANTAL, E. - ZAJAC, P.: Analysis of Rabenhaupt's encrypted letter. In: Crypto-World. - ISSN 1801-2140. - Vol. 15, No. 11-12 (2013), p. 9-17. (in Slovak)
- [2] BOCK, I. - JARUŠEK, J.: Dynamic Contact Problem for a von Kármán-Donnell Shell. In: ZAMM - Zeitschrift für Angewandte Mathematik und Mechanik. - ISSN 0044-2267. - Vol. 93, No. 10-11 (2013), p. 733-744. (in English)
- [3] BRAČIČ, J. - ROZBOROVÁ, V. - ZAJAC, M.: Hyperreflexivity Constants of Some Spaces of Matrices. In: Linear

- Algebra and Its Applications. - ISSN 0024-3795. - Vol. 439, Iss. 5 (2013), p. 1340-1349. (in English)
- [4] GROŠEK, O. - PORUBSKÝ, Š.: Coprime Solutions to $ax=b \pmod{n}$. In: Journal of Mathematical Cryptology. - ISSN 1862-2976. - Vol. 7, No. 3 (2013), p. 217-224. (in English)
- [5] HANÚSKOVÁ, V. - PAVLOVIČOVÁ, J. - ORAVEC, M. - BLAŠKO, R.: Diabetic Rethinopathy Screening by Bright Lesions Extraction from Fundus Images. In: Journal of Electrical Engineering. - ISSN 1335-3632. - Vol. 64, No. 5 (2013), p. 311-316. (in English)
- [6] JANDA, J. - RIEČANOVÁ, Z.: Extensions of Ordering Sets of States from Effect Algebras onto Their MacNeille Completions. In: International Journal of Theoretical Physics. - ISSN 0020-7748. - Vol. 52 (2013), p. 2171-2180. (in English)
- [7] KOSTRECOVÁ, E.: French Strategy for the Protection and Security of Information Systems. In: Doktríny. - ISSN 1803-036X. - No. 1 (2013), online, [13] p. (in Slovak)
- [8] KOSTRECOVÁ, E. - JÓKAY, M.: Introduction to Steganography in Telecommunication Area. In: Sdělovací technika. - ISSN 0036-9942. - Vol. 61, No. 12 (2013), p. 54-55. (in English)
- [9] KOSTRECOVÁ, E.: Teleworking. In: Sdělovací technika. - ISSN 0036-9942. - Vol. 61, No. 2 (2013), p. 54-55. (in English)
- [10] LORENZ, R.D. - DESEL, J. - JUHÁS, G.: Models from Scenarios. In: Lecture Notes in Computer Science. - ISSN 0302-9743. - Vol. 7480 Transactions on Petri Nets and Other Models of Concurrency VII (2013), p. 314-371. (in English)
- [11] OMELINA, L. - JANSEN, B. - ORAVEC, M. - CORNELIS, J.: Feature Extraction for Iris Recognition Based on Optimized Convolution Kernels. In: Lecture Notes in Computer Science. - ISSN 0302-9743. - Vol. 8157 : Image Analysis and Processibg - ICIAP 2013. - 2013, Part 2, p.141-150. (in English)
- [12] PASEKA, J. - PULMANNOVÁ, S. - RIEČANOVÁ, Z.: Properties of Quasi-Hermitian Operators Inherited from Self-Adjoint Operators. In: International Journal of Theoretical Physics. - ISSN 0020-7748. - Vol. 52 (2013), p. 1994-2000. (in English)
- [13] PASEKA, J. - RIEČANOVÁ, Z.: Inherited Properties of Effect Algebras Preserved by Isomorphisms. In: Acta Polytechnica. - ISSN 1210-2709. - Vol. 53, No. 3 (2013), p. 308-313. (in English)
- [14] PASTUCHOVÁ, E. - VÁCLAVÍKOVÁ, Š.: Cluster Analysis - Data Mining Technique for Discovering Natural Groupings in the Data. In: Journal of Electrical Engineering. - ISSN 1335-3632. - Vol. 64, No. 2 (2013), p. 128-131. (in English)
- [15] RIEČANOVÁ, Z. - ZAJAC, M.: Intervals in Generalized Effect Algebras and their Sub-Generalized Effect Algebras. In: Acta Polytechnica. - ISSN 1210-2709. - Vol. 53, No. 3 (2013), p. 314-316. (in English)
- [16] RIEČANOVÁ, Z. - JANDA, J.: Maximal Subsets of Pairwise Summable Elements in Generalized Effect Algebras. In: Acta Polytechnica. - ISSN 1210-2709. - Vol. 53, No. 5 (2013), p. 457-461. (in English)
- [17] RUDOLF, B.: The Existence of Multiple Solutions for Boundary Value Problem with One Dimensional P-Laplacian. In: Tatra Mountains Mathematical Publications. - ISSN 1210-3195. - Vol. 54 (2013), p. 153-163. (in English)
- [18] VARGA, J. - KOSTRECOVÁ, E.: Android - Mobile Telecommunication Platform. In: Sdělovací technika. - ISSN 0036-9942. - Vol. 61, No. 7 (2013), p. 46-47. (in English)
- [19] VARGA, J. - KOSTRECOVÁ, E.: Android Applications - Design and Security. In: Sdělovací technika. - ISSN 0036-9942. - Vol. 61, No. 9 (2013), p. 54-55. (in English)
- [20] VARGA, J. - KOSTRECOVÁ, E.: Google Play another Way of Securing OS Android. In: Sdělovací technika. - ISSN 0036-9942. - Vol. 61, No. 11 (2013), p. 50-51. (in English)
- [21] VARGA, J. - KOSTRECOVÁ, E.: OS Android - Architecture and Security. In: Sdělovací technika. - ISSN 0036-9942. - Vol. 61, No. 10 (2013), p. 54-55. (in English)
- [22] ZAJAC, P.: A New Method to Solve MRHS Equation Systems and its Connection to Group Factorization. In: Journal of Mathematical Cryptology. - ISSN 1862-2976. - Vol. 7, No. 4 (2013), p. 367-381. (in English)

IX.2 Conference proceedings

- [1] ANTAL, E.: Lightweight Cipher Based on FIALKA M-125 Design. In: Central European Conference on Cryptology 2013 : Telč, Czech Republic, June 26-28, 2013. - Brno : Masaryk University, 2013. - p. 1. (in English)
- [2] ANTAL, E. - SÝS, M.: Solving Homophonic Cipher Using Heuristic Methods. In: ISCAMI 2013 : Malenovice, Czech Republic, May 2-5, 2013. - Ostrava : University of Ostrava, 2013. - p. 9. (in English)
- [3] ANTAL, E. - BARANEC, F.: Techniques for Obtaining Sensitive Data from Apple iOS Devices. In: 43. konference EurOpen.CZ : Vranov, Czech Republik; 29. 9.-2.10.2013. - Pilsen : EurOpen.CZ, 2013. - ISBN 978-80-86583-26-6. - p. 21-32. (in Slovak)
- [4] BALOGH, Š. - LEHOCKI, F. - IVANIŠ, D. - KUČERA, E. - LAJTMAN, M. - MIŇO, I.: Data Processing from mHealth Patient Data Acquisition Related to Extracting Structured Data from EH Records. In: Wireless Mobile Communication and Healthcare : 3rd International Conference MobiHealth 2012. Paris, France, November 21-23. 2012. - Berlin Heidelberg : Springer, 2013. - ISBN 978-3-642-37892-8. - p. 255-262. (in English)
- [5] BALOGH, Š. - MYDLO, M.: New Possibilities for Memory Acquisition by Enabling DMA Using Network Card. In: IDAACS 2013 : 7th IEEE International Conference on Intelligent Data Acquisition and Advanced Computing Systems. Berlin, Germany, September 12-14, 2013. - Piscataway : IEEE, 2013. - ISBN 978-1-4799-1426-5. - Vol. 2, p. 635-639. (in English)
- [6] BALOGH, Š.: Using Memory Analysis for Malware Detection. In: ELITECH'13 : 15th Conference of Doctoral Students; Bratislava, Slovakia, 5 June 2013. - Bratislava : STU, 2013. - ISBN 978-80-227-3947-4. - CD-ROM, [6] p. (in English)
- [7] BAN, J. - FÉDER, M. - OMELINA, L. - ORAVEC, M. - PAVLOVIČOVÁ, J.: Face Recognition under Partial Occlusion and Noise. In: EUROCON 2013 : IEEE Conference. Zagreb, Croatia, 1-4 July 2013. - Piscataway : IEEE, 2013. - ISBN 978-1-4673-2231-7. - p. 2072-2079. (in English)
- [8] BAN, J. - FÉDER, M. - JIRKA, V. - LODERER, M. - OMELINA, L. - ORAVEC, M. - PAVLOVIČOVÁ, J.: An Automatic Training Process Using Clustering Algorithms for Face Recognition System. In: Proceedings ELMAR-2013 : 55th International Symposium. Zadar, Croatia, 25-27 september 2013. - Zadar : Croatian Society Electronics in Marine, 2013. - ISBN 978-953-7044-14-5. - p. 15-18. (in English)
- [9] BARANEC, F. - ANTAL, E.: Forensic analysis of iOS. In: ŠVOČ 2013 : Students Conference. Bratislava, Slovak Republic, 23 April 2013. - Bratislava : FEI STU, 2013. - ISBN 978-80-227-3909-2. - p. 19-21. (in Slovak)
- [10] BOCK, I. - JARUŠEK, J.: Dynamic Contact Problem for Viscoelastic von Kármán-Donnell Shells. In: System Modeling and Optimization : 25th IFIP TC7 Conference. Merlin, Germany, September 12--16, 2011. - Heidelberg : Springer, 2013. - ISBN 978-3-642-36061-9. - p. 70-75. (in English)
- [11] BOCK, I. - JARUŠEK, J.: Existence of Solutions of Dynamic Contact Problems for Elastic von Kármán-Donnell Shells. In: Shell Structures: Theory and Applications : 10th SSTA Conference. Gdańsk, Poland, 16-18 October 2013, Volume 3. - London : Taylor & Francis Group, 2013. - ISBN 978-1-138-00082-7. - p. 65-68. (in English)
- [12] BOCK, I. - JARUŠEK, J.: On a Dynamic Contact Problem for a Thermoelastic Plate. In: 9th Workshop on Functional Analysis and its Applications in Mathematical Physics and Optimal Control : Nemecká, Slovak Republic, September 9-14, 2013. - Bratislava : STU, 2013. - ISBN 978-80-227-4030-2. - p. 7-12. (in English)
- [13] BRILLA, I.: Numerical Determination of Voltage Potential Inside Nonhomogeneous Media. In: Electric Power Engineering 2013 : 14th International Scientific Conference. Kouty nad Desnou, Czech Republic, May 28-30, 2013. - Ostrava : VŠB - Technical University of Ostrava, 2013. - ISBN 978-80-248-2988-3. - [6] p. (in English)
- [14] BRILLA, I. - JANÍČEK, F.: Numerical Solution of Boundary Inverse Problems of Electrical Conductivity for Plane Orthotropic Media. In: CAIP 2013 : 11 Congreso Internationale de Computación Aplicada a la Industria de Procesos. Lima, 21 al 24 de Octubre del 2013. - Lima : Pontifica Universidad Católica del Perú, 2013. - CD-ROM, [10] p. (in English)
- [15] ČERŇANOVÁ, V.: On an Explicit Solution of a Finite Network Problem. In: ODAM 2013 : Olomoucian Days of Applied Mathematics. Book of Abstracts. Olomouc, Czech Republic, June 12-14, 2013. - Olomouc : Palacký

- University, 2013. - ISBN 978-80-244-3513-8. - p. 13. (in English)
- [16] GALLO, O. - SAVKA, A. - JUHÁS, G.: How to Synthesize Reduced STG from LPOs. In: Application of Region Theory (ART) : 3rd Workshop Proceedings; Barcelona, Spain, 9 July 2013. - Barcelona : Universitat Politècnica de Catalunya, 2013. - S. 55-61. (in English)
- [17] GALLO, O. - ZAJAC, P.: Simple Power Analysis Demonstration on Arduino Platform. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 19, Special Issue : Conference ELOSYS, Trenčín, 15.-18.10.2013, p. 15-19. (in English)
- [18] GAZDÍK, M. - VARGA, J.: Security of Mobile Platform Android. In: ŠVOČ 2013 : Students Conference. Bratislava, Slovak Republic, 23 April 2013. - Bratislava : FEI STU, 2013. - ISBN 978-80-227-3909-2. - p. 10-12. (in Slovak)
- [19] GRAJCIAR, P. - PAVLOVIČOVÁ, J. - ORAVEC, M.: Simulation of Routing Protocols in Ad-Hoc Wireless Networks. In: IN-TECH 2013 : International Conference on Innovative Technologies. Budapest, Hungary 10.-13.09.2013. - Rijeka : Faculty of Engineering University of Rijeka, 2013. - ISBN 978-953-6326-88-4. - p. 213-216. (in English)
- [20] HAMBALÍK, A.: Proposal of Demonstration Devices Based on Short Range Wireless Networks. In: Trends in Education : International Conference. Olomouc, Czech Republic, 19.-20.6.2013. - Olomouc : agentura Gevak s.r.o., 2013. - ISBN 978-80-86768-52-6. - CD-ROM, p. 201-204. (in Slovak)
- [21] HRBATÝ, D. - ZELINA, M.: Early Detection and Classification of Internet Applications using Neural Networks. In: Redžúr 2013 : 7th International Workshop on Multimedia and Signal Processing. Smolenice, Slovakia, May 1, 2013. - Bratislava : STU, 2013. - ISBN 978-80-227-3921-4. - p. 39-43. (in English)
- [22] HROMADA, V. - VARGA, J.: Accelerometers as Sources of Randomness in Mobile Device. In: ISCAMI 2013 : Malenovice, Czech Republic, May 2-5, 2013. - Ostrava : University of Ostrava, 2013. - p. 34. (in English)
- [23] HROMADA, V. - VOJVODA, M.: Statistical Testing of Mstg/Poly-Dragon Generator. In: ELITECH'13 : 15th Conference of Doctoral Students; Bratislava, Slovakia, 5 June 2013. - Bratislava : STU, 2013. - ISBN 978-80-227-3947-4. - CD-ROM, [6] p. (in English)
- [24] HUBA, M. - ROVANOVA, L. - MARKO, L.: From Automatic Feedback Systems to MOOCs. In: ICETA 2013 : 11th IEEE International Conference on Emerging eLearning Technologies and Applications. Starý Smokovec, Slovakia, October 24-25, 2013. - [Piscataway] : IEEE, 2013. - ISBN 978-1-4799-2161-4. - p. 151-158. (in English)
- [25] HUBINSKÝ, P. - RODINA, J. - HANZEL, J. - RUDOLF, B.: Identification of Vertical Deep-Ocean Pipe End-Point Position. In: 10th ISOPE Ocean Mining (& Gas Hydrates) Symposium : Szczecin, Poland, September 22-26, 2013. - Cupertino : ISOPE - The International Society of Offshore and Polar Engineers, 2013. - ISBN 978-1-880653-92-0. - p. 234-238. (in English)
- [26] JÓKAY, M. - KOŠDY, M. - ČAVOJ, M.: Steganographic File System Embedded in Static Images. In: Central European Conference on Cryptology 2013 : Telč, Czech Republic, June 26-28, 2013. - Brno : Masaryk University, 2013. - p. 76. (in English)
- [27] KANIČÁR, M. - ANTAL, E.: Solving Homophonic Substitution Using Genetic Algorithms. In: ŠVOČ 2013 : Students Conference. Bratislava, Slovak Republic, 23 April 2013. - Bratislava : FEI STU, 2013. - ISBN 978-80-227-3909-2. - p. 6-9. (in Slovak)
- [28] KAZLOV, I. - MIÑO, I.: Petri Nets Synthesis Using Genetic Programming. In: Application of Region Theory (ART) : 3rd Workshop Proceedings; Barcelona, Spain, 9 July 2013. - Barcelona : Universitat Politècnica de Catalunya, 2013. - S. 31-40. (in English)
- [29] KEČKEMÉTYOVÁ, M. - BOCK, I.: Regularized Optimal Control Problem for a Beam Lying on an Elastic Foundation. In: 9th Workshop on Functional Analysis and its Applications in Mathematical Physics and Optimal Control : Nemecká, Slovak Republic, September 9-14, 2013. - Bratislava : STU, 2013. - ISBN 978-80-227-4030-2. - p. 21-26. (in English)
- [30] LEHOCKI, F. - BALOGH, Š. - KOVÁČ, M. - ŽÁKOVIČOVÁ, E. - De WITTE, B.: Innovative Telemedicine Solutions for Diabetic Patients. In: 2012 IEEE-EMBS Conference on Biomedical Engineering (IECBES 2012) : Langkawi, Malaysia, 17-19th December 2012. - Piscataway : IEEE, 2013. - ISBN 978-1-4673-1666-8. - p. 203-208. (in English)

- [31] MACHOVEC, F. - VOJVODA, M.: Adaptive Steganography and the ABCDE Method. In: SantaCrypt 2013 : Prague, Czech Republic, 28.-29.11.2013. - Bílovice nad Svitavou : Trusted Network Solutions, 2013. - ISBN 978-80-904257-5-0. - p. 79-80. (in Slovak)
- [32] MARÁK, P. - HAMBALÍK, A.: An Extraction of Extended Minutiae Set from Fingerprint Ridge Patterns. In: ELITECH'13 : 15th Conference of Doctoral Students; Bratislava, Slovakia, 5 June 2013. - Bratislava : STU, 2013. - ISBN 978-80-227-3947-4. - CD-ROM, [6] p. (in English)
- [33] MARÁK, P. - HAMBALÍK, A.: Automated Extraction of Fingerprint Features for Purposes of Analysis of their Attributes. In: Recent Advances in Image, Audio and Signal Processing : 9th WSEAS International Conference on Remote Sensing; 1st WSEAS International Conference on Image Processing and Pattern Recognition; 1st WSEAS International Conference on Acoustics, Speech and Audio Processing. Budapest, Hungary, December 10-12, 2013. - ISBN 978-960-474-350-6. - p. 161-170. (in English)
- [34] MIKUŠ, M. - SÝS, M.: Ciphertext-only Attack on Gentry-Halevi Implementation of Somewhat Homomorphic Scheme. In: Lecture Notes in Computer Science. - ISSN 0302-9743. - Vol. 7721 Programming and Software Engineering : 8th International Doctoral Workshop, MEMICS 2012, Znojmo, Czech Republic, 25.-28. 10. 2012. - , 2013, p. 168-179. (in English)
- [35] MOLNÁR, G. - SÝS, M.: 3D object Reconstruction. In: ŠVOČ 2013 : Students Conference. Bratislava, Slovak Republic, 23 April 2013. - Bratislava : FEI STU, 2013. - ISBN 978-80-227-3909-2. - p. 13-18. (in Slovak)
- [36] POLAKOVIČ, M.: Subset of Bounded Positive Operators May Form Generalized Effect Algebras. In: 9th Workshop on Functional Analysis and its Applications in Mathematical Physics and Optimal Control : Nemecká, Slovak Republic, September 9-14, 2013. - Bratislava : STU, 2013. - ISBN 978-80-227-4030-2. - p. 39-41. (in English)
- [37] POSOLDOVÁ, A. - ORAVEC, M. - ROZINAJ, G.: Classification and Preprocessing of Data for Television Recommendation System. In: Proceedings ELMAR-2013 : 55th International Symposium. Zadar, Croatia, 25-27 september 2013. - Zadar : Croatian Society Electronics in Marine, 2013. - ISBN 978-953-7044-14-5. - p. 215-218. (in English)
- [38] POSOLDOVÁ, A. - ORAVEC, M.: Fuzzy Logic Based Admission Control Method in Wireless Networks. In: EUROCON 2013 : IEEE Conference. Zagreb, Croatia, 1-4 July 2013. - Piscataway : IEEE, 2013. - ISBN 978-1-4673-2231-7. - p. 431-436. (in English)
- [39] POSOLDOVÁ, A. - ORAVEC, M.: Recommendation System for Next Generation of Smart TV. In: Redžúr 2013 : 7th International Workshop on Multimedia and Signal Processing. Smolenice, Slovakia, May 1, 2013. - Bratislava : STU, 2013. - ISBN 978-80-227-3921-4. - p. 35-38. (in English)
- [40] ROZBOROVÁ, V.: Hyperreflexivity Constant of Spaces of Matrices. In: ELITECH'13 : 15th Conference of Doctoral Students. Bratislava, Slovakia, 5 June 2013. - Bratislava : STU, 2013. - ISBN 978-80-227-3947-4. - CD-ROM, [3] p. (in English)
- [41] RUDOLF, B.: On a Periodic Boundary Value Problem at Resonance. In: 9th Workshop on Functional Analysis and its Applications in Mathematical Physics and Optimal Control : Nemecká, Slovak Republic, September 9-14, 2013. - Bratislava : STU, 2013. - ISBN 978-80-227-4030-2. - p. 42-43. (in English)
- [42] SIGETI, P. - ORAVEC, M. - PAVLOVIČOVÁ, J.: Some Aspects of QoS in Wireless Networks. In: Proceedings ELMAR-2013 : 55th International Symposium. Zadar, Croatia, 25-27 september 2013. - Zadar : Croatian Society Electronics in Marine, 2013. - ISBN 978-953-7044-14-5. - p. 173-176. (in English)
- [43] SÝS, M. - ŠVENDA, P.: Evolutionary Circuit with Limited Set of Functions. In: Central European Conference on Cryptology 2013 : Telč, Czech Republic, June 26-28, 2013. - Brno : Masaryk University, 2013. - p. 71-73. (in English)
- [44] VARGA, J. - GAZDÍK, M.: Exploiting Missing Permission in Android. In: 43. Conference EurOpen.CZ : Vranov, Czech Republik; 29. 9.-2.10.2013. - Pilsen : EurOpen.CZ, 2013. - ISBN 978-80-86583-26-6. - p. 9-20. (in English)
- [45] VARGA, J. - HROMADA, V.: Extracting Randomness from Mobile Devices. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 19, Special Issue : Conference ELOSYS, Trenčín, 15.-18.10.2013, p. 20-22. (in English)

- [46] VAVRICA, M. - JÓKAY, M.: Security hardening devices based on Android OS. In: ŠVOČ 2013 : Students Conference. Bratislava, Slovak Republic, 23 April 2013. - Bratislava : FEI STU, 2013. - ISBN 978-80-227-3909-2. - p. 22-27. (in Slovak)
- [47] ZAJAC, M.: Hyperreflectivity Constants - a Numerical Experiment. In: 9th Workshop on Functional Analysis and its Applications in Mathematical Physics and Optimal Control : Nemecká, Slovak Republic, September 9-14, 2013. - Bratislava : STU, 2013. - ISBN 978-80-227-4030-2. - p. 50-52. (in English)
- [48] ZAJAC, P. - ONDROŠ, M.: Rotational Cryptanalysis of the Simplified GOST with eight identical S-boxes, In: Central European Conference on Cryptology 2013 : Telč, Czech Republic, June 26-28, 2013. - Brno : Masaryk University, 2013. - p. 7-16. (in English)
- [49] ZÁKOPČAN, M.: How to Misuse l'Hôpital's Rule 2. In: Acta Mathematica 16 : 11th Mathematical Conference. Nitra, 27 June 2013. - Nitra : Univerzita Konštantína Filozofa, 2013. - ISBN 978-80-558-0365-4. - p. 244-249. (in Slovak)
- [50] ŽILKA, T.: A Viscoelastic Pseudoplate with a Dynamic Contact. In: ELITECH'13 : 15th Conference of Doctoral Students; Bratislava, Slovakia, 5 June 2013. - Bratislava : STU, 2013. - ISBN 978-80-227-3947-4. - CD-ROM, [6] p. (in English)

IX. 3 Books

- [1] KOSTRECOVÁ, E.: Information Security. - Bratislava : STU, 2013. - 85 p. - ISBN 978-80-227-3927-6. (in Slovak)

IX. 4 Textbooks

- [1] ORAVEC, M. - OMELINA, Ľ.: Biometrics-study materials. - Bratislava : RT Systems, 2013. - CD ROM. - ISBN 978-80-970519-6-9. (in Slovak)
- [2] ORAVEC, M. - FÉDER, M. - ZELINA, M.: Machine learning and neural networks-study materials. - Bratislava : RT Systems, 2013. - CD ROM. - ISBN 978-80-970519-5-2. (in Slovak)

INSTITUTE OF CONTROL AND INDUSTRIAL INFORMATICS

<http://www.urpi.fei.stuba.sk/>



Director of the Institute:

prof. Ing. Ján Murgaš, PhD.

Tel: +421-2-602 91 781

Fax: +421-2-654 29 521

e-mail: jan.murgas@stuba.sk

Vice- Director for Science and Research, Foreign Relations,

and Industry Cooperation :

prof. Ing. Štefan Kozák, PhD. (until 30 June 2013)

Vice- Director for Teaching:

doc. Ing. Eva Miklovičová, PhD.

Secretary

Mgr. Alena Foltinová

Office:

Katarína Macková

General Information

Institute of Control and Industrial Informatics (ICII) is one of the top university institutes in Slovakia in the field of automation and control, industrial informatics, cybernetics, robotics and mechatronics. ICII was established in 2006 and consists of the former Department of Automation and Control, and the Department of Automatic Control Systems.

ICII is a technical guarantor of accredited study programmes Industrial Informatics (Bc), Applied Informatics - application domain Information Technologies in Control (Bc., Ing.), Cybernetics (Ing.), Robotics (Ing.), Automation and Control (PhD.), Cybernetics (PhD.), (Applied Mechatronics (Ing.), and Applied Mechatronics (PhD.) guaranteed till 30 June 2013).

The basic research at ICII has been oriented to optimal control, decentralized, adaptive, robust and predictive control of complex systems, soft computing methods in control, and recently also to network and robust hybrid control approaches. The main application areas are drive systems, robotics, power engineering, manufacturing, and process engineering. Individual research teams prove their expertise by a rich publishing activity including international journals, monographs, and proceedings of important world-wide international conferences (IFAC, IEEE, ECC etc.)

Departments of the Institution Control and Industrial Informatics

Till 30 June 2013, the Institute had 5 departments :

Department of Systems and Signals

Head of department

Deputy-head

PhD.

doc. Ing. Danica Rosinová, PhD.

doc.. Ing. Eva Miklovičová,

Department of Automatic Control Methods

Head of department

Deputy-head

prof. Ing. Mikuláš Huba, PhD.

doc. Ing. Katarína Žáková, PhD.

Department of Information and Communication Systems

Head of department

Deputy-head

doc. Ing. Ivan Sekaj, PhD..

Ing. Ladislav Körösi, PhD.

Department of Robotics and Artificial Intelligence

Head of department

Deputy-head

PhD.

prof. Ing. Peter Hubinský, PhD

doc. Ing. František Duchoň,

Department of Applied Mechatronics

Head of department

Deputy-head

prof. Ing. Štefan Kozák, PhD.

prof. Ing. Milan Žalman, PhD.

ONE PART OF INSTITUTE WAS TRANSFORMED TO INSTITUTE OF CONTROL AND INDUSTRIAL INFORMATICS FROM THE DATE 1.7. 2013

New Institute of control and industrial informatics has 5 departments and administrative- economic body

Department of Cybernetics

Head of department

prof. Ing. Ján Murgaš, PhD.

Department of Information Technology

Head of department

prof. Ing. Milan Žalman, PhD.

Department of Control Theory

Head of department

doc. Ing. Miroslav Halás, PhD.

Department of Robotics

Head of department

prof. Ing. Peter Hubinský, PhD

Department of Artificial Intelligence

Head of department

doc. Ing. Ivan Sekaj, PhD.

I. STAFF

| | |
|-----------------------------|---|
| Professors | prof. Ing. Peter Hubinský, PhD., prof. Ing. Ladislav Jurišica, PhD., prof. Ing. Ján Murgaš, PhD., prof. Ing. Vojtech Veselý, DrSc., prof. Ing. Anton Vitko, PhD., prof. Ing. Milan Žalman, PhD. |
| Associate Professors | doc. Ing. František Duchoň, PhD., doc. Ing. Miroslav Halás, PhD., doc. Ing. Ján Kardoš, PhD., doc. Ing. Zdenka Králová, PhD., doc. Ing. Eva Miklovičová, PhD., doc. Ing. Ivan Sekaj, PhD. |
| Assistant Professors | Ing. Andrej Babinec, PhD., Ing. Richard Balogh, PhD., Ing. Michal Blaho, PhD., Ing. Jozef Dorner, Ing. Mária Dúbravská, Ing. Jozef Dúbravský, PhD., Ing. Ľuboš Chovanec, Ing. Slavomír Kajan, PhD., Ing. Ladislav Körösi, PhD., Ing. Marián Mrosko, PhD., Ing. Tatiana Mudráková, PhD., Ing. Jana Paulusová, PhD., Ing. Peter Pászto, PhD., Ing. Jozef Rodina, PhD., Ing. Michal Tölgyessy, PhD. |
| Research Workers | Ing. Martin Ernek, PhD., Ing. Ľudovít Farkas, PhD., Ing. Peter Fodrek, PhD., Ing. Jaroslav Hanzel, PhD., Ing. Juraj Hnát, Ing. Marián Kľúčik, Ing. Leo Mrafko, PhD., Ing. Danica Sovišová, Ing. Stanislav Števo, PhD., Ing. Marián Tárník, PhD., Ing. Jozef Vöröš, PhD. |
| Technical Staff | Peter Detvaj, Ing. Radoslav Dibarbora, Mgr. Alena Foltinová, Pavol Gašparovič, Beáta Hochschornerová (office), Katarína Horváthová, Katarína Macková, Jozef Turčánik |
| PhD. Students | Ing. P. Beňo, Ing. M. Dekan, Ing. D. Quang Khanh, Ing. T. Fico, Ing. M. Florek, Ing. R. Goga, Ing. J. Hnát, Ing. I. Holič, Ing. M. Hodoň, MSc. D. Hromada, Ing. I. Hujsi, Ing. A. Chovancová, Ing. Ľ. Chovanec, Ing. A. Ilka, Ing. M. Jarčuška, Ing. A. Juhássová, Ing. M. Kajan, Ing. T. Kasanický, Ing. M. Kľúčik, Ing. J. Kostroš, Ing. P. Kurčík, Ing. J. Kurilla, Ing. M. Lajtman, Ing. T. Ludwig, Ing. M. Maťuga, Ing. T. Moravčík, Ing. M. Mudrák, Ing. M. Országh, Ing. I. Ottinger, Ing. L. Palkovič, Ing. E. Putz, Ing. J. Rodina, Ing. J. Slačka, Ing. R. Spielmann, Ing. I. Škrlec, Ing. J. Šovčík, Ing. J. Štefanka, Ing. A. Tichý, Ing. M. Tölgyessy, Ing. P. Varga, Ing. I. Vargha, Ing. E. Viszus, Ing. V. Vodička, Ing. D. Vozák |

II. EQUIPMENT

II.1 Teaching and Research Laboratories

- Continuous Process Control
- Optimization and Optimal Control Laboratory
- Multivariable Systems Laboratory
- Production Systems Modeling Laboratory
- Joint Laboratory of Robotics

- Actuators Laboratory
- Electronics Laboratory
- CAD CS Laboratory
- Automation Means Laboratory
- Sensors Laboratory
- SIEMENS Automation Technology Laboratory
- Smart Servosystems Laboratory
- Servosystems Laboratory
- Industrial Automation Laboratory
- Multimedia Systems Laboratory
- Nonlinear Systems Laboratory
- Robot Control Laboratory
- Mechatronics Laboratory
- Robotics Laboratory (basement D block - Ro)
- Special Systems Laboratory
- Real-Time Programming Tools Laboratory
- CAD Systems Laboratory
- Flying Devices Laboratory
- Control System Software Laboratory
- Discrete Event Systems Laboratory
- Laboratory of Embedded Control Systems
- Laboratory of PLC
- Laboratory of Applied Mechatronics
- Laboratory of Modeling and Simulation for Mechatronic Systems
- Laboratory of Bio-informatics and Info-Medicine

II.2 Special Instruments and Computers

- Mechanical Setup Position Control Plant
- Laboratory Models: Inverted Pendulum, Crane, Helicopter Rack, Helicopter Model, Thermal Plant, Thermo-optical Model, Magnetic Levitation Syst., Two - Tank System, Three - Tank System, Two - Tank System with Two Pumps, Shell and Tube Heat Exchanger, Rotary Pendulum, Propeller Pendulum
- Digital Signal Processor Board for Real-Time Control
- Embedded MicroComputer Systems development tools for Atmel, Freescale, Intel
- CALYS 5 Digital Meas. and Calibr. Device for Process Measurement of Temperature
- Multitron PS 10 – Motion Control System
- Intelligent Mobile Robot System
- D Spice DS 1103 Developing System
- Distributed Control System Yokogawa Centum
- Programmable Controllers: Simatic S7-300, S7-200, UDC Honeywell, Modicon TSX Premium, Modicon TSX Micro, Modicon M340, TSX Quantum, Micrologix 1000,
- Allen Bradley Motor Drives, FLEX IIO Modules, Panel View 900
- Production Line Models with: Crane, Conveyors, Manipulators
- Networked Control System with CAN Bus & Ether CAT
- Transportation Model, Model for Ball Color Separation, Bouncing Ball Model, Tank Level Control Model, Magnetic Levitation Model, Helicopter Model, Railway Transfer Station Model
- Software: MATLAB, MODES, WITNESS, LABREG, PROMOTIC
- HMI Software - WinCC, WinCC Flexible, Protool, VijeoDesigner, VijeoDesigner Lite, XBTL 1000, RSView

- Supervisory Edition, RsView32
- Programming Software: Step7 Professional, PL7 Pro, Twido Soft, Twido Suite, Unity Pro
- DC Servo Drive System
- Software Wonderware InTouch
- RsLogix5000, RsLogix500, SoftLogix
- ControlNet, DeviceNet, EtherNet
- Emulate500, Emulate5000, LogixArchitect, RsLinx
- RSSQL, RSTune,
- HW: ControlLogix PLC, CompactLogix, HMI
- Sinamics S 120
- B&R APC 620 + ACOPOS 1016
- SIMOVERT
- LEGO Mindstorm NXT 2.0
- XCode Developer Tool
- Mobile robot research kit
- Indoor mobile robot
- Leica GPS1200
- Thermovision camera TIM160
- Laser scanner M2-iLAN-2-80/40
- iRobot Create robotic platforms
- Hexapod and biped walking robots
- 2 x Robotic manipulator ABB IRB 120
- Robotic manipulator ABB IRB 4600
- Force control ATI Omega 160
- Visual system PickMaster50 licenses software Robot Studio

III. TEACHING

III.1 Undergraduate Study (Bc.)

Subject, semester, hours per week for lectures and for seminars or practical exercises, name of the lecturers.

| | | |
|------------------------------------|------------------------------|------------------------------|
| Computer Architecture | (2nd sem., 3-2h) | P. Fodrek |
| Modeling and Simulation in MATLAB | (2th sem., 3-2h) | E. Miklovičová, J. Paulusová |
| Unix/Linux – Real Time Systems | (3rd sem., 2-3h) | I. Sekaj, P. Fodrek |
| Automatic Control Theory 2 | (4th sem., 2-3h) | J. Murgaš |
| Java-Graphical Interface CS | (4 th sem. 2-3h) | I. Sekaj, P. Fodrek |
| Cybernetics 2 | (4 th sem., 2-2h) | J. Murgaš, J. Paulusová |
| Actuators | (5 th sem., 2-3h) | M. Žalman, J. Dúbravský |
| Control Systems Software | (5 th sem., 3-2h) | I. Sekaj, L. Kőrösi |
| Basic of Control Systems | (5 th sem., 2-2h) | P. Hubinský |
| Automation 1 | (5 th sem., 3-2h) | J. Murgaš, M. Mrosko |
| Applied Computational Intelligence | (5 th sem., 2-2h) | I. Sekaj |
| Control Systems | (5 th sem., 2-2h) | J. Murgaš, M. Mrosko |
| Industrial Communication Systems | (6 th sem., 3-2h) | M. Žalman, I. Béla |
| Robotics | (6 th sem., 3-2h) | P. Hubinský |
| Continuous Processes | (6 th sem., 3-2h) | E. Miklovičová |
| Automation 2 | (6 th sem., 2-2h) | M. Žalman, I. Béla, J. |
| Dúbravský | | |

III.2 Graduate Study (Ing.)

| | | |
|--|------------------------------|----------------------------------|
| Network technology 1 | (1st sem., 3-2h) | J. Murgaš, M. Blaho |
| Servosystems | (1 st sem., 3-2h) | M. Žalman |
| Modeling and Simulation of Processes | (1 st sem., 3-2h) | E. Miklovičová, Z. Králová |
| Artificial Neural Nets | (1 st sem., 3-2h) | I. Sekaj, S. Kajan |
| Computational Intelligence in Control | (1 st sem., 3-2h) | I. Sekaj |
| Adaptive Control | (1st sem., 3-2h) | J. Murgaš |
| Motion Control in Robotics | (1 st sem., 3-2h) | J. Kardoš |
| Embedded Control Systems | (1 st sem., 3-2h) | P. Hubinský, J. Rodina |
| Modeling and Control of Dynamic Systems | (1 st sem., 3-2h) | A. Vitko, D.Sovišová |
| Multivariable System Control | (1 st sem., 3-2h) | V.Veselý |
| Evolutionary Computing | (2 nd sem., 3-2h) | I. Sekaj |
| Databases of Control Systems | (2 nd sem., 3-2h) | Z. Králová |
| Discrete Event Systems | (2 nd sem., 3-2h) | A. Vitko |
| Advanced Control Theory 1 | (2 nd sem., 3-2h) | V.Veselý |
| Sensor Systems in CIM | (2 nd sem., 3-2h) | J. Šturcel, R. Balogh |
| Control Methods and Algorithms | (2 nd sem., 3-2h) | J. Kardoš |
| System Identification | (2 nd sem., 3-2h) | E. Miklovičová |
| Nonlinear Systems: Algebraic Approach | (2nd sem., 3-2h) | M. Halás |
| Manufacturing systems and CIM | (2nd sem. 3-2h) | F. Duchoň |
| Intelligent System | (3rd sem., 3-2h) | I. Sekaj, S. Kajan |
| Production Systems Modeling and Management | (3 rd sem., 3-2h) | Z. Králová |
| Robots Modeling and Control | (3 rd sem., 3-2h) | A. Vitko |
| Mobile Robotic Systems | (3 rd sem., 3-2h) | F. Duchoň, P. Pászto |
| Mechatronics | (3 rd sem., 3-2h) | A. Vitko, M.Klůčík |
| Database and Visualization Systems | (3 rd sem., 3-2h) | Z.Králová, L. Kőrösi, J. Cigánek |
| VSC Theory in Robotics | (3 rd sem. 3-2h) | J. Kardoš |
| CAD of Software System | (3st sem., 3-2h) | I. Sekaj, S. Števo |
| Network Technologies 2 | (3st sem., 3-2h) | J. Murgaš, |
| Development for Office Automation | (4rd sem., 3-2h) | J. Murgaš, M. Kratmüller |
| Intelligent Servosystems | (4th sem., 3-2h) | M. Žalman |
| PLC Systems in Mechatronics | (4th sem., 2-2h) | J. Šturcel, L. Kőrösi, J.Osuský |
| Control of intelligent buildings | (4th sem., 3-2h) | I. Sekaj, S. Števo |

III.3 Undergraduate Study (Bc.) Distance Learning Method

| | | |
|-----------------------------------|------------|---------------------------|
| Computer Architecture | (2nd sem.) | P. Fodrek |
| Algorithmisation and Programming | (3rd sem.) | I. Sekaj, P. Fodrek |
| Unix/Linux - Real Time Systems | (5th sem.) | I. Sekaj, P. Fodrek |
| Automatic Control Theory 1 | (5th sem.) | M. Huba, D.Sovišová |
| Automatic Control Theory 2 | (6th sem.) | J. Murgaš, M. Dúbravská |
| Modeling and Simulation in Matlab | (6th sem.) | E. Miklovičová, M. Foltin |
| Java-Graphical Interface CS | (6th sem.) | I. Sekaj, P. Fodrek |
| Actuators | (7th sem.) | M. Žalman, J. Dúbravský |
| Control System Software | (7th sem.) | I. Sekaj, L. Kőrösi |

| | | |
|----------------------|------------|---------------------|
| Robotics | (8th sem.) | P. Hubinský |
| Continuous Processes | (8th sem.) | E. Miklovičová |
| Nonlinear Systems | (8th sem.) | M. Huba, D.Sovišová |

III.4 Graduate Study (Ing.) Distance Learning Method

| | | |
|--|------------|-------------------------|
| Motion Control in Robotics | (1st sem.) | J. Kardoš |
| Embedded Control Systems | (1st sem.) | P. Hubinský, J. Rodina |
| Modeling and Control of Dynamic Systems | (1st sem.) | A. Vitko, D. Sovišová |
| Computational Intelligence in Control | (1st sem.) | I. Sekaj |
| Network technology 1 | (1st sem.) | J. Murgaš, M. Blaho |
| Advanced Control Theory 1 | (2nd sem.) | V. Veselý |
| Event Systems | (2nd sem.) | A. Vitko |
| Sensor Systems in CIM | (2nd sem.) | J. Šturcel, R. Balogh |
| Manufacturing systems and CIM | (2nd sem.) | F. Duchoň, A. Babinec |
| Network Technologies 2 | (3rd sem.) | J. Murgaš, T. Mudráková |
| Mobile Robotic Systems | (3rd sem.) | F. Duchoň |
| Robots Modeling and Control | (3rd sem.) | A. Vitko |
| Mechatronics | (3rd sem.) | L. Jurišica, M. Klůčik |
| Adaptive Control | (3rd sem.) | J. Murgaš |
| Production Systems Modeling and Management | (3rd sem.) | Z. Králová |
| CAD of Software Systems | (3rd sem.) | I. Sekaj, S. Števo |
| Control of intelligent buildings | (3rd sem.) | I. Sekaj, S. Števo |

V. RESEARCH PROJECTS

IV.1 National Scientific Projects

- Advanced Decentralized Control Methods in Network Control Systems, APVV-0211-10. Duration: 2011-2014 (V. Veselý)
- Modern Methods for Network Control Systems, VEGA 1/2256/12. Duration 2012-2015 (J. Murgaš)
- Advanced Methods of Robust and Optimal Control. VEGA 1/1241/12 Duration 2012-2015 (V. Veselý)
- Competence Center for Intelligent Technologies for Computerizing Systems and Services, ITMS 26240220072. Duration: 2011-2014 (J. Murgaš)
- Research on High-Tech Welding Technologies for Industrial Applications, Req-00048-0001. Duration: 2010-2013 (J. Murgaš)
- Laboratory for Teaching and Development of OpenSource Projects, KEGA 032STU-04/2011. Duration: 2011-2013 (M. Žalman)
- Bioinspired Multirobot Coordination System, APVV -0261-Hub-Sk5. Duration: 2011-2014 (P. Hubinský)
- Intelligent Navigation of a Service Robot, VEGA 1/0177/11. Duration: 2011-2014 (A. Vitko)
- Research of the Service Robot Control with Dual Visual Perception, APVV-0539-11. Duration: 2012-2015 (F. Duchoň)
- Gender Differences in Etiopathogenesis of Social Stress-Related Cardiovascular and Behavioral Disorders in Individuals with Predisposition to Hypertension, APVV-0523-10. Duration: 2011 – 2014 (I. Sekaj)
- Control Systems for Energo Beam cutting Centers, APVV-0504-12. Duration: 2013 – 2015 (A. Vitko)
- Research into Advanced Methods of Intelligent Multi-Axis Motion Control Systems, focusing on Mobile Robotic Manipulators, Vega 1/0178/13. Duration: 2013 - 2015 (P. Hubinský)
- Online Lab for Student Research in Evolutionary Algorithms, 2012et004. (I. Sekaj)

IV.2 International Scientific Projects

- Autoweldlink. EU European Regional Development Fund ITMS 26240220033. Duration 2010-2014 (F. Duchoň)
- Advanced Control Algorithms and Methods for Industrial Plants, SK-BG-0035-10 Duration: 2012-2013 (V. Veselý)
- PA-NCS - Polynomial Approach in the Theory of Nonlinear Control Systems, SK-FR-0013-11. Duration: 2012 – 2013 (M. Halás)

V. COOPERATION

V.1 Cooperation in Slovakia

- ATEC Ltd., Bratislava
- DATALAN Bratislava, Ltd.
- HMM Ltd., Bratislava
- Institute of Informatics, Slovak Academy of Sciences, Bratislava
- KFB Control Ltd., Bratislava
- Legrand Slovakia
- MicroStep Ltd., Bratislava
- Microstep MIS Ltd., Bratislava
- NES Ltd., Nová Dubnica
- PPA Energo Ltd., Bratislava
- PROXY, Nové Mesto n/Váhom
- PZ Bratislava, Inc.
- RELKO, spol. s r.o.
- Samsung Electronics Slovakia s.r.o.
- ENEL – Slovenské elektrárne, Inc.
- Schneider Electric Slovakia, Ltd.
- Siemens Ltd., Bratislava
- Slovak Electricity Transmission System Ltd., Bratislava
- Slovakodata, Inc., Bratislava
- SWH – Siemens Business Service, Bratislava
- Technical University of Košice
- University of Žilina
- Volkswagen Slovakia Inc., Bratislava
- Vonsch Brezno, Ltd.
- VUJE Inc., Trnava
- Robotika Sk, Bratislava
- ZTS VVU Košice
- EVPU Nova Dubnica a.s.,
- Institute of Informatics, Slovak Academy of Sciences, Bratislava

V.2 International Cooperation

- Arzamas Polytechnic Institute of R. E. Alekseev Nizhny Novgorod State Technical University
- Brest State Technical University, Belarus
- Institute de Recherche en Communications et Cybernétique, C.N.R.S, Nantes, France
- Budapest University of Technology and Economics, Budapest, Hungary
- Czech Technical University of Prague, Czech Republic
- Democritos University of Thrace, Xanthi, Greece
- Eindhoven University, The Netherlands
- Electronics Research Institute, National Research Center, Giza, Egypt
- Humusoft Inc, Praha, Czech Republic

- Institute of Information Theory and Automation, Academy of Sciences of the Czech Republic, Prague, Czech Republic
- Institute of Cybernetics at Tallinn University of Technology, Tallinn, Estonia
- Moscow Power Engineering Institute, Moscow, Russia
- Pantek (CS), Czech Republic
- Schneider Electric, Germany
- Brno University of Technology, Czech Republic
- Technical University of Liberec, Czech Republic
- Technical University of Łódź, Poland
- Technical University of Ostrava, Czech Republic
- Tomas Bata University in Zlín, Czech Republic
- Technical University of Ancona, Italy
- Graz University of Technology, Austria
- Vienna University of Technology, Austria
- University of Maribor, Slovenia
- Ruhr University of Bochum, Germany
- University of West Bohemia in Pilsen, Czech Republic
- University of Zagreb, Croatia
- Vytautas Magnus University, Kaunas, Lithuania
- Riga Technical University, Latvia

VI. THESES

VI.1 Masters Theses

Masters theses supervised at the Institute of Control and Industrial Informatics. The names of supervisors are in brackets.

Alumni Cybernetics, June 2013

- [1] Bátora V.: Adaptive control of biological systems (J. Murgaš)
- [2] Bekeš T.: Robust controller design for laboratory model of servosystem (M. Hypiúsová)
- [3] Dibala M.: Steady states optimization of large scale system using ISOPE method (D. Rosinová)
- [4] Grešo L.: Robust control of crane (V. Veselý)
- [5] Chu Duc Tung Son.: Advanced control of a magnetic levitation model (V. Veselý)
- [6] Kocúr M.: Hardware realization of PID controller based on FPGA (Š. Kozák)
- [7] Lenický R.: Temperature field modeling of SMA actuator attached to thermocouple in Matlab and ANSYS environment (V. Kutíš)
- [8] Machyniaková S.: Decentralized controller design for a laboratory plant (A. Kozáková)
- [9] Markovič M.: Decentralized controller design for a heating systém (A. Kozáková)
- [10] Mosná V.: PID Controller Design using Modified Ziegler-Nichols Method (M. Hypiúsová)
- [11] Strýček A.: Automatisations, synchronisation of data and development of application for mobile platforms (B. Mišota)
- [12] Števaňák M.: Registration systém (R. Balogh)
- [13] Ujmiak R.: Possibilities of using the Internet applications for remote collection and management of data (B. Mišota)
- [14] Vnuk M.: Intelligent building - health protection (S. Števo)
- [15] Voskár J.: Quadricopter controlling with iOS mobile device (A. Babinec)

Alumni Robotics, June 2013

- [1] Adamčoková Z.: Process control using PLC Simatic and visual system Cognex (L. Mrafko)
- [2] Bánoci M.: Reactive robot navigation in unknown environments (F. Duchoň)
- [3] Brandys F.: Controlling the movement of container with liquid (P. Hubinský)
- [4] Dočekal P.: Modeling of thermal field of SMA actuator (P. Drahoš)
- [5] Florek M.: Control of the autonomous quadcopter (M. Huba)
- [6] Gajdošík D.: Localization of the robot by GNSS systém (F. Duchoň)
- [7] Gardian P.: 3D Map of Space for Mobile Robots (F. Duchoň)
- [8] Goga R.: Extension of meteorological METRo model and its further application on monitoring station for roadmaintenance (E. Miklovičová)
- [9] Grznár J.: Robust control design of hydraulic laboratory plant (D. Rosinová)
- [10] Haffner O.: Making of environment map using a laser rangefinder (F. Duchoň)
- [11] Hnát D.: Application of Neural Networks in Image Recognition (A. Vitko)
- [12] Hojč T.: Probabilistic localization of mobile robot in indoor environment (F. Duchoň)
- [13] Hudec J.: Measuring unit for monitoring of thermal conductive properties with possibility of wireless data transmission in the band of 2.4 GHz (V. Štofanič)
- [14] Charvát R.: Comparison of control on the server side with control on the client side for the purposes of remote Laboratory (P Bisták)
- [15] Chovanec M.: Utilizing fuzzy c-means method in object recognition (M. Blaho)
- [16] Jackuliak L.: Controlling robot and monitoring his environment using Android Platform (M. Blaho)
- [17] Janíček L.: Mobile robot motion coordination within the group of robots in outdoor environments with obstacles (P. Hubinský)
- [18] Kajan M. Control of automated vehicle with PLC Simatic ET200S CPU (L. Mrafko)
- [19] Kivader M.: The control design of an unmanned aerial vehicle (M. Huba)
- [20] Kostolný S.: Design of control algorithms for airship (M. Huba)
- [21] Koyš J.: Firmware for digitizing module for seismic sensors (R. Balogh)
- [22] Kšiňan J.: Robotic system cooperation with Matlab/Simulink environment (M. Blaho)
- [23] Kusenda M.: Utilization of wireless communication of XBee in real time (M. Foltin)
- [24] Madarász F.: Synthesis of robust controllers for controlling laboratory crane (M. Hypiúsová)
- [25] Móric J.: Tasks of automated welding with a laser scanner (M. Dekan)
- [26] Németh V.: RBF neural networks for control (L. Körösi)
- [27] Orlický L.: PID controller design using soft techniques (J. Paulusová)
- [28] Ozimý J.: Creation of stateflow based model with ZigBee technology (M. Blaho)
- [29] Pažitný M.: Energy Audit – Design of measurement and management (S. Števo)
- [30] Petřík M.: Collection, analysis and evaluation of measured data using the Smart meter technology BPL (Š. Chamraz)
- [31] Petruš P.: Intelligent vehicles – Detection of road signs (M. Dekan)
- [32] Ruman Cs.: Pedagogical workplace with DC motors (J. Dúbravský)
- [33] Sarňák M.: Design of control of active radial magnetic Bering (M. Žalman)
- [34] Spielmann R.: Sensor module for mobile robot (R. Balogh)
- [35] Šovčík J.: Coordinated movement of multiple robots in outdoor area with obstacles (P. Hubinský)

Alumni Applied Mechatronics, June 2013

- [1] Baláž J.: Motion electric drive and control for testing machine (V. Goga)
- [2] Berčák A.: Mechatronic system for preparing the mixture for combustion engines (J. Matej)
- [3] Cebák M.: Design of complex SW and HW system used for displaying transmission gear (Š. Kozák)
- [4] Darvaši P.: Modeling and simulation of MEMS using functionally graded material (J. Murín)

- [5] Ďuriš I.: Optimization of Landing Gear Emergency Extension System (V. Goga)
- [6] Gál L.: Proposal of a mechatronic system of management and control the drive of an electric generator through a vehicle microturbine (M. Bugár)
- [7] Gálik G.: Modeling and simulation of an SAW micro sensor (V. Kutiš)
- [8] Géczy M.: Modeling and simulation of semi-active car suspension (V. Goga)
- [9] Gogola R.: Electronic control of preparation and injection of the mixture in internal combustion engine (V. Ferencey)
- [10] Harmata J.: Design and management of variable distribution of drive forces to wheels of the vehicle with hybrid drive (J. Matej)
- [11] Kamenský O.: Proposal for a mechatronic system for control turning car with all four wheels (M. Bugár)
- [12] Kupčíha J.: Finite element simulation of the strain gauge force transducer (V. Goga)
- [13] Lacko M.: Steer by Wire system (J. Matej)
- [14] Lovaš P.: Analysis of the quality of mechatronics systems (M. Žiška)
- [15] Mazúch J.: Proposal for a regulation of cooling the fuel cell during load (V. Ferencey)
- [16] Mrva L.: Design of mechatronic system control of active center differential (J. Madarás)
- [17] Oravec T.: Design of mechatronic energy management system during loading (M. Bugár)
- [18] Pecho A.: Mechatronic system design of fuel cell thermal management regulation and control (V. Ferencey)
- [19] Rekšák V.: Constructing of automotive light Škoda (R. Fric)
- [20] Rozsár A.: Design of shift algorithms of automated transmission of a vehicle (J. Madarás)
- [21] Solík T.: Modelling and control of power drives using PLC systems (Š. Kozák)
- [22] Statečný T.: Alternative options to recharge batteries in modern vehicle drives (J. Matej)
- [23] Šnyr P.: The Proposal of a mechatronic variable valve lift control system for internal combustion engine (M. Bugár)
- [24] Špitálová Z.: Possibilities of using Fiber Bragg Grating Sensors in Automotive Industry (F. Uherek)
- [25] Topoli L.: Design of mechatronic control system of active automotive axle differential (M. Bugár)
- [26] Vincze T.: Modeling of robust pressure sensor based on the progressive semiconductor materials (G. Vanko)
- [27] Virág E.: Modeling and simulation of the sensor for detecting the percentage volume fraction of hydrogen in air (J. Paulech)

Alumni Robotics, June 2013 (Distance Learning Method)

- [1] Bednár M.: CAN osciloscop design (M. Rakús)
- [2] Benedikovič B.: Conversion of debugging symbols (P. Hubinský)
- [3] Beňo P.: Processing data from sensor Kinect for purpose of creating 3D map of enviroment (M. Tölgyessy)
- [4] Bínovský M.: Application of web services for controlling and monitoring of robot (M. Blaho)
- [5] Czanik A.: Management of DC motors (J. Dúbravský)
- [6] Filipovič D.: MASTER SLAVE Position Servodrive with LM PM (M. Žalman)
- [7] Gurín J.: Development of mobile application for Android OS (M. Foltin)
- [8] Kováč J.: Design of the movement control of robotic arm (J. Dorner)
- [9] Lukačovič S.: Virtual model of AC positional servodrive with Sinamics (M. Žalman)
- [10] Melicher M.: State monitoring of cash safe (Š. Chamraz)
- [11] Miklošík M.: Draft of unmanned parachute operations (P. Hubinský)
- [12] Ormandík J.: Control of dynamic time-delayed systems (D. Rosinová)

- [13] Páločný J.: Master Slave speed servodrive with AM (M. Žalman)
- [14] Papaj V.: Movement coordination of a mobile robot within a group of robots in an indoor environment with obstacles (P. Hubinský)
- [15] Pinke K.: Design and implementation of Merge Replication (L. Mrafko)
- [16] Rakús A.: Model of two - wheeled mobile robot in Microsoft Robotics Developer Studio environment (P. Hubinský)
- [17] Rakús J.: Security of industrial computer CompactRIO against theft (E. Vavrinský)
- [18] Šefčík J.: Oracle database for mechatronic systém (L. Körösi)
- [19] Šrámek P.: Program for text recognition using neural network (S. Kajan)
- [20] Šujan M.: Agile Software Development Environment (P. Fodrek)
- [21] Vaško M.: Intelligent building – Facility Management (P. Fodrek)
- [22] Vincúr B.: Model of two-wheel mobile robot chassis in the Microsoft Robotics Studio (P. Hubinský)
- [23] Zahradníková B.: Texlive module tex4ht and its submodule oolatex (P. Fodrek)

Alumni Applied Informatics, Information technology in Management , June 2013

- [1] Babinec A.: Usage of synchronization services on mobile device (B. Mišota)
- [2] Bednárik S.: Modular Environment for the Efficient Management of LAN Servers with Optional Parameters (A. Hambalík)
- [3] Bučka P.: Interactive animations of processes in semiconductors based on object-oriented programming (L. Stuchlíková)
- [4] Čerman J.: Navigation of mobile robot by visual systém (F. Duchoň)
- [5] Fecko M.: Solution to the integration of business services for monitoring the portfolio of bank corporate clients. (F. Lehocki)
- [6] Frťala T.: Virtualization of enviroment for online computations and experiments (K. Žáková)
- [7] Furek M.: Characteristic properties of fingerprints and palm prints and automatic print recognition (A. Hambalík)
- [8] Groško O.: Implementation of application for monitoring of corporate client portfolio in the bank based on IBM Business Process Manager platform (Š. Balogh)
- [9] Haspra T.: Integration of application for decision making and monitoring of corporate portfolio of bank clients on IBM Operational Decision Manager platform (Š. Balogh)
- [10] Havrila V.: Interactive photodiode animations based on object oriented programming (L. Stuchlíková)
- [11] Horniak M.: Autonomous telemetry systém (M. Daříček)
- [12] Jendroľ V.: Communication protocols in the field of Smart Metering (J. Dorner)
- [13] Kašša V.: Modular environment for efficient management of Unix-Linux server with optional parameters (A. Hambalík)
- [14] Krchnavý L.: Proposal multiagent system for managing mobile robotic systém (J. Dorner)
- [15] Kubán P.: Implementation of tools for managing bugs and projects in MATLAB (M. Blaho)
- [16] Machnič A.: Intelligent building – integration of technology (S. Števo)
- [17] Nagy B.: Communication system OS Android and Windows for multiple device (P. Pásztó)
- [18] Nedeliak L.: Integration of bank services using process and service automatization (F. Lehocki)
- [19] Németh T.: Editor-visualizer of communication protocols (A. Hambalík)
- [20] Rapčík M.: Spatial orientation of the robot (M. Daříček)
- [21] Susedík J.: Internet application of genetic algorithms (S. Kajan)
- [22] Švarc J.: Mobile Application Development (E. Antal)
- [23] Švec F.: Creating HMI on iOS platform for wireless control of mobile robot (A. Babinec)

VI.2 PhD Theses

Automation and Control

- [1] Balogh R.: Contribution to the methodology of mobile robots design (A. Vitko)
- [2] Bisták P.: Control of Triple Integrator with Input Saturation (M. Huba)
- [3] Mudráková T.: The modern approaches of digital control positioning servodrives with LMPM (M. Žalman)
- [4] Taraba P.: Optimal Control for Nonlinear Systems (I. Sekaj)

Cybernetics

- [1] Farkas Ľ.: Direct adaptive control of systems with input delays (J. Murgaš)
- [2] Linder M.: Solving of complex problems using evolutionary computing techniques (I. Sekaj)
- [3] Masár M.: Biologically inspired methods for multirobot coordination (I. Budinská)
- [4] Škultéty J.: Control of the systems using Laguerre network (E. Miklovičová)
- [5] Tárník M.: Adaptive Control of Time-delay Systems (J. Murgaš)
- [6] Ernek M. : Control of emergency states in power systems (J. Murgaš)

VI.3 Achievements of students:

- L. Pariža - Student Robotics engineering studies was awarded : Student of the year award
- M. László - BC student study Industrial Informatics: successful representation STU Bratislava global competition-freescale-cup

VII. OTHER ACTIVITIES

Conferences and contests organized or co-organized the Institute:

- 15th Conference of Doctoral Students ELITECH`13 (I. Sekaj - The program Committee, Z. Králová, M. Tárník – members of the Organizing Committee)

Conferences Participation, Membership in Committees:

- International Conference Robotics in Education (RIE), Lodž 2013 (R. Balogh, P. Hubinský)
- Robotics and Artificial Intelligence Conference, Brest, Belarus (R. Balogh - PC member)
- 10th International Conference on Informatics in Control, Automation and Robotics (ICINCO), Reykjavik, Iceland (R. Balogh - PC member)
- ELOSYS 2013, Trenčín (J. Murgaš, I. Sekaj, Michal Blaho - PC members, F. Duchoň, A. Babinec, Ľ. Chovanec, M. Tölgyessy, T. Fico, T. Mudrakova)
- Istrobot: Competition of Mobile Robots, Bratislava, SK. April 2013 (R. Balogh, P. Hubinský, M. Foltin, M. Dekan, J. Slačka)
- 15th Conference of Doctoral Students ELITECH`13 (I. Ottinger, T. Ludwig, M. Tárník, A. Ilka, V. Veselý, P. Valach, R. Krasňanský, B. Dvorščák, K. Duong Quang, P. Hubinský - presented and valued contributions)
- AT&P Journal (L. Jurišica, M. Žalman, J. Murgaš, V. Veselý – Editorial Board members)
- Selected Topics in Modeling and Control (V. Veselý - Editor, L. Jurišica, Editorial Board member)
- Transactions of the Institute of Measurement and Control (A. Vitko – associate editor)
- CLAWAR Conference Maryland (A. Vitko – IPC member)
- Accreditations Board of SAS (L. Jurišica – member)
- Cooperation with Encyclopaedic Institute of the Slovak Academy of Sciences on the Slovak

- Encyclopaedia (Lexical Group Cybernetics): (L. Harsanyi, L. Jurišica, M. Žalman)
- Accreditation Board of the Government of Slovakia. (Working Group - L. Jurišica, J. Murgaš – member)
- Computer Viruses Analysis ESET Ltd. Bratislava (P. Hubinský)
- Administration of Shareware Archive of Slovak Antivirus Centre (P. Hubinský)
- Slovak Society for Cybernetics and Informatics at the Slovak Academy of Sciences (V. Veselý,)
- Journal of Electrical Engineering (V. Veselý - member of Editorial Board)
- Freescale Race challenge – an European contest (R. Balogh, 1st place for students of STU FEI)
- Robotchallenge Wien – international robotic contest (R. Balogh, 1st place for students of STU FEI)
- International Soft Computing Conference MENDEL – Brno (I. Sekaj, L. Körösi)
- International Conference SOCO - Soft Computing Models in Industrial and Environmental Applications - Spain – Salamanca (L. Körösi)

Projects:

Schneider-Electric Courses, Automation and Control Systems (M. Mrosko, L. Körösi)

Membership in Editorial Boards and Committees:

- AT&P Journal (L. Jurišica, M. Žalman, J. Murgaš, V. Veselý – Editorial Board members)
- Journal of Electrical Engineering (V. Veselý - member of Editorial Board)
- Selected Topics in Modeling and Control (V. Veselý – Editor, L. Jurišica, Editorial Board member)
- Transactions of the Institute of Measurement and Control (A. Vitko – associate editor)
- CLAWAR Conference Maryland (A. Vitko – IPC member)
- Accreditations Board of SAS (L. Jurišica – member)
- Cooperation with Encyclopaedic Institute of the Slovak Academy of Sciences on the Slovak Encyclopaedia (Lexical Group Cybernetics): (L. Harsanyi, L. Jurišica, M. Žalman)
- Accreditation Board of the Government of Slovakia. (Working Group - L. Jurišica, J. Murgaš – member)
- Computer Viruses Analysis ESET Ltd. Bratislava (P. Hubinský)
- Administration of Shareware Archive of Slovak Antivirus Centre (P. Hubinský)
- Slovak Society for Cybernetics and Informatics at the Slovak Academy of Sciences (V. Veselý,)

VIII. MEMBERSHIP IN INSTITUTIONS/COMMITTEES

VIII.1 Membership in National Institutions/Committees

- The Accreditation Commission - an advisory body to the Government, Working Group Research 16 (L. Jurišica, J. Murgaš, members)
- Accreditation Commission of the Slovak Academy of Sciences (L. Jurišica, member)
- Faculty of Informatics and Information Technology (J.Murgaš, member of Scientific Board)
- Slovak Society for Operations Research (Z. Králová, member)

VIII.2 Membership in International Institutions/Committees

- IEEE The Institute of Electrical and Electronics Engineers, Inc. (L. Jurišica, M. Žalman, J. Murgaš, V. Veselý,
- IEE The Institute of Electrical Engineers, Inc. (L. Jurišica, M. Žalman, P. Hubinský)
- IFAC Technical Committee: TC 1.2 Adaptive and Learning Systems (J. Murgaš - member)
- IFAC Technical Committee: TC 2.3 Nonlinear Control Systems (M. Halás - members)

- IFAC Technical Committee: TC 2.5 Robust Control (V. Veselý - members)
- IFAC Technical Committee: TC 4.3 Robotics (P. Hubinský - member)
- IFAC member of the CC4-Mechatronics, Robotics and Components (P. Hubinský)
- CLAWAR Association, member of the Board of Trustees (A. Vitko)
- IMEKO, member of the Technical Committee on Measurement and Control in Robotic (A. Vitko)
- Transactions of Inst. of Measurement and Control, associate editor (A. Vitko)
- Slovak Society for Cybernetics and Informatics-SSKI (Š. Kozák, chairman, V. Veselý)
- Robotics in Education conference, Lodz, Poland (R. Balogh-Programme committee chair)
- Robotics and Artificial Intelligence Conference, Brest, Belarus (R. Balogh-Programme committee member)
- 10th International Conference on Informatics in Control, Automation and Robotics (ICINCO), Reykjavik, Iceland (R. Balogh-Programme committee member)

IX. PUBLICATIONS

IX. 1 Journals

- [1] BABINEC, A. - VITKO, A. - DUCHOŇ, F. - DEKAN, M.: Navigation of Robot Using VFH+ Algorithm. In: Journal of Mechanics Engineering and Automation. - ISSN 2159-5275. - ISSN 2159-5283. - Vol. 3, Iss. 5 (2013), p. 303-310. (in English)
- [2] BALOGH, R.: Evaluation of the optoNCDT ILR Sensor. In: Robotics and Artificial Intelligence. Problems and Perspective : Belarus, 4-6 November 2013. - [s.l.] : Brest State Technical University, 2013. - [4] p. (in English)
- [3] BALOGH, R.: Istrobot 2013. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. – Vol. 19, Iss. 3 (2013), p. 6. (in Slovak)
- [4] BALOGH, R.: Istrobot 2013. In: Spektrum. - ISSN 1336-2593. - Vol. 19, Iss. 9 (2013), p. 10. (in Slovak)
- [5] DEKAN, M. - DUCHOŇ, F. - JURIŠICA, L. - VITKO, A. - BABINEC, A.: iRobot Create Used in Education. In: Journal of Mechanics Engineering and Automation. - ISSN 2159-5275. - Vol. 3, Iss. 4 (2013), p. 197-202. (in English)
- [6] DIDEKOVÁ, Z. - MIKOVIČOVÁ, B.: Fuzzy Logic in Classification of Radio Communication Signals. In: Journal of Communication and Computer. - ISSN 1548-7709. - Vol. 10, Iss. 2 (2013), p. 207-213. (in English)
- [7] DUCHOŇ, F. - DEKAN, M. - CHOVANEC, Ľ.: Cooperation between FEI and FA STU. In: Spektrum. - ISSN 1336-2593. - Vol. 19, Iss. 6 (2013), p. 10. (in Slovak)
- [8] DUCHOŇ, F.: Duel of the Year – IT vs. Robots. In: Datalan news. – Vol.. 11, Iss. 1 (2013), p. 39. (in Slovak)
- [9] FOLTIN, M. - MUDRÁKOVÁ, T. - BOŠŇÁK, D. - KRAVJAR, J. - BLAHO, M.: CVTI SR Provides Access to the Powerful Computing System Matlab (1). In: ATP Journal. - ISSN 1335-2237. - Vol. 20, No. 9 (2013), p. 34. (in Slovak)
- [10] FOLTIN, M. - MUDRÁKOVÁ, T. - BOŠŇÁK, D. - BLAHO, M.: CVTI SR Provides Access to the Powerful Computing System Matlab (2). In: ATP Journal. - ISSN 1335-2237. - Vol. 20, No. 10 (2013), p. 42. (in Slovak)
- [11] HALÁS, M. - ANGUELOVA, M.: When Retarded Nonlinear Time-Delay Systems Admit an Input-Output Representation of Neutral Type. In: Automatica. - ISSN 0005-1098. - Vol. 49, Iss. 2 (2013), p. 561-567. (in English)
- [12] HANZEL, J. - DUCHOŇ, F. - RODINA, J. - PÁSZTÓ, P.: Global Navigation Systems for Mobile Robots. In: International Journal of Systems Applications, Engineering & Development. - ISSN 2074-1308. - Vol. 7, Iss. 5 (2013), p. 279-285. (in English)
- [13] HANZEL, J. - KLÚČIK, M. - DUCHOŇ, F. - RODINA, J.: Localization of Small Mobile Robot by Low-Cost GPS Receiver. In: Journal of Mechanics Engineering and Automation. - ISSN 2159-5275. - Vol. 3, Iss. 8 (2013), p. 522-528. (in English)
- [14] HUBA, M.: Performance Measures, Performance Limits and Optimal PI Control for the IPDT Plant. In: Journal of Process Control. - ISSN 0959-1524. - Vol. 23 (2013), p. 500-515. (in English)
- [15] HUBINSKÝ, P.: Use the Software for Advantageous Price (1). In: PC revue. - ISSN 1335-0226. – Vol.. 21, Iss. 1 (2013), p. 72. (in Slovak)

- [16] HUBINSKÝ, P.: Use the Software for Advantageous Price (2). In: PC revue. - ISSN 1335-0226. - Vol. 21, Iss. 2 (2013), p. 100. (in Slovak)
- [17] HUBINSKÝ, P.: Use the Software for Advantageous Price (3). In: PC revue. - ISSN 1335-0226. - Vol. 21, Iss. 3 (2013), p. 88. (in Slovak)
- [18] HUBINSKÝ, P.: Use the Software for Advantageous Price (4). In: PC revue. - ISSN 1335-0226. - Vol. 21, Iss. 4 (2013), p. 88. (in Slovak)
- [19] HUBINSKÝ, P.: Use the Software for Advantageous Price (5). In: PC revue. - ISSN 1335-0226. - Vol. 21, Iss. 5 (2013), p. 92. (in Slovak)
- [20] HUBINSKÝ, P.: Use the Software for Advantageous Price (6). In: PC revue. - ISSN 1335-0226. - Vol. 21, Iss. 6 (2013), p. 90. (in Slovak)
- [21] HUBINSKÝ, P.: Use the Software for Advantageous Price (7). In: PC revue. - ISSN 1335-0226. - Vol. 21, Iss. 7 (2013), p. 82. (in Slovak)
- [22] HUBINSKÝ, P.: Use the Software for Advantageous Price (8). In: PC revue. - ISSN 1335-0226. - Vol. 21, Iss. 8 (2013), p. 86. (in Slovak)
- [23] HUBINSKÝ, P.: Use the Software for Advantageous Price (9). In: PC revue. - ISSN 1335-0226. - Vol. 21, Iss. 9 (2013), p. 96. (in Slovak)
- [24] HUBINSKÝ, P.: Use the Software for Advantageous Price (10). In: PC revue. - ISSN 1335-0226. - Vol. 21, Iss. 10 (2013), p. 86. (in Slovak)
- [25] HUBINSKÝ, P.: Use the Software for Advantageous Price (11). In: PC revue. - ISSN 1335-0226. - Vol. 21, Iss. 11 (2013), p. 98. (in Slovak)
- [26] HUBINSKÝ, P.: Use the Software for Advantageous Price (12). In: PC revue. - ISSN 1335-0226. - Vol. 21, Iss. 12 (2013), p. 98. (in Slovak)
- [27] HUBA, T. - MALATINEC, T. - HUBA, M.: Propeller-Pendulum for Nonlinear UAVs Control. In: International Journal of Online Engineering. - ISSN 1861-2121. - ISSN 1868-1646. - Vol. 9, Iss. 1 (2013), p. 42-46. (in English)
- [28] HYPÍUSOVÁ, M. - KAJAN, S.: Robust Controller Design Using Edge Theorem and Genetic Algorithm. In: International Review of Automatic Control. - ISSN 1974-6059. - Vol. 6, No. 2 (2013), p. 194-200. (in English)
- [29] JANÍK, Z. - ŽÁKOVÁ, K.: A Contribution to Real-Time Experiments in Remote Laboratories. In: International Journal of Online Engineering. - ISSN 1861-2121. - ISSN 1868-1646. - Vol. 9, Iss. 1 (2013), p. 7-11. (in English)
- [30] KAJAN, S. - DIDEKOVÁ, Z. - KOZÁK, Š. - LINDER, M.: Neural Genetic Control Algorithm of Nonlinear Systems. In: International Review of Automatic Control. - ISSN 1974-6059. - Vol. 6, No. 2 (2013), p. 206-210. (in English)
- [31] KAJAN, M. - MRAFKO, L. - DUCHOŇ, F. - HUBINSKÝ, P. - ŠOVČÍK, J.: Control of Automated Guided Vehicle with PLC SIMATIC ET200S CPU. In: American Journal of Mechanical Engineerin. - ISSN 2328-4110. - Vol. 1, No. 7 (2013), p. 343-348. (in English)
- [32] KLÚČIK, M. - DUCHOŇ, F. - BABINEC, A. - VITKO, A. - DEKAN, M.: The Search for Optimal Trajectories of the Welding Tool with Using of Genetic Algorithms. In: Zvárač. - ISSN 1336-5045. - Vol. 10, No. 1 (2013), p. 3-6. (in Slovak)
- [33] KÖRÖSI, L. - KOZÁK, Š.: New Genetic Algorithm for Neural Network Structure Optimization. In: International Review of Automatic Control. - ISSN 1974-6059. - Vol. 6, Iss. 1 (2013), p. 9-13. (in English)
- [34] MURGAŠ, J. - ERNEK, M.: Purpose of Hydro Power Plants in Crisis State of Power System. In: ATP Journal. - ISSN 1335-2237. - Vol. 20, No. 1 (2013), p. 42-43. (in Slovak)
- [35] NGUYEN, Q.T. - VESELÝ, V. - ROSINOVÁ, D.: Design of Robust Model Predictive Control with Input Constraints. In: International Journal of Systems Science. - ISSN 0020-7721. - Vol. 44, Iss. 5 (2013), p. 896-907. (in English)
- [36] PÁSZTÓ, P. - HUBINSKÝ, P.: Mobile Robot Navigation Based on Circle Recognition. In: Journal of Electrical Engineering. - ISSN 1335-3632. - Vol. 64, No. 2 (2013), p. 84-91. (in English)
- [37] OSUSKÝ, J. - HYPÍUSOVÁ, M.: Hydraulic Turbine Model Controlled by Multimodel Robust Controller. In: International Journal on Engineering Applications. - ISSN 2281-2881. - Vol. 1, Iss. 1 (2013), p. 74-85.

- (in English)
- [38] RADIČOVÁ, T. - ŽALMAN, M.: LMPM Master Slave Position Control with Luenberger Observer Using Genetic Algorithms. In: Acta Technica Corviniensis - Bulletin of Engineering. - ISSN 2067-3809. – Vol. 6, Iss. 1 (2013), p. 123-127. (in English)
 - [39] SPIELMANN, R. - DUCHOŇ, F. - KOSTROŠ, J. - FICO, T. - BALOGH, R.: Sensor Module for Mobile Robot. In: American Journal of Mechanical Engineering. - ISSN 2328-4110. - Vol. 1, No. 7 (2013), p. 378-383. (in English)
 - [40] ŠKULTÉTY, J. - MIKLOVIČOVÁ, E. - BARS, R.: Predictive Control Based on Discrete Laguerre Network. In: International Review of Automatic Control. - ISSN 1974-6059. - Vol. 6, No. 5 (2013), p. 558-564. (in English)
 - [41] ŠKULTÉTY, J. - MIKLOVIČOVÁ, E. - BARS, R.: Predictive Synchronous Generator Excitation Control Based on Laguerre Model. In: Journal of Electrical Engineering. - ISSN 1335-3632. - Vol. 64, No. 3 (2013), p. 173-179. (in English)
 - [42] ŠTEVO, S.: Buildings Life Cycle - Assessment. In: Posterus. - ISSN 1338-0087. - Vol. 6, Iss. 5 (2013), online, [7] p. (in English)
 - [43] ŠTEVO, S. - SLIVA, M.: Intelligent Use of Photovoltaic Systems. In: iDB Journal. - ISSN 1338-3337. - Vol. 3, No. 4 (2013), p. 34-36. (in Slovak)
 - [44] ŠTEVO, S.: Permaculture as a Part of Buildings. In: iDB Journal. - ISSN 1338-3337. - Vol. 3, No. 6. (2013), p. 44-47. (in Slovak)
 - [45] ŠTEVO, S. - PETRÍK, M.: Smart Meter - Saved Money, Best Earned Money. In: iDB Journal. - ISSN 1338-3337. - Vol. 3, No. 1 (2013), p. 22-25. (in Slovak)
 - [46] ŠTEVO, S.: Sustainability of Buildings. In: iDB Journal. - ISSN 1338-3337. - Vol. 3, No. 6 (2013), p. 36-39. (in Slovak)
 - [47] ŠTEVO, S.: Sustainable and Ecological Footprint. In: Eurostav. - ISSN 1335-1249. - Vol.19, No.9 (2013), p. 16-20. (in Slovak)
 - [48] ŠTEVO, S.: The Buildings Intelligence. In: TZB Haustechnik. - ISSN 1210-356X. - Vol.21, No. 5 (2013), p. 38-40. (in Slovak)
 - [49] ŠTEVO, S.: The Principles of Permaculture Building. In: Eurostav. - ISSN 1335-1249. - Vol.19, No.5 (2013), p. 31-35. (in Slovak)
 - [50] ŠTEVO, S. - OSUSKÝ, J.: The Way to Smart Grid. In: iDB Journal. - ISSN 1338-3337. - Vol. 3, No. 1 (2013), p. 34-37. (in Slovak)
 - [51] ŠTEVO, S. - OSUSKÝ, J.: The Way to Smart Grid (2). In: iDB Journal. - ISSN 1338-3337. - Vol. 3, No. 3 (2013), p. 40-41. (in Slovak)
 - [52] ŠTEVO, S.: When Fridge A Consumes More Than Fridge C. In: iDB Journal. - ISSN 1338-3337. - Vol. 3, No. 3 (2013), p. 44-45. (in Slovak)
 - [53] ŠTEVO, S.: Zero House - Reality or Fiction. In: Posterus. - ISSN 1338-0087. - Vol. 6, Iss. 1 (2013), online [7] p. (in English)
 - [54] ĎAPÁK, P. - HUBA, M. - MASÁR, I.: Nonlinear Control Systems E-learning Course Support. In: International Journal of Online Engineering. - ISSN 1861-2121. - Vol. 9, Iss. 1 (2013), p. 38-41. (in English)
 - [55] VESELÝ, V. - ILKA, A.: Gain-Scheduled PID Control Controller Design. In: Journal of Process Control. - ISSN 0959-1524. - Vol. 23 (2013), p. 1141-1148. (in English)
 - [56] VESELÝ, V. - ROSINOVÁ, D. - NGUYEN, Q.T.: Networked Output Feedback Robust Predictive Controller Design. In: International Journal of Innovative Computing, Information and Control. - ISSN 1349-4198. - Vol. 9, No. 10 (2013), p. 3941-3953. (in English)
 - [57] VESELÝ, V.: Robust Control Methods a Systematic Survey. In: Journal of Electrical Engineering. - ISSN 1335-3632. - Vol. 64, No. 1 (2013), p. 59-64. (in English)
 - [58] VESELÝ, V. - PULEVA, T. - OSUSKÝ, J.: Gain Scheduling Control Design for Hydro Generator. In: International Review of Automatic Control. - ISSN 1974-6059. - Vol. 6, No. 3 (2013), p. 241-246. (in English)
 - [59] VESELÝ, V. - OSUSKÝ, J.: Robust Multivariable Generalized Predictive Control Design. In: International Journal of

Innovative Computing, Information and Control. - ISSN 1349-4198. - Vol. 9. No. 8 (2013), p. 3377-3389. (in English)

- [60] VESELÝ, V. - OSUSKÝ, J.: Robust Control System Design in Frequency Domain. In: Archives of Control Sciences. - ISSN 1230-2384. - Vol. 23, No. 1 (2013), p. 61-78. (in English)
- [61] VESELÝ, V. - ROSINOVÁ, D.: Robust PID-PSD Controller Design: BMI Approach. In: Asian Journal of Control. - ISSN 1561-8625. - Vol. 15, Iss. 2 (2013), p. 469-478. (in English)
- [62] VÖRÖS, J.: Recursive Identification of Nonlinear Cascade Systems with Time-Varying General Input Backlash. In: Journal of Dynamic Systems Measurement and Control-Transactions of the ASME. - ISSN 0022-0434. - Vol. 135, No. 1 (2013), Art. No. 014504, [5 p.]. (in English)

IX.2 Conference Proceedings

- [1] BÉLAI, I. - ŽALMAN, M.: Design and Verification of Novel Adaptive Controller in Speed Servo Drive. 2013 International Conference on Process Control : Štrbské Pleso, Slovakia, June 18-21, 2013. - Piscataway : IEEE, 2013. - ISBN 978-80-227-3951-1. - CD-ROM, p. 298-303. (in English)
- [2] BLAHO, M. - FODREK, P. - FARKAS, Ľ. - FOLTIN, M.: Grant Program to Support Gifted Students Focused on ZigBee Technology. In: Recent Advances in Educational Methods : 10th International Conference on Engineering Education (EDUCATION'13); 1st International Conference on Early Childhood Education (ECED'13). Cambridge, UK, 20.-22. 2. 2013. - WSEAS Press, 2013. - ISBN 978-1-61804-163-0. - p. 73-76. (in English)
- [3] BLAHO, M. - MURGAŠ, T. - FODREK, P.: Networked Process Control. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 19, Special Issue : Conference ELOSYS, Trenčín, 15.-18.10.2013 , p. 5-9. (in Slovak)
- [4] BLAHO, M. - FODREK, P. - FARKAS, Ľ. - FOLTIN, M.: Preferred Information Sources and the Quality of online Sources for Programming Courses. In: Recent Advances in Educational Methods : 10th International Conference on Engineering Education (EDUCATION'13); 1st International Conference on Early Childhood Education (ECED'13). Cambridge, UK, 20.-22. 2. 2013. - WSEAS Press, 2013. - ISBN 978-1-61804-163-0. - p. 77-80. (in English)
- [5] BUCZ, Š. - KOZÁKOVÁ, A. - VESELÝ, V.: A New Robust PID Controller Design Technique Using Bode-Interpolation. In: International Carpathian Control Conference : Rytko, Poland, May 26-29, 3012. - ISBN 978-1-4673-4490-6. - p. 21-26. (in English)
- [6] BUCZ, Š. - KOZÁKOVÁ, A. - VESELÝ, V.: PID Tuning Using B-parabolas: A Tool to Translate Time Domain Performance Specification into Frequency Domain Performance Measure. In: International Carpathian Control Conference : Rytko, Poland, May 26-29, 3012. - ISBN 978-1-4673-4490-6. - p. 15-20. (in English)
- [7] CIBA, M. - SEKAJ, I.: Genetic Algorithm Operations Applied to Ant Colony Optimization. In: MENDEL 2013 : 19th International Conference on Soft Computing; Brno, Czech Republic; 26-28 June 2013. - Brno : Brno University of Technology, 2013. - ISBN 978-80-214-4755-4. - p. 105-110. (in English)
- [8] CIGÁNEK, J. - NOGE, F. - KOZÁK, Š. - DÚBRAVSKÝ, J.: Modeling and Control of Robotic Arm Using Fuzzy Logic. In: 3rd International Conference on Advanced Control Circuits and Systems (ACCS' 013) ; 2nd International Conference on New Paradigms in Electronics & Information Technology (PEIT ' 013) : Luxor, Egypt, 30 November - 3 December 2013. - CD-ROM, 7 p. (in English)
- [9] DUCHOŇ, F. - HUŇADY, D. - DEKAN, M. - BABINEC, A.: Optimal Navigation for Mobile Robot in Known Environment. In: Applied Mechanics and Materials. - ISSN 1660-9336. - Vol. 282 : 11th International Conference Industrial, Service and Humanoid Robotics - ROBTEP 2012. Štrbské Pleso, Slovakia, 14-16 November 2012 , p. 33-38. (in English)
- [10] DUONG QUANG, K. - HUBINSKÝ, P.: Genetic Algorithm Based Input Shaping on Two - Dimensional Trajectory Following. In: ELITECH'13 : 15th Conference of Doctoral Students; Bratislava, Slovakia, 5 June 2013. - Bratislava : Slovak University of Technology Press, 2013. - ISBN 978-80-227-3947-4. - CD-ROM, [5] p. (in English)

- [11] FARKAS, Ľ. - TÁRNÍK, M.: Adaptive Control Algorithms for Networked Control Systems. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 19, Special Issue : Conference ELOSYS, Trenčín, 15.-18.10.2013, p. 10-14. (in Slovak)
- [12] GAŽO, M. - KOZÁK, Š.: Mechatronic System of Levitation System. In: 2013 International Conference on Process Control : Štrbské Pleso, Slovakia, June 18-21, 2013. - Piscataway : IEEE, 2013. - ISBN 978-80-227-3951-1. - CD-ROM, p. 75-78. (in English)
- [13] GAŽO, M. - KOZÁK, Š. - DÚBRAVSKÝ, J.: Magnetic Levitation Systems Modeling and Control. In: 3rd International Conference on Advanced Control Circuits and Systems (ACCS' 013) ; 2nd International Conference on New Paradigms in Electronics & Information Technology (PEIT ' 013) : Luxor, Egypt, 30 November - 3 December 2013. - CD-ROM, 6 p. (in English)
- [14] HALÁS, M.: Computing an Input-Output Representation of a Neutral State-Space System. In: 11th Workshop on Time-Delay Systems : Part of 2013 IFAC Joint Conference SSSC. Grenoble, France, February 4-6, 2013. - [s.l.] : IFAC, 2013. - ISBN 978-3-902823-26-7. - p. 434-439. (in English)
- [15] HALÁS, M. - MOOG, C.H.: Definition of Eigenvalues for a Nonlinear System. In: 9th IFAC Symposium on Nonlinear Control Systems : Toulouse, France, September 4-6, 2013. - [s.l.] : IFAC, 2013. - ISBN 978-3-902823-47-2. - p. 600-605. (in English)
- [16] HANZEL, J. - DUCHOŇ, F. - RODINA, J. - PÁSZTÓ, P.: Processing of GPS Data for Mobile Robot. In: Recent Advances in Robotics, Aeronautical and Mechanical Engineering : 1st International Conference on Mechanical and Robotics Engineering (MIREN '13), 1st International Conference on Aeronautical and Mechanical Engineering (AEME'13). Athens, Greece, May 14-16, 2013. - [s.l.] : WSEAS, 2013. - ISBN 978-1-61804-185-2. - p. 128-133. (in English)
- [17] HOLIČ, I. - ROSINOVÁ, D. - VESELÝ, V.: Robust Decentralized PI Controller Design Based on Subsystem Pole Placement. In: Large Scale Complex Systems Theory and Applications : 13th IFAC Symposium. Shanghai, China, July 7-10, 2013. - Shanghai : IFAC, 2013. - ISBN 978-3-902823-39-7. - p. 260-265. (in English)
- [18] HOLIČ, I. - ROSINOVÁ, D.: Robust PI Controller Design for Coupled-Tank Process: LMI Approach. In: Proceedings of the 2013 International Conference on Process Control : Štrbské Pleso, Slovakia, June 18-21, 2013. - Piscataway : IEEE, 2013. - ISBN 978-80-227-3951-1. - CD-ROM, p. 147-151. (in English)
- [19] HOLIČ, I. - ILKA, A.: Robust State Feedback Controller Design for DC-Motor System. In: ACE 2013 : 10th IFAC Symposium on Advances in Control Education. Sheffield, UK, August 28-30, 2013. - Oxford : Elsevier, 2013. - ISBN 978-3-902823-43-4. - p. 120-125. (in English)
- [20] HUBA, M. - MALATINEC, T. - HUBA, T.: Laboratory Experiments for Robust Constrained UAVs Control. In: ACE 2013 : 10th IFAC Symposium on Advances in Control Education. Sheffield, UK, August 28-30, 2013. - Oxford : Elsevier, 2013. - ISBN 978-3-902823-43-4. - p. 262-267. (in English)
- [21] HUBA, M. - MALATINEC, T. - HUBA, T.: Laboratory Experiments for Robust Constrained UAVs Control. In: Advances in Control Education - ACE 2013 : 10th IFAC Symposium. Sheffield, UK, August 28-30, 2013. - Sheffield : IFAC, 2013. - ISBN 978-3-902823-43-4. - p. 262-267. (in English)
- [22] HUBINSKÝ, P. - RODINA, J. - HANZEL, J. - RUDOLF, B.: Identification of Vertical Deep-Ocean Pipe End-Point Position. In: The Proceedings of Tenth ISOPE Ocean Mining (& Gas Hydrates) Symposium : Szczecin, Poland, September 22-26, 2013. - Cupertino : ISOPE - The International Society of Offshore and Polar Engineers, 2013. - ISBN 978-1-880653-92-0. - p. 234-238. (in English)
- [23] HYPÍUSOVÁ, M. - KAJAN, S.: PID Controller Design by Modified Ziegler-Nichols Method. In: Technical Computing Prague 2013 : 21th Annual Conference Proceedings. Prague, 13 November 2013. - Prague : Institute of Chemical Technology, 2013. - ISBN 978-80-7080-863-4. - CD-ROM, [5] p. (in English)
- [24] ILKA, A. - VESELÝ, V.: Discrete Gain-Scheduled Controller Design: Guaranteed Cost and Affine Quadratic Stability Approach. In: IN-TECH 2013 : Proceedings of International Conference on Innovative Technologies, Budapest, Hungary 10.-13.09.2013. - Rijeka : Faculty of Engineering University of Rijeka, 2013. - ISBN 978-953-6326-88-4. - p. 157-160. (in English)
- [25] ILKA, A. - VESELÝ, V.: Gain - Scheduled Controller Design: Variable Weighting Approach. In: ELITECH'13 : 15th

- Conference of Doctoral Students; Bratislava, Slovakia, 5 June 2013. - Bratislava : Slovak University of Technology Press, 2013. - ISBN 978-80-227-3947-4. - CD-ROM, [6] p. (in English)
- [26] ILKA, A. - ERNEK, M.: Modeling and Control System of Wind Power Plants with Pumped Storage Hydro Power Plant. In: Renewable Energy Sources 2013 : 4th International Scientific Conference OZE 2013. Tatranské Matliare, Slovakia, May 21-23, 2013. - Bratislava : Slovak University of Technology in Bratislava, 2013. - ISBN 978-80-89402-64-9. - p. 495-500. (in English)
- [27] JARČUŠKA, M.: Modeling and Controlling Principle of Radial Electromagnetic Bearings. In: ELITECH'13 : 15th Conference of Doctoral Students; Bratislava, Slovakia, 5 June 2013. - Bratislava : Slovak University of Technology Press, 2013. - ISBN 978-80-227-3947-4. - CD-ROM, [4] p. (in English)
- [28] KAJAN, S. - LAJTMAN, M.: Design of Kohonen Self-Organizing Map with Reduced Structure. In: Technical Computing Prague 2013 : 21th Annual Conference Proceedings. Prague, 13 November 2013. - Prague : Institute of Chemical Technology, 2013. - ISBN 978-80-7080-863-4. - CD-ROM, [4] p. (in English)
- [29] KAJAN, S. - HYPUSOVÁ, M.: Genetic and Robust Controller Design Methods for Uncertain SISO Systems. In: Technical Computing Prague 2013 : 21th Annual Conference Proceedings. Prague, 13 November 2013. - Prague : Institute of Chemical Technology, 2013. - ISBN 978-80-7080-863-4. - CD-ROM, [5] p. (in English)
- [30] KARDOŠ, J.: Simplified Robust Control of an Anthropomorphic Leg. In: 2013 International Conference on Process Control : Štrbské Pleso, Slovakia, June 18-21, 2013. - Piscataway : IEEE, 2013. - ISBN 978-80-227-3951-1. - CD-ROM, p. 130-135. (in English)
- [31] KÖRÖSI, L. - KOZÁK, Š.: An Effective Application of Soft Computing Methods for Hydraulic Process Control. In: Soft Computing Models in Industrial and Environmental Applications : 7th International Conference - SOCO '12. Ostrava, Czech Republic, September 5-7, 2012. - Heidelberg : Springer Verlag, 2013. - (Advances in Intelligent Systems and Computing, Vol. 188). - ISBN 978-3-642-32921-0. - p. 379-388. (in English)
- [32] KÖRÖSI, L. - PAULUSOVÁ, J. - KOZÁK, Š.: PLC Online Control Using Orthogonal Neural Network. In: MENDEL 2013 : 19th International Conference on Soft Computing; Brno, Czech Republic; 26-28 June 2013. - Brno : Brno University of Technology, 2013. - ISBN 978-80-214-4755-4. - p. 227-232. (in English)
- [33] KÖRÖSI, L. - NÉMETH, V. - PAULUSOVÁ, J. - KOZÁK, Š.: RBF Neural Network for Identification and Control Using PAC. In: International Joint Conference SOCO'13-CISIS'13-ICEUTE'13 : Salamanca, Spain, September 11-13, 2013. - Springer International Publishing, 2013. - ISBN 978-3-319-01853-9. - p. 329-337. (in English)
- [34] KOZÁKOVÁ, A. - VESELÝ, V.: A Unified Frequency Domain Method for Designing Robust Decentralized Controllers. In: Large Scale Complex Systems Theory and Applications : 13th IFAC Symposium. Shanghai, China, July 7-10, 2013. - Shanghai : IFAC, 2013. - ISBN 978-3-902823-39-7. - p. 266-271. (in English)
- [35] KRASŇANSKÝ, R. - DVORŠČÁK, B.: Hybrid Modeling and Predictive Control: MLD Approach. In: ELITECH'13 : 15th Conference of Doctoral Students; Bratislava, Slovakia, 5 June 2013. - Bratislava : Slovak University of Technology Press, 2013. - ISBN 978-80-227-3947-4. - CD-ROM, [6] p. (in English)
- [36] LUDWIG, T. - OTTINGER, I. - TÁRNÍK, M. - MIKLOVIČOVÁ, E.: T1DM Subject as a Time-Delay System: Modeling and Adaptive Control. In: 2013 International Conference on Process Control : Štrbské Pleso, Slovakia, June 18-21, 2013. - Piscataway : IEEE, 2013. - ISBN 978-80-227-3951-1. - CD-ROM, p. 85-89. (in English)
- [37] MURGAŠ, J. - VODIČKA, V. - VISZUS, E.: Networked control system based on open-source technologies. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 19, Special Issue : ELOSYS, Trenčín, 15.-18.10.2013, p. 33-36. (in Slovak)
- [38] MURGAŠ, T. - FARKAS, L. - HNÁT, J. - ERNEK, M.: Networked Control System for a Rehabilitation Center. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 19, Special Issue : Conference ELOSYS, Trenčín, 15.-18.10.2013, p. 28-32. (in Slovak)
- [39] OTTINGER, I. - LUDWIG, T. - TÁRNÍK, M.: T1DM Minimal Model: Identification Using IVGTT Data. In: ELITECH'13 : 15th Conference of Doctoral Students; Bratislava, Slovakia, 5 June 2013. - Bratislava : Slovak University of Technology Press, 2013. - ISBN 978-80-227-3947-4. - CD-ROM, [5] p. (in English)
- [40] PAULUSOVÁ, J. - ORLICKÝ, L. - KÖRÖSI, L.: PID Controller Tuning with Soft Computing Techniques. In: MENDEL

- 2013 : 19th International Conference on Soft Computing; Brno, Czech Republic; 26-28 June 2013. - Brno : Brno University of Technology, 2013. - ISBN 978-80-214-4755-4. - p. 391-396. (in English)
- [41] PAULUSOVÁ, J. - ORLICKÝ, L. - DÚBRAVSKÁ, M.: Self-Tuning Fuzzy PID Controller. In: 2013 International Conference on Process Control : Štrbské Pleso, Slovakia, June 18-21, 2013. - Piscataway : IEEE, 2013. - ISBN 978-80-227-3951-1. - CD-ROM, p. 304-308. (in English)
- [42] PERNECKÝ, D. - SEKAJ, I.: Grammatical Evolution Based Controller Design. In: MENDEL 2013 : 19th International Conference on Soft Computing; Brno, Czech Republic; 26-28 June 2013. - Brno : Brno University of Technology, 2013. - ISBN 978-80-214-4755-4. - p. 81-86. (in English)
- [43] PETROVIČ, P. - BALOGH, R.: Robotics on summer schools. In: DidInfo 2013 : 19th National Conference on the Teaching of Informatics. Banská Bystrica, Slovak Republic, April 10-12, 2013. - Banská Bystrica : Matej Bel University, 2013. - ISBN 978-80-557-0527-9. - p. 188-193. (in Slovak)
- [44] PYTEL, A. - KOZÁK, Š. - DÚBRAVSKÝ, J.: On-line Predictive Controller for Gas Turbine. In: 3rd International Conference on Advanced Control Circuits and Systems (ACCS' 013) ; 2nd International Conference on New Paradigms in Electronics & Information Technology (PEIT ' 013) : Luxor, Egypt, 30 November - 3 December 2013. - CD-ROM, 5 p. (in English)
- [45] RADIČOVÁ, T. - ŽALMAN, M.: Master Slave LMPM Position Control Using Genetic Algorithms. In: Soft Computing Models in Industrial and Environmental Applications : 7th International Conference - SOCO '12. Ostrava, Czech Republic, September 5-7, 2012. - Heidelberg : Springer Verlag, 2013. - (Advances in Intelligent Systems and Computing, Vol. 188). - ISBN 978-3-642-32921-0. - p. 73-82. (in English)
- [46] SEKAJ, I. - BERNÁTOVÁ, I. - BALIŠ, P. - MAJZÚNOVÁ, M. - ZICHA, J. - BEHULIAK, M.: Role of Reactive Oxygen Species in Modulation of Blood Pressure Response in Rats Exposed to Acute Stress. In: Society for Free Radical Biology and Medicine : VIII International Congress. Buenos Aires, Argentina, October 14-17, 2013. - Buenos Aires : Estudio Sigma S.R.L., 2013. - p. P9-02. (in English)
- [47] SOÓS, D.: Robust Control of IPDT Plant with Performance Portrait. In: ELITECH'13 : 15th Conference of Doctoral Students; Bratislava, Slovakia, 5 June 2013. - Bratislava : Slovak University of Technology Press, 2013. - ISBN 978-80-227-3947-4. - CD-ROM, [6] p. (in English)
- [48] STAŇÁK, V. - BUGÁR, M. - RIBAR, E. - MADARÁS, J. - NOGE, F.: Propulsion System of Advanced Electric Vehicle. In: Renewable Energy Sources 2013 : 4th International Scientific Conference OZE 2013. Tatranské Matliare, Slovakia, May 21-23, 2013. - Bratislava : Slovak University of Technology in Bratislava, 2013. - ISBN 978-80-89402-64-9. - p. 317-322. (in English)
- [49] ŠKULTÉTY, J. - MIKLOVIČOVÁ, E. - BARS, R.: Analysis of Model Reference Control Based on Modified Laguerre Network with Integrator. In: 2013 14th International Carpathian Control Conference (ICCC) : Rytro, Poland, May 26-29, 2013. - [s.l.] : IEEE, 2013. - ISBN 978-1-4673-4489-0. - p. 350-355. (in English)
- [50] ŠKULTÉTY, J. - MIKLOVIČOVÁ, E. - BARS, R.: Predictive Model Reference Control Based on Discrete Laguerre Network with Integrator. In: 2013 International Conference on Process Control : Štrbské Pleso, Slovakia, June 18-21, 2013. - Piscataway : IEEE, 2013. - ISBN 978-80-227-3951-1. - CD-ROM, p. 341-346. (in English)
- [51] ŠTEVO, S.: Intelligent Design and Use of Photovoltaic Systems for Off-Grid Houses. In: Facility management 2013 : 11th Conference with International Participation. Bratislava, Slovak Republic, 1.-2.10.2013. - Bratislava : SSTP. - ISBN 978-80-89216-57-4. - p. 103-106. (in Slovak)
- [52] ŠTEVO, S. - OSUSKÝ, J.: Small Photovoltaic Power Plant - Model, Simulation and Consumption Optimization. In: Proceedings of Technical University of Sofia. - ISSN 1311-0829. - Vol. 63, Iss. 5 : Science Days. Sozopol, Bulharská republika, 2-5 September 2013. - Sofia : Technical University of Sofia, 2013, p. 37-46. (in English)
- [53] TÁRNÍK, M. - MURGAŠ, J. - MIKLOVIČOVÁ, E. - FARKAS, L.: Adaptive Control of Time-Delayed Systems with Application for Control of Glucose Concentration in Type 1 Diabetic Patients. In: 11th IFAC International Workshop on Adaptation and Learning in Control and Signal Processing : Caen, France, 3-5 July 2013. - [s.l.] : IFAC, 2013. - ISBN 978-3-902823-37-3. - p. 452-457. (in English)
- [54] TEPLJAKOV, A. - PETLENKOV, E. - BELIKOV, J. - HALÁS, M.: Design and Implementation of Fractional-order PID Controllers for a Fluid Tank System. In: The 2013 American Control Conference : Washington DC, USA. June 17-

- 19, 2013. - [s.l.] : American Automatic Control Council, 2013. - ISBN 978-1-4799-0176-0. - p. 1780-1785. (in English)
- [55] VALACH, P. - KRASŇANSKÝ, R.: Robust Stabilization of Switched Two-Tank System Model via State Feedback PI Controller. In: 2013 International Conference on Process Control : Štrbské Pleso, Slovakia, June 18-21, 2013. - Piscataway : IEEE, 2013. - ISBN 978-80-227-3951-1. - CD-ROM, p. 445-450. (in English)
- [56] VALACH, P.: State Feedback Stabilization with Input Constraints of Switched System. In: ELITECH'13 : 15th Conference of Doctoral Students; Bratislava, Slovakia, 5 June 2013. - Bratislava : Slovak University of Technology Press, 2013. - ISBN 978-80-227-3947-4. - CD-ROM, [5] p. (in English)
- [57] VESELÝ, V. - ROSINOVÁ, D. - ILKA, A.: Decentralized Gain-Scheduling Controller Design: Polytopic System Approach. In: Large Scale Complex Systems Theory and Applications : 13th IFAC Symposium. Shanghai, China, July 7-10, 2013. - Shanghai : IFAC, 2013. - ISBN 978-3-902823-39-7. - p. 401-406. (in English)
- [58] VESELÝ, V. - OSUSKÝ, J. - GUZMICKÝ, P.: Design of Gain Scheduled Control in Frequency Domain. In: 2013 International Conference on Process Control : Štrbské Pleso, Slovakia, June 18-21, 2013. - Piscataway : IEEE, 2013. - ISBN 978-80-227-3951-1. - CD-ROM, p. 292-297. (in English)
- [59] VESELÝ, V. - ILKA, A. - KOZÁKOVÁ, A.: Frequency Domain Gain Scheduled Controller Design for SISO Systems. In: 2013 International Conference on Process Control : Štrbské Pleso, Slovakia, June 18-21, 2013. - Piscataway : IEEE, 2013. - ISBN 978-80-227-3951-1. - CD-ROM, p. 439-444. (in English)
- [60] VESELÝ, V. - ILKA, A.: Gain-Scheduled Controller Design: Guaranteed Quality Approach. In: 2013 International Conference on Process Control : Štrbské Pleso, Slovakia, June 18-21, 2013. - Piscataway : IEEE, 2013. - ISBN 978-80-227-3951-1. - CD-ROM, p. 456-461. (in English)
- [61] VESELÝ, V. - ILKA, A.: Gain-Scheduled Controller design: MIMO Systems. In: 2013 14th International Carpathian Control Conference (ICCC) : Ryto, Poland, May 26-29, 2013. - [s.l.] : IEEE, 2013. - ISBN 978-1-4673-4489-0. - p. 417-422. (in English)
- [62] VONKOMER, J. - ŽALMAN, M.: On the Stability of Current Based MRAS. In: IECON 2013 : 39th Annual Conference of the IEEE Industrial Electronics Society. Vienna, Austria, 10-13 November 2013. - Vienna : IEEE, 2013. - ISBN 978-1-4799-0223-1. - p. 3015-3020. (in English)
- [63] VÖRÖS, J.: On Identification of Nonlinear Dynamic Systems Using Three-Block Cascade Models. In: 2013 International Conference on Process Control : Štrbské Pleso, Slovakia, June 18-21, 2013. - Piscataway : IEEE, 2013. - ISBN 978-80-227-3951-1. - CD-ROM, p. 247-251. (in English)
- [64] VOZÁK, D. - ILKA, A.: Application of Unstable System in Education of Modern Control Methods. In: ACE 2013 : 10th IFAC Symposium on Advances in Control Education. Scheffield, UK, August 28-30, 2013. - Oxford : Elsevier, 2013. - ISBN 978-3-902823-43-4. - p. 114-119. (in English)
- [65] VOZÁK, D. - VESELÝ, V.: Robust Output Feedback Controllers for MIMO Systems, BMI and LMI Approach. In: 2013 International Conference on Process Control : Štrbské Pleso, Slovakia, June 18-21, 2013. - Piscataway : IEEE, 2013. - ISBN 978-80-227-3951-1. - CD-ROM, p. 142-146. (in English)

IX.4 Books

- [1] MURGAŠ, J. - POLIAČIK, M.: Direct Adaptive Control of Continuous Processes. - Bratislava : Slovak University of Technology Press, 2013. - 137 p. + CD ROM. - ISBN 978-80-227-4109-5. (in Slovak)

INSTITUTE OF ELECTRICAL ENGINEERING

<http://www.ue.fei.stuba.sk/>



Director of Institute:

prof. Ing. Viktor Smieško, PhD.

Tel: ++421-2-602 91 894,

e-mail: viktor.smiesko@stuba.sk

Fax: ++421-2-654 40 227

Deputy Director of the Institute:

doc. Ing. Ľubomír Šumichrast, CSc.

e-mail: lubormir.sumichrast@stuba.sk

Tel: ++421-2-654 23 502,

Fax: ++421-2-654 40 227

Secretary of the Institute:

Ružena Nagyová

e-mail: ruzena.nagyova@stuba.sk,

Tel: ++421-2-654 29 600

Fax: ++421-2-654 40 227

General Information:

The Institute of Electrical Engineering FEI STU is a direct successor of the Institute of Theoretical and Applied Electrical Engineering at the Slovak Technical University (SVŠT). This Institute was the first establishment of the Department of Electrical Engineering at the Faculty of Mechanical and Electrical Engineering of SVŠT in Bratislava and hence, it became the foundation institution for education of electrical engineers in Slovakia. This institute was constituted together with the Faculty in 1941 and thus its 70th anniversary was celebrated last year. The founder of the Institute was Prof. Dr. Ing. Ľudovít Kneppo, DrSc. who was also appointed the first Dean of the Faculty of Electrical Engineering at SVŠT, after it gained its autonomy. Right from the beginning, the Institute addressed all theoretical and engineering aspects of electro-technology including measuring methods which were an integral part of the branch. Due to the broad scope of its scientific profile, several departments and working groups were formed within the institute. In

the 1950s the Institute was renamed to Department of Theoretical and Applied Electrical Engineering (KTEE) and as such it existed until 2011.

The Group of Electrical Measurement was gradually extending its profile. The initial year of education in the area of Measurement Technology, branch of Technical Cybernetics was 1974. Due to the growing volume and extent of work both in teaching and research, the foundation of a separate Department of Measurement became inevitable. This happened by splitting of KTEE in 1980, when the Department of Measurement (KMER) was established. On the 1st May 2011 these two departments merged and gave rise to the Institute of Electrical Engineering that finished the evolution by returning to its roots after 31 years.

Departments of the Institute:

Department of Measurement

Department Chair - doc. Ing. Mikuláš Bittera, PhD.

Department of High-frequency Techniques and Optoelectronics

Department Chair prof. Ing. Jozef Jasenek, PhD.

Department of Electromagnetic Theory

Department Chair doc. Ing. Elemír Ušák, PhD.

Department of Electromagnetic Structures and Systems Modelling

Department Chair doc. Ing. René Hartánský, PhD.

I. STAFF

| | |
|---------------------------------|--|
| Professors | prof. Ing. Jozef Jasenek, PhD., prof. Ing. Viktor Smieško, PhD., professor emeritus Ing. Július Bajcsy, PhD., professor emeritus Ing. Jozef Sláma, PhD. |
| Associate Professors | doc. Ing. Mikuláš Bittera, PhD., doc. Ing. Ivan Bojna, PhD., doc. Ing. Ján Bydžovský, PhD., doc. Ing. Rastislav Dosoudil, PhD., doc. Ing. René Hartánský, PhD., doc. Ing. Peter Jahn, PhD., doc. Ing. Vladimír Jančárik, PhD., doc. Ing. Karol Kováč, PhD., doc. Ing. Rudolf Ravas, PhD., doc. Ing. Lívia Syrová, PhD., doc. Ing. Ľubomír Šumichrast, PhD., doc. Ing. Elemír Ušák, PhD. |
| Assistant Professors | Ing. Jozefa Červeňová, PhD., Ing. Oľga Čičáková, Ing. Jaroslav Franeck, PhD., Mgr. Ján Grman, PhD., Ing. Miroslav Kamenský, PhD., Ing. Mojmír Kollár, PhD., Ing. Eva Králiková, Ing. Marián Štofka, PhD., Ing. Vladimír Olah, PhD. |
| Senior Scientists | Ing. Ján Bezek, PhD., Ing. Vladimír Bilík, PhD., Ing. Jozef Hallon, PhD., Ing. Branislav Korenko, PhD., doc. Ing. Peter Kukuča, PhD., Ing. Jozef Paľa, PhD., Ing. Lukáš Maršálka, PhD., Ing. Martin Šoka, PhD., Ing. |

Marianna Ušáková, PhD.

Technical Staff Mária Brunovská, Milan Brunovský, Ružena Nagyová, Alojz Vďačný

PhD. Students Ing. Jaroslav Erdziak, Ing. Anton Krammer, Ing. Matej Mičian, Ing. Jozef Mikuš, Ing. Lucia Noskovičová-Letanovská, Ing. Peter Slížik, Ing. Lukáš Šroba, Ing. Gabriel Války

II. EQUIPMENT

II.1 Teaching and Research Laboratories

- National HighTech Centre of Electromagnetic Compatibility (EMC) with a 4,5 x 4,5 x 8,5 m Semi-anechoic Shielded Chamber
- Laboratory of Distributed Measurement Systems
- Laboratory of Digital Signal Processing
- Laboratory of Electrical Measurements
- Laboratory of Nonelectrical Quantities Measurement
- Precise Measurement Laboratory
- Laboratory of Microprocessor Engineering
- Laboratory of Visual Systems
- Laboratory of Diagnostics Systems
- Laboratory of Power and Energy Measurement
- Laboratory of Electric Circuits
- Laboratory of Electromagnetic Field
- Laboratory of Optoelectronics
- Laboratory of Signal Processing
- Laboratory of Microwave Technology
- Laboratory of Pulse and Nonlinear Electrodynamics
- Laboratory of Electronics
- Laboratory of Applied Magnetism
- Laboratory of Magnetic Measurement
- Laboratory of Magnetic Materials Testing
- Laboratory of Magnetic Materials Technology
- Laboratory of Chemical Technology

II.2 Special Measuring Instruments and Computers

- Calibrator DATRON 4700
- Digital Storage Oscilloscopes up to 1 GHz, 5 GSa/s
- VXI System (VX 4236 Digital Multimeter, VX 5520 VXI Slot Resource Manager, VX 1500 VXI Mainframe, VX 4223 Counter/Timer)
- GPIB System (NI GPIB Interfaces, Agilent 34401A Multimeters, 33120A Generators, 53131A Counters, E364XA Programmable Power Sources)
- EMC Design & Development System (8591A Spectrum Analyzer and 11945A Close Field Probe Set)
- EMC Analyzer Agilent E7405A up to 26GHz
- RF Measuring Receivers 9 kHz - 7 GHz (R&S - ESPI7, ESHS10, ESVS10)
- Handheld Spectrum Analyzer R&S FSH 8 up to 8 GHz
- Time Domain EMI Measuring Receiver TDEMI 1G up to 1 GHz
- RF Network Analyzer Agilent E5071C-285 up to 8 GHz

- Impedance Measurement System Hioki 3522-50, DC - 100 kHz
- RF Signal Generators (Agilent E8257D up to 20 GHz and R&S SMH up to 2 GHz)
- RF Power Amplifiers (AG 1020 - 50 W 10 kHz-20MHz, AR 150W1000 - 150 W 80 MHz - 1 GHz, Prana AP32DT150 - 50 W 10 kHz - 1 GHz, Milmega AS0840-30/17 - 30 W 0.8 - 4 GHz, AR 1S4G11 - 1 W 4 - 10.6 GHz)
- Measuring Antenna Set (BiLog, Biconical, LPDA, Rod, Loop, Horn, Dipole) DC - 40 GHz
- Electromagnetic Field Intensity Meter (C.A. 42 DC - 400 kHz, HI6105 100 kHz - 6 GHz)
- Analyzers of Single Phase System HA1600 and 3-Phase System KEW6310;
- Programmable AC/DC Power Supply Chroma 61503 1500VA;
- Electrostatic Discharge Simulators up to 30 kV (Emtest ESD30N and Haefely PESD1600);
- Electric Fast Transient Simulators (Emtest EFT500N5 and Haefely PEFT);
- Surge Generator Emtest VSC500;
- Line Impedance Stabilization Networks (1-Phase ESH3-Z5 and 3-Phase NNLK8121);
- Reference Noise Generator CGE 01 up to 18 GHz;
- Set of Impedance Stabilization and Coupling/Decoupling Networks;
- EM Field Simulation Computer Station ThinkStation D20 with FEKO Solver;
- Measurement Software (LabView, R&S EMC32);
- Michelson Interferometer for Measurement of Chromatic Dispersion of Single Mode Optical Fibres;
- Apparatus for Generation of Second Harmonics in Optical Frequency Range;
- Apparatus for Back-Scattering Measurement in Optical Fibers Using Photon Counting Method;
- Correlator and Signal Analyzer, frequency range to 50 kHz;
- Microwave Power Meter HP-432 B;
- Spectral Analyser 10 MHz - 4 GHz;
- Precision Wattmeter 104B, 4mW - 60 kW, up to 200 kHz;
- VSM Magnetometer, Hm up to 0.8 MA/m, temperature range 77 K - 800 K
- Precision Gaussmeter, 1 μ T - 10 T at DC, up to 1 kHz AC
- Lock-In-Amplifier DSP SR 850 2nV to 1V;
- High Coercivity Measuring Apparatus;
- PC Controlled AC/DC Hysteresisgraph;
- Automated System for Magnetic Susceptibility Temperature Dependence Measurement
- Universal Counter HP53132A up to 12.4 GHz;
- Vibrator DERRITRON SC-3000 – mechanical resistance testing equipment;
- RF Impedance/Material Analyzer HP4191 A 1 MHz-1 GHz, 1 mOhm - 100 kOhm, APC-7 coaxial (50 Ohm) input, GPIB standard; spot, linear and logarithmic frequency sweep;
- HP4192A LF Gain Phase - Impedance Analyser, 5 Hz - 13 MHz, 1 mOhm - 1 MOhm, GPIB;
- Optical Fibre Reflectometer JDSU - MTS 6000L;
- Optical Fibre Polarimeter – POD-101D - General Electronics;
- Vector Network Analyzer Agilent 8714ET, 300 kHz - 3 GHz, GPIB interface;
- Vector Network Analyzer Agilent E5071C, frequency range 9 kHz - 6.5 GHz, S-parameter test set, 2 ports 50 Ohm without bias tees;
- Optical Fibre Spectral Analyzer „Ocean Optics“ NIRQuest 512
- Supercantal Furnace 1016S CLASIC CZ
- Optical Spectrum Analyser, Anritsu MS 9740A (600 - 1750 nm)
- Digital Phosphor Oscilloscope Tektronix DPO 5204 (2 GHz)

III. TEACHING

III.1 Undergraduate Study (Bc.)

Subject, semester, hours per week for lectures and for seminars or practical exercises, name of lecturer

| | | |
|--|------------------------------------|------------------------------|
| Introduction to Engineering | (1st sem., 2-2h) | R. Ravas |
| Computer Architecture | (2nd sem., 3-2h) | R. Ravas |
| Electric Circuits I | (2nd+3rd sem., 3-3h) | E. Ušák, V. Jančárik, M Šoka |
| Electrical Engineering I | (2nd+3rd sem., 3-3h) | Ľ. Šumichrast |
| Theory of Electrical Engineering I | (2nd+3rd sem., 3-3h) | J. Bydžovský, V. Jančárik |
| Electric Circuits II | (3rd+4th sem., 3-3h) | J. Jasenek, J. Červeňová |
| Electrical Engineering | (3rd sem., 3-3h) | K. Kováč |
| Electrical Engineering | (3rd sem., 2-2h) | E. Ušák |
| Electrical Engineering II | (3rd + 4 th sem., 3-3h) | Ľ. Šumichrast |
| Measurement Technology | (3rd sem., 2-3h) | V. Smieško |
| Theory of Electrical Engineering II | (3rd+4th sem., 3-3h) | J. Bydžovský, P. Jahn |
| Electromagnetic Field | (4th+5th sem., 3-3h) | J. Jasenek |
| Measurement | (4th sem., 2-3h) | M. Bittera |
| Measurement Technology | (4th sem., 2-3h) | V. Smieško |
| Measuring Information Systems | (4th sem., 2-2h) | L. Syrová |
| Theory of Electrical Engineering III | (4th+5th sem., 3-3h) I. | Bojna, J. Franek |
| Computer Hardware | (5th sem., 2-2h) | V. Jančárik |
| Measurement in Information Technology | (5th sem., 2-2h) | R. Harťanský |
| Methodology of Measurement | (5th sem., 1-2h) | R. Harťanský |
| Diagnostics and Testing of Automobiles | (6th sem., 2-2h) | K. Kováč |
| Microprocessor Engineering | (6th sem., 2-2h) | R. Ravas |
| Technical Diagnostics | (6th sem., 3-2h) | K. Kováč |
| Introduction to the Technique History | (2-1h) | J. Sláma |
| Electronics | (FIIT 3rd sem., 3-2h) | E. Ušák |
| Fundamentals of Electrical Engineering | (FIIT 4th sem., 3-3h) | V. Jančárik |
| Measurement | (FIIT 5th sem., 2-3h) | P. Kukuča |
| Telemetry and Information Transmission | (FIIT 6th sem., 3-2) | P. Kukuča |

III.2 Graduate Study (Ing.)

| | | |
|--|------------------|--------------------|
| Design of Information Systems | (1st sem., 2-3h) | R. Ravas, J. Grman |
| Diagnostic Systems | (1st sem., 3-2h) | K. Kováč |
| Digital Image Processing | (1st sem., 2-3h) | R. Ravas |
| Distributed Measurement Systems | (1st sem., 2-3h) | V. Smieško |
| Electromagnetic Compatibility | (1st sem., 3-2h) | R. Harťanský |
| Modeling of Fields | (1st sem., 3-2h) | Ľ. Šumichrast |
| Diagnostics and Electromagnetic Compatibility | (2nd sem., 3-2h) | K. Kováč |

| | | |
|---|----------------------|-----------------------------|
| Dielectric and Magnetic Materials | (2nd sem., 2-2h) | R. Durný, E. Ušák |
| Electrical Engineering III | (2nd sem., 3-2h) | Ľ. Šumichrast, J. Červeňová |
| Electromagnetic Compatibility | (2nd sem., 3-2h) | R. Harťanský |
| Magnetic Materials and Systems in Mechatronic | (2nd sem., 2-2h) | E. Ušák |
| Methods and Tools of Artificial Intelligence | (2nd sem., 2-3h) | R. Ravas, J. Grman |
| Metrology, Testing and Quality Control | (2nd sem., 3-2h) | R. Harťanský |
| Safety of Electric Equipment | (2nd sem., 2-1h) | I. Bojna |
| Theory of Measuring Systems | (2nd sem., 3-2h) | R. Ravas, L. Syrová |
| Digital Signal Processing | (3rd sem., 3-2h) | K. Kováč |
| Distributed Measurement Systems | (3rd sem., 2-3h) | V. Smieško |
| Magnetism | (3rd sem., 2-2h) | E. Ušák |
| Optical Waveguides | (3rd sem., 2-1h) | J. Jasenek |
| Telemetry and Information Transmission | (3rd sem., 3-2h) | P. Kukuča |
| Visual Systems | (3rd sem., 2-3h) | R. Ravas |
| Methods and Tools of Artificial Intelligence Telemetry and Distributed Measurement in Automobiles | (4th sem., 2-3h) | R. Ravas, J. Grman |
| Telemetry and Information Transmission | (4th sem., 2-2h) | V. Smieško |
| Electromagnetism | (4th sem., 3-2h) | P. Kukuča |
| Numeric Methods in Electromagnetism | (SvF 1st sem., 2-2h) | R. Dosoudil |
| | (SvF 1st sem., 2-2h) | Ľ. Šumichrast, J. Červeňová |

III.3 Distance Study (Bc.)

| | | |
|--------------------------------------|------------|------------------------|
| Computer Architecture | (2nd sem.) | R. Ravas |
| Theory of Electrical Engineering I | (4th sem.) | E. Ušák, M. Štofka |
| Measuring Information Systems | (5th sem.) | L. Syrová |
| Theory of Electrical Engineering II | (5th sem.) | V. Jančárik, M. Štofka |
| Electrical Engineering | (6th sem.) | E. Ušák, M. Šoka |
| Measurement Technology | (6th sem.) | V. Smieško |
| Theory of Electrical Engineering III | (6th sem.) | J. Jasenek, J. Franek |
| Methodology of Measurement | (7th sem.) | L. Syrová |
| Technical Diagnostics | (8th sem.) | K. Kováč |

III.4 Distance Study (Ing.)

| | | |
|--|------------|--------------------|
| Diagnostic Systems | (1st sem.) | K. Kováč |
| Electromagnetic Compatibility | (2nd sem.) | R. Harťanský |
| Methods and Tools of Artificial Intelligence | (2nd sem.) | R. Ravas, J. Grman |
| Distributed Measuring Systems | (3rd sem.) | V. Smieško |
| Visual Systems | (3rd sem.) | R. Ravas |
| Telemetry and Information Transmission | (4th sem.) | P. Kukuča |

III.5 Undergraduate Study for Foreign Students (in English Language)

| | | |
|-----------------------------|------------|-----------------------|
| Measurement Technology | (3rd sem.) | V. Smieško, L. Surová |
| Electronic Measurement | (4th sem.) | P. Kukuča |
| Methodology and Measurement | (5th sem.) | L. Surová |
| Microprocessor Systems | (7th sem.) | K. Kováč |

III.6 Graduate Study (Ing.) for Foreign Students (in English Language)

| | | |
|---|------------|----------|
| Electromagnetic Interference and Compatibility | (1st sem.) | K. Kováč |
|---|------------|----------|

IV. RESEARCH PROJECTS

IV.1 National Scientific Projects

- Advanced Materials and Smart Structures for Electrical Engineering, Electronics and Biomedical Applications Based on Micro- and Nano-sized Ferrite Particles, APVV-0062-11
Duration: 2012 – 2015 (continued), (E. Ušák)
- Advanced Methods for Identification of Magnetic Parameters of Ferromagnetic Materials Aimed at Construction Materials Inspection and Electrical Steels Diagnostics, VEGA 1/1325/12
Duration: 2012 – 2014 (continued), (E. Ušák)
- Antiplagiarism Analysis of Non-Textual Data, APVV-0469-12
Duration 2013 – 2017 (continued), (J. Grman)
- Electromagnetic Compatibility of Technological Equipment in Tyre Industry, APVV-0333-11
Duration: 2012 – 2015 (continued), (M. Bittera)
- Methods of Selected Electromagnetic Compatibility (EMC) Tests Validation, VEGA 1/0963/12
Duration: 2012 – 2014 (continued), (V. Smieško)
- Research and Optimisation of Selected Parameters of Progressive Magnetic and Multicomponent Composite Materials and Nanomaterials with Required Properties for Applications in Electrical and Mechanical Engineering Industry VEGA 1/1163/12
Duration: 2012 – 2015 (continued), (R. Dosoudil)
- Theoretic and Practical Study of the Use of SLAM Methods, 2013 (completed) (L. Šroba)

IV.2 International Scientific Projects

- Applied Research and Development of Innovative Drilling Technology for Ultra-Deep Geothermal Wells, Directed by - Geothermal Anywhere, s.r.o. (ITMS: 26240220042) (Challenge: OPVaV-2009/4.2/03-SORO)
Duration: 2010–2013 (completed), (J. Jasenek, E. Ušák)
- Increase of Power Safety of the Slovak Republic (ITMS: 26220220077), Operational Programme Research & Development, European Regional Development Fund
Duration: 2011-2013 (completed), (K. Kováč)
- Center of Competency for New Materials, Advanced Technologies and Power Engineering (ITMS 26240220073)
Duration: 2011–2014 (continued), (P. Kukuča)

- Universal Network for Magnetic Non-Destructive Evaluation” (UNMNDE)
Duration: since 2005 – (continued), (J. Bydžovský, E. Ušák, J. Paľa)
- SALEIE - Strategic Alignment of Learning in Electrical and Information Engineering, EU Thematic Network Project Coordinated by EAEEIE (European Association for Education in Electrical and Information Engineering)
Duration: 2013-2015, continued (J. Jasenek, V. Jančárik)
- University Science Park of STU Bratislava, ITMS 26240220084, co-funded by the European Regional Development Fund
Duration: 2013-2015, continued (V. Smieško)

V. COOPERATION

V.1 Cooperation in Slovakia

- Institute of Measurement Science, Slovak Academy of Sciences, Bratislava
- Slovak Institute of Metrology, Bratislava
- Nuclear Power Plants Research Institute, jsc., Trnava
- Slovak Institute of Technical Standardization, Bratislava
- Office for Standardization, Metrology and Testing of Slovak Republic, Bratislava
- Slovak Power Plants, jsc., Bratislava
- University of Žilina, Žilina
- Alexander Dubcek University of Trenčín in Trenčín
- Volkswagen Slovakia, jsc., Bratislava
- Slovak Electric Transmission System, jsc., Bratislava
- Western-Slovakia Power Systems, jsc., (Západoslovenská energetika, a.s.), Bratislava
- Central- Slovakia Power Systems, jsc., (Stredoslovenská energetika, a.s.), Žilina
- Elektrovod Holding, jsc., Bratislava
- Institute of Informatics, Slovak Academy of Sciences, Detached branches Banská Bystrica
- Continental Matador, Itc., Púchov
- Armed Force Academy of General Milan Rastislav Štefánik (Akadémia ozbrojených síl generála Milana Rastislava Štefánika), L. Mikuláš
- Institute of Electrical Engineering of Slovak Academy of Sciences, Bratislava
- Institute of Physics of Slovak Academy of Sciences, Bratislava
- Integrity a Safe of Steel Constructions, jsc., Bratislava (IBOK)
- Research and Project Institute of Electrotechnology Nová Dubnica, jsc., (EVPU a.s.)
- Technical University in Košice
- Faculty of Chemical and Food Technology, Slovak University of Technology in Bratislava
- Association of Electro-technical Industry of the Slovak Republic, Bratislava

V.2 International Cooperation

- European Organization for Nuclear Research CERN, Geneva, Switzerland
- Institute of Logistics and Warehousing (ILIM), Poznań, Poland
- Austrian Research Centre, Seibersdorf, Austria
- Izhevsk State Technical University, Russian Federation
- School of Physics and Electronic Systems Engineering, University of South Australia, Pooraka
- TU Budapest, Hungary
- Doshisa University, Japan
- Nuclear Engineering Research Laboratory, University of Tokyo, Japan
- Department of Physics Colorado State University Fort Collins, USA
- Istituto Nazionale di Ricerca Metrologica, Torino, Italy
- TU Ilmenau, Germany
- Cardiff University, Wolfson Centre for Magnetic Technology, United Kingdom
- VEV Elektrotechnisch Vakondernus Nijkkerk, The Netherlands

- TU of Czestochowa, Poland
- Warsaw University of Technology
- Moscow Energy Institute, Russia
- Lublin Technical University, Poland
- Institute of Physics, Academy of Sciences of Czech Republic, Prague, Czech Republic
- Institute of Inorganic Chemistry, Academy of Sciences of Czech Republic, Prague, Czech Republic
- Czech Technical University, Prague, Czech Republic
- West Bohemian University, Pilsen, Czech Republic
- Technical University, Brno, Czech Republic
- CINVESTAV, Saltillo, Mexico
- Research Institute for Technical Physics and Materials Science, Hungarian Academy of Sciences, Budapest, Hungary
- Politehnika Zagreb, Croatia
- Faculty of Engineering, Universidad Nacional Autonoma de Mexico (UNAM), Ciudad, Mexico
- National Technical University of Athens, School of Mining & Metallurgical Engineering, Athens, Greece

V.3 Contract-based Business Activities

- V. Smieško et al.: Analysis of New Processes Resulting from the Requirements of the Valid Legislation, Proposal for a Modification of the Concept of the Trade Measurement System. Contract with SEPS, jsc., Bratislava
- V. Smieško et al.: EMC Testing and Consultancy. Contracts for Small and Medium Enterprises.

VI. THESES

VI.1 Masters Theses

The names of supervisors are in brackets:

- [1] Hajro, L.: Signal Processing in the Harmonic Analysis and the Transient Responses in Electrical Circuits. (J. Červeňová)
- [2] Kočíš, M.: Numerical Modeling of the Shielding Efficiency of the Real Device. (R. Hartánský)
- [3] Martiš, R.: Analysis of Non-sequential Behavior of Petri Networks. (V. Jančárik)
- [4] Mariašovský, A.: Management Module of Faculty Educational Process. (V. Jančárik)
- [5] Svetík, M.: Polarization Mode Dispersion in Optical Fibers. (J. Jasenek)

VI.2 Doctoral Theses

The names of supervisors are in brackets:

- [1] Kollár, M.: Application of Cluster Analysis on Antenna Calibration Measurements Data. (K. Kováč)
- [2] Maršálka, L.: Contactless Small Distance Measurement. (R. Hartánský)
- [3] Války, G.: A Contribution to the Measurement of Frequency Spectra by TDEMI Systems. (K. Kováč)

VII. OTHER ACTIVITIES

Other events:

- Courses for the Accredited Educational Activity "The Electrical Minimum" (M. Bittera, P. Jahn, M. Kollár, K. Kováč, V. Olah, L. Šumichrast)

VIII. MEMBERSHIP IN INSTITUTIONS/COMMITTEES

VIII.1 Membership in National Institutions/Committees

- Members of the Scientific Committee of the Conference “Electrical Engineering and Information Technology” 2013, Trenčín (V. Smieško)
- Chairman of the Council of Universities of Slovak Republic (V. Smieško)
- Member of Slovak Republic Government Council for Science and Technology (V. Smieško)
- Member of Scientific Council of the Slovak Academy of Sciences (V. Smieško)
- Member of Scientific Council of Institute of Measurement Science in Slovak Academy of Sciences (V. Smieško)
- 9th International Conference supported by IMEKO TC-7 MEASUREMENT 2013 (Members of the Scientific Committee V. Smieško, M. Bittera, R. Harťanský)
- Member of Scientific Council of the FEI STU (V. Smieško)
- Member of Chairmanship of Slovak Research and Development Agency (V. Smieško)
- Member of Accreditation Board for Research Institution in SR (V. Smieško)
- Membership in the Scientific Council of the Slovak Institute of Metrology (V. Smieško)
- Membership in the Slovak National Technical Standardisation Committees (K. Kováč)
- Membership in the Technical Subcommittees of IMEKO (TC19 - K. Kováč)
- Membership in the Chamber for State Policy and Harmonization in Technological Standardization in Slovak Republic (ÚNMS), (I. Bojna)
- Membership in the Working Group of Accreditation Commission of the Government of Slovak Republic for the research field No. 15 “Electrical Engineering and Electrical Power Engineering (J. Jasenek)
- Membership in the Slovak Physical Society (V. Jančárik, J. Sláma, M. Ušáková)
- Membership in the Working Group for the implementation of the National Qualification Framework established by the Ministry of Education of the SR (J. Jasenek)
- Membership in the Life-Long-Learning Managing Committee, established by MS VVS SR (J. Jasenek)
- Membership in Commission for the Award of the title of Associate Professor in the study field Theory of Electrical Engineering (5.2.10) (J. Jasenek)
- Membership in Commission for the PhD. Degree Award in the study field Theory of Electrical Engineering (5.2.10) (J. Jasenek, V. Jančárik, J. Bydžovský, J. Sláma, L. Šumichrast, R. Dosoudil, E. Ušák)
- Chairman of the Commission for the PhD. Degree Award in the study field Measurement Technology (5.2.54) (V. Smieško)
- Membership in Commission for the PhD. Degree Award in the study field Measurement Technology (5.2.54) (K. Kováč, P. Kukuča, R. Ravas, L. Syrová)
- Membership in Commission for the PhD. Degree Award in the study field Metrology (5.2.55) (V. Smieško, K. Kováč, P. Kukuča, R. Ravas)
- Membership in the Slovak Expertise Commission for Electronics (J. Jasenek)
- Expert No. 256 for Branch of Metrology at the Institute of Normalization, Measurement and Standards (ÚNMS) of Slovak Republic (J. Bydžovský)
- Membership in the Scientific Board of FEI STU (J. Jasenek, V. Jančárik)
- Auditor of Slovak National Accreditation Service (K. Kováč, M. Bittera, J. Hallon)

Membership in the Editorial Boards of Journals:

- Journal of Electrical Engineering (V. Smieško)
- AT&P Journal (V. Smieško)
- EE - Journal of Electrical and Power Engineering (P. Kukuča)
- Measurement Science Review - on-line edition (V. Smieško)
- Radioengineering Journal - reviewer (R. Harťanský)
- Quality Innovation Prosperity - Editorial Advisory Board (R. Harťanský)

VIII.2 Membership in International Institutions/Committees

- J. Bezek: Association for Microwave Power in Europe for Research and Education
- V. Bilík: Association for Microwave Power in Europe for Research and Education
- R. Hartánský: IEEE - The Institute of Electrical and Electronics Engineers
- V. Jančárik: European Association for Education in Electrical and Information Engineering (EAEEIE)
- J. Jasenek: European Association for Education in Electrical and Information Engineering (EAEEIE)
- J. Jasenek: IEEE - Institute of Electrical and Electronics Engineers
- J. Jasenek: OSA - Optical Society of America
- J. Jasenek: IOC of the International Travelling Summer School on Microwaves and Lightwaves
- P. Kukuča: IET - [The Institution of Engineering and Technology](#)
- P. Kukuča: Scientific Committee of International Conference Applied Electronics 2013, Plzeň
- J. Sláma: [The Institution of Engineering and Technology](#) - IET Slovak Centre
- J. Sláma: SAES, European Physical Society
- V. Smieško: The International Information Academy
- V. Smieško: The European Academy of Sciences and Arts
- V. Smieško: IEEE - The Institute of Electrical and Electronics Engineers
- V. Smieško: European Association for Education in Electrical and Information Engineering (EAEEIE)
- V. Smieško: IET - The Institution of Engineering and Technology, Fellow
- V. Smieško: URSI - Scientific Commission for Electromagnetic Noise and Interference
- Ľ. Šumichrast: The Institute of Electrical and Electronics Engineers
- Ľ. Šumichrast: [The Institution of Engineering and Technology](#) - IET Slovak Centre
- Ľ. Šumichrast: European Physical Society
- Ľ. Šumichrast: Optical Society of America (OSA)
- Ľ. Šumichrast: President of the Slovak National Committee of the International Union of Radio Science (URSI)

XI. PUBLICATIONS

IX.1 Journals

- BOJNA, I.: Earthing and Equipotential Bonding in Low Voltage Installations from Point of View of Electromagnetic Compatibility. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 19, No. 1 (2013), Suppl. Volt, p.10-12. (in Slovak)
- [1] BOJNA, I.: Earthing and Equipotential Bonding in Low Voltage Installations from Point of View of Electromagnetic Compatibility. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 19, No. 1 (2013), Suppl. Volt, p.10-12. (in Slovak)
- [2] BOJNA, I.: Electric Car Charging. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 19, No. 3 (2013), Suppl. Volt, p. 8-9. (in Slovak)
- [3] BOJNA, I.: Electrical Equipment in and on Solid Combustible Materials. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 19, No. 6 (2013) Suppl. Volt, p. 8-9. (in Slovak)
- [4] BOJNA, I.: External Lighting Installations. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 19, No. 4 (2013), Suppl. Volt, p. 4-5. (in Slovak)
- [5] BOJNA, I.: Electrical Installations for Low Voltage. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 19, No. 5 (2013), Suppl. Volt, p. 6-7. (in Slovak)
- [6] BOJNA, I.: Measurement of Earthing Resistance according to Standard STN 333 2000-6. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 19, No. 2 (2013), Suppl. Volt, p. 10-11. (in Slovak)
- [7] BOJNA, I.: Minimal Technical Facilities on Verification of Technical Equipment Safety. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 19, No. 5 (2013), Suppl. Volt, p. 7-8. (in Slovak)
- [8] BOJNA, I.: New Standard for Electrical Installations in Medical Locations. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 19, No. 5 (2013), Suppl. Volt, p. 3-5. (in Slovak)
- [9] BOJNA, I.: Protection of Low-Voltage Installations against Temporary Overvoltages due to the Earth Faults in the High-Voltage System and due to the Faults in the Low-Voltage System. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 19, No. 2 (2013), Suppl. Volt, p. 8-10. (in Slovak)
- [10] BOJNA, I.: Semi-Luminaires. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 19, No. 5 (2013),

Suppl Volt, p. 5-6. (in Slovak)

- [11] BOJNA, I.: The Use of English Terms Insulation, Isolation. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 19, No. 1 (2013), Suppl. Volt, p.13. (in Slovak)
- [12] BOJNA, I.: TN-C-S Systems Powered from Two Sources. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 19, No. 3 (2013), Suppl. Volt, p.10-11. (in Slovak)
- [13] FRANEK, J.: On Induction Heating - Conductor Excited by an External Field. In: Journal of Electrical Engineering. - ISSN 1335-3632. - Vol. 64, No. 1 (2013), p. 261-264. (in English)
- [14] HARŤANSKÝ, R. - MIKUŠ, P. - MARŠÁLKA, L. - SLÍŽIK, J. - MATEJIČKA, L.: Small Electrical Loop Analytical Calculation. In: Universal Journal of Electrical and Electronic Engineering. - ISSN 2332-3280. - Vol. 1, Iss. 2 (2013), p. 52-57. (in English)
- [15] HARŤANSKÝ, R. - SLÍŽIK, J. - MARŠÁLKA, L.: Dipole Near Field Analysis - A Closed Form Calculation in Cartesian Coordinates. In: Journal of Electrical Engineering. - ISSN 1335-3632. - Vol. 64, No. 5 (2013), p. 327-330. (in English)
- [16] HARŤANSKÝ, R. - SMIEŠKO, V. - MARŠÁLKA, L.: Numerical Analysis of Isotropy Electromagnetic Sensor Measurement Error. In: Measurement Science Review. - ISSN 1335-8871. - Vol. 13, No. 6 (2013), p. 311-314. (in English)
- [17] JASENEK, J. - ŽIŠKA, M. - UŠÁK, E.: Scanning of Electric Arc in the Tubular Plasmatron. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 19, No. 2 (2013), p. 33-35. (in Slovak)
- [18] KOLLÁR, M. - FRANEK, J.: Dangerous Electric Field in Conducting Environment. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 19, No. 5 (2013), p. 27-29. (in Slovak)
- [19] PAĽA, J. - BYDŽOVSKÝ, J.: Barkhausen Noise as a Function of Grain Size in Non-oriented FeSi Steel. In: Measurement. - ISSN 0263-2241. - Vol. 46, Iss. 2 (2013), p. 866-870. (in English)
- [20] REKOŠOVÁ, J. - DOSOUDIL, R. - UŠÁKOVÁ, M. - UŠÁK, E. - HUDEC, I.: Magnetopolymer Composites with Soft Magnetic Ferrite Filler. In: IEEE Transactions on Magnetics. - ISSN 0018-9464. - Vol. 49, Iss. 1 (2013), p. 38-41. (in English)
- [21] SLÁMA, J. - ŠOKA, M. - GRUSKOVÁ, A. - DOSOUDIL, R. - JANČÁRIK, V. - DEGMOVÁ, J.: Magnetic Properties of Selected Substituted Spinel Ferrites. In: Journal of Magnetism and Magnetic Materials. - ISSN 0304-8853. - Vol. 326 (2013), p. 251-256. (in English)
- [22] SLÍŽIK, J. - HARŤANSKÝ, R.: Metrology of Electromagnetic Intensity Measurement in Near Field. In: Kvalita Inovácia Prosperita = Quality Innovation Prosperity. - ISSN 1335-1745. - Vol. 17, Iss. 1 (2013), p. 57-66. (in English)
- [23] SÝKORA, R. - KRUŽELÁK, J. - UŠÁKOVÁ, M. - HOLIŠOVÁ, K. - HUDEC, I.: Elastomer Composites with Soft Magnetic Fillers. In: Gumárenské listy. - ISSN 1212-9704. - Vol. 17, No. 4 (2013), p. 13-15. (in Slovak)
- [24] ŠTOFKA, M.: DC-DC Converter Starts Up and Operates from a Single Photocell. In: EDN. - ISSN 0012-7515. - Vol. 58, Iss. 3 (2013), p. 57. (in English)
- [25] ŠTOFKA, M.: Find the Resistance of a Long Ladder. In: EDN. - ISSN 0012-7515. - Vol. 58, Iss. 12 (2013), online, [1] p. (in English)
- [26] ŠTOFKA, M.: Greatly Improve dV/dt Immunity of SCRs. In: EDN. - ISSN 0012-7515. - December 09 (2013), online, [4] p. (in English)
- [27] ŠTOFKA, M.: Low-Duty-Cycle LED Flasher Keeps Power Draw at 4mW. In: EDN. - ISSN 0012-7515. - Vol. 58, Iss. 1 (2013), p. 54-55. (in English)
- [28] ŠTOFKA, M.: Per-Quadrant Linear Amplifier Distinguishes Input Polarity. In: EDN. - ISSN 0012-7515. - Vol. 58, Iss. 8 (2013), online, [4] p. (in English)
- [29] ŠTOFKA, M.: Problems and Solutions. Problem No. 11715. In: American Mathematical Monthly. - ISSN 0002-9890. - Vol. 120, No. 6 (2013), p. 569. (in English)
- [30] ŠTOFKA, M.: Voltage-to-Current Converter Offers Precisely Defined Dead-Band. In: EDN. - ISSN 0012-7515. - Vol. 58, Iss. 7 (2013), online, [3] p. (in English)
- [31] ŠUMICHRASŤ, Ľ.: On Some Strategies for Computer Simulation of the Wave Propagation Using Finite Differences : I. One-Dimensional FDTD Method. In: Journal of Electrical Engineering. - ISSN 1335-3632. - Vol. 64, No. 4 (2013), p. 212-221. (in English)
- [32] ŠUMICHRASŤ, Ľ.: On Some Strategies for Computer Simulation of the Wave Propagation Using Finite Differences : II. Multi-Dimensional FDTD Method. In: Journal of Electrical Engineering. - ISSN 1335-3632. - Vol. 64, No. 6 (2013), p. 337-345. (in English)
- [33] UŠÁK, E.: Influence of Thermal Treatment on Magnetic Properties of Steel Sheet Material Utilised in Cable Routing System. In: Advances in Electrical and Electronic Engineering. - ISSN 1336-1376. - Vol. 11, No. 2, Special Issue (2013), p. 116-122. (in English)

IX.2 Conference proceedings

- [1] BILÍK, V.: Optimizing Tuning Stubs Motion in Automatic Three-Stub Impedance Matching Systems. In: 14th International Conference on Microwave and High Frequency Heating : Nottingham, UK, September 16-19, 2013. - Nottingham : University of Nottingham, 2013. - ISBN 9780853582939. - p. 222-225. (in English)
- [2] BILÍK, V.: Optimum Impedance Matching of Periodically Time-Varying Loads. In: Proceedings of the 2nd Global Congress on Microwave Energy Applications : Long Beach, California, July 23-27, 2012. - Warrendale : MRS, 2013. - ISBN 978-0-9786222-1-3. - p. 405-419. (in English)
- [3] BILÍK, V.: Sub Swapping in Automatic Three-Stub Impedance Matching Systems. In: COMITE 2013. 13th Conference on Microwave Techniques. MAREW 2013. Microwave and Radio Electronics Week 2013 : Pardubice, Czech Republic, April 17-18, 2013. - Pardubice : University of Pardubice, 2013. - ISBN 978-1-4673-5513-1. - p. 200-204. (in English)
- [4] BITTERA, M. - KAMENSKÝ, M. - SMIEŠKO, V.: Broadband Antennas Scanning Error as Contribution to Uncertainty of EMI Measurement. In: Measurement 2013 : 9th International Conference on Measurement. Smolenice, Slovakia, May 27-30, 2013. - Bratislava : Slovak Academy of Sciences, 2013. - ISBN 978-80-969672-5-4. - p. 351-354. (in English)
- [5] BOJNA, I.: Major Changes Overview of STN-Standards on Electrical Engineering in Years 2006-02/2013. In: Update Training. Overview of thw Most Important Changes in STN and Legislation for Year 2006 - 02/2013. - Bratislava : SEZ, 2013. - p. 3-80. (in Slovak)
- [6] BOJNA, I. - HARNOŠ, Ľ.: Overview of the Most Important Changes in Legislation Affecting the Field of Electrical Engineering for Years 2006-02/2013. In: Update Training. Overview of the Most Important Changes in STN and Legislation for Years 2006-02/2013. - Bratislava : SEZ, 2013. - p. 81-98. (in Slovak)
- [7] ČERVEŇOVÁ, J.: Is Something Interesting in Learning of Transient Phenomena in Electrical Circuits? In: New Technologies in Education : 6th International Conference. Brno, Czech Republic, 15. 11. 2012. - Brno : Masaryk University, 2013. - ISBN 978-80-210-6402-7. - CD-ROM, [4] p. (in English)
- [8] ČERVEŇOVÁ, J.: Optimal Balance of Analytical and Numerical Methods in Teaching of Electromagnetism. In: Distance Learning, Simulation and Communication 2013 : Brno, Czech Republic, May 21-23, 2013. - Brno : Armed Forces University, 2013. - ISBN 978-80-7231-919-0. - p. 27-31. (in English)
- [9] ČERVEŇOVÁ, J. - IGLARČÍK, M.: Weight Measurement Using Microbending Optical Fibre Sensor and OTDR. In: Measurement 2013 : 9th International Conference on Measurement. Smolenice, Slovakia, May 27-30, 2013. - Bratislava : Slovak Academy of Sciences, 2013. - ISBN 978-80-969672-5-4. - p. 243-246. (in English)
- [10] DOSOUDIL, R. - UŠÁKOVÁ, M. - GRUSKOVÁ, A. - SLÁMA, J.: Effect of Filler Mixture Ratio on Permeability of Multicomponent Soft Magnetic Composites. In: CSMAG '13. 15th Czech and Slovak Conference on Magnetism : Košice, Slovak Republic, June 17-21, 2013. - Košice : Pavol Jozef Šafárik University, 2013. - ISBN 978-80-8152-015-0. - p. 327. (in English)
- [11] DOSOUDIL, R. - UŠÁKOVÁ, M.: High-Frequency Noise Reduction in Automotive Electronics Using Hybrid Ferrite-Polymer Composite Materials. In: Chemické listy. - ISSN 0009-2770. - Vol. 107, Iss. S1 : 5th International Conference Polymeric Materials in Automotive. PMA 2013 & 21th Slovak Rubber Conference. SRC 2013.- Bratislava, 23.-25. 4. 2013, p. s112-s113. (in English)
- [12] ERDZIAK, J. - JASENEK, J. - KORENKO, B.: Design and Analysis of Triple Axis Fiber-optic Gyroscope with Phase Modulator for Thermal Compensation. In: Optical Communications 2013 : 25th Conference and Exhibition. Digital Czech Republic - Optical versus FR Networks. Prague, Czech Republic, October 24-25, 2013. - Prague : ACTION M, 2013. - ISBN 978-80-86742-37-3. - p. 35-41. (in English)
- [13] HAJRO, L. - ČERVEŇOVÁ, J.: Monitoring of Transient Phenomena by User Interface. In: ŠVOČ 2013 : Students Conference. Bratislava, Slovak Republic, 23 April 2013. - Bratislava : FEI STU, 2013. - ISBN 978-80-227-3909-2. - p. 283-288. (in Slovak)
- [14] HALLON, J. - KOVÁČ, K.: Improvement of Electromagnetic Field Homogeneity within EMC Immunity Testing Area. In: Measurement 2013 : 9th International Conference on Measurement. Smolenice, Slovakia, May 27-30, 2013. - Bratislava : Slovak Academy of Sciences, 2013. - ISBN 978-80-969672-5-4. - p. 343-346. (in English)
- [15] HARTÁNSKÝ, R. - SMIEŠKO, V. - MARŠÁLKA, L.: Isotropic Electromagnetic Sensor Measurement Error. In: Measurement 2013 : 9th International Conference on Measurement. Smolenice, Slovakia, May 27-30, 2013. - Bratislava : Slovak Academy of Sciences, 2013. - ISBN 978-80-969672-5-4. - p. 283-286. (in English)
- [16] JANČARIK, V. - UŠÁK, E. - ŠOKA, M. - UŠÁKOVÁ, M.: Magnetic Properties of Yttrium-Substituted NiZn Ferrites. In: CSMAG '13. 15th Czech and Slovak Conference on Magnetism : Košice, Slovak Republic, June 17-21, 2013. - Košice : Pavol Jozef Šafárik University, 2013. - ISBN 978-80-8152-015-0. - p. 96. (in English)

- [17] JASENEK, J. - KORENKO, B. - ČERVENŇOVÁ, J. - ERDZIAK, J.: Extraction of Optical Fiber Local Birefringence Parameters from the Data Measured by the PO-OTDR Method . In: APCOM 2013. Applied Physics of Condensed Matter : 19th International Conference. Štrbské Pleso, Slovak Republic, June 19-21, 2013. - Bratislava : STU, 2013. - ISBN 978-80-227-3956-6. - p. 237-244. (in English)
- [18] JASENEK, J. - KORENKO, B. - ČERVENŇOVÁ, J. - ERDZIAK, J.: Fiber Optic Magnetic Field Space Distribution Sensor Based on the Use of "General Elliptic Retarder Model". In: Optical Communications 2013 : 25th Conference and Exhibition. Digital Czech Republic - Optical versus FR Networks. Prague, Czech Republic, October 24-25, 2013. - Prague : ACTION M, 2013. - ISBN 978-80-86742-37-3. - p. 35-41. (in English)
- [19] KAMENSKÝ, M. - KOVÁČ, K. - VÁLKY, G.: Model of Errors Caused by Discrepancies in Gain and Phase of Input Channels in TDEMI System. In: Measurement 2013 : 9th International Conference on Measurement. Smolenice, Slovakia, May 27-30, 2013. - Bratislava : Slovak Academy of Sciences, 2013. - ISBN 978-80-969672-5-4. - p. 51-54. (in English)
- [20] KAMENSKÝ, M. - KOVÁČ, K. - VÁLKY, G.: Model of Errors Caused by Discrepancies of Input Channels in Multiresolution ADC. In: IMEKO 2013 : TC-4 Symposium on Measurements of Electrical Quantities and 17th IEADC Workshop on Advances in Instrumentation and Sensors Interoperability. Barcelona, Spain, July 18-19, 2013. - Barcelona : Universitat Politècnica de Catalunya, 2013. - ISBN 978-84-616-5438-3. - p. 178-183. (in English)
- [21] KAPLAN, N. - ČERVENŇOVÁ, J.: Optical Sensors Based on Bragg Grating's. In: ŠVOČ 2013 : Students Conference. Bratislava, Slovak Republic, 23 April 2013. - Bratislava : FEI STU, 2013. - ISBN 978-80-227-3909-2. - p. 277-282. (in Slovak)
- [22] KOLLÁR, M. - KOVÁČ, K.: Method for Validation of Antenna Calibration Measurements. In: Measurement 2013 : 9th International Conference on Measurement. Smolenice, Slovakia, May 27-30, 2013. - Bratislava : Slovak Academy of Sciences, 2013. - ISBN 978-80-969672-5-4. - p. 347-350. (in English)
- [23] KORENKO, B. - JASENEK, J. - ČERVENŇOVÁ, J. - ERDZIAK, J.: Optical Fibre Sensors with Distributed Parameters. In: International Interdisciplinary PhD Workshop 2013 : Brno, Czech Republic, September 8-11, 2013. - Brno : VUT, 2013. - ISBN 978-80-214-4759-2. - p. 95-99. (in English)
- [24] KOVÁČ, K.: Degradation of EMC Requirements on Electric Systems of NPP. In: Enhancement of Energy Safety of Slovak Republic : Scientific Conference. Modra-Harmónia, Slovak Republic, November 28, 2013. - Trnava : VUJE, 2013. - ISBN 978-80-89402-66-3. - p. 31-32
- [25] KRÁLIKOVÁ, E. - ČIČÁKOVÁ, O.: Distortion Power Measurements in Education. In: Measurement 2013 : 9th International Conference on Measurement. Smolenice, Slovakia, May 27-30, 2013. - Bratislava : Slovak Academy of Sciences, 2013. - ISBN 978-80-969672-5-4. - p. 75-78. (in English)
- [26] KRÁLIKOVÁ, E. - KAMENSKÝ, M. - ČERVENŇOVÁ, J.: E-Learning Supports in Engineering Education of Robotics Specialists. In: Distance Learning, Simulation and Communication 2013 : Brno, Czech Republic, May 21-23, 2013. - Brno : Armed Forces University, 2013. - ISBN 978-80-7231-919-0. - p. 121-127. (in English)
- [27] KRUŽELÁK, J. - BELLUŠOVÁ, D. - DOSOUDIL, R. - HUDEC, I. - SÝKORA, R.: Composite materials with Elastomeric Matrix and Magnetic Hard Filler. In: IRC2013 - International Rubber Conference. Paris, France, 20 - 22 May 2013. - Paris : IRC, 2013. - USB flash, [1] p. (in English)
- [28] KRUŽELÁK, J. - SÝKORA, R. - BELLUŠOVÁ, D. - DOSOUDIL, R. - HUDEC, I.: Magnetic and Mechanical Properties of Magnetoactive Composites Based on BR. In: Chemické listy. - ISSN 0009-2770. - Vol. 107, Iss. S1 : 5th International Conference Polymeric Materials in Automotive. PMA 2013 & 21th Slovak Rubber Conference. SRC 2013.- Bratislava, 23.-25. 4. 2013, p. s142-s144. (in English)
- [29] MARŠÁLKA, L. - HARŤANSKÝ, R.: Proposal of Novel Sensor Applicable to Contactless Displacement Measurement. In: Measurement 2013 : 9th International Conference on Measurement. Smolenice, Slovakia, May 27-30, 2013. - Bratislava : Slovak Academy of Sciences, 2013. - ISBN 978-80-969672-5-4. - p. 287-290. (in English)
- [30] MARŠÁLKA, L. - HARŤANSKÝ, R.: Numerical Modelling of Sensor Structure Based on Change of Electromagnetic Field Parameters. In: ELITECH'13 : 15th Conference of Doctoral Students; Bratislava, Slovakia, 5 June 2013. - Bratislava : STU, 2013. - ISBN 978-80-227-3947-4. - CD-ROM, [5] p. (in English)
- [31] MIČIAN, M. - HRIBIK, J. - HARŤANSKÝ, R.: MSP430G2 Microcontroller Development Board. In: ŠVOČ 2013 : Students Conference, Bratislava, Slovak Republic, 23 April 2013. - Bratislava : FEI STU, 2013. - ISBN 978-80-227-3909-2. - p. 359-364. (in Slovak)
- [32] MIKUŠ, P. - HARŤANSKÝ, R.: Problems with Reflections of Radar Wave Consider the Radar Level Gauge. In: ELITECH'13 : 15th Conference of Doctoral Students; Bratislava, Slovakia, 5 June 2013. - Bratislava : STU, 2013. - ISBN 978-80-227-3947-4. - CD-ROM, [4] s. (in English)
- [33] MIKUŠ, P. - HARŤANSKÝ, R.: The Errors in Radar Level Gauge Calibration. In: Measurement 2013 : 9th International Conference on Measurement. Smolenice, Slovakia, May 27-30, 2013. - Bratislava : Slovak Academy of Sciences, 2013.

- ISBN 978-80-969672-5-4. - p. 355-358. (in English)
- [34] PAVLOVIČ, M. - MIGLIERINI, M. - MUSTAFIN, E. - SEIDL, T. - ŠOKA, M. - STRAŠÍK, I. - ENSINGER, W.: Influence of High-Energy Heavy Ions on Magnetic Susceptibility of Soft Magnetic Metallic Glassed. In: CSMAG '13. 15th Czech and Slovak Conference on Magnetism : Košice, Slovak Republic, June 17-21,2013. - Košice : Pavol Jozef Šafárik University, 2013. - ISBN 978-80-8152-015-0. - p. 72. (in English)
- [35] PAVLOVIČ, M. - MIGLIERINI, M. - MUSTAFIN, E. - ENSINGER, W. - ŠAGÁTOVÁ, A. - SEIDL, T. - ŠOKA, M.: Influence of Xenon Ion Irradiation on Magnetic Susceptibility of Soft-Magnetic Metallic Alloys. In: APCOM 2013. Applied Physics of Condensed Matter : 19th International Conference. Štrbské Pleso, Slovak Republic, June 19-21, 2013. - Bratislava : STU, 2013. - ISBN 978-80-227-3956-6. - p. 78-81. (in English)
- [36] REKOŠOVÁ, J. - UŠÁKOVÁ, M. - UŠÁK, E. - DOSOUDIL, R. - HUDEC, I.: The Influence of Soft Magnetic Fillers on the Properties of the Magnetopolymer Composites. In: Chemické listy. - ISSN 0009-2770. - Vol. 107, Iss. S1 : 5th International Conference Polymeric Materials in Automotive. PMA 2013 & 21th Slovak Rubber Conference. SRC 2013.- Bratislava, 23.-25. 4. 2013, p. s72-s74. (in English)
- [37] SLÁMA, J. - GRUSKOVÁ, A. - JANČÁRIK, V. - UŠÁK, E. - ŠOKA, M.: Fe Substitution/Deficiency Influence on the Magnetic Properties of NiZn Ferrites. In: SMM 21. : Soft Magnetic Materials Conference. Budapest, Hungary, September 1-4, 2013. - Budapest : Hungarian Academy of Sciences, 2013. – p. D1-05. (in English)
- [38] SLÁMA, J. - OLAH, V. - GRUSKOVÁ, A. - ŠOKA, M. - FRANEK, J.: Ferrite-Composite Sensors for Challenging Environment Applications. In: ENDE 2013 : 18th International Workshop on Electromagnetic NonDestructive Evaluation. Bratislava, Slovakia, June 25-28, 2013. - Žilina : EDIS, 2013. - ISBN 978-80-554-0713-5. - p. 175-177. (in English)
- [39] SLÁMA, J. - GRUSKOVÁ, A. - GONZÁLES ANGELES, A. - ŠOKA, M. - DOSOUDIL, R.: Magnetic Comparison of Several Divalent and Tetravalent Ions Mixtures Substituted Ba Ferrite. In: CSMAG '13. 15th Czech and Slovak Conference on Magnetism : Košice, Slovak Republic, June 17-21,2013. - Košice : Pavol Jozef Šafárik University, 2013. - ISBN 978-80-8152-015-0. - p. 152. (in English)
- [40] SLÁMA, J. - GRUSKOVÁ, A. - ŠOKA, M. - DOSOUDIL, R.: Structural and Magnetic Properties of Be-Substituted NiZn Ferrite. In: SMM 21 : Soft Magnetic Materials Conference. Budapest, Hungary, September 1-4, 2013. - Budapest : Hungarian Academy of Sciences, 2013. - D1-04. (in English)
- [41] SLÍŽIK, J. - HARTÁNSKÝ, R.: Analysis of Measurement Systematic Error in the Near Field Region. In: Measurement 2013 : 9th International Conference on Measurement. Smolenice, Slovakia, May 27-30, 2013. - Bratislava : Slovak Academy of Sciences, 2013. - ISBN 978-80-969672-5-4. - p. 359-362. (in English)
- [42] SLÍŽIK, J. - HARTÁNSKÝ, R.: Sensor Dimensions Depending on The Distance from the Source Dipole as a Function Measurement Error. In: ELITECH'13 : 15th Conference of Doctoral Students; Bratislava, Slovakia, 5 June 2013. - Bratislava : STU, 2013. - ISBN 978-80-227-3947-4. - CD-ROM, [4] p. (in English)
- [43] SVETÍK, M. - JASENEK, J.: The Optical Fiber Parameters Measurement by General Elliptic Retarder Method. In: ŠVOČ 2013 : Students Conference. Bratislava, Slovak Republic, 23 April 2013. - Bratislava : FEI STU, 2013. - ISBN 978-80-227-3909-2. - p. 289-295. (in Slovak)
- [44] SYROVÁ, L. - RAVAS, R.: The Use of Brightness Correction Improvement in Defectoscopy of Transparent Polymeric Foils. In: Measurement 2013 : 9th International Conference on Measurement. Smolenice, Slovakia, May 27-30, 2013. - Bratislava : Slovak Academy of Sciences, 2013. - ISBN 978-80-969672-5-4. - p. 315-318. (in English)
- [45] ŠOKA, M. - UŠÁKOVÁ, M. - UŠÁK, E. - DOSOUDIL, R.: Magnetic Properties Analysis of Rare-Earth Substituted Nickel Zinc Ferrites. In: SMM 21 : Soft Magnetic Materials Conference. Budapest, Hungary, September 1-4, 2013. - Budapest : Hungarian Academy of Sciences, 2013. – p. D1-03. (in English)
- [46] ŠROBA, L. - RAVAS, R.: Impact of Subpixel Paradigm on Determination of 3D Position from 2D Image Pair. In: Theoretical and Applied Aspects of Cybernetics : 3rd International Scientific Conference of Students and Young Scientists. Kyiv, Ukraine, November 25-29, 2013. - Kyiv : Bukrek, 2013. - ISBN 978-966-399-538-0. - p. 249-257. (in English)
- [47] ŠROBA, L. - RAVAS, R.: Impact of Subpixel Paradigm on Homography Determination. In: ELITECH'13 : 15th Conference of Doctoral Students; Bratislava, Slovakia, 5 June 2013. - Bratislava : STU, 2013. - ISBN 978-80-227-3947-4. - CD-ROM, [2] p. (in English)
- [48] ŠROBA, L. - RAVAS, R.: Influence of Image Bit Depth for Subpixel Detection Sensitivity. In: Measurement 2013 : 9th International Conference on Measurement. Smolenice, Slovakia, May 27-30, 2013. - Bratislava : Slovak Academy of Sciences, 2013. - ISBN 978-80-969672-5-4. - p. 307-310. (in English)
- [49] UŠÁK, E. - UŠÁKOVÁ, M.: A Concept of New Method for Non-Destructive Evaluation of the Correlation between the Structural Degradation and Magnetic Properties of Soft Magnetic Materials. In: APCOM 2013. Applied Physics of

- Condensed Matter : 19th International Conference. Štrbské Pleso, Slovak Republic, June 19-21, 2013. - Bratislava : STU, 2013. - ISBN 978-80-227-3956-6. - p. 280-284. (in English)
- [50] UŠÁK, E.: Analysis of Microstructural Changes in Soft Magnetic Materials Based on Direct Evaluation of Magnetisation Process Dynamics. In: SMM 21 : Soft Magnetic Materials Conference. Budapest, Hungary, September 1-4, 2013. - Budapest : Hungarian Academy of Sciences, 2013. – p. B1-04. (in English)
- [51] UŠÁK, E. - ŠOKA, M. - UŠÁKOVÁ, M. - DOBROČKA, E.: Structural and Magnetic Properties of Nano-Sized NiZn Ferrites. In: CSMAG '13. 15th Czech and Slovak Conference on Magnetism : Košice, Slovak Republic, June 17-21,2013. - Košice : Pavol Jozef Šafárik University, 2013. - ISBN 978-80-8152-015-0. - p. 82. (in English)
- [52] UŠÁKOVÁ, M. - REKOŠOVÁ, J. - UŠÁK, E. - DOSOUDIL, R. - HUDEC, I.: Conductive Magnetopolymer Composites with Ferrosilicon Filler. In: Chemické listy. - ISSN 0009-2770. - Vol. 107, Iss. S1 : 5th International Conference Polymeric Materials in Automotive. PMA 2013 & 21th Slovak Rubber Conference. SRC 2013.- Bratislava, 23.-25. 4. 2013, p. s189-s191. (in English)
- [53] UŠÁKOVÁ, M. - UŠÁK, E. - REKOŠOVÁ, J. - OLAH, V.: Magnetic and Physical-Mechanical Properties of Polymer Composites with Soft Magnetic Fillers. In: APCOM 2013. Applied Physics of Condensed Matter : 19th International Conference. Štrbské Pleso, Slovak Republic, June 19-21, 2013. - Bratislava : STU, 2013. - ISBN 978-80-227-3956-6. - p. 91-95. (in English)
- [54] VÁLKY, G. - KAMENSKÝ, M.: Greenhouse Conditioning System for Plants. In: ELITECH'13 : 15th Conference of Doctoral Students; Bratislava, Slovakia, 5 June 2013. - Bratislava : STU, 2013. - ISBN 978-80-227-3947-4. - CD-ROM, [2] p. (in English)
- [55] VÁLKY, G. - BITTERA, M.: Mobile Measurement of Ionizing Radiation. In: Measurement 2013 : 9th International Conference on Measurement. Smolenice, Slovakia, May 27-30, 2013. - Bratislava : Slovak Academy of Sciences, 2013. - ISBN 978-80-969672-5-4. - p. 335-338. (in English)

INSTITUTE OF ELECTRONICS AND PHOTONICS

<http://www.fei.stuba.sk/>



Director of Institute:

prof. Ing. Daniel Donoval, DrSc.

Tel: +421-2-654 23 486

Fax: +421-2-654 23 480

Mobile: +421-918640428

e-mail: daniel.donoval@stuba.sk

Deputy director:

Prof. František Uherek

e-mail: frantisek.uherek@stuba.sk

Tel: +421-2-602 91 369

Fax: +421-2-654 23 480

Mobile: +421-905630144

Deputy director:

Assoc. Prof. Oldřich Ondráček

e-mail: oldrich.ondracek@stuba.sk

Tel: +421-2-602 91 492

Fax: +421-2-654 29 683

Mobile: +421-918563581

Deputy director:

Prof. Viera Stopjaková

e-mail: viera.stopjakova@stuba.sk

Tel: +421-2-602 91 149

Fax: +421-2-654 23 480

Administrative staff:

Ms. Mária Budejovská

e-mail: maria.budejovska@stuba.sk

Tel: +421-2-602 91 372

Fax: +421-2-654 23 480

Ms. Alena Grmanová

e-mail: alena.grmanova@stuba.sk

Tel: +421-2-602 91 325

Fax: +421-2-654 23 480

Ms. Ivana Prokopová

e-mail: no more available

Tel: +421-2-602 91 727

Fax: +421-2-654 29 683

General Information

The Institute of Electronics and Photonics (IEP/UEF in Slovak) provides education and carries out research in microelectronics, nanotechnology, wireless communication, IC and system design and test, signal processing, optoelectronics, photonics, sensors, power electronics, organic electronics, and multimedia techniques. EUROPRACTICE membership provides access to advanced modelling and simulation, as well as IC and system design tools (Synopsys, Cadence, Mentor Graphics etc.). Structure and device characterization and failure analysis using electrical measurement (I-V, C-V, DLTS, in a wide temperature range with optional magnetic field, microwave and time-resolved device and circuit characterization) or analytical techniques (AES, SIMS, AFM, SEM, EBIC, CL, PL, micro-Raman spectroscopy) supported by process and device simulation and modelling is an important and strong field of the institute activities.

The research using the tools and techniques above and clean rooms (ISO 5) equipped with new technological equipment is focused mainly on GaN devices, thin film sensors, diamond layers, carbon nanotubes, and also grapheme. Investigation of organic sensors, LEDs and transistors is rapidly growing.

Application of advanced electronic systems mainly for biomedical measurement, healthcare and environment is strongly supported area of interest of the institute. Using impedance sensors prepared and the ASIC designed at the institute, wireless human stress meter has been developed and prototyped. Another team developed wireless sensor system for non-invasive in-field EMG, ECG, EEG signals measurement. Developed and prototyped force plate together with EMG sensors extends not only the diagnostics of leg muscles.

The well-equipped laboratories, expertise and enthusiasm of the institute staff as well as focussing on the most advanced technologies ensure the successful solution of scientific and applied research projects. The fact that since 1992 the institute has been involved in more than 35 EU funded projects supports the statement.

Departments of the Institute of Electronics and Photonics

Electronic Devices

Department chair: Assoc. Prof. Ladislav Harmatha

Electronic Systems

Department chair: Prof. Alexander Šatka

Integrated Circuit Design and Test

Department chair: Prof. Viera Stopjaková

Optoelectronics and Laser Technique

Department chair: Prof. Jaroslav Kováč

Sensors and Microsystem Technique

Department chair: Prof. Ivan Hotový

Surface, Interface and Nanostructure Analysis

Department chair: Prof. Juraj Breza

Wireless Communication and Multimedia Technique

Department chair: Assoc. Prof. Vladimír Štofani

I. STAFF

| | |
|---|---|
| Professors | Igor Baláž (Prof. emeritus), Juraj Breza, Otto Csabay † (Prof. emeritus), Daniel Donoval, Daniela Ďuračková, Ivan Hotový, Jaroslav Kováč, Florián Makáň (Prof. emeritus), Robert Redhammer, Alexander Šatka, Viera Stopjaková, Vladimír Tvarožek, František Uherek |
| Associate Professors | Ján Hribik, Ján Jakabovič, Vladimír Kudják, Peter Kulla, Oldřich Ondráček, Peter Podhoranský, Vladimír Štofanič, Ľubica Stuchlíková, Martin Tomáška, Marian Veselý, Milan Žiška |
| Assistant Professors | Zdenko Brezovič, Elena Cocherová, Martin Daříček, Miroslav Hagara, Zuzana Krajčušková, Peter Kubinec, Marek Kukučka, Marián Minárik, Anna Přibilová, Jozef Púčík, Erik Vavrinský |
| Senior Researchers | Daniel Arbet, Peter Benko, Juraj Brenkuš, Dalibor Búc, Aleš Chvála, Ladislav Harmatha, Soňa Flickyngerová, Martin Florovič, Peter Fuchs, Magdaléna Kadlečíková, Peter Kordoš, Ivan Košč, Jaroslav Kováč jr., Alexander Kromka, Jozef Liday, Libor Majer, Juraj Marek, Marián Marton, Jozef Mihálov, Miroslav Mikolášek, Lukáš Nagy, Ivan Novotný, Patrik Príbytný, Juraj Racko, Vlastimil Řeháček, Rudolf Srnánek, Jaroslava Škriniarová, Andrej Vincze, Marian Vojs, Bedřich Weber, Martin Weis, Roman Záluský |
| Researchers | Alena Grmanová, Gábor Gyepes, Milan Kempný, Anton Kuzma, Marián Molnár, Michal Nemeč, Martin Predanoc, Juraj Priesol, Ľubomír Sládek, Ján Uhrík, Peter Vogrinčič |
| Administrative and Technical Staff | Mária Budejovská, Jozef Ivan, Jozef Král, Ivana Prokopová |
| PhD. Students | Marián Bernát, Peter Bobek, Martin Boriš, Marcel Černák, Michal Hanic, Juraj Helbich, František Horínek, Pavol Hronec, Martin Jagelka, Juraj Jakuš, Peter Juhász, Arpád Kósa, Martin Kováč, Mário Kotlár, Tomáš Kováčik, Peter Kupec, Tomáš Lukáč, Pavol Michniak, Gabriel Nagy, Martin Nováček, Peter Olšovský, Marián Popovič, Jakub Rybár, Ondrej Szábo, Mamadou Abass Seck, Vladimír Sedlák, Ľubomír Vančo |

II. EQUIPMENT

II.1 Educational and Research Laboratories

- Cleanrooms ISO5 for Advanced Thin Film Technology (lithography, deposition, plasma etching)
- Laboratory of Scanning Electron Microscopy
- Laboratory of Diagnostics of Compound and Organic Semiconductor Structures
- Diamond Thin Film Laboratory
- Carbon Nanostructure Laboratory
- Laboratory of Raman Spectroscopy
- Laboratory of Integrated Circuits and System-on-chip Design and Test
- BioLab, laboratory of design and measurement of biosignals
- Laboratory of Medical Engineering

- LED Lab, laboratory of LED lighting control, construction, and measurement
- Laboratory of Audio and Video Technologies
- Laboratory of Electronic Measurement
- European Customer Training Centre – Texas Instruments (DSP TMS320C2xx, TMS370, TMS320C5x, TMS320C6xxx, MSP430)
- Laboratory of Signal Processors and Microcontrollers Applications
- Laboratory of Wireless Communication and Navigation
- Semiconductor and Thin Film Device Modelling and Simulation Lab
- SEMITEST – Semiconductor Structure Properties Investigation
- Technology of Organic Semiconductor Structures
- Laboratory of Electrochemical and Corrosion Measurements and Surface Analysis
- Lab of RF/microwave Measurements, Modelling and Design
- Laboratory of Sensors and Microsystem Technology
- Laboratory of Surface and Thin Film Analysis
- Laboratory of Thin Film Technology
- Echoic Acoustical Chamber
- ENVIRO Lab
- Digital Signal Processing Laboratory (education)
- Laboratory ESF – EDUCTV (education)
- Laboratory of Analog and Digital Television (education)
- Laboratory of Analog Circuits and Systems and Navigation (education)
- Laboratory of Antennas and Wave Propagation (education)
- Laboratory of Audio Engineering (education)
- Laboratory of Digital Circuits (education)
- Laboratory of Electroacoustics (education)
- Laboratory of Electronic Devices and Circuits (education)
- Laboratory of Electronic Measurement (education)
- Laboratory of Integrated Circuits and Semiconductor Structures Design (education)
- Laboratory of Medical Electronics Instrumentation (education)
- Laboratory of Microwave Applications (education)
- Laboratory of Microwave Fundamentals (education)
- Laboratory of Microwave Measurements (education)
- Laboratory of Optical Measurements (education)
- Laboratory of Power Radio Electronics (education)
- Laboratory of Radio Communication Technology (education)
- Laboratory of RF Circuits and Systems (education)
- Laboratory of Security Technique (education)
- Laboratory of Sensor Systems and Microsystem Technology (education)
- Laboratory of Signal Processing (education)
- Laboratory of Signal Processors and Microcontrollers (education)
- Laboratory of Solid State Physics and Quality Management (education)
- Measurement of Electronic Circuits (education)
- Measurement of Electronic Devices and Systems (education)
- Optoelectronic Lab (education)

II.2 Special Equipment, Instruments, and Tools

- Computer Controlled System for I-V and C-V Measurements and Analysis (from 20 to 800 K)
- Hall and four point probe setup, DSLab.Ltd.
- Photovoltaic Cell Testing Light Source Model 16S-002 300 W, Solar Light Company, Inc.
- Six-Port Reflectometers and Automatic Impedance Matching System for High-power Industrial Applications
- Precise Registration / Calibration Electricity Meter
- Precise Digital Network Analyser and Standard Meter PEM 6711
- DL8000 Digital Deep Level Transient Spectrometer, BIO-RAD system
- Microwave Network Analyser HP 8408 S + HP83421A Lightwave Source (20 GHz)
- Microwave Network Analyzer (40 GHz) Agilent E8363 B (temperature range: RT – 400K) - RFOV measurements
- Semiconductor Parameter Analyzer, Agilent 4155C
- Arbitrary Function Generator TEKTRONIX AFG3252 (240 MHz, 2 channel)
- Digital Oscilloscope TEKTRONIX TDS20225
- Digital Oscilloscope TEKTRONIX DPO4104B (1GHz, 4 channel)
- DSA 8200 Digital Serial Analyser - Sampling Oscilloscope with TDR Module
- Digital Pulse Generator DTG5334
- SÜSS Manual Prober PM5, SÜSS MicroTec, Test Systems
- Experimental System for Low-Frequency Noise Measurement
- Micromanipulators with Nanotips for Measurement and Testing of Electronic Devices, and Manipulation of Micro-/nano-objects
- Atomic Force Microscope, Park XE-100
- SEM Cold Cathode Microscope JEOL JSM 7500
- Raman Spectrometer (ISA-Jobin Yvon-Dilor-Horiba)
- X-ray Photoelectron Spectrometer (VG Microtech)
- Spectroscopic Ellipsometer Angstrom Advanced PHE 102
- Surface Profiler Dektak 150 (Veeco)
- Talystep S112 Profilometer
- Auger Electron Spectrometer (Varian) equipped with EX 05 VG ion gun
- Süss KSM MJB 3HP mask aligner – Mask aligner Suss MA/BA 6 for broad-band and i-line optical contact photolithography
- Compact Plasma System – PECVD, Plasmalab 80Plus, Oxford Instruments Plasma Technology
- Modular Cluster System – RIE, PlasmalabSystem 100, Oxford Instruments Plasma Technology
- RF RIE etching system Plasma PE 200
- Ozone/UV Cleaner SAMCO UV-2
- Sputter Etcher XNE-01 (Secon)
- Sputtering Unit Perkin-Elmer Ultek/Randex 2400/8L
- The Dicing Saw ADT 7100
- Adhesive Die Bonder Cammax DB 600
- Manual Ball Bonder K&S 4700
- Vacuum System B55.3 Hochvakuum Dresden with magnetron sputtering sources
- Arc Discharge Reactor for CNT Growth (home-made)
- CVD Reactor for CNT Growth (home-made)
- RTA - Rapid Thermal Annealing (home-made)
- Contact Angle Measurement System (home-made)
- Equipment for Emission Measurements (home-made)
- Leak Detector, SmartTest
- XILINX and ALTERA (xiClone) Systems -- boards and SW, Development Kits, Xilinx ISE6.3i
- VisualDSP++ SHARC Processor Development Tools, ADSP-21364 and ADSP-TS201S Evaluation Kits, Analog Devices donation

- MC9S08LC60/36 Demonstration Board + complete CodeWarrior Development Studio for HC08 and HC12, FreeScale donation
- Sonnet – Planar Structures Electromagnetic Simulator (University licence)
- CST - 3D Structure Electromagnetic Simulator (University licence)
- Advanced Design System Agilent (University licence)
- IC-CAP, Agilent (University licence)

EDA Tools via EUROPRACTICE

- Synopsys TCAD Sentaurus A_2007.12
- Synopsys Analog Simulation and Modelling (HSpice)
- Cadence IC Package
- Mentor Graphics Full Suite
- Dolphin Integration Smash HDL & SLED

Design Kits:

- AMS 0.35 μm
- ONSEMI I3T50 - 0.35 μm
- TSMC 90 nm

Running on:

- IBMx3400 Quad Core E5335 server (Linux), Workstations SunBlade 1000, 2 pc Sun Ultra 10 (all Solaris), HP Proliant ML 370 - HP ML370G5 QC E5420 (Linux), and 21 PCs Core Duo/Quad (WinXP/Linux)

III. TEACHING

III.1 Undergraduate Study (BSc.)

Subject, semester, hours per week for lectures and for seminars or practical exercises, name of the lecturer:

| | | |
|---|------------------|-----------------------------|
| Logic Systems (two weeks introductory part) | (1st sem., 4-1h) | D. Ďuračková |
| Materials for Electronics | (3rd sem., 3-2h) | D. Donoval |
| Electronic Devices and Circuits | (3rd sem., 3-2h) | R. Redhammer |
| Design and Reliability of IC and Systems | (3rd sem., 3-2h) | D. Ďuračková, V. Stopjaková |
| Electronic Systems | (3rd sem., 3-2h) | M. Žiška |
| Electronic Devices and Circuits | (3rd sem., 3-2h) | V. Kudják |
| Optoelectronics and Laser Technique | (4th sem., 2-2h) | F. Uherek |
| Electronic Devices and Circuits | (4th sem., 3-2h) | V. Kudják |
| Quality Management | (4th sem., 2-1h) | M. Žiška |
| Systems for Objects Security and Safety | (4th sem., 3-2h) | V. Tvarožek, I. Hotový |
| Digital Circuits | (4th sem., 2-2h) | J. Hribik, M. Daříček |
| Signals and Systems | (4th sem., 3-2h) | O. Ondráček |
| Electronic Devices | (4th sem., 2-2h) | Ľ. Stuchlíková |
| Optoelectronics | (5th sem., 3-2h) | F. Uherek |
| Microelectronics | (5th sem., 2-2h) | D. Donoval, J. Breza |
| Sensor Systems for Automobiles | (5th sem., 2-2h) | V. Tvarožek, J. Šturcel |
| Electronic Circuits | (5th sem., 3-2h) | J. Hribik, M. Daříček |
| Electronic Devices and Circuits | (5th sem., 3-2h) | R. Redhammer |
| Quality Management | (5th sem., 2-1h) | M. Žiška |
| Systems of Digital Signal Processing | (5th sem., 2-2h) | O. Ondráček, A. Šatka |
| Analog Circuits | (5th sem., 3-2h) | M. Minárik |

| | | |
|--|------------------|------------------------|
| Microwave Engineering | (5th sem., 3-2h) | V. Štofanič |
| Radiocommunication Techniques | (5th sem., 2-2h) | P. Podhoranský |
| Electronic Circuits | (5th sem., 3-2h) | P. Kulla, M. Daříček |
| Bachelor Project 1 | (5th sem., 0-4h) | F. Uherek, O. Ondráček |
| Principles of IC Design | (6th sem., 2-2h) | D. Ďuračková |
| Digital and Pulse Circuits | (6th sem., 3-2h) | J. Hribík, M. Daříček |
| Sensorics | (6th sem., 2-2h) | V. Tvarožek |
| Audio and Video Technology | (6th sem., 2-2h) | P. Kubinec, M. Hagara |
| Microwave Engineering and Radio Communications | (6th sem., 3-2h) | P. Podhoranský |
| Microprocessor Technique | (6 sem., 2-2h) | P. Kubinec |
| Bachelor Project 2 | (6th sem., 0-8h) | F. Uherek, O. Ondráček |

III.2 Graduate Study (MSc.)

Study Program "Microelectronics"

| | | |
|--|-------------------------|---------------------------------|
| Team Project | (1st sem., 0-6h) | F. Uherek, L. Stuchlíková |
| Computer Circuit Analysis | (1st sem., 2-2h) | M. Tomáška |
| CAD of Electronic Devices | (1st sem., 2-2h) | D. Donoval |
| Electronic Measurement of Devices and Systems | (1st sem., 2-2h) | A. Šatka |
| Programmable ICs | (1st sem., 2-2h) | J. Jakabovič |
| Scientific Communication | (1st or 2nd sem., 1-0h) | F. Uherek, D. Donoval, J. Breza |
| Vacuum Technique and Electronics | (1st sem., 2-1h) | M. Veselý |
| Analog IC Design | (1st sem., 2-1h) | L. Majer |
| Diploma Project 1 | (2nd sem., 0-6h) | D. Donoval |
| Computer Aided IC Design | (2nd sem., 3-2h) | V. Stopjaková |
| Applied Optoelectronics and Lasers | (2nd sem., 3-2h) | J. Kováč, F. Uherek |
| Nanoelectronics | (2nd sem., 3-2h) | R. Redhammer |
| Industrial Electronics | (2nd sem., 3-2h) | A. Šatka |
| Structures of IC | (2nd sem., 2-2h) | M. Žiška |
| DSP Circuits and Methods | (2nd sem., 2-1h) | A. Šatka |
| Optical Communication Systems | (2nd sem., 2-1h) | F. Uherek |
| Diploma Project 2 | (3rd sem., 0-6h) | D. Donoval |
| Sensor Microsystems | (3rd sem., 2-2h) | V. Tvarožek |
| Diagnostics of Integrated Circuits and Systems | (3rd sem., 2-2h) | V. Stopjaková |
| Spectroscopic Methods of Analysis and Inspection of Matter | (3rd sem., 3-1h) | J. Breza |
| RF Circuit Design | (3rd sem., 2-1h) | M. Tomáška |
| Physical Electronics of Solids | (3rd sem., 2-1h) | M. Veselý |
| Superconductor Electronics | (3rd sem., 2-1h) | J. Breza |
| Microsystems Technology | (3rd sem., 2-1h) | I. Hotový |
| Integrated Optoelectronics | (3rd sem., 2-1h) | J. Kováč |
| Diploma Project 3 | (4th sem., 0-8h) | D. Donoval |

Study Program "Radio and Electronic Engineering"

| | | |
|--|------------------|-----------------------------|
| Digital Signal Processing | (1st sem., 3-2h) | O. Ondráček |
| Microcontrollers | (1st sem., 2-2h) | P. Fuchs |
| Communication Electronics | (1st sem., 3-2h) | V. Kudják |
| Design and Engineering of Electronic Systems | (1st sem., 3-2h) | Z. Brezovič |
| Recording Techniques | (2nd sem., 3-2h) | P. Podhoranský |
| Radiocommunication | (2nd sem., 3-2h) | P. Podhoranský, V. Štofanič |
| Signal Processors | (2nd sem., 3-2h) | P. Fuchs |
| Antennas and Radiocommunication Routes | (2nd sem., 3-2h) | V. Štofanič |
| Biosignals and Biosystems Analysis | (2nd sem., 3-2h) | J. Púčík |
| Radionavigation Systems | (2nd sem., 3-2h) | M. Minárik |
| Applied Electroacoustics | (2nd sem., 3-2h) | A. Přibilová |
| Diploma Project I | (2nd sem., 0-6h) | O. Ondráček |
| Electronic Measurement, Instruments and Systems | (2nd sem., 3-2h) | J. Hribík, Z. Krajčušková |
| Diploma Project II | (3rd sem., 0-6h) | O. Ondráček |
| Diagnostic Methods and Systems in Medicine | (3rd sem., 3-2h) | M. Kukučka, J. Púčík |
| Sound Technology | (3rd sem., 3-2h) | A. Přibilová |
| Influence of Electromagnetic Radiation on Biological Objects | (3rd sem., 3-2h) | E. Cocherová |
| Power Radio Electronics | (3rd sem., 3-2h) | J. Hribík, P. Kubinec |
| Digital Television | (3rd sem., 3-2h) | M. Hagara |
| Team Project | (3rd sem., 0-8h) | O. Ondráček |
| Diploma Project III | (4th sem., 0-8h) | O. Ondráček |

Study Program "Applied Mechatronics"

| | | |
|--------------------------------|------------------|------------------------|
| Laser Systems for Mechatronics | (1st sem., 2-2h) | F. Uherek |
| Industrial Electronics | (2nd sem., 3-2h) | A. Šatka |
| Bioelectronics | (2nd sem., 2-2h) | E. Cocherová, J. Púčík |
| Nanoelectronics | (2nd sem., 2-2h) | R. Redhammer |

Study Program "Applied Informatics"

| | | |
|--|------------------|--------------|
| Introduction to Neumorphic Engineering | (2nd sem., 3-2h) | D. Ďuračková |
|--|------------------|--------------|

III.4 Distance Study

| | | |
|---------------------------------|------------------|----------------|
| Electronics | (3rd sem., 3-2h) | Ľ. Stuchlíková |
| Electronic Devices and Circuits | (3rd sem. 1-0h) | Z. Krajčušková |

III.5 Undergraduate Study for Foreign Students (in English Language)

Signals and Systems

(4th sem.)

O. Ondráček

IV. RESEARCH PROJECTS

IV.1 International Projects

Projects within the 7th EC Framework Program and ENIAC JU

- **E2COGaN** – “Energy Efficient Converters using GaN Power Devices”, ENIAC JU No. 324280 (2013–2016). Coordinator: ON Semiconductor, Belgium, local coordinator: D. Donoval,
- **SMAC** – “SMARt systems Co-design“, FP7-ICT-2011-7, No. 288827 (2011-2014). Coordinator: Dr. Salvatore Rinaudo, ST Microelectronics, Italy, local coordinator: D. Donoval
- **E2SG** – “Energy to Smart Grid“, ENIAC JU No. 296131-2 (2012-2015). Coordinator: INFINEON, Germany, local coordinator: V. Stopjaková
- **END** – “Models, Solutions, Methods and Tools for Energy-Aware Design“, ENIAC JU No. 120214 (2010-2014). Coordinator: STMicroelectronics, Italy, local coordinator: D. Donoval
- **MAS** - “Nanoelectronics for Mobile Ambient Assisted Living (AAL) Systems“, ENIAC JU No. 120228 (2010-2013). Coordinator: Dr. W. Dettmann, Infineon Technologies, Germany, local coordinator: V. Stopjaková
- **ERG** – “Energy for a Green Society: from Sustainable Harvesting to Smart Distribution, Equipment, Materials, Design Solutions and their Applications“, ENIAC JU No 270722-2 (2011-2014), Coordinator: Francesco Gennaro, STMicroelectronics Italy, local coordinator: J. Kováč
- **ALBATROSS** – “Assembling Langmuir-Blodgett Architectures Through the Use of Roll-to-roll Systems“, FP7-PEOPLE-2012-IAPP, No. 324449 (2013–2017). Coordinator: University College Cork (Tyndal), Ireland, local coordinator: M. Weis
- **EURO-DOTS 2** – “European Doctoral Training Support in Micro/Nano-electronics“, FP7-ICT-2009-5 No. 316513, (2013-2014). Coordinator: H. E. Maes, IMEC, Leuven, Belgium, local coordinator: D. Donoval
- Project no 119 “Synthesis and Doping of Zinc-oxide Thin Films by RF Sputtering and Ion Implantation“, EC Integrating Activity Support of Public and Industrial Research Using Ion Technology (SPIRIT) under EC contract no. 227012 (2011-2013). Local coordinator: V. Tvarožek

IV.2 National Projects

IV.2.1 Projects supported by the Research & Development Operational Program funded by the ERDF

National Competence Centre

- **INTELINSYS** – Competence Centre for Smart Technologies towards Electronization and Informatization of Systems and Services, ERDF, ITMS 26240220072 (2011-2014). Coordinator: D. Donoval

National Centres of Excellence

- **SMART 2** – Support of Centre of Excellence for Smart Technologies, Systems and Services II, ERDF, ITMS 26240120029 (2012-2014). Coordinator: D. Donoval
- **NanoNet 2** – Centre of Excellence for Design, Preparation and Diagnostics of Nanostructures for Electronics and Photonics 2, ERDF, ITMS: 26240120018 (2012-2014). Coordinator: F. Uherek

IV.2.2 National R&D Projects funded by the Ministry of Education (VEGA) and Development and Research Agency (APVV) Actions

- Cognitive, personal and psychophysiological factors of the stress in the context of the relationship between anxiety and allergies and their optimization, No. APVV-0496-12 (2013-2017). Coordinator: E. Vavrinský
- Carbon nanomaterials for sensoric applications. No. APVV-0365-12 (2013-2016). Coordinator: R. Redhammer
- Implementation of on-chip test methods for mixed-signal integrated circuits and systems in nanotechnologies. No. VEGA 1/0823/13 (2013-2016). Coordinator: V. Stopjaková
- Photonic structures for integrated optoelectronics. No. APVV-0395-12 (2013-2016). Coordinator: F. Uherek
- Preparation and diagnostics of heterostructures for advanced photovoltaic applications. No. VEGA 1/0377/13. Coordinator: L. Harmatha
- Smart sensor systems based on organic electronics for health monitoring and improvement of life quality. No. APVV-0819-12 (2013-2016). Coordinator: M. Weis
- Special methods for characterization and diagnostics of advanced semiconductor micro/nanostructures and devices. No. VEGA 1/0921/13 (2013-2016). Coordinator: A. Šatka
- Transistors on the base of progressive materials for high temperatures. No. APVV-0455-12 (2013-2016). Coordinator: M. Vojs
- Design Optimization of Low-power Digital and Mixed Integrated Systems. No. VEGA 1/1008/12 (2012-2015). Coordinator: E. Gramatová, FIIT STU, local coordinator: V. Stopjaková
- Monolithic Integration of Depletion- and Enhancement-mode InAlN/GaN HFET Transistors. No. APVV 0367-11(2012-2015). Coordinator: A. Šatka
- Innovative and Energetic Effective Organic LED Structures Integrable in Illuminating Applications and Low Resolution Displays. No. APVV 0865-11 (2012-2015). Coordinator: D. Donoval
- Novel Trends in Preparation of Ohmic Contacts to p-GaN. No. VEGA 1/1197/12 (2012-2015). Coordinator: J. Liday
- High Temperature Microwave Characterization of Advanced Semiconductor Devices. No. VEGA 1/0839/12 (2012-2015). Coordinator: M. Tomáška

- Modelling and Diagnostics of Quantum-coupled Structures. No. VEGA 1/0712/12 (2012-2015). Coordinator: J. Racko
- New Design Approaches for VLSI Implementations of Neurochips and their Use for Signal Processing in Bioapplications and Neuroimplants. No. VEGA 1/0987/12 (2012-2015). Coordinator. D. Ďuračková
- MEMS Sensors Based on Nanostructured Thin Films for Gas Detection and Determination of Heavy Metals. No. VEGA 1/1106/12 (2012-2015). Coordinator: I. Hotový
- Nanostructured Thin Films and Interfaces for Photovoltaic Cells and Microsensors. No. VEGA 1/0459/12 (2012-2015). Coordinator: V. Tvarožek
- Sensoric Structures Based on Carbon and ZnO Layers for Electrotechnical Applications - Investigation of their Properties. No. VEGA 1/1102/11 (2011-2014). Coordinator: M. Veselý
- Patterning and Nanostructuring of Diamond and DLC Layers for Electronic Applications. No. VEGA 1/1103/11 (2011-2014). Coordinator: R. Redhammer
- Organic Semiconductor Devices Characterization and Technology Development. No. VEGA 1/0851/11 (2011-2014). Coordinator: J. Jakabovič
- Research and Optimization of Selected Properties of Advanced Electronic Structures and Devices Prepared on Wide Band Gap Materials. No. VEGA 1/0866/11 (2011-2014). Coordinator: D. Donoval
- Research of Superhard Nanocomposite Films for Stressed Joints under Increased Temperature in Biomedicine. No. VEGA 1/0264/11 (2011-2014). Coordinator: M. Vojs
- Growth of Nanowires for Photovoltaic Application. No. APVV 0301-10 (2011-2014). Coordinator: J. Kováč
- Advanced Materials, Process and Structures of Organic Electronics. No. APVV 0262-10 (2011-2014). Coordinator: D. Donoval
- Metal-oxide-metal Structures for Resistive Based Nanoscale Memory Cells. No. APVV 0509-10 (2011-2014). Coordinator: L. Harmatha
- Multifunctional Detector Arrays Based on Micromechanical structures. No. APVV 0190-10 (2011-2014). Coordinator: I. Hotový
- Nanostructures and Devices for Integrated Photonics. No. APVV 0424-10 (2011-2014). Coordinator: J. Jakabovič
- Towards Next Generation of III-N High-Electron Mobility Transistors. No. APVV 0104-10 (2011-2014). Coordinator. J. Kuzmík, IEE SAS, local coordinator: M. Tomáška
- Cooperation Center for the Transfer of Innovative Technologies From Research to Industry. No. APVV SUSPP-0008-09 (2009-2013). Coordinator: F. Uherek
- Patterning and nanostructuring of diamond and DLC films for electronic applications, No. APVV 1/1103/11 (2011-2013). Coordinator: R. Redhammer
- Sensoric Structures Based on Carbon and ZnO Layers for Electrotechnic Applications - Research of their Properties, VEGA 1/1102/11 (2011-2013). Coordinator. M. Veselý
- Combined scanning transient microscope, No. VEGA 2/0063/11 (2011-2013). Coordinator: J. Hribik

V. COOPERATION

V.1 Bilateral projects

Bilateral Cooperation with TU Wroclaw within Intergovernmental Research and Development Cooperation Poland – Slovakia

- **DETECH** – “Development of new technology processing and characterization methods of advanced electronic and photonic structures and devices”. No. SK-PL-0005-12 (01/2013-12/2014). Local coordinator: J. Kováč

V.2 International Cooperation

- Agilent Technologies, Inc., Santa Clara, CA, USA
- City University of Hong Kong, Hong Kong, China
- Czech Technical University, Prague, Czech Republic
- Eberhard Karls Universität, Institut für Angewandte Physik, Tübingen, Germany
- European Organization for Nuclear Research (CERN), Beams Department, RF Group, Feedback and Beam Control Section
- Faculty of Microsystem Electronics and Photonics, Wroclaw University of Technology, Poland
- Hungarian Academy of Sciences Budapest, Hungary
- III – V lab, Alcatel –Thales, Paris, France
- Ilmenau University of Technology, Germany
- imec Leuven, Belgium
- Imperial College, Department of Materials, London, UK
- Infineon Technologies, Germany
- Institut für Schicht- und Ionen Technik Jülich, Germany
- Institute of Nuclear Sciences, Laboratory for Atomic Physics, Belgrade, Serbia
- Institute of Photonics and Electronics of the ASCR, Czech Republic
- Institute of Physics, Czech Academy of Sciences, Prague, Czech Republic
- Institute of Physics, Tokio, Japan
- Institute of Scientific Instruments, Czech Academy of Sciences, Brno, Czech Republic
- Institute of Solid State Physics, Technical University Graz, Graz, Austria
- Istituto per la Microelettronica ed i Microsistemi CNR, Lecce, Italy
- Johannes Kepler Universität Linz, Linz, Austria
- Lanzhou University, Lanzhou, China
- Microwave Laboratory, UCL, Louvain-la-Neuve, Belgium
- National Hellenic Research Foundation, Theoretical and Physical Chemistry Institute, Athens, Greece
- Photeon Technologies GmbH, Bregenz, Austria
- Physikalisches Institut, Universität Würzburg, Germany
- Regensburg University, Germany
- STMicroelectronics, Italy
- Technical University Ilmenau, Germany
- Technical University Munich, Germany
- Technical University of Brno, Department of Microelectronics, Czech Republic
- Technical University Vienna, Austria
- Technische Universität, Bergakademie Freiberg, Institut für Theoretische Physik, Freiberg, Germany
- TEXAS INSTRUMENTS Deutschland GmbH, Freising, Germany
- Texas Instruments, Inc, USA
- TU Pardubice, Czech Republic
- Umweltsensortechnik GmbH, Geschwenda, Germany
- Universität Leipzig, Fakultät für Physik und Geowissenschaften, Fakultät für Chemie und Mineralogie, Leipzig, Germany
- University of Athens, Department of Physics, Greece

- University of Bath, Department of Electrical and Electronic Engineering, Bath, UK
- ÚO FVT, Brno, Czech Republic
- VŠB Ostrava, Czech Republic
- West Bohemian University, New Technology Center, Pilsen, Czech Republic

V. 3 Collaboration with industry and other institutions

- Design and implementation of the original nerve stimulator in cooperation with Department of neurosurgery, Faculty of Medicine, Comenius University, Bratislava, (2011-2013), coordinator: P. Fuchs
- Development of combined scanning transient microscope in cooperation with Institute of Physics, Slovak Academy of Sciences, Bratislava, (2011-2013), coordinator: J. Hribik

V.4 Cooperation in Slovakia

- Analog Devices, Bratislava
- AOS, Liptovský Mikuláš
- Applied Meters Inc., Prešov
- Applied Precision, Bratislava
- ARETA PRO Ltd., Bratislava
- Bratislava Development Center (BDC), ON Semiconductor, Bratislava
- Comenius University, Bratislava
 - Faculty of Medicine,
 - Faculty of Natural Sciences
 - Faculty of Pharmacy
- Danubia NanoTech, Bratislava
- E.T.K.M. Ltd., Bratislava
- eLce Ltd., Bratislava
- Geothermal Anywhere JSC, Bratislava
- HIS SENZOR Ltd., Prešov
- Institute of Metrology, Bratislava
- Intenzíva, Education and training centre, Bratislava
- International Laser Centre, Bratislava
- Krížik GBI JSC, Prešov
- Logomotion Ltd., Piešťany
- LOX Technologies, Piešťany
- MIRONIX Bratislava
- Nanodesign Ltd., Bratislava
- Office for Public Procurement (ÚVO), Bratislava
- OMS Ltd., Dojč
- PHILIPS, Bratislava
- POWERTEC Ltd., Bratislava
- R-DAS Ltd., Žilina
- Semikron, Vrbové
- Slovak Academy of Sciences in Bratislava
 - Institute of Electrical Engineering
 - Institute of Informatics

- Institute of Measurement Science
- Institute of Molecular Physiology and Genetics
- Institute of Physics
- Slovak Institute of Technical Normalization, Bratislava
- Special Software and Systems, Bratislava
- Sylex Ltd., Bratislava
- University Hospital, Bratislava - Prof. Dérer Hospital, Bratislava, Ružinov Hospital, Bratislava
- University of Technology, Košice
- University of Žilina, Žilina

VI. THESES

VI.1 Master Theses

Master theses supervised at the Institute of Electronics and Photonics. Name of supervisor is in brackets.

- [1] Cabaj, L.: The Source of the Accurate Frequency with Increased Long-Term Stability Based on GPS/Galileo Module LEA-6T and FPGA (V. Štofanič)
- [2] Černák, M.: Digital Processing of Human Speech Using Artificial Intelligence (D. Ďuračková)
- [3] Golha, P.: Wireless Communication Systems in 440 MHz Band (P. Podhoranský)
- [4] Hanic, M.: Non-invasive Sensing of Biosignals (M. Daříček)
- [5] Helbich, J.: Fiber Bragg Grating Sensors (F. Uherek)
- [6] Hidasy, P.: Radio Receiver of Signals from Meteorologic Satellites (Z. Brezovič)
- [7] Holeš, T.: Display Technologies as a Part of e-Learning Education (Ľ. Stuchlíková)
- [8] Jančovič, J.: The Design of a Hand Motion Sensing System for the Purpose of the Sign Language Recognition (R. Záluský)
- [9] Jančovič, P.: Resistive Switching in MIM Structures with Application in New Memory Structures (M. Žiška)
- [10] Juhász, P.: Defect Analysis of Organic Semiconductor Structures by DLTS Method (Ľ. Stuchlíková)
- [11] Kósa, A.: Deep Energy Level Parameters in Semiconductor Structures (Ľ. Stuchlíková)
- [12] Kost', M.: Optical Network (F. Uherek)
- [13] Kováč, M.: Design of Selected Blocks for Electrical Management in Automobiles (J. Brenkuš)
- [14] Kováč, M.: Design of Supportive Module Recording Position and Precision Time for the RTM Electronic Unit Monitoring Thermophysical Properties (V. Štofanič)
- [15] Kremeň, T.: Determine the Position of an Object in 3D Space Using Two Cameras (M. Hagara)
- [16] Kubovič, I.: Preparation and Electrical Properties Characterization of Organic Field-effect Transistors Based on Pentacene (M. Weis)
- [17] Labon, P.: Development of a Low-power Signal Acquisition System for Signals in the Frequency Range up to 25 Hz (J. Hribík)
- [18] Laho, M.: Algorithms of Digital Reverberators (P. Kubinec)
- [19] Mičian, M.: Development Board for Microcontrollers MSP430G2 (J. Hribík)
- [20] Mihál, M.: Digital Generator of Harmonic Sound Signals (P. Kubinec)
- [21] Murín, M.: Voltage Controlled Crystal Oscillators in Frequency Range 100 MHz (V. Kudják)
- [22] Olexa, J.: Ethernet Transmission of LHC Beam Position Signals and Real-time Measurement of Betatron Oscillation Phase Advance (Z. Brezovič)
- [23] Popovič, M.: Monitoring of Physiological Variables Using EXG Sensor (E. Vavrinský)
- [24] Pristič, J.: Design of Integrated Photonic Devices (F. Uherek)
- [25] Ryška, M.: Radio Receiver for Transmission of Audio Signals (P. Podhoranský)
- [26] Stanko, L.: Radio Receiver for Transmission of Audio Signals (P. Podhoranský)
- [27] Szabó, O.: Development of Measuring Workplace Photovoltaic Solar Cells (E. Vavrinský)
- [28] Šmihál, M.: Design of Switching Mode Power Supply with GaN Transistors (A. Šatka)
- [29] Zahorcsek, T.: Passivation of Organic Electroluminescent Diodes (M. Weis)

VI.2 Doctoral Theses

The name of supervisor is in brackets.

- [1] Arbet, D.: Development of Parametric Methods for Analog IC Built-in Self Test (V. Stopjaková)
- [2] Brenkuš, J.: Methods of Parametric Test Quality Enhancement for Analog Integrated Circuits (V. Stopjaková)
- [3] Košč, I.: Compound Films Based on TiO₂ and NiO for Hydrogen Detection (I. Hotový)
- [4] Pecháček, J.: Electrical Characterisation of Schottky Contacts on AlGa_N/Ga_N Heterostructures (L. Harmatha)
- [5] Příbytný, P.: Design and Characterisation of Advanced Power Devices Supported by Modelling and Simulation (D. Donoval)
- [6] Rybár, J.: Study of Quality of Semiconductor Materials and Structures by DLTS Method (Ľ. Stuchlíková)
- [7] Telek, P.: Properties of Light Emitting Diodes for Spintronic Application (J. Novák)
- [8] Vallo, M.: Robust Pressure Sensors Based on AlGa_N/Ga_N HEMT for High Temperature Applications (T. Lalinský)
- [9] Varga, M.: Diamond in Nanotechnology (M. Veselý)

VII. OTHER ACTIVITIES

Conferences and events organised/co-organised by the Institute staff

Institute as a co-organizer of:

- **ADEPT**, The 1st International Conference on Advances in Electronic and Photonic Technologies in Spa Nový Smokovec, High Tatras, Slovakia, June 2-5, 2013. Organized by: Department of Physics, Faculty of Electrical Engineering, University of Žilina, Žilina, IEP representative (J. Kováč, jr.)
- **IVC19**, International Vacuum Congress in Paris, September 2013, Slovak Vacuum Society and IEP representative (M. Veselý)
- **SVT 2013**, School of Vacuum Technology and in parallel Technical Training Course (**TTC**) in hotel Trigan, Štrbské Pleso, Slovakia, October 2013. Organized by Slovak Vacuum Society with IEP participation (M. Veselý)

VIII. MEMBERSHIP IN INSTITUTIONS AND COMMITTEES

VIII.1 Membership in International Institutions/Committees/Boards

- Alternate Councillor of IUVESTA (M. Veselý)
- Audio Engineering Society (AES), Member, Contact Person of the AES Slovak Section (A. Přibilová)
- Audio Engineering Society (AES), Member, Contact Person of the AES Slovak Section (A. Přibilová)
- CSSF, Czech and Slovak Photonic Society, Member of Executive Board (F. Uherek)
- Czech and Slovak Radioengineering Society, Member (E. Cocherová)
- Czech and Slovak Radioengineering Society, Member (Z. Krajčůšková)
- ECS, The Electrochemical Society, Sensor Division, Member (V. Tvarožek)
- European University Program TEXAS INSTRUMENTS, Member, Lecturer (P. Fuchs)
- EUROPRACTICE membership of the University is managed by the Institute (responsible: M. Veselý)

- Evaluator/Review Expert for Research Activities of the FP7 Programme EURAMET, reg. No.: EX2006C169536 (A. Šatka)
- IEEE Communications Society, Member (V. Štofanič)
- IEEE Ultrasonics, Ferroelectrics, and Frequency Control Society, Member (V. Štofanič)
- IEEE, The Institute of Electrical and Electronic Engineers, Member (V. Štofanič)
- IEEE, The Institute of Electrical and Electronic Engineers, Member (F. Uherek)
- IEEE, The Institute of Electrical and Electronic Engineers, Member (D. Donoval)
- IEEE, The Institute of Electrical and Electronic Engineers, Member (M. Veselý)
- IEEE, The Institute of Electrical and Electronic Engineers, Member (V. Stopjaková)
- IEEE, The Institute of Electrical and Electronics Engineers, Member (E. Cocherová)
- IFMBE, The International Federation for Medical and Biological Engineering (O. Ondráček, M. Kukučka, Z. Krajčušková, E. Cocherová)
- International Scientific Committee New Trends in Signal Processing, Member (P. Fuchs)
- Member of Education and Training Coordination Board and Scientific Community Council of ENIAC JU, (D. Donoval)
- Member of European Technology Platform PHOTONICS21, Education Working Group WG7 (F. Uherek)
- Member of ISEG (Independent Scientific Evaluation Group) NATO, Brussels (D. Ďuračková)
- Member of Steering Committee of European Workshop in Microelectronics Education EWME (D. Donoval)
- Member of the Steering Committee of IEEE Symposium on Design and Diagnostic of Electronics Circuits and Systems, DDECS (V. Stopjaková)
- Radioengineering, Proceedings of Czech and Slovak Technical Universities and URSI Committees, Member of Editorial Board (Z. Krajčušková)
- Representative of the Slovak Vacuum Society in the International Union for Vacuum Science, Technique and Application (IUVSTA), Electronic Materials and Processing Division (J. Kováč)
- URSI (Union Radio-Scientifique Internationale), president of National Committee in Slovak Republic (V. Štofanič)
- URSI, Scientific Secretary, National Committee in Slovak Republic (Z. Krajčušková)

VIII.2 Awards and Membership in National Committees/Boards

VIII.2.1 Awards

Prof. Daniel Donoval was awarded by the Minister of Education, Science, Research and Sport of the Slovak Republic by "Aurel Mikoviny prize" for his lifelong contribution to the science and development.

Dr. Martin Weis was awarded by the Minister of Education, Science, Research and Sport of the Slovak Republic by prize "Young Slovak Scientist of the Year 2013"

VIII.2.2 Membership in National Committees/Boards

- Association of Alumni and Friends, Faculty of Electrical Engineering and Information Technology in Bratislava, member of Bureau (Z. Krajčušková)
- Head of Office for European Union Programs at Faculty of EE&IT (M. Veselý)
- Member of the Scientific Committee of the Institute of Electrical Engineering of the Slovak Academy of Sciences (J. Kováč)
- Member of the Slovak Research and Development Agency (APVV) Board, Working Group of Technical Sciences, Electrical Engineering and Information Technology (J. Kováč)
- Member of the Slovak Research and Development Agency (APVV) Board to Support Establishment and Activities of the Centres of Excellence in Research and Education (J. Kováč)

- Member of the Slovak Research and Development Agency (APVV) Boards, Working Group of Technical Sciences (M. Žiška)
- Member of the Slovak Research and Development Agency (APVV) Board for FP7 and International R&D Cooperation (M. Veselý)
- National Expert for CEEPUS Program (M. Veselý)
- SBIMI SLS, Society for Biomedical Engineering and Medical Informatics, Scientific Secretary of SBIMI SLS, Member of Committee (M. Kukučka)
- SBIMI SLS, Society for Biomedical Engineering and Medical Informatics, Member of Committee (Z. Krajčušková)
- SBIMI SLS, Society for Biomedical Engineering and Medical Informatics, Section of Medical Informatics, Scientific Secretary (Z. Krajčušková)
- SBIMI, Slovak Society for Biomedical Engineering and Medical Informatics (O. Ondráček)
- SBIMI, Society for Biomedical Engineering and Medical Informatics, Member of Committee (E. Cocherová)
- Scientific Committee Communication and Information Technologies, Member (P. Fuchs)
- Scientific Committee for PhD Study in Electronics, Member (J. Hribík)
- Scientific Committee for PhD Study in Measurement Technology, Member (J. Hribík)
- Scientific Committee for PhD Study in Military Communication and Information Systems, Member (P. Fuchs)
- SKBS, Slovak Biophysical Society, Member (E. Cocherová)

IX. PUBLICATIONS

IX. 1 Journals

- [1] ANDOK, R. - BENČUROVÁ, A. - HRKÚT, P. - KONEČNÍKOVÁ, A. - MATAY, L. - NEMEC, P. - ŠKRINIAROVÁ, J.: The AZ 521E Resist in EBDW Litography and its Use as a RIE Etch-Mask in Etching Thin AG Layers in N₂ Plasma. In: Journal of Electrical Engineering. - ISSN 1335-3632. - Vol. 64, No. 6 (2013), p. 371-375. (in English)
- [2] ARBET, D. - STOPJAKOVÁ, V. - MAJER, L. - GYEPES, G. - NAGY, G.: New OBIST Using On-Chip Compensation of Process Variations Toward Increasing Fault Detectability in Analog ICs. In: IEEE Transactions on Nanotechnology. - ISSN 1536-125X. - Vol. 12, No. 4 (2013), p. 486-498. (in English)
- [3] BUTVINOVÁ, B. - BUTVIN, P. - ILLEKOVÁ, E. - ŠVEC, P. - VLASÁK, G. - JANIČKOVIČ, D. - KADLEČÍKOVÁ, M.: Impact of Phosphorus for Boron Substitution on Magnetic Properties of Magnetostrictive Finemets. In: Acta Electrotechnica et Informatica. - ISSN 1335-8243. - Vol. 13, No. 1 (2013), p. 78-81. (in English)
- [4] DUJAVOVÁ-LAURENČÍKOVÁ, A. - HASENÖHRL, S. - ELIÁŠ, P. - STOKLAS, R. - BLAHO, M. - NOVOTNÝ, I. - KRIŽANOVÁ, Z. - NOVÁK, J.: Ohmic Contacts to p-GaP/n-ZnO Core/Shell Nanowires Based on Au Metallization. In: Applied Surface Science. - ISSN 0169-4332. - Vol. 269 (2013), p. 60-64. (in English)
- [5] DURDÍK, Š. - TVAROŽEK, V. - FLICKYNGEROVÁ, S. - DONOVAL, D.: Specific Behaviour of the Blood Sedimentation Processes Examined by the Electrochemical Impedance Microsensor. In: Lékař a technika. - ISSN 0301-5491. - Vol. 43, No. 1 (2013), p. 39-43. (in English)
- [6] DUTKOVÁ, E. - TAKACS, L. - SAYAGUÉS, M. J. - BALÁŽ, P. - KOVÁČ, J. - ŠATKA, A.: Mechanochemical Synthesis of Sb₂S₃ and Bi₂S₃ Nanoparticles. In: Chemical Engineering Science. - ISSN 0009-2509. - Vol. 85 (2013), p. 25-29. (in English)
- [7] HOTOVÝ, I. - PREDANOCY, M.: Preparation, Measurement and Calibration of Miniaturised Heating Elements. In: Metrológia a skúšobníctvo. - ISSN 1335-2768. - Vol. 18, No. 1 (2013), p. 9-14. (in Slovak)
- [8] HOTOVÝ, J. - HÜPKES, J. - BÖTTLER, W. - MARINS, E. - SPIESS, L. - KUPS, T. - SMIRNOV, V. - HOTOVÝ, I. - KOVÁČ, J.: Sputtered ITO for Application in Thin-Film Silicon Solar Cells: Relationship between Structural and Electrical

- Properties. In: Applied Surface Science. - ISSN 0169-4332. - Vol. 269 (2013), p. 81-87. (in English)
- [9] HRIBIK, J. - BOBEK, P.: Temperature Limitations of Transistor Power Dissipation and Current. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 19, No. 6 (2013), p. 21-22. (in Slovak)
- [10] HURAN, J. - PERNÝ, M. - MIKOLÁŠEK, M. - ŠÁLY, V. - KOBZEV, A. P. - KLEINOVÁ, A.: Electrical and Structural Characterization of Carbon Based Thin Films as a Part of Heterostructures with Crystalline Silicon for PV Applications. In: Jemná mechanika a optika. - ISSN 0447-6441. - Vol. 58, No. 2 (2013), p. 67-70. (in Slovak)
- [11] CHROMIK, Š. - ŠTRBÍK, V. - DOBROČKA, E. - DUJAVOVÁ-LAURENČÍKOVÁ, A. - REIFFERS, M. - LIDAY, J. - ŠPANKOVÁ, M.: Significant Increasing of Onset Temperature of FM Transition in LSMO Thin Films. In: Applied Surface Science. - ISSN 0169-4332. - Vol. 269 (2013), p. 98-101. (in English)
- [12] CHROMIK, Š. - NISHIDA, A. - ŠTRBÍK, V. - GREGOR, M. - ESPINÓS, J. P. - LIDAY, J. - DURNÝ, R.: The Distribution of Elements in Sequentially Prepared MgB₂ on SiC Buffered Si Substrate and Possible Pinning Mechanisms. In: Applied Surface Science. - ISSN 0169-4332. - Vol. 269 (2013), p. 29-32. (in English)
- [13] JAKABOVIČ, J. - WEIS, M. - KOVÁČ, J. - DONOVAL, D. - DONOVAL, M. - DAŘÍČEK, M. - TELEK, P. - CIRÁK, J. - PENG, Y. - XIE, J. - LV, W. - YANG, T. - YAO, B. - WANG, Y.: Photogenerated Charge Carriers in Double-Layer Organic Field-Effect Transistor. In: Synthetic Metals. - ISSN 0379-6779. - Vol. 175 (2013), p. 47-51. (in English)
- [14] JANEK, M. - MATEJDES, M. - ZACHER, T. - VINCZE, A. - ŠATKA, A. - HAŠKO, D. - UHEREK, F. - DARMO, J. - SZÖCS, V. - KAVECKÝ, Š. - DANIELIK, V. - VELIČ, D. - LORENC, D. - SRNÁNEK, R. - MATUŠKA, J.: Dielectric Properties of Boron Nitride in THz Region Synthesized with Nonenergetic CVD. In: International Journal of Applied Ceramic Technology. - ISSN 1546-542X. - Vol. 10, Iss. 4 (2013). (in English)
- [15] JASENEK, J. - ŽIŠKA, M. - UŠÁK, E.: Scanning of Electric Arc in the Tubular Plasmatron. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 19, No. 2 (2013), p. 33-35. (in Slovak)
- [16] JIANG, Q. - LEWINS, Ch. J. - ALLSOPP, D. W. E. - BOWEN, Ch. R. - WANG, W. N. - ŠATKA, A. - PRIESOL, J. - UHEREK, F.: Enhanced Photoluminescence from InGaN/GaN Quantum Wells on a GaN/Si(111) Template with Extended Three-Dimensional GaN Growth on Low-Temperature AlN Interlayer. In: Japanese Journal of Applied Physics. - ISSN 0021-4922. - Vol. 52, Iss. 6 (2013), Art. No. 061002, [5] p. (in English)
- [17] KINDER, R. - MIKOLÁŠEK, M. - DONOVAL, D. - KOVÁČ, J. - TLACZALA, M.: Measurement System with Hall and a Four Point Probes for Characterization of Semiconductors. In: Journal of Electrical Engineering. - ISSN 1335-3632. - Vol. 64, No. 2 (2013), p. 106-111. (in English)
- [18] KORBUTOWICZ, R. - WNEK, J. - PANACHIDA, P. - SERAFIŃCZUK, J. - SRNÁNEK, R.: Gallium Oxide Buffer Layers for Gallium Nitride Epitaxy. In: Optica Applicata. - ISSN 0078-5466. - Vol. 43, Iss. 1 (2013), p. 73-79. (in English)
- [19] KORDOŠ, P. - STOKLAS, R. - GREGUŠOVÁ, D. - HUŠEKOVÁ, K. - CARLIN, J.F. - GRANDJEAN, N.: Defect States Characterization of Non-Annealed and Annealed ZrO₂/InAlN/GaN Structures by Capacitance Measurements. In: Applied Physics Letters. - ISSN 0003-6951. - Vol. 102, Iss. 6 (2013), Art. No. 063502. (in English)
- [20] KÓSA, A. - RYBÁR, J. - STUHLÍKOVÁ, L.: Numerical Approach to the Problem of Digital DLTS Measurements Signal Analysis. In: ElectroScope. - ISSN 1802-4564. - Vol. 2013, No. 5 (2013), online [5] p. (in English)
- [21] KOŠČ, I. - HOTOVÝ, I. - PREDANOCY, M. - ŘEHÁČEK, V.: Intelligent security Systems and Sensors. In: iDB Journal. - ISSN 1338-3337. - Vol. 3, No. 3 (2013), p. 30-33. (in Slovak)
- [22] KOŠČ, I. - HOTOVÝ, I. - ŘEHÁČEK, V. - GRIESSELER, R. - PREDANOCY, M. - WILKE, M. - SPIESS, L.: Sputtered TiO₂ Thin Films with NiO Additives for Hydrogen Detection. In: Applied Surface Science. - ISSN 0169-4332. - Vol. 269 (2013), p. 110-115. (in English)
- [23] KUBICOVÁ, I. - PUDIŠ, D. - ŠUŠLIK, L. - ŠKRINIAROVÁ, J.: Spatial Resolution of Apertureless Metal-Coated Fiber Tip for NSOM Lithography Determined by Tip-to-Tip Scan. In: Optik - International Journal for Light and Electron Optics. - ISSN 0030-4026. - Vol. 124, Iss. 14 (2013), p. 1971-1973. (in English)
- [24] KUBICOVÁ, I. - PUDIŠ, D. - ŠKRINIAROVÁ, J. - KOVÁČ, J. - KOVÁČ, J. jr. - JAKABOVIČ, J. - KUZMA, A.: 2D Irregular Structure in the LED Surface Patterned by NSOM Lithography. In: Applied Surface Science. - ISSN 0169-4332. - Vol. 269 (2013), p. 116-119. (in English)
- [25] KUKUČKA, M.: Teaching Center of Texas Instruments. In: OKO časopis. - ISSN 1338-4511. - Vol. 2013, Iss. 2

- (2013), p. 11. (in Slovak)
- [26] KUKUČKA, M. - KRAJČUŠKOVÁ, Z. - STOPJAKOVÁ, V. - ĎURAČKOVÁ, D. - WEISSE, A.: The Influence of the Skin Fatigue, its Perspiration and the Time of Stimulation in Measurement of the Active Point on Human Skin. In: *Lékař a technika*. - ISSN 0301-5491. - Vol. 43, No. 3 (2013), p. 19-25. (in English)
- [27] LEE, K. - WEIS, M. - TAGUCHI, D. - MANAKA, T. - IWAMOTO, M.: Coupling between Transport and Injection Properties of Pentacene Field-Effect Transistors with Different Morphologies. In: *Japanese Journal of Applied Physics*. - ISSN 0021-4922. - Vol. 52, Iss. 8R (2013), Art. No. 080203. (in English)
- [28] LEE, K. - WEIS, M. - CHEN, X. - TUGUCHI, D. - MANAKA, T. - IWAMOTO, M.: Impact of Illumination on Charge Injection and Accumulation in Organic Transistor in Presence of Plasmonic Nanoparticles. In: *Japanese Journal of Applied Physics*. - ISSN 0021-4922. - Vol. 52, No. 4, Sp. Iss (2013), Art. No. 04CK08. (in English)
- [29] LIDAY, J. - VOGRIŇČIČ, P. - VRETNÁR, V. - HOTOVÝ, I. - KOTLÁR, M. - MARTON, M. - ŘEHÁČEK, V.: Improving the Ohmic Properties of Au/Ni-Mg/p-GaN Contacts by Adding SWCNT Metallization Interlayer between Metal and p-GaN Layers. In: *Journal of Electrical Engineering*. - ISSN 1335-3632. - Vol. 64, No. 6 (2013), p. 390-392. (in English)
- [30] LIDAY, J. - VOGRIŇČIČ, P. - VRETNÁR, V. - KOTLÁR, M. - MARTON, M. - ŘEHÁČEK, V.: Ohmic Contacts to p-GaN Based on the Single-Walled Carbon Nanotubes. In: *Journal of Electrical Engineering*. - ISSN 1335-3632. - Vol. 64, No. 5 (2013), p. 323-326. (in English)
- [31] MARTON, M. - VOJS, M. - ZDRAVECKÁ, E. - HIMMERLICH, M. - HAENSEL, T. - KRISCHOK, S. - KOTLÁR, M. - MICHNIAK, P. - VESELÝ, M. - REDHAMMER, R.: Raman Spectroscopy of Amorphous Carbon Prepared by Pulsed Arc Discharge in Various Gas Mixtures. In: *Journal of Spectroscopy*. - ISSN 2314-4920. - Vol. 2013 (2013), Art. No. 67079. (in English)
- [32] NAGY, L. - STOPJAKOVÁ, V. - ZÁLUSKÝ, R.: Completion Detection in Dual-Rail Asynchronous Systems by Current-Sensing. In: *Microelectronics Journal*. - ISSN 0026-2692. - Vol. 44, Iss. 6 (2013), p. 538-544. (in English)
- [33] NOVÁK, J. - KRIŽANOVÁ, Z. - VÁVRA, I. - ELIÁŠ, P. - HASENÖHRL, S. - LAURENČÍKOVÁ, A. - NOVOTNÝ, I. - KOVÁČ, J. - ŠUTTA, P. - MIKULICS, M.: Structural and Optical Properties of Individual GaP/ZnO Core-Shell Nanowires. In: *Vacuum*. - ISSN 0042-207X. - Vol. 98 (2013), p. 106-110. (in English)
- [34] OLESZKIEWICZ, W. - MARKOWSKI, J. - SRNÁNEK, R. - KIJASZEK, W. - GRYGLEWICZ, J. - KOVÁČ, J. - TLACZALA, M.: Influence of RF ICP PECVD Process Parameters of Diamond-Like Carbon Films on DC Bias and Optical Emission Spectra. In: *Optica Applicata*. - ISSN 0078-5466. - Vol. 43, Iss. 1 (2013), p. 109-115. (in English)
- [35] OLŠOVSKÝ, P. - PODHORANSKÝ, P. - FUCHS, P.: Analysis and Modeling of Synchronization in QPSK System. In: *Slaboproudý obzor*. - ISSN 0037-668X. - Vol. 69, No. 2 (2013), p. 7-14. (in Slovak)
- [36] PERNÝ, M. - MIKOLÁŠEK, M. - ŠÁLY, V. - RUŽINSKÝ, M. - ĎURMAN, V. - PAVÚK, M. - HURAN, J. - ORSZÁGH, J. - MATEJČÍK, Š.: Behaviour of Amorphous Silicon Carbide in Au/a-SiC/Si Heterostructures Prepared by PECVD Technology Using Two Different RF Modes. In: *Applied Surface Science*. - ISSN 0169-4332. - Vol. 269 (2013), p. 143-147. (in English)
- [37] PERNÝ, M. - MIKOLÁŠEK, M. - ŠÁLY, V. - PACKA, J. - HURAN, J.: Electric Transport Mechanisms in Heterostructures a-SiC/c-Si for Heterojunction Solar Cells. In: *Electrotehnica, Electronica, Automatica*. - ISSN 1582-5175. - Vol. 61, No. 2 (2013), p. 15-19. (in English)
- [38] PERNÝ, M. - MIKOLÁŠEK, M. - ŠÁLY, V. - PACKA, J. - HURAN, J.: Characteristics of Au/a-SiC/c-Si/Al Nitrogen Doped Heterostructures Fabricated by PECVD Method. Part 1. In: *Jemná mechanika a optika*. - ISSN 0447-6441. - Vol. 58, No. 9 (2013), p. 269-271. (in Slovak)
- [39] PERNÝ, M. - MIKOLÁŠEK, M. - ŠÁLY, V. - PACKA, J. - HURAN, J.: Characteristics of Au/a-SiC/c-Si/Al Nitrogen Doped Heterostructures Fabricated by PECVD Method. Part 2. In: *Jemná mechanika a optika*. - ISSN 0447-6441. - Vol. 58, No. 10 (2013), p. 276-277. (in Slovak)
- [40] PRIESOL, J. - ŠATKA, A. - UHEREK, F. - DONOVAL, D. - SHIELDS, P. - ALLSOPP, D. W. E.: Quantitative Analysis of Cathodoluminescence Phenomena in InGaN/GaN QW by Monte Carlo Method. In: *Applied Surface Science*. - ISSN 0169-4332. - Vol. 269 (2013), p. 155-160. (in English)

- [41] PŘIBIL, J. - PŘIBILOVÁ, A.: Evaluation of Influence of Spectral and Prosodic Features on GMM Classification of Czech and Slovak Emotional Speech. In: EURASIP Journal on Audio Speech and Music Processing. - ISSN 1687-4722. - Vol. 2013 (2013), online, [22] p. (in English)
- [42] PŘIBIL, J. - PŘIBILOVÁ, A. - MATOUŠEK, J.: Comparison of Formant Features of Male and Female Emotional Speech in Czech and Slovak. In: Elektronika ir Elektrotechnika. - ISSN 1392-1215. - Vol. 19, No. 8 (2013), p. 83-88. (in English)
- [43] PŘIBIL, J. - PŘIBILOVÁ, A.: Determination of Formant Features in Czech and Slovak for GMM Emotional Speech Classifier. In: Radioengineering. - ISSN 1210-2512. - Vol. 22, No. 1 (2013), p. 52-59. (in English)
- [44] PUDIŠ, D. - ŠUŠLIK, L. - ŠKRINIAROVÁ, J. - KOVÁČ, J. - KOVÁČ, J. jr. - KUBICOVÁ, I. - MARTINČEK, I. - HAŠČÍK, Š. - SCHAAF, P.: Effect of 2D Photonic Structure Patterned in the LED Surface on Emission Properties. In: Applied Surface Science. - ISSN 0169-4332. - Vol. 269 (2013), p. 161-165. (in English)
- [45] RACKO, J. - PECHÁČEK, J. - MIKOLÁŠEK, M. - BENKO, P. - GRMANOVÁ, A. - HARMATHA, L. - BREZA, J.: Trap-Assisted Tunneling in the Schottky Barrier. In: Radioengineering. - ISSN 1210-2512. - Vol. 22, No. 1 (2013), p. 240-244. (in English)
- [46] STOPJAKOVÁ, V.: Electronics and Information Technologies Oriented Home Health-Care. In: Transfer. - ISSN 1337-9747. - Vol. 5, No. 1 (2013), p. 14-16. (in Slovak)
- [47] STOPJAKOVÁ, V. - MIHÁLOV, J. - MAJER, L.: Multi-Platform Communication System for Home Health-Care Devices. In: Transfer. - ISSN 1337-9747. - Vol. 5, No.3 (2013), p. 10-11. (in English)
- [48] STOPJAKOVÁ, V.: Wireless Biomonitoring System for Diagnostics of Psychical Stress Influence. In: DPS elektronika od A do Z. - ISSN 1805-5044. - Vol. 2013, Iss. 1 (2013), p. 20-23. (in Slovak)
- [49] STUHLÍKOVÁ, Ľ. - HARMATHA, L. - PETRUS, M. - RYBÁR, J. - ŠEBOK, J. - SCIANA, B. - RADZIEWICZ, D. - PUCICKI, D. - TLACZALA, M. - KÓSA, A. - BENKO, P. - KOVÁČ, J. - JUHÁSZ, P.: Electrical Characterization of the AlInBV-N Heterostructures by Capacitance Methods. In: Applied Surface Science. - ISSN 0169-4332. - Vol. 269 (2013), p. 175-179. (in English)
- [50] SZABÓ, O. - PERNÝ, M. - ŠÁLY, V. - PACKA, J. - FLICKYNGEROVÁ, S. - VAVRINSKÝ, E.: Automated Workstation for Measuring Parameters and Parasitic Resistances of Solar Cells. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 19, No. 3 (2013), p. 12-15. (in Slovak)
- [51] TURIANICOVÁ, E. - BALÁŽ, P. - TUČEK, L. - ZORKOVSKÁ, A. - ZELENÁK, V. - NÉMETH, Z. - ŠATKA, A. - KOVÁČ, J.: A Comparison of the Reactivity of Activated and Non-Activated Olivine with CO₂. In: International Journal of Mineral Processing. - ISSN 0301-7516. - Vol. 123 (2013), p. 73-77. (in English)
- [52] UHEREK, F. - CHOVAN, J. - PATASSY, G. - PIKUS, B. - SUKUBA, J. - SYNAK, D. - SYNAK, D. - KUZMA, A.: Design and Simulation of Fiber Bragg Gratings. In: Foton-express. - No. 6 (2013), p. 24-26. (in Russian)
- [53] VANČO, Ľ. - KADLEČIKOVÁ, M. - BREZA, J. - ČAPLOVIČ, Ľ. - GREGOR, M.: Examining the Ground Layer of St. Anthony from Padua 19th Century Oil Painting by Raman Spectroscopy, Scanning Electron Microscopy and X-ray Diffraction. In: Applied Surface Science. - ISSN 0169-4332. - Vol. 264 (2013), p. 692-698. (in English)

IX. 2 Conference Proceedings

- [1] ANDOK, R. - BENČUROVÁ, A. - NEMEC, P. - HRKÚT, P. - MATAY, L. - KONEČNÍKOVÁ, A. - ŠKRINIAROVÁ, J. - HAŠČÍK, Š.: Photosensitive AZ 5214E Resist Used for e-Beam Lithography Applications. In: APCOM 2013. Applied Physics of Condensed Matter : 19th International Conference. Štrbské Pleso, Slovak Republic, June 19-21, 2013. - Bratislava : STU, 2013. - ISBN 978-80-227-3956-6. - p. 50-53. (in English)
- [2] ARBET, D. - NAGY, G. - STOPJAKOVÁ, V. - GYEPES, G.: Efficiency of Oscillation-based BIST in 90nm CMOS Active Analog Filters. In: 2013 IEEE 16th International Symposium on Design and Diagnostics of Electronic Circuits & Systems. Karlovy Vary, Czech Republic; 8-10 April 2013. - Brno : IEEE, 2013. - ISBN 978-1-4673-6133-0. - p. 263-266. (in English)
- [3] BAČA, V. - BREZOVIČ, Z.: Device for Communication via CAN and LIN Bus. In: ŠVOČ 2013 : Students Conference. Bratislava, 23 April 2013. - Bratislava : FEI STU, 2013. - ISBN 978-80-227-3909-2. - p. 365-370. (in Slovak)

- [4] BALÁŽ, I. - BREZOVIČ, Z. - MINÁRIK, M. - KUDJÁK, V. - ŠTOFANIK, V.: Barkhausen Criterion and Another Necessary Condition for Steady State Oscillations Existence. In: Radioelektronika 2013 : 23rd Conference Radioelektronika 2013; Pardubice, Czech republic; 16-17 April 2013. - Pardubice : University of Pardubice, 2013. - ISBN 978-1-4673-5517-9. - p. 155-159. (in English)
- [5] BALÁŽ, M. - BALÁŽ, P. - ZORKOVSKÁ, A. - PETKOVA, V. - ŠATKA, A.: The Effect of Mechanical Activation of the Eggshell Waste on the Sorption and Dechlorination Activity and its Thermal Decomposition. In: XV Balkan Mineral Processing Congress : Vol. II; Sozopol, Bulgaria, 12-16 June 2013. - Sofia : Publishing House St. Ivan Rilski, 2013. - ISBN 978-954-353-218-6. - p. 946-951. (in English)
- [6] BALÁŽ, P. - ZORKOVSKÁ, A. - BALÁŽ, M. - ČAPLOVIČOVÁ, M. - ČAPLOVIČ, Ľ. - KOVÁČ, J. jr. - MOJŽIŠOVÁ, G. - MOJŽIŠ, J.: CdS@ZnS Quantum Dot Nanoparticles Produced by Mechanochemical Route: Reduction of Cadmium Leakage and In Vitro Cytotoxicity. In: Nanotoday 2013 Conference : Matrix, Biopolis, Singapore, December 8-11, 2013. - [s.l.] : Elsevier, 2013. - p. 206. (in English)
- [7] BELÁNYIOVÁ, E. - REHÁKOVÁ, M. - ČEPPAN, M. - KADLEČÍKOVÁ, M. - VANČO, Ľ.: Infrared Spectroscopic Technique for Discrimination of Modern Writing Means. In: 15th Austrian Chemistry Days, Joint Meeting of the Hungarian & Austrian Chemical Societies, Graz University of Technology, Graz, Austria, September 23 - 26, 2013. - Vienna : Gesellschaft Österreichischer Chemiker, 2013. - ISBN 978-3-900554-72-9. - p. PO-2. (in English)
- [8] BENKO, P. - KOVÁČ, J. - FLOROVIČ, M. - KORDOŠ, P. - ŠKRINIAROVÁ, J. - HARMATHA, L.: Influence of Gate Recess Etching on Electrical Properties of AlGaIn/GaN HEMTs. In: ADEPT 2013 : 1st International Conference on Advances in Electronic and Photonic Technologies. Nový Smokovec, High Tatras, Slovakia, June 2-5, 2013. - Žilina : University of Žilina, 2013. - ISBN 978-80-554-0689-3. - p. 32-35. (in English)
- [9] BENKOVSKÁ, J. - KÓSA, A. - STUHLÍKOVÁ, Ľ. - DUBECKÝ, F. - HARMATHA, L.: DLTS Study of Neutron Bombarded 4H-SiC Detector. In: ADEPT 2013 : 1st International Conference on Advances in Electronic and Photonic Technologies. Nový Smokovec, High Tatras, Slovakia, June 2-5, 2013. - Žilina : University of Žilina, 2013. - ISBN 978-80-554-0689-3. - p. 274-277. (in English)
- [10] BERNÁT, M. - ŠATKA, A. - SLÁDEK, Ľ.: Experimental Determination of Transient Characteristics and S-Parameters of Electronic Circuits by Time Domain Reflectometry. In: ELITECH'13 : 15th Conference of Doctoral Students; Bratislava, Slovakia, 5 June 2013. - Bratislava : STU, 2013. - ISBN 978-80-227-3947-4. - CD-ROM, [6] p. (in English)
- [11] BERNÁT, M. - ŠATKA, A. - SLÁDEK, Ľ. - CHVÁLA, A. - DAŘÍČEK, M. - DONOVAL, M.: Influence of the GaN HEMT Large-Signal Model Parameters on Transient Characteristics. In: ADEPT 2013 : 1st International Conference on Advances in Electronic and Photonic Technologies. Nový Smokovec, Slovakia, June 2-5, 2013. - Žilina : University of Žilina, 2013. - ISBN 978-80-554-0689-3. - p. 207-211. (in English)
- [12] BIELAK, K. - PUCICKI, D. - SCIANA, B. - RADZIEWICZ, D. - GELEZUK, L. - BADURA, M. - DAWIDOWSKI, W. - SERAFIŃCZUK, J. - KOVÁČ, J. - TLACZALA, M.: Phase Separation of GaInNAs Layer in Quantum Wells Observed by HRXRD. In: ADEPT 2013 : 1st International Conference on Advances in Electronic and Photonic Technologies. Nový Smokovec, Slovakia, June 2-5, 2013. - Žilina : University of Žilina, 2013. - ISBN 978-80-554-0689-3. - p. 211-214. (in English)
- [13] BOBEK, P. - BORIŠ, M.: LLC Resonant Converter Transfer Function. In: ELITECH'13 : 15th Conference of Doctoral Students; Bratislava, Slovakia, 5 June 2013. - Bratislava : STU, 2013. - ISBN 978-80-227-3947-4. - CD-ROM, [5] p. (in English)
- [14] BOMBAROVÁ, K. - CHLPÍK, J. - FLICKYNGEROVÁ, S. - NOVOTNÝ, I. - CIRÁK, J.: Optical Analysis of ZnO Thin Films Using Spectroscopic Ellipsometry and Reflectometry. In: APCOM 2013. Applied Physics of Condensed Matter : 19th International Conference. Štrbské Pleso, Slovak Republic, June 19-21, 2013. - Bratislava : STU, 2013. - ISBN 978-80-227-3956-6. - p. 249-253. (in English)
- [15] BOMBAROVÁ, K. - CHLPÍK, J. - FLICKYNGEROVÁ, S. - NOVOTNÝ, I. - CIRÁK, J.: Study of Conductive Oxides Thin Films by Spectroscopic Ellipsometry. In: ECOF 13 : 13th European Conference on Organised Films. Cork, Ireland, 8.-12.7.2013. - p.P24. (in English)
- [16] BRENKUŠ, J. - STOPJAKOVÁ, V. - GYEPES, G.: Numerical Method for DC Fault Analysis Simplification and

- Simulation Time Reduction. In: 2013 IEEE 16th International Symposium on Design and Diagnostics of Electronic Circuits & Systems : Karlovy Vary, Czech Republic; 8-10 April 2013. - Brno : IEEE, 2013. - ISBN 978-1-4673-6133-0. - p. 170-174. (in English)
- [17] BRICHTA, P. - MAREK, J. - STUHLÍKOVÁ, Ľ.: Interactive Animations of the PN Junction. In: ŠVOČ 2013 : Students Conference. Bratislava, 23 April 2013. - Bratislava : FEI STU, 2013. - ISBN 978-80-227-3909-2. - p. 124-129. (in Slovak)
- [18] BÚC, D. - KOVÁČ, J. - ČAPLOVIČOVÁ, M. - MURÍN, J. - KRÁLOVIČ, V. - NOVÁK, J.: RF Magnetron Deposition of ZnO Thin Films on Positioned GaP Nanowires. In: IVC - 19th International Vacuum Congress : Paris, France, September 9-13, 2013. - [s.l.] : IUVESTA, 2013. - p. 2297-2298. (in English)
- [19] BUČKA, P. - STUHLÍKOVÁ, Ľ.: The Diamant Structure of Silicon in 2D and 3D Representations. In: ŠVOČ 2013 : Students Conference. Bratislava, 23 April 2013. - Bratislava : FEI STU, 2013. - ISBN 978-80-227-3909-2. - p. 106-111. (in Slovak)
- [20] BUTVIN, P. - BUTVINOVÁ, B. - KUZMINSKI, M. - SLAWSKA-WANIEWSKA, A. - SITEK, J. - MAŤKO, I. - KADLEČÍKOVÁ, M.: Effect of Surfaces in FeNbCuBSiP Ribbons. In: CSMAG '13. 15th Czech and Slovak Conference on Magnetism : Košice, Slovak Republic, June 17-21, 2013. - Košice : Pavol Jozef Šafárik University, 2013. - ISBN 978-80-8152-015-0. - p. 136. (in English)
- [21] CIRÁK, J. - KAISER, M. - BOMBAROVÁ, K. - NÁDAŽDY, V. - IVANČO, J. - WEIS, M.: Charge Transport in Polythiophene-Fullerene Films for Photovoltaic Applications. In: ECOF 13 : 13th European Conference on Organised Films. Cork, Ireland, 8.-12.7.2013. - p. O2. (in English)
- [22] COCHEROVÁ, E.: Modeling of Morphological Characteristics of Atrial Action Potential. In: Trends in Biomedical Engineering 2013 : Podbanské, Slovak Republic, 3.-5.7.2013. - Košice : Technical University of Košice, 2013. - ISBN 978-80-8086-208-4. - p. 151-153. (in English)
- [23] DAŘÍČEK, M. - JELEŇ, M. - DONOVAL, M. - VAVRINSKÝ, E. - ŠATKA, A. - DONOVAL, D.: Biophysical Diagnostics in Medical Prevention. In: ADEPT 2013 : 1st International Conference on Advances in Electronic and Photonic Technologies. Nový Smokovec. Slovakia, June 2-5, 2013. - Žilina : University of Žilina, 2013. - ISBN 978-80-554-0689-3. - p. 215-218. (in English)
- [24] DONOVAL, D. - WEBER, B. - HANIC, M. - KOTRÍKOVÁ, L.: Will Achievements Promotion Support Development of Electronics in Slovakia? In: Yearbook of the FEI STU Alumni and Friends Association 2012. - Bratislava : STU, 2013. - ISBN 978-80-227-3869-9. - p. 100-102. (in Slovak)
- [25] DONOVAL, D. - WEBER, B. - KOTRÍKOVÁ, L. - HANIC, M.: Highly Regarded Guest from European Commission at UEF FEI STU. In: Yearbook of the FEI STU Alumni and Friends Association 2012. - Bratislava : STU, 2013. - ISBN 978-80-227-3869-9. - p. 99-100. (in Slovak)
- [26] DUBECKÝ, F. - KOVÁČ, J. - KOVÁČ, J. jr. - ZAŤKO, B. - OSWALD, J. - HUBÍK, P. - KINDL, D. - VANKO, G. - GOMBIA, E. - FERRARI, C. - BOHÁČEK, P. - ŠAGÁTOVÁ, A. - NEČAS, V.: 4H-SiC and Novel Si GaAs-Based M-S-M Radiation Hard Photodetectors Applicable in UV, EUV, and Soft x-Ray Detection: Design, Technology, and Performance Testing. In: Proceedings of SPIE. Vols. 8771-8781 : SPIE Optics and Optoelectronics 2013 : Prague, Czech Republic, 15-18 April 2013. - ISBN 978-081949584-6. - CD-ROM, [7] p. (in English)
- [27] FLICKYNGEROVÁ, S. - SZABÓ, O. - NOVOTNÝ, I. - TVAROŽEK, V. - ŠUTTA, P. - NETRVALOVÁ, M.: Nanostructured Ultra-Thin Films of Gold Prepared by Sputtering. In: 8th Solid State Surfaces and Interfaces : Extended Abstract Book. Smolenice Castle, Slovak Republic, November 25-28, 2013. - Bratislava : Comenius University, 2013. - ISBN 978-80-223-3501-0. - p. 45. (in English)
- [28] FLICKYNGEROVÁ, S. - NOVOTNÝ, I. - MARTON, M. - TVAROŽEK, V.: Three-Dimensional Ultra-Thin Coatings of Nanostructures by Sputtering. In: ADEPT 2013 : 1st International Conference on Advances in Electronic and Photonic Technologies. Nový Smokovec, Slovakia, June 2-5, 2013. - Žilina : University of Žilina, 2013. - ISBN 978-80-554-0689-3. - p. 153-156. (in English)
- [29] FLOROVÍČ, M. - KOVÁČ, J. - HRONEC, P. - ŠKRINIAROVÁ, J. - DONOVAL, D. - LALINSKÝ, T. - VANKO, G.: On-State Stress Investigation of AlGaIn/GaN HEMT. In: ADEPT 2013 : 1st International Conference on Advances in Electronic and Photonic Technologies. Nový Smokovec, Slovakia, June 2-5, 2013. - Žilina : University of Žilina,

2013. - ISBN 978-80-554-0689-3. - p. 44-47. (in English)
- [30] GMUCOVÁ, K. - NÁDAŽDY, V. - VOJTKO, A. - KOTLÁR, M. - MÁJKOVÁ, E.: Investigation of Ion Diffusion Towards Plasmonic Surfaces . In: APCOM 2013. Applied Physics of Condensed Matter : 19th International Conference. Štrbské Pleso, Slovak Republic, June 19-21, 2013. - Bratislava : STU, 2013. - ISBN 978-80-227-3956-6. - p. 229-232. (in English)
- [31] GREGOR, M. - VANČO, Ľ. - KADLEČÍKOVÁ, M. - BREZA, J.: Raman Spectroscopy of Gemstones on the Necklaces from Ancient Graves at the Castle of Devín. In: APCOM 2013. Applied Physics of Condensed Matter : 19th International Conference. Štrbské Pleso, Slovak Republic, June 19-21, 2013. - Bratislava : STU, 2013. - ISBN 978-80-227-3956-6. - p. 42-45. (in English)
- [32] GYEPES, G. - STOPJAKOVÁ, V. - ARBET, D. - NAGY, G. - MAJER, L.: A Robust Multipurpose PLL with Lock Detector Designed in 0.35 um CMOS Technology. In: Applied Electronics 2013 : 18th International Conference. Pilsen, Czech Republic, 10-12 September 2013. - Pilsen : University of West Bohemia, 2013. - ISBN 978-80-261-0166-6. - p. 85-88. (in English)
- [33] GYEPES, G. - ARBET, D. - BRENKUŠ, J. - STOPJAKOVÁ, V. - MIHÁLOV, J.: An On-chip Dynamic Supply Current Monitor for Testing of Digital Circuits. In: Radioelektronika 2013 : 23rd Conference Radioelektronika 2013. Pardubice, Czech republic; 16-17 April 2013. - Pardubice : University of Pardubice, 2013. - ISBN 978-1-4673-5517-9. - p. 160-165. (in English)
- [34] GYEPES, G. - STOPJAKOVÁ, V. - ARBET, D. - MIHÁLOV, J. - MAJER, L.: Built-in Test for SRAMs Using Dynamic Supply Current Monitoring. In: ADEPT 2013 : 1st International Conference on Advances in Electronic and Photonic Technologies. Nový Smokovec, Slovakia, June 2-5, 2013. - Žilina : University of Žilina, 2013. - ISBN 978-80-554-0689-3. - p. 177-180. (in English)
- [35] HAGARA, M. - PÚČIK, J.: Fingertip Detection for Virtual Keyboard Based on Camera. In: Radioelektronika 2013 : 23rd Conference Radioelektronika 2013; Pardubice, Czech republic; 16-17 April 2013. - Pardubice : University of Pardubice, 2013. - ISBN 978-1-4673-5517-9. - p. 364-368. (in English)
- [36] HAGARA, M. - KULLA, P.: Precise Edge Detection in 1-D Images for Contactless Measurement of Object. In: Measurement 2013 : 9th International Conference on Measurement. Smolenice, Slovakia, May 27-30, 2013. - Bratislava : Slovak Academy of Sciences, 2013. - ISBN 978-80-969672-5-4. - p. 311-314. (in English)
- [37] HAGARA, M. - PÚČIK, J. - KULLA, P.: Specification of Camera Parameters for Virtual Keyboard. In: Radioelektronika 2013 : 23rd Conference Radioelektronika 2013; Pardubice, Czech republic; 16-17 April 2013. - Pardubice : University of Pardubice, 2013. - ISBN 978-1-4673-5517-9. - p. 233-237. (in English)
- [38] HANIC, M. - JELEŇ, M. - NOVÁČEK, M. - WEIS, M. - DONOVAL, M. - HORÍNEK, F. - DAŘÍČEK, M. - DONOVAL, D.: Biosignal Sensing Electrodes Based on Modern Flexible Materials. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 19, Special Issue : Conference ELOSYS, Trenčín, 15.-18.10.2013, p. 37-39. (in Slovak)
- [39] HARMATHA, L. - STUHLÍKOVÁ, Ľ. - RACKO, J. - MAREK, J. - BENKO, P. - BREZA, J. - PECHÁČEK, J.: Capacitance Properties and Simulation of AlGaIn/GaN Schottky Heterostructure. In: 8th Solid State Surfaces and Interfaces : Extended Abstract Book. Smolenice Castle, Slovak Republic, November 25-28, 2013. - Bratislava : Comenius University, 2013. - ISBN 978-80-223-3501-0. - p. 54-55. (in English)
- [40] HARMATHA, L. - STUHLÍKOVÁ, Ľ. - MIKOLÁŠEK, M. - NEMEC, M.: DLTS Study of the a-Si:H/c-Si Heterostructure for Solar Applications. In: Renewable Energy Sources 2013 : 4th International Scientific Conference OZE 2013. Tatranské Matliare, Slovakia, May 21-23, 2013. - Bratislava : STU, 2013. - ISBN 978-80-89402-64-9. - p. 387-390. (in English)
- [41] HARMATHA, L. - ŽIŠKA, M. - ŠAGÁTOVÁ, A. - HYBLER, P. - BENKO, P. - NEMEC, M.: Effects of Electron-Irradiation on Electrical Properties of AgCa/Si Schottky Diodes. In: APCOM 2013. Applied Physics of Condensed Matter : 19th International Conference. Štrbské Pleso, Slovak Republic, June 19-21, 2013. - Bratislava : STU, 2013. - ISBN 978-80-227-3956-6. - p. 178-181. (in English)
- [42] HAŠKO, D. - ŠATKA, A. - PRIESOL, J.: Analysis of Photonic Structures and Advanced Materials. In: Photonics 2013 : 8th Annual Scientific Workshop of International Laser Centre. Senec, Slovak Republic, February 14-15, 2013. -

- Bratislava : STU, 2013. - ISBN 978-80-970493-5-5. - p. 48-50. (in Slovak)
- [43] HAVRILA, V. - STUHLÍKOVÁ, Ľ.: Interactive Animations of the Fotodiode. In: ŠVOČ 2013 : Students Conference. Bratislava, 23 April 2013. - Bratislava : FEI STU, 2013. - ISBN 978-80-227-3909-2. - p. 112-117. (in Slovak)
- [44] HIDASY, P. - BREZOVIČ, Z.: The Radio Receiver for Meteorological Satellites Signals. In: ŠVOČ 2013 : Students Conference. Bratislava, 23 April 2013. - Bratislava : FEI STU, 2013. - ISBN 978-80-227-3909-2. - p. 371-376. (in Slovak)
- [45] HOLEŠ, T. - STUHLÍKOVÁ, Ľ.: Display Technologies as a Part of Electronic Education. In: Distance Learning, Simulation and Communication 2013 : Brno, Czech Republic, May 21-23, 2013. - Brno : Armed Forces University, 2013. - ISBN 978-80-7231-919-0. - p. 66-71. (in English)
- [46] HOLEŠ, T. - BENKO, P. - STUHLÍKOVÁ, Ľ.: Electronic Paper. In: ŠVOČ 2013 : Students Conference. Bratislava, 23 April 2013. - Bratislava : FEI STU, 2013. - ISBN 978-80-227-3909-2. - p. 100-105. (in English)
- [47] HOLEŠ, T. - STUHLÍKOVÁ, Ľ. - BENKO, P.: LCD Technology. In: Nové technológie ve výuce : 6th International Conference. Brno, Czech Republic, 15. 11. 2012. - Brno : Masaryk University, 2013. - ISBN 978-80-210-6402-7. - CD-ROM, [4] p. (in English)
- [48] HOTOVÝ, I. - KOSTIČ, I. - HAŠČÍK, Š. - ŘEHÁČEK, V. - PREDANOCY, M.: Patterning of Titanium Oxide Surfaces Using Electron Beam Lithography and Dry Etching for Gas Sensing Applications. In: 8th Solid State Surfaces and Interfaces : Extended Abstract Book. Smolenice Castle, Slovak Republic, November 25-28, 2013. - Bratislava : Comenius University, 2013. - ISBN 978-80-223-3501-0. - p. 59-60. (in English)
- [49] HOTOVÝ, I. - PREDANOCY, M. - ŘEHÁČEK, V.: Gas Sensing Micromachined Structure on Polyimide Membrane. In: MME 2013. 24th Micromechanics and Microsystems Europe Conference : Espoo, Finland, September 1-4, 2013. - Aalto : Aalto University, 2013. - ISBN 978-3-938843-71-0. - USB flash, [4] p. (in English)
- [50] HRIBIK, J. - BORIŠ, M. - FUCHS, P.: Average Value Evaluation of the Distorted Pulse Signal. In: IMEKO 2013 : TC-4 Symposium on Measurements of Electrical Quantities and 17th IWADC Workshop on Advances in Instrumentation and Sensors Interoperability. Barcelona, Spain, July 18-19, 2013. - Barcelona : Universitat Politecnica de Catalunya, 2013. - ISBN 978-84-616-5438-3. - p. 102-107. (in English)
- [51] HRIBIK, J. - BOBEK, P. - FUCHS, P.: Repetition Rate Method of the Air Flow Velocity Measurement. In: Radioelektronika 2013 : 23rd Conference Radioelektronika 2013. Pardubice, Czech Republic; 16-17 April 2013. - Pardubice : University of Pardubice, 2013. - ISBN 978-1-4673-5517-9. - p. 166-169. (in English)
- [52] HRONEC, P. - KOVÁČ, J.: Goniometer for the LED Far Field Measurements. In: ELITECH'13 : 15th Conference of Doctoral Students; Bratislava, Slovakia, 5 June 2013. - Bratislava : STU, 2013. - ISBN 978-80-227-3947-4. - CD-ROM, [5] p. (in English)
- [53] HRONEC, P. - KOVÁČ, J. - ŠKRINIAROVÁ, J. - PUDIŠ, D.: Optical Investigation of the Light Emitting Diodes with PDMS PhC. In: ADEPT 2013 : 1st International Conference on Advances in Electronic and Photonic Technologies. Nový Smokovec, Slovakia, June 2-5, 2013. - Žilina : University of Žilina, 2013. - ISBN 978-80-554-0689-3. - p. 68-71. (in English)
- [54] HUDEC, J. - ŠTOFANIK, V. - KUBIČÁR, Ľ.: Electronic Equipment for in Situ Measurement of Thermophysical Properties. In: ŠVOČ 2013 : Students Conference. Bratislava, 23 April 2013. - Bratislava : FEI STU, 2013. - ISBN 978-80-227-3909-2. - p. 353-358. (in Slovak)
- [55] HURAN, J. - BALALYKIN, NI. - HOTOVÝ, I. - ŠOLTÝS, J. - FESHCHENKO, A.A. - HAŠČÍK, Š.: GaAs Mesh Type Transmission Photocathode Prepared by Inductively Coupled Plasma Cl₂F₂ Etching of GaAs sSubstrate. In: ADEPT 2013 : 1st International Conference on Advances in Electronic and Photonic Technologies. Nový Smokovec, Slovakia, June 2-5, 2013. - Žilina : University of Žilina, 2013. - ISBN 978-80-554-0689-3. - p. 233-236. (in English)
- [56] HURAN, J. - KOVÁČ, J. - BOHÁČEK, P. - KOVÁČ, J. jr. - KLEINOVÁ, A. - MIKOLÁŠEK, M. - SEKÁČOVÁ, M.: Spectral Response Study of Schottky Photodetectors Based on Nanocrystalline Silicon Carbide Thin Films Prepared by PECVD Technology at Different Conditions. In: ADEPT 2013 : 1st International Conference on Advances in Electronic and Photonic Technologies. Nový Smokovec, Slovakia, June 2-5, 2013. - Žilina : University of Žilina, 2013. - ISBN 978-80-554-0689-3. - p. 93-96. (in English)

- [57] CHOVAN, J. - KUZMA, A. - UHEREK, F. - SEYRINGER, D.: Design and Simulation of a Fiber to Chip Coupler Designed on SOI Platform with Subwavelength Grating. In: Proceedings of SPIE. Vol. 8816 : Nanoengineering: Fabrication, Properties, Optics, and Devices X. San Diego, California, August 27-29, 2013. - ISBN 978-0-8194-9666-9. - Art. No. 89150P, [9] p. (in English)
- [58] CHOVAN, J. - KUZMA, A. - UHEREK, F.: Design and Simulation of Apodized SOI Fiber to Chip Coupler by Sub-Wavelength Structure. In: ICTON 2013 : 15th International Conference on Transparent Optical Networks. Cartagena, Spain, 23-27 June 2013. - IEEE, 2013. - ISBN 978-1-4799-0682-6. - p. 1-4. (in English)
- [59] CHOVAN, J. - KUZMA, A. - UHEREK, F.: Design and Simulation of AWG on Various Material Platforms. In: Optical Communications 2013 : 25th Conference and Exhibition. Digital Czech Republic - Optical versus FR Networks. Prague, Czech Republic, October 24-25, 2013. - Prague : ACTION M, 2013. - ISBN 978-80-86742-37-3. - p. 30-34. (in English)
- [60] CHOVAN, J. - KUZMA, A. - UHEREK, F.: Design and Simulation of Passive Photonic's Structures. In: Photonics 2013 : 8th Annual Scientific Workshop of International Laser Centre. Senec, Slovak Republic, February 14-15, 2013. - Bratislava : STU, 2013. - ISBN 978-80-970493-5-5. - p. 66-69. (in Slovak)
- [61] CHOVAN, J. - KUZMA, A. - UHEREK, F.: Design and Simulation of the SOI Fibre to Chip Surface Grating Coupler Apodized and Chirped by Subwavelength Structure. In: Photonics North 2013. - Ottawa : Carleton University, 2013. - p. 174. (in English)
- [62] CHOVAN, J. - KUZMA, A. - UHEREK, F. - SEYRINGER, D. - PATASSY, G.: Photonic Sensors for Environment Issues - Monitoring the Quality of Drinking Water. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 19, Special Issue : Conference ELOSYS, Trenčín, 15.-18.10.2013, p. 40-43. (in Slovak)
- [63] CHRENKO, L. - PÚČIK, J.: Monitoring of Respiration by Means of Web Camera. In: ŠVOČ 2013 : Students Conference. Bratislava, 23 April 2013. - Bratislava : FEI STU, 2013. - ISBN 978-80-227-3909-2. - p. 95-98. (in Slovak)
- [64] CHVÁLA, A. - DONOVAL, D. - ŠATKA, A. - KOVÁČ, J. - MAREK, J. - MOLNÁR, M. - PRÍBYTNÝ, P.: A New Equivalent Circuit Model of InAlN/GaN E-Hemt. In: WOCS DICE 2013 : 37th Workshop on Compound Semiconductor Devices and Integrated Circuits. Warnemünde, Germany, May 26- 29, 2013. - Berlin : Ferdinand-Braun-Institut, Leibnitz-Institut für Höchstfrequenztechnik, 2013. - ISBN 978-3-00-041435-0. - p. 133-134. (in English)
- [65] CHVÁLA, A. - DONOVAL, D. - MAREK, J. - PRÍBYTNÝ, P. - MOLNÁR, M.: Fast 3D Electro-Thermal Device/Circuit Simulation Based on Automated Interaction of SDevice and HSpice Simulators. In: 18th International Conference on Simulation of Semiconductor Processes and Devices : Glasgow, Scotland, September 3-5, 2013. - Piscataway : IEEE, 2013. - ISBN 978-1-4673-5733-3. - p. 224-227. (in English)
- [66] CHVÁLA, A. - DONOVAL, D. - MAREK, J. - PRÍBYTNÝ, P. - MOLNÁR, M.: Three-Dimensional Electro-Thermal Circuit Model for Power Devices. In: ADEPT 2013 : 1st International Conference on Advances in Electronic and Photonic Technologies. Nový Smokovec, Slovakia, June 2-5, 2013. - Žilina : University of Žilina, 2013. - ISBN 978-80-554-0689-3. - p. 173-176. (in English)
- [67] CHVÁLA, A. - DONOVAL, D. - MAREK, J. - PRÍBYTNÝ, P. - MOLNÁR, M.: Three-Dimensional Electro-Thermal Verilog-A Model of Power MOSFET for Circuit Simulation. In: Official Proceedings of Microtherm 2013 : Microtechnology and Thermal Problems in Electronics. Lodz, Poland, June 25-28, 2013. - Lodz : University of Technology, 2013. - ISBN 978-83-932197-1-1. - p. 222-227. (in English)
- [68] JAGELKA, M. - HORÍNEK, F. - SLÁDEK, Ľ. - VAVRINSKÝ, E. - NOVÁČEK, M. - MIKLOVIČ, P. - JELEŇ, M. - DONOVAL, D.: Heart Monitoring with Quad Pulse Oximetry and its Future Use. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 19, Special Issue : Conference ELOSYS, Trenčín, 15.-18.10.2013, p. 44-46. (in Slovak)
- [69] JAGELKA, M. - JELEŇ, M. - VAVRINSKÝ, E. - DAŘÍČEK, M. - DONOVAL, M.: Implementation of Pulse Oximetry Measurement to Wireless Biosignals Probe. In: Trends in Biomedical Engineering 2013 : Podbanské, 3.-5.7.2013. - Košice : Technical University, 2013. - ISBN 978-80-8086-208-4. - p. 57-59. (in English)
- [70] JAGELKA, M. - HORÍNEK, F. - JELEŇ, M. - SLÁDEK, Ľ. - DONOVAL, M.: Smart Electronic System for Measurement of Reaction Times in Sport Science and Physiotherapy. In: ADEPT 2013 : 1st International Conference on

- Advances in Electronic and Photonic Technologies. Nový Smokovec, Slovakia, June 2-5, 2013. - Žilina : University of Žilina, 2013. - ISBN 978-80-554-0689-3. - p. 181-184. (in English)
- [71] JAKABOVIČ, J. - UHRÍK, J. - WEIS, M. - FILO, J. - PUTALA, M.: Effect of Processing Parameters on Performance of 2,6-bis(5'-hexyl-2,2'-bithiophene-5-yl)naphthalene-Based Organic Field-Effect Transistors. In: ADEPT 2013 : 1st International Conference on Advances in Electronic and Photonic Technologies. Nový Smokovec, Slovakia, June 2-5, 2013. - Žilina : University of Žilina, 2013. - ISBN 978-80-554-0689-3. - p. 119-122. (in English)
- [72] JAKUŠ, J. - HRBÁČEK, J. - STUHLÍKOVÁ, L. - LOPUŠNÍK, T.: Creation of Interactive Multimedia Study Supports. In: Distance Learning, Simulation and Communication 2013 : Brno, Czech Republic, May 21-23, 2013. - Brno : Armed Forces University, 2013. - ISBN 978-80-7231-919-0. - p. 78-83. (in English)
- [73] JIANG, Q. - ALLSOPP, D. W. E. - BOWEN, Ch. R. - ... [et al] - SRNÁNEK, R. - ŠATKA, A. - KOVÁČ, J.: High Electron Mobility Transistor Grown on Composite Si/Polycrystalline Diamond Substrates by MOCVD. In: ICNS-10 : 10th International Conference on Nitride Semiconductors. Washington, D.C., August 25-30, 2013. - [s.l.] : MRS, 2013. - p. 254. (in English)
- [74] JUHÁSZ, P. - WEIS, M. - STUHLÍKOVÁ, L. - PETRUS, M. - JAKABOVIČ, J. - HARMATHA, L.: Investigation of Emission Processes in Pentacene. In: ADEPT 2013 : 1st International Conference on Advances in Electronic and Photonic Technologies. Nový Smokovec, Slovakia, June 2-5, 2013. - Žilina : University of Žilina, 2013. - ISBN 978-80-554-0689-3. - p. 127-130. (in English)
- [75] JUHÁSZ, P. - STUHLÍKOVÁ, L. - WEIS, M.: Study of Emission Processes in Pentacene by DLTS Method. In: ŠVOČ 2013 : Students Conference. Bratislava, 23 April 2013. - Bratislava : FEI STU, 2013. - ISBN 978-80-227-3909-2. - p. 309-312. (in Slovak)
- [76] KADLEČÍKOVÁ, M. - VANČO, L. - BREZA, J. - BUTVINOVÁ, B. - MICHNIAK, P.: Application Nanostructures in Surface Enhanced Raman Spectroscopy of Colour Materials. In: NANOCON 2013. 5th International Conference with International Participation : Brno, Czech Republic, 16th - 18th October 2013. - Ostrava : TANGER s. r. o, 2013. - ISBN 978-80-87294-44-4. - CD ROM, [5] p. (in English)
- [77] KADLEČÍKOVÁ, M. - BÉDIOVÁ, K. - BREZA, J. - JESENÁK, K. - KOLMAČKA, M. - VANČO, L. - LAZIŠŤAN, F. - ĎURAČKOVÁ, D.: The Influence of Different Structures of Silicates on an Efficient CVD Growth of Carbon Nanotubes. In: EDS'13. Electronic Devices and Systems IMAPS CS International Conference 2013 : Proceedings; Brno, Czech Republic, 26-27 June 2013. - Brno : VUT, 2013. - ISBN 978-80-214-4754-7. - p. 155-159. (in English)
- [78] KORDOŠ, P. - STOKLAS, R. - HUŠEKOVÁ, K. - GREGUŠOVÁ, D.: Characterization of GaN-Based MOS Structures by Capacitance Measurements. In: ADEPT 2013 : 1st International Conference on Advances in Electronic and Photonic Technologies. Nový Smokovec, Slovakia, June 2-5, 2013. - Žilina : University of Žilina, 2013. - ISBN 978-80-554-0689-3. - p. 28-31. (in English)
- [79] KORDOŠ, P. - STOKLAS, R. - HUŠEKOVÁ, K. - CARLIN, J.F. - GREGUŠOVÁ, D. - KOVÁČ, J. - GRANDJEAN, N.: Trap States in InAlN-Based Structures with High-k Gate Insulator. In: WOCSDICE 2013 : 37th Workshop on Compound Semiconductor Devices and Integrated Circuits. Warnemünde, Germany, May 26- 29, 2013. - Berlin : Ferdinand-Braun-Institut, Leibnitz-Institut für Höchstfrequenztechnik, 2013. - ISBN 978-3-00-041435-0. - p. 163-164. (in English)
- [80] KÓSA, A. - JUHÁSZ, P. - BENKOVSKÁ, J. - STUHLÍKOVÁ, L.: Deep Level Investigation on AlGaIn/GaN Structures by DLTS Method. In: ŠVOČ 2013 : Students Conference, Bratislava, 23 April 2013. - Bratislava : FEI STU, 2013. - ISBN 978-80-227-3909-2. - p. 319-324. (in English)
- [81] KÓSA, A. - BENKOVSKÁ, J. - STUHLÍKOVÁ, L.: Investigation of Defects in 4H-SiC Detectors Before and after Neutron Radiation by DLTS Method. In: ŠVOČ 2013 : Students Conference. Bratislava, 23 April 2013. - Bratislava : FEI STU, 2013. - ISBN 978-80-227-3909-2. - p. 297-302. (in English)
- [82] KOŠČ, I. - HOTOVÝ, I. - ROCH, T. - PLECENÍK, T. - GREGOR, M. - PREDANOCY, M. - KUS, P. - PLECENIK, A.: Double Layer Films Based on TiO₂ and NiO_x for Gas Detection. In: 8th Solid State Surfaces and Interfaces : Extended Abstract Book. Smolenice Castle, Slovak Republic, November 25-28, 2013 (2013). - Bratislava : Comenius University. - ISBN 978-80-223-3501-0. - p. 82-83. (in English)
- [83] KOTLÁR, M. - MARTON, M. - VOJS, M. - VESELÝ, M. - KADLEČÍKOVÁ, M. - LIDAY, J. - REDHAMMER, R.:

- Development of Simple SWCNTs Gas Sensor. In: ADEPT 2013 : 1st International Conference on Advances in Electronic and Photonic Technologies. Nový Smokovec, Slovakia, June 2-5, 2013. - Žilina : University of Žilina, 2013. - ISBN 978-80-554-0689-3. - p. 16-19. (in English)
- [84] KOTLÁR, M. - MARTON, M. - VOJS, M. - VESELÝ, M. - LIDAY, J. - REDHAMMER, R.: Growth of Carbon Nanotubes by CWCVD Method. In: Perspective Vacuum Methods and Technologies : Štrbské Pleso, Slovak Republic, October 10 -13,2013. - Bratislava : Slovak Vacuum Society, 2013. - ISBN 978-80-971179-2-4. - p. 104-107. (in Slovak)
- [85] KOVÁČ, J. jr. - KOVÁČ, J. - NOVÁK, J. - NOVOTNÝ, I.: Influence of Thermal Annealing on Structural Properties of GaP/ZnO Heterojunction. In: ADEPT 2013 : 1st International Conference on Advances in Electronic and Photonic Technologies. Nový Smokovec, Slovakia, June 2-5, 2013. - Žilina : University of Žilina, 2013. - ISBN 978-80-554-0689-3. - p. 145-148. (in English)
- [86] KOVÁČ, J. - KOVÁČ, J. jr. - VINCZE, A. - O'MAHONY, D. - CORDERO, N. - MATHEWS, I. - CORBETT, B. - MORRISON, A.P. - PARBROOK, P.J. - MIKOLÁŠEK, M. - DONOVAL, D.: Photovoltaic Solar Cells Based on the Indium Gallium Nitride (InxGa1-xN) Material System. In: ADEPT 2013 : 1st International Conference on Advances in Electronic and Photonic Technologies. Nový Smokovec, Slovakia, June 2-5, 2013. - Žilina : University of Žilina, 2013. - ISBN 978-80-554-0689-3. - p. 84-88. (in English)
- [87] KOVÁČ, J. - MIKOLÁŠEK, M. - NEMEC, M. - KOVÁČ, J. jr. - VINCZE, A. - LOMBARDO, S. - MANNINO, G. - GERARDI, C. - TRINGALI, C.: Structural and Electrical Characterisation of a-Si:H(n)/c-Si(p) Heterostructures Prepared by ICP and PECVD. In: IVC - 19th International Vacuum Congress : Paris, France, September 9-13, 2013. - [s.l.] : IUVESTA, 2013. - p. 518-519. (in English)
- [88] KOVÁČ, J. jr. - BÚC, D. - KOVÁČ, J. - ŠKRINIAROVÁ, J. - NOVÁK, D. - ŠUTTA, P.: Study of ZnO Nanostructures by a Hydrothermal Process on GaP/ZnO Nanowires. In: 8th Solid State Surfaces and Interfaces : Extended Abstract Book. Smolenice Castle, Slovak Republic, November 25-28, 2013. - Bratislava : Comenius University, 2013. - ISBN 978-80-223-3501-0. - p. 84-85. (in English)
- [89] KOVÁČIK, T. - ĎURAČKOVÁ, D. - SEDLÁK, V. - ZÁLUSKÝ, R.: Accurate Time Measure on Spartan 3E FPGA. In: APCOM 2013. Applied Physics of Condensed Matter : 19th International Conference. Štrbské Pleso, Slovak Republic, June 19-21, 2013. - Bratislava : STU, 2013. - ISBN 978-80-227-3956-6. - p. 262-265. (in English)
- [90] KOVÁČIK, T. - ĎURAČKOVÁ, D.: Algorithm of Extraction for Symbols for Sign Language from the Picture . In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 19, Special Issue : Conference ELOSYS, Trenčín, 15.-18.10.2013, p. 50-54. (in Slovak)
- [91] KOVÁČIK, T. - ĎURAČKOVÁ, D.: Design of Remote Control Robot. In: ELITECH'13 : 15th Conference of Doctoral Students; Bratislava, Slovakia, 5 June 2013. - Bratislava : STU, 2013. - ISBN 978-80-227-3947-4. - CD-ROM, [4] p. (in English)
- [92] KOVÁČIK, T. - ĎURAČKOVÁ, D.: Implementation of the Algorithms for Signal Processing into FPGA. In: Computing Architectures and Diagnostics PAD 2013. Workshop for PhD Students, Teplá, Czech Republic, 9-11 September 2013. - Pilsen : University of West Bohemia, 2013. - ISBN 978-80-261-0270-0. - p. 57-62. (in Slovak)
- [93] KRAJČUŠKOVÁ, Z. - KUKUČKA, M. - ĎURAČKOVÁ, D. - STOPJAKOVÁ, V.: Individual Student's Projects Focusing on Biomedical Engineering. In: Trends in Biomedical Engineering 2013 : Podbanské, Slovak Republic, 3.-5.7.2013. - Košice : Technical University, 2013. - ISBN 978-80-8086-208-4. - p. 20-22. (in Slovak)
- [94] KRAJČUŠKOVÁ, Z. - KUKUČKA, M. - ĎURAČKOVÁ, D. - STOPJAKOVÁ, V.: Unconventional Reliability Growth Models-Comparison and Evaluation. In: Radioelektronika 2013 : 23rd Conference Radioelektronika 2013; Pardubice, Czech Republic; 16-17 April 2013. - Pardubice : University of Pardubice, 2013. - ISBN 978-1-4673-5517-9. - p. 176-180. (in English)
- [95] KUDJÁK, V. - BREZOVIČ, Z. - MINÁRIK, M. - BALÁŽ, I. - OLEXA, J. - ŠTOFANIK, V.: Experimental Investigation of the Impact of Phase vs. Frequency Characteristic Properties on Steady State Oscillation Existence in Feedback Oscillators. In: Radioelektronika 2013 : 23rd Conference Radioelektronika 2013; Pardubice, Czech Republic; 16-17 April 2013. - Pardubice : University of Pardubice, 2013. - ISBN 978-1-4673-5517-9. - p. 213-216. (in English)
- [96] KUKUČKA, M. - KRAJČUŠKOVÁ, Z. - STOPJAKOVÁ, V. - ĎURAČKOVÁ, D.: The Influence of the Amplitude of Driving

- Signal in Measurement of the Active Points on Human Skin. In: Radioelektronika 2013 : 23rd Conference Radioelektronika 2013; Pardubice, Czech republic; 16-17 April 2013. - Pardubice : University of Pardubice, 2013. - ISBN 978-1-4673-5517-9. - p. 170-175. (in English)
- [97] KUKUČKA, M. - KRAJČUŠKOVÁ, Z. - STOPJAKOVÁ, V. - ĎURAČKOVÁ, D. - WEISSE, A.: The Influence of the Skin Fatigue, its Perspiration and the Time of Stimulation in Measurement of the Active Points on Human Skin. In: Trends in Biomedical Engineering 2013 : Podbanské, Slovak Republic, 3.-5.7.2013. - Košice : Technical University, 2013. - ISBN 978-80-8086-208-4. - p. 61-66. (in English)
- [98] KUPEC, P. - MALIČKÝ, G. - COCHEROVÁ, E.: Assessment of the Absorption Properties of Biological Objects in the RF Field. In: ELITEH'13 : 15th Conference of Doctoral Students; Bratislava, Slovakia, 5 June 2013. - Bratislava : STU, 2013. - ISBN 978-80-227-3947-4. - CD-ROM, [4] p. (in English)
- [99] KUZMA, A. - CHOVAN, J. - UHEREK, F.: Design and Simulation of Optical Power Splitter with 2D Photonic Crystal. In: Photonics 2013 : 8th Annual Scientific Workshop of International Laser Centre. Senec, Slovak Republic, February 14-15, 2013. - Bratislava : STU, 2013. - ISBN 978-80-970493-5-5. - p. 70-73. (in Slovak)
- [100] KUZMA, A. - CHOVAN, J. - UHEREK, F.: Design of a Planar Y-branch Optical Power Splitter with Two-Dimensional Photonic Crystal. In: Optical Communications 2013 : 25th Conference and Exhibition. Digital Czech Republic - Optical versus FR Networks. Prague, Czech Republic, October 24-25, 2013. - Prague : ACTION M, 2013. - ISBN 978-80-86742-37-3. - p. 25-29. (in English)
- [101] KUZMA, A. - WEIS, M. - CHOVAN, J. - UHEREK, F.: Effect of Metal Arrangement on Localized Surface Plasmon Polaritons in Bimetallic Nanoparticles. In: Proceedings of SPIE. Vol. 8809 : Plasmonics: Metallic Nanostructures and Their Optical Properties XI. San Diego, California, August 25-29, 2013. - [s.l.] : SPIE - The International Society for Optical Engineering, 2013. - ISBN 978-0-8194-9659-1. - Art. No. 88092A, [6] p. (in English)
- [102] KUZMA, A. - CHOVAN, J. - UHEREK, F. - WEIS, M.: Surface Plasmon Resonance of Gold and Silver Nanoparticle Monolayers: Effect of Coupling and Surface Oxides. In: Proceedings of SPIE. Vol. 8915 : Photonics North 2013. - [s.l.] : SPIE - The International Society for Optical Engineering, 2013. - ISBN 9780819497918. - Art. No. 89151N, [6] p. (in English)
- [103] LE BOULBAR, E. D. - GIRGEL, I. - EDWARDS, P. R. - ... [et al] - ŠATKA, A.: Investigation of the Growth of GaN/InGaN Core-Shell Structures by MOVPE on Etched GaN Nanorod Arrays. In: ICNS-10 : 10th International Conference on Nitride Semiconductors. Washington, D.C., August 25-30, 2013. - [s.l.] : MRS, 2013. - p. 154-155. (in English)
- [104] LEKSCHA, T. - ĎURAČKOVÁ, D. - KADLEČÍKOVÁ, M.: Development of a New Device - System for Visual Inspection of Infusion Pumps. In: EDS'13. Electronic Devices and Systems IMAPS CS International Conference 2013 : Proceedings; Brno, Czech Republic, 26-27 June 2013. - Brno : VUT, 2013. - ISBN 978-80-214-4754-7. - p. 178-181. (in English)
- [105] LETTRICHOVÁ, I. - PUDIŠ, D. - ŠUŠLIK, L. - KOVÁČ, J. jr. - KOVÁČ, J. - ŠKRINIAROVÁ, J. - NOVÁK, J.: Optical Field of LED with Predefined Structure in the Surface Analyzed by NSOM. In: ADEPT 2013 : 1st International Conference on Advances in Electronic and Photonic Technologies. Nový Smokovec, Slovakia, June 2-5, 2013. - Žilina : University of Žilina, 2013. - ISBN 978-80-554-0689-3. - p. 254-257. (in English)
- [106] LETTRICHOVÁ, I. - PUDIŠ, D. - LAURENČÍKOVÁ, A. - HASENÖHRL, S. - NOVÁK, J. - ŠKRINIAROVÁ, J. - KOVÁČ, J.: Predefined Planar Structures in Semiconductor Surfaces Patterned by NSOM Lithography. In: Proceedings of SPIE. Vol. 8816 : Nanoengineering: Fabrication, Properties, Optics, and Devices X. San Diego, California, August 27-29, 2013. - [s.l.] : SPIE - The International Society for Optical Engineering, 2013. - ISBN 978-0-8194-9666-9. - Art. No. 881619 [6] p. (in English)
- [107] LIDAY, J. - VOGRIŇČIČ, P. - VRETENÁR, V. - KOTLÁR, M. - ŘEHÁČEK, V. - BREZA, J.: The Layers of Carbon Nanomaterials as the Base of Ohmic Contacts to p-GaN. In: 8th Solid State Surfaces and Interfaces : Extended Abstract Book. Smolenice Castle, Slovak Republic, November 25-28, 2013. - Bratislava : Comenius University, 2013. - ISBN 978-80-223-3501-0. - p. 93. (in English)
- [108] LUKÁČ, T. - PÚČIK, J. - ONDRÁČEK, O.: Design and Simulation of Human Postural Control Model. In: Trends in Biomedical Engineering 2013 : Podbanské, Slovak Republic, 3.-5.7.2013. - Košice : Technical University, 2013. -

- ISBN 978-80-8086-208-4. - p. 124-128. (in English)
- [109] LUKÁČ, T.: Stability of Human Upright Stance Based on the Inverted Pendulum Model. In: ELITECH'13 : 15th Conference of Doctoral Students; Bratislava, Slovakia, 5 June 2013. - Bratislava : STU, 2013. - ISBN 978-80-227-3947-4. - CD-ROM, [5] p. (in English)
- [110] MAJER, L. - MIHÁLOV, J. - STOPJAKOVÁ, V. - BRENKUŠ, J. - GYEPES, G. - URAM, M.: Multi-Communication Wireless System for Smart Households. In: 21th Telecommunications Forum TELFOR 2013 : Belgrade, Serbia, November 26-28 November, 2013. - Piscataway : IEEE, 2013. - ISBN 978-1-4799-1420-3. - p. 272-275. (in English)
- [111] MAJER, L. - MIHÁLOV, J. - STOPJAKOVÁ, V. - BRENKUŠ, J. - URAM, M.: Multi-Protocol Wireless Networks for Data Collection in Smart Buildings. In: ADEPT 2013 : 1st International Conference on Advances in Electronic and Photonic Technologies. Nový Smokovec, Slovakia, June 2-5, 2013. - Žilina : University of Žilina, 2013. - ISBN 978-80-554-0689-3. - p. 189-192. (in English)
- [112] MALIČKÝ, G. - COCHEROVÁ, E.: Influence of Biological Object Parameters on the Absorption of RF Radiation. In: ŠVOČ 2013 : Students Conference, Bratislava, 23 April 2013. - Bratislava : FEI STU, 2013. - ISBN 978-80-227-3909-2. - p. 89-93. (in Slovak)
- [113] MAREK, J. - CHVÁLA, A. - DONOVAL, D. - PRÍBYTNÝ, P. - MOLNÁR, M.: Power MOSFET SPICE Like Model for More Accurate Thermal Simulations. In: ADEPT 2013 : 1st International Conference on Advances in Electronic and Photonic Technologies. Nový Smokovec, Slovakia, June 2-5, 2013. - Žilina : University of Žilina, 2013. - ISBN 978-80-554-0689-3. - p. 169-172. (in English)
- [114] MARTON, M. - VOJS, M. - KOTLÁR, M. - MICHNIAK, P. - VESELÝ, M. - REDHAMMER, R.: Effect of DC Plasma Etching Properties on the Diamond Thin Film Surface Structure. In: ADEPT 2013 : 1st International Conference on Advances in Electronic and Photonic Technologies. Nový Smokovec, Slovakia, June 2-5, 2013. - Žilina : University of Žilina, 2013. - ISBN 978-80-554-0689-3. - p. 140-144. (in English)
- [115] MIČIAN, M. - HRIBIK, J. - HARTĀNSKÝ, R.: MSP430G2 Microcontroller Development Board. In: ŠVOČ 2013 : Students Conference. Bratislava, 23 April 2013. - Bratislava : FEI STU, 2013. - ISBN 978-80-227-3909-2. - p. 137-142. (in Slovak)
- [116] MIHÁLOV, J. - STOPJAKOVÁ, V. - ZÁLUSKÝ, R. - MAJER, L.: Multi-platform Wireless Measurement System for Continuous Biomonitoring. In: Radioelektronika 2013 : 23rd Conference Radioelektronika 2013; Pardubice, Czech Republic; 16-17 April 2013. - Pardubice : University of Pardubice, 2013. - ISBN 978-1-4673-5517-9. - p. 195-200. (in English)
- [117] MICHNIAK, P. - BEHÚL, M. - MARTON, M. - VOJS, M. - VESELÝ, M. - REDHAMMER, R.: Carbon Nanowalls Prepared by Hot Filament CVD for Electrochemical Sensor Applications. In: ADEPT 2013 : 1st International Conference on Advances in Electronic and Photonic Technologies. Nový Smokovec, Slovakia, June 2-5, 2013. - Žilina : University of Žilina, 2013. - ISBN 978-80-554-0689-3. - p. 20-23. (in English)
- [118] MICHNIAK, P. - VOJS, M. - MARTON, M. - VESELÝ, M.: Carbon Nanowalls Prepared in HF CVD Reactor. In: ELITECH'13 : 15th Conference of Doctoral Students; Bratislava, Slovakia, 5 June 2013. - Bratislava : STU, 2013. - ISBN 978-80-227-3947-4. - CD-ROM, [3] p. (in English)
- [119] MICHNIAK, P. - VOJS, M. - BEHÚL, M. - ŘEHÁČEK, V. - VESELÝ, M. - TVAROŽEK, V. - IŽÁK, T. - KROMKA, A.: Determination of Heavy Metals on a Nanostructured Boron-Doped Diamond Electrode. In: IVC - 19th International Vacuum Congress : Paris, France, September 9-13, 2013. - [s.l.] : IUVSTA, 2013. - p. 2533-2534. (in English)
- [120] MICHNIAK, P. - MARTON, M. - VOJS, M. - VESELÝ, M. - REDHAMMER, R.: Effect of HFCVD Deposition Condition on the Morphology and Structure of Carbon Nanowall Thin Films. In: 8th Solid State Surfaces and Interfaces : Extended Abstract Book. Smolenice Castle, Slovak Republic, November 25-28, 2013. - Bratislava : Comenius University, 2013. - ISBN 978-80-223-3501-0. - p. 109-110. (in English)
- [121] MICHNIAK, P. - MARTON, M. - VOJS, M. - VESELÝ, M. - REDHAMMER, R.: Effect of HFCVD Deposition Conditions on the Properties of Carbon Nanowalls. In: Perspective Vacuum Methods and Technologies : Štrbské Pleso, Slovak Republic, October 10-13, 2013. - Bratislava : Slovak Vacuum Society, 2013. - ISBN 978-80-971179-2-4. -

- p. 69-73. (in English)
- [122] MIKOLÁŠEK, M. - STUHLÍKOVÁ, Ľ. - HARMATHA, L. - NEMEC, M.: Capacitance Study of Inversion at the Amorphous/Crystalline Silicon Heterojunction Passivated by different Thicknesses of i-Layer. In: 8th Solid State Surfaces and Interfaces : Extended Abstract Book. Smolenice Castle, Slovak Republic, November 25-28, 2013. - Bratislava : Comenius University, 2013. - ISBN 978-80-223-3501-0. - p. 113-114. (in English)
- [123] MIKOLÁŠEK, M. - KOVÁČ, J. - HARMATHA, L.: Diagnostic Techniques for Study of Silicon Heterojunction Solar Cells. In: Renewable Energy Sources 2013 : 4th International Scientific Conference OZE 2013. Tatranské Matliare, Slovakia, May 21-23, 2013. - Bratislava : STU, 2013. - ISBN 978-80-89402-64-9. - p. 349-354. (in English)
- [124] MIKOLÁŠEK, M. - NEMEC, M. - KOVÁČ, J. jr. - VINCZE, A. - FOTI, M. - GERARDI, C. - MANNINO, G. - VALENTI, L. - LOMBARDO, S.: Impact of Annealing on the Amorphous Silicon/Crystalline Silicon Heterojunctions Solar Cells. In: 28th European Photovoltaic Solar Energy Conference and Exhibition. Paris, France, 30 September - 4 October 2013. - Munich : WIP, 2013. - ISBN 3-936338-33-7. - p. 1903-1907. (in English)
- [125] MIKOLÁŠEK, M. - NEMEC, M. - KOVÁČ, J. - ŘEHÁČEK, V. - JAKABOVIČ, J. - HARMATHA, L.: Influence of Thermal Annealing on the Amorphous Silicon/Crystalline Silicon Heterojunction Solar Cells. In: ADEPT 2013 : 1st International Conference on Advances in Electronic and Photonic Technologies. Nový Smokovec, Slovakia, June 2-5, 2013. - Žilina : University of Žilina, 2013. - ISBN 978-80-554-0689-3. - p. 97-100. (in English)
- [126] MIKOLÁŠEK, M. - PRÍBYTNÝ, P. - DONOVAL, D. - MAREK, J. - MAREK, J. - CHVÁLA, A. - MOLNÁR, M.: Suppression of the Interface Recombination by Implanted Buffer Layer for Back Contacted Silicon Heterojunction Solar Cells. In: 8th Solid State Surfaces and Interfaces : Extended Abstract Book. Smolenice Castle, Slovak Republic, November 25-28, 2013. - Bratislava : Comenius University, 2013. - ISBN 978-80-223-3501-0. - p. 111-112. (in English)
- [127] MIKULA, M. - GEMEINER, P. - BEKOVÁ, Z. - DVONKA, V. - BÚC, D.: Dye-Sensitized Solar Cells Based on Nano-Oxides on Plastic PET Substrate. In: 8th Solid State Surfaces and Interfaces : Extended Abstract Book. Smolenice Castle, Slovak Republic, November 25-28, 2013. - Bratislava : Comenius University, 2013. - ISBN 978-80-223-3501-0. - p. 115-116. (in English)
- [128] MOLNÁR, M. - PALANKOVSKI, V. - DONOVAL, D. - KUZMÍK, J. - KOVÁČ, J. - CHVÁLA, A. - MAREK, J. - PRÍBYTNÝ, P. - SELBERHERR, S.: Characterization of In_{0.12}Al_{0.88}N/GaN HEMTs at Elevated Temperatures Supported by Numerical Simulation. In: WOCSDICE 2013 : 37th Workshop on Compound Semiconductor Devices and Integrated Circuits. Warnemünde, Germany, May 26- 29, 2013. - Berlin : Ferdinand-Braun-Institut, Leibnitz-Institut für Höchstfrequenztechnik, 2013. - ISBN 978-3-00-041435-0. - p. 135-136. (in English)
- [129] MOLNÁR, M. - PALANKOVSKI, V. - DONOVAL, D. - KUZMÍK, J. - KOVÁČ, J. - CHVÁLA, A. - MAREK, J. - PRÍBYTNÝ, P. - SELBERHERR, S.: Modeling and Characterization of In_{0.12}Al_{0.88}N/GaN HEMTs at Elevated Temperatures. In: ADEPT 2013 : 1st International Conference on Advances in Electronic and Photonic Technologies. Nový Smokovec, Slovakia, June 2-5, 2013. - Žilina : University of Žilina, 2013. - ISBN 978-80-554-0689-3. - p. 48-51. (in English)
- [130] MOLNÁR, M. - DONOVAL, D. - KUZMÍK, J. - MAREK, J. - CHVÁLA, A. - PRÍBYTNÝ, P. - MIKOLÁŠEK, M. - PALANKOVSKI, V.: Simulation Study of Interface Traps and Bulk Traps in the n++ GaN/InAlN/GaN High Electron Mobility Transistor. In: 8th Solid State Surfaces and Interfaces : Extended Abstract Book. Smolenice Castle, Slovak Republic, November 25-28, 2013. - Bratislava : Comenius University, 2013. - ISBN 978-80-223-3501-0. - p. 121-122. (in English)
- [131] NAGY, G. - STOPJAKOVÁ, V.: Analysis of Possible Energy Sources Suitable for On-Chip Energy Harvesting Systems. In: ELITECH'13 : 15th Conference of Doctoral Students; Bratislava, Slovakia, 5 June 2013. - Bratislava : STU, 2013. - ISBN 978-80-227-3947-4. - CD-ROM, [4] p. (in English)
- [132] NAGY, G. - ARBET, D. - STOPJAKOVÁ, V.: Digital Methods of Offset Compensation in 90nm CMOS Operational Amplifiers. In: 2013 IEEE 16th International Symposium on Design and Diagnostics of Electronic Circuits & Systems : Karlovy Vary, Czech Republic; 8-10 April 2013. - Brno : IEEE, 2013. - ISBN 978-1-4673-6133-0. - p. 124-127. (in English)

- [133] NAGY, G. - STOPJAKOVÁ, V.: Renewable Energy Sources for Wireless Integrated Systems. In: Počítačové architektury a diagnostika PAD 2013 : Workshop for PhD Students. Teplá, Czech Republic, 9-11 September 2013. - Pilsen : University of West Bohemia, 2013. - ISBN 978-80-261-0270-0. - p. 15-20. (in Slovak)
- [134] NAGY, L. - STOPJAKOVÁ, V.: Self-Heating Spectre Model of High Frequency Voltage Regulator. In: 21th Telecommunications Forum TELFOR 2013 : Belgrade, Serbia, November 26-28 November, 2013. - Piscataway : IEEE, 2013. - ISBN 978-1-4799-1420-3. - p. 541-544. (in English)
- [135] NEMEC, M. - MIKOLÁŠEK, M. - HARMATHA, L. - KOVÁČ, J.: Impact of the Annealing on the Interface Quality of Silicon Heterojunction Solar Cells. In: Renewable Energy Sources 2013 : 4th International Scientific Conference OZE 2013. Tatranské Matliare, Slovakia, May 21-23, 2013. - Bratislava : STU, 2013. - ISBN 978-80-89402-64-9. - p. 439-442. (in English)
- [136] NEMEC, M. - MIKOLÁŠEK, M. - KOVÁČ, J. - ŘEHÁČEK, V. - JAKABOVIČ, J. - HARMATHA, L.: Study and Analysis of the Amorphous Silicon/Crystalline Silicon Heterojunction Solar Cell Output Performance at High Temperatures. In: ADEPT 2013 : 1st International Conference on Advances in Electronic and Photonic Technologies. Nový Smokovec, Slovakia, June 2-5, 2013. - Žilina : University of Žilina, 2013. - ISBN 978-80-554-0689-3. - p. 225-228. (in English)
- [137] NETRVALOVÁ, M. - ŠUTTA, P. - CALTA, P. - PRUŠÁKOVÁ, L. - VAVRUNKOVÁ, V. - NOVOTNÝ, I. - TVAROŽEK, V.: Microstructure of uc-Si:H Films Prepared by PECVD when Used Different Substrates. In: IVC - 19th International Vacuum Congress : Paris, France, September 9-13, 2013. - [s.l.] : IUVESTA, 2013. - p. 228-229. (in English)
- [138] NOVÁČEK, M. - COCHEROVÁ, E. - PŮČIK, J. - ĐURAČKOVÁ, D.: Modeling of High Frequency Block of Nerve Impulse Propagation. In: Trends in Biomedical Engineering 2013 : Podbanské, Slovak Republic, 3.-5.7.2013. - Košice : Technical University of Košice, 2013. - ISBN 978-80-8086-208-4. - p. 116-119. (in English)
- [139] NOVÁK, J. - VÁVRA, I. - ELIÁŠ, P. - HASENÖHRL, S. - NOVOTNÝ, I.: Columnar Microstructure of the ZnO Shell in GaP/ZnO Nanowires. In: IVC - 19th International Vacuum Congress : Paris, France, September 9-13, 2013. - [s.l.] : IUVESTA, 2013. - p. 2257-2258. (in English)
- [140] NOVÁK, J. - VÁVRA, I. - ELIÁŠ, P. - HASENÖHRL, S. - LAURENČÍKOVÁ, A. - NOVOTNÝ, I. - ŠUTTA, P.: Columnar Microstructure of the ZnO Shell Nanowire Layer. In: 8th Solid State Surfaces and Interfaces : Extended Abstract Book. Smolenice Castle, Slovak Republic, November 25-28, 2013. - Bratislava : Comenius University, 2013. - ISBN 978-80-223-3501-0. - p. 123. (in English)
- [141] NOVOTNÝ, I. - FLICKYNGEROVÁ, S. - NETRVALOVÁ, M. - ROSBERG, D. - ŠUTTA, P. - VÁVRA, I. - SCHAAF, P. - TVAROŽEK, V.: Surface Morphology and Crystalline Structure of Sputtered ZnO Nanocoatings. In: 8th Solid State Surfaces and Interfaces : Extended Abstract Book. Smolenice Castle, Slovak Republic, November 25-28, 2013. - Bratislava : Comenius University, 2013. - ISBN 978-80-223-3501-0. - p. 124-125. (in English)
- [142] OLEXA, J. - ONDRÁČEK, O. - BREZOVIČ, Z. - GASIOR, M.: Prototype System for Phase Advance Measurements of LHC Small Beam Oscillations. In: Radioelektronika 2013 : 23rd Conference Radioelektronika 2013; Pardubice, Czech Republic, 16-17 April 2013. - Pardubice : University of Pardubice, 2013. - ISBN 978-1-4673-5517-9. - p. 379-384. (in English)
- [143] PERNÝ, M. - MIKOLÁŠEK, M. - HURAN, J. - VÁRY, M. - ŠÁLY, V.: Amorphous SiC Thin Films Prepared at Different Temperatures for PV Applications. In: 8th Solid State Surfaces and Interfaces : Extended Abstract Book. Smolenice Castle, Slovak Republic, November 25-28, 2013. - Bratislava : Comenius University, 2013. - ISBN 978-80-223-3501-0. - p. 137-138. (in English)
- [144] PERNÝ, M. - MIKOLÁŠEK, M. - ŠÁLY, V. - ĐURMAN, V. - HURAN, J.: Amorphous Silicon Carbide Thin Films for Heterojunction Solar Cells. In: Renewable Energy Sources 2013 : 4th International Scientific Conference OZE 2013. Tatranské Matliare, Slovakia, May 21-23, 2013. - Bratislava : STU, 2013. - ISBN 978-80-89402-64-9. - p. 447-450. (in English)
- [145] PERNÝ, M. - VÁRY, M. - HURAN, J. - MIKOLÁŠEK, M. - ŠÁLY, V. - KOBZEV, A. P.: Optimization of Amorphous Silicon Carbide Thin Films for Heterojunction Solar Cells. In: 28th European Photovoltaic Solar Energy Conference and Exhibition : Paris, France, 30 September - 4 October 2013. - Munich : WIP, 2013. - ISBN 3-936338-33-7. - p. 1915-1918. (in English)

- [146] PÍSEČNÝ, P. - CHLPÍK, J. - CHOVAN, J. - HAŠKO, D. - VINCZE, A. - HRONEC, P. - DOBROČKA, E. - UHEREK, F.: Preparation and Characterization of Materials Layers for Photonic Structures. In: ADEPT 2013 : 1st International Conference on Advances in Electronic and Photonic Technologies. Nový Smokovec, Slovakia, June 2-5, 2013. - Žilina : University of Žilina, 2013. - ISBN 978-80-554-0689-3. - p. 258-261. (in English)
- [147] PÍSEČNÝ, P. - VINCZE, A. - KUZMA, A. - CHOVAN, J. - HAŠKO, D. - MICHÁLK, M. - DRŽÍK, M. - UHEREK, F.: Preparation of photonic devices in STU-ILC laboratory of nanotechnology. In: Photonics 2013 : 8th Annual Scientific Workshop of International Laser Centre. Senec, Slovak Republic, February 14-15, 2013. - Bratislava : STU, 2013. - ISBN 978-80-970493-5-5. - p. 37-42. (in Slovak)
- [148] POPOVIČ, M. - VAVRINSKÝ, E.: The Monitoring of Electrical Activity of the Myocardium Using Wireless Sensor. In: ŠVOČ 2013 : Students Conference, Bratislava, 23 April 2013. - Bratislava : FEI STU, 2013. - ISBN 978-80-227-3909-2. - p. 71-76. (in English)
- [149] POPOVIČ, M. - VAVRINSKÝ, E. - MOSKAĽOVÁ, D. - TVAROŽEK, V. - DONOVAL, M. - KOVÁČIKOVÁ, L.: EKG Monitoring with Wireless Sensor System. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 19, Special Issue : Conference ELOSYS, Trenčín, 15.-18.10.2013 (2013), p. 55-59. (in Slovak)
- [150] PREDANOCY, M. - HOTOVÝ, I. - ČAPLOVIČOVÁ, M. - RACKO, J. - KOŠČ, I. - SPIESS, L.: Structural Evolution of Sputtered Nickel Oxide Thin Films and their Application for Gas Detection. In: 8th Solid State Surfaces and Interfaces : Extended Abstract Book. Smolenice Castle, Slovak Republic, November 25-28, 2013. - Bratislava : Comenius University, 2013. - ISBN 978-80-223-3501-0. - p. 148-149. (in English)
- [151] PREDANOCY, M. - HOTOVÝ, I. - KOŠČ, I.: Thermoelectrical Analysis of Platinum Microheaters on Polyimide Membrane. In: MME 2013. 24th Micromechanics and Microsystems Europe Conference : Espoo, Finland, September 1-4, 2013. - Aalto : Aalto University, 2013. - ISBN 978-3-938843-71-0. - USB flash, [4] p. (in English)
- [152] PRÍBYTNÝ, P. - MIKOLÁŠEK, M. - MAREK, J. - DONOVAL, D. - CHVÁLA, A. - MOLNÁR, M. - NEMEC, M.: Analysis and Optimization of Silicon Heterojunction Solar Cells with Back Contact Arrangement by 2-D Numerical Modeling and Simulation. In: WOCSDICE 2013 : 37th Workshop on Compound Semiconductor Devices and Integrated Circuits. Warnemünde, Germany, May 26- 29, 2013. - Berlin : Ferdinand-Braun-Institut, Leibnitz-Institut für Höchstfrequenztechnik, 2013. - ISBN 978-3-00-041435-0. - p. 137-138. (in English)
- [153] PRÍBYTNÝ, P. - DONOVAL, D. - CHVÁLA, A. - MAREK, J. - MOLNÁR, M.: Electro-Thermal Analysis and Optimization of Edge Termination of Power Diode Supported by 2-D/3-D Numerical Modeling and Simulation. In: Official Proceedings of Microtherm 2013 : Microtechnology and Thermal Problems in Electronics. Lodz, Poland, June 25-28, 2013. - Lodz : University of Technology, 2013. - ISBN 978-83-932197-1-1. - p. 65-70. (in English)
- [154] PRÍBYTNÝ, P. - MIKOLÁŠEK, M. - MAREK, J. - DONOVAL, D. - CHVÁLA, A. - MOLNÁR, M. - NEMEC, M.: Optimization of Silicon Heterojunction Solar Cell Contacts by 2D Numerical Modelling and Simulation. In: Renewable Energy Sources 2013 : 4th International Scientific Conference OZE 2013. Tatranské Matliare, Slovakia, May 21-23, 2013. - Bratislava : STU, Bratislava, 2013. - ISBN 978-80-89402-64-9. - p. 451-454. (in English)
- [155] PRÍBYTNÝ, P. - MIKOLÁŠEK, M. - MAREK, J. - DONOVAL, D. - CHVÁLA, A. - MOLNÁR, M. - NEMEC, M.: Recombination Mechanisms in a-Si/c-Si Heterojunction Solar Cells Studied by 2D Numerical Modeling and Simulation. In: ADEPT 2013 : 1st International Conference on Advances in Electronic and Photonic Technologies. Nový Smokovec, Slovakia, June 2-5, 2013. - Žilina : University of Žilina, 2013. - ISBN 978-80-554-0689-3. - p. 101-104. (in English)
- [156] PRIESOL, J. - ŠATKA, A.: Modelling of EBIC at Metallic Tip by Monte Carlo Method. In: ADEPT 2013 : 1st International Conference on Advances in Electronic and Photonic Technologies. Nový Smokovec, Slovakia, June 2-5, 2013. - Žilina: University of Žilina, 2013. - ISBN 978-80-554-0689-3. - p. 161-164. (in English)
- [157] PRIESOL, J. - ŠATKA, A.: Three Dimensional Monte Carlo Study of EBIC at Metallic Tip. In: IVC - 19th International Vacuum Congress : Paris, France, September 9-13, 2013. - [s.l.] : IUVESTA, 2013. - p. 92-93. (in English)
- [158] PŘIBIL, J. - PŘIBILOVÁ, A. - MATOUŠEK, J.: Experimentl with Evaluation of Quality of the Synthetic Speech by the GMM Classifier. In: Lecture Notes in Artificial Intelligence. - ISSN 0302-9743. - Vol. 8082 Text, Speech, and

- Dialogue : 16th International Conference, TSD 2013. Pilsen, Czech Republic, September 1-5, 2013, p. 241-248. (in English)
- [159] PŘIBIL, J. - PŘIBILOVÁ, A.: Internet Application for Collective Realization of Speech Evaluation by Listening Tests. In: Applied Electronics 2013 : 18th International Conference. Pilsen, Czech Republic, 10-12 September 2013. - Pilsen : University of West Bohemia, 2013. - ISBN 978-80-261-0166-6. - p. 225-228. (in English)
- [160] PÚČIK, J. - LUKÁČ, T. - ONDRÁČEK, O. - ŠALING, M. - KUCHARÍK, M.: Balance Problems with Aging - Research Perspectives. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 19, Special Issue : Conference ELOSYS, Trenčín, 15.-18.10.2013, p. 60-63. (in Slovak)
- [161] PUDIŠ, D. - HRONEC, P. - KOVÁČ, J. - LETTRICHOVÁ, I. - ŠKRINIAROVÁ, J. - JANDURA, D. - SLABEYCIUSOVÁ, S. - ŠUŠLÍK, L. - NOVÁK, J. - KUZMA, A.: Emission Properties of Surface Patterned LEDs. In: Proceedings of SPIE. Vol. 8816 : Nanoengineering: Fabrication, Properties, Optics, and Devices X. San Diego, California, August 27-29, 2013. - [s.l.] : SPIE - The International Society for Optical Engineering, 2013. - ISBN 978-0-8194-9666-9. - Art. No. 88161A, [6] p. (in English)
- [162] RACKO, J. - BENKO, P. - GRMANOVÁ, A. - GRANZNER, R. - SCHWIERZ, F. - HARMATHA, L. - BREZA, J.: Simulation of I-V and C-V Curves of Metal/GaN/AlGaIn/GaN Heterostructures with Trap-Assisted Tunneling. In: APCOM 2013. Applied Physics of Condensed Matter : 19th International Conference. Štrbské Pleso, Slovak Republic, June 19-21, 2013. - Bratislava : STU, 2013. - ISBN 978-80-227-3956-6. - p. 274-279. (in English)
- [163] RACKO, J. - GRMANOVÁ, A. - BENKO, P. - HARMATHA, L. - GRANZNER, R. - SCHWIERZ, F. - BREZA, J.: The Effect of Aluminium Content in Metal/GaN/AlGaIn/GaN Heterostructures upon the Tunneling Current. In: EDS'13. Electronic Devices and Systems IMAPS CS International Conference 2013 : Brno, Czech Republic, 26-27 June 2013. - Brno : VUT, 2013. - ISBN 978-80-214-4754-7. - p. 150-154. (in English)
- [164] RACKO, J. - MIKOLÁŠEK, M. - BENKO, P. - GRANZNER, R. - SCHWIERZ, F. - BREZA, J.: The Effect of Heterointerface Charge upon Trap-Assisted Tunneling in GaN/AlGaIn/GaN Heterostructure. In: 8th Solid State Surfaces and Interfaces : Extended Abstract Book. Smolenice Castle, Slovak Republic, November 25-28, 2013. - Bratislava : Comenius University, 2013. - ISBN 978-80-223-3501-0. - p. 150. (in English)
- [165] RADZIEWICZ, D. - SCIANA, B. - PUCICKI, D. - SERAFIŃCZUK, J. - TLACZALA, M. - LATKOWSKA, M. - FLOROWIČ, M. - KOVÁČ, J.: Influence of the AP MOVPE Process Parameters on Properties of (In, Ga)(As, N)/ GaAs Heterostructures for Photovoltaic Applications. In: ELTE 2013 : XI Konferencja naukowa Technologia elektronowa. Ryn, Poland 16-20 kwietnia 2013. - Warszawa : Politechnika Warszawska, 2013. - ISBN 978-83-64102-00-4. - p. 105-106. (in Polish)
- [166] RYBÁR, J. - KÓSA, A. - STUCHLÍKOVÁ, L.: Deep Level Parameters Calculation Using Fitting Evaluation Analysis in Digital DLTS Measurements. In: ADEPT 2013 : 1st International Conference on Advances in Electronic and Photonic Technologies. Nový Smokovec, June 2-5, 2013. - Žilina : University of Žilina, 2013. - ISBN 978-80-554-0689-3. - p. 262-265. (in English)
- [167] RYBÁR, J. - STUCHLÍKOVÁ, L.: Numerical Approach to the Problem of Composite Signals in Digital DLTS Measurements. In: EDS'13. Electronic Devices and Systems IMAPS CS International Conference 2013 : Brno, Czech Republic, 26-27 June 2013. - Brno : VUT, 2013. - ISBN 978-80-214-4754-7. - p. 85-90. (in English)
- [168] SCIANA, B. - RADZIEWICZ, D. - PUCICKI, D. - DAWIDOWSKI, W. - BADURA, M. - BIELAK, K. - GELCZUK, L. - TLACZALA, M. - LATKOWSKA, M. - KAMYCZEK, P. - KOVÁČ, J. - FLOROWIČ, M. - VINCZE, A.: Influence of the AP MOVPE Process Parameters on Properties of (In, Ga)(As, N)/ GaAs Heterostructures for Photovoltaic Applications. In: Proceedings of SPIE. Vol. 8902 : Electron Technology Conference 2013. - [s.l.] : SPIE - The International Society for Optical Engineering, 2013. - ISBN 9780819495211. - Art. No. 89020J, [8] p. (in English)
- [169] SCIANA, B. - RADZIEWICZ, D. - PUCICKI, D. - DAWIDOWSKI, W. - BADURA, M. - BIELAK, K. - SERAFIŃCZUK, J. - LATKOWSKA, M. - KAMYCZEK, P. - KOVÁČ, J. - FLOROWIČ, M. - VINCZE, A. - TLACZALA, M.: Technology and Characterization of (In,Ga)(As,N)GaAs Heterostructures Grown by Atmospheric Pressure Metalorganic Vapour Phase Epitaxy. In: 15th European Workshop on Metalorganic Vapour Phase Epitaxy (EWMOVPE) : Aachen, Germany, June 2-5, 2013. - Julich : Forschungszentrum Jülich GmbH, 2013. - ISBN 978-3-89336-870-9. - p. 89-92. (in English)

- [170] SECK, M. - ŠATKA, A. - VINCZE, A. - HAŠKO, D. - UHEREK, F. - TOURNEBISE, A.: Characterization of the Degradation Process of Si-PCPDTBT: PC70BM (1:2) Blend Layers Deposited on ITO/Glass Substrate. In: 8th Solid State Surfaces and Interfaces : Extended Abstract Book. Smolenice Castle, Slovak Republic, November 25-28, 2013. - Bratislava : Comenius University, 2013. - ISBN 978-80-223-3501-0. - p. 161-162. (in English)
- [171] SECK, M. - DISTLER, A. - VINCZE, A. - HAŠKO, D. - ŠATKA, A. - UHEREK, F.: Investigation of the Degradation Process in Organic Solar Cell Structures. In: ELITECH'13 : 15th Conference of Doctoral Students; Bratislava, Slovakia, 5 June 2013. - Bratislava : STU, 2013. - ISBN 978-80-227-3947-4. - CD-ROM, [4] p. (in English)
- [172] SECK, M. - DISTLER, A. - VINCZE, A. - HAŠKO, D. - ŠATKA, A. - UHEREK, F.: Study of Degradation Process in Inverted Organic Solar Cell Structures. In: ADEPT 2013 : 1st International Conference on Advances in Electronic and Photonic Technologies. Nový Smokovec, Slovakia, June 2-5, 2013. - Žilina : University of Žilina, 2013. - ISBN 978-80-554-0689-3. - p. 105-108. (in English)
- [173] SEDLÁK, V. - ĎURAČKOVÁ, D. - KOVÁČIK, T. - ZÁLUSKÝ, R.: Quality Assessment for Single Channel Source Separation. In: APCOM 2013. Applied Physics of Condensed Matter : 19th International Conference. Štrbské Pleso, Slovak Republic, June 19-21, 2013. - Bratislava : STU, 2013. - ISBN 978-80-227-3956-6. - p. 270-273. (in English)
- [174] SEDLÁK, V. - ĎURAČKOVÁ, D. - KOVÁČIK, T. - ZÁLUSKÝ, R.: Simulation and Performance Analysis of Model-Based Single Channel Speech Separation. In: ADEPT 2013 : 1st International Conference on Advances in Electronic and Photonic Technologies. Nový Smokovec, Slovakia, June 2-5, 2013. - Žilina : University of Žilina, 2013. - ISBN 978-80-554-0689-3. - p. 246-249. (in English)
- [175] SEYRINGER, D. - KOHLER, L. - UHEREK, F. - CHOVAN, J. - KUZMA, A.: Influence of Waveguide Structure on Y-Branch Splitting. In: ADEPT 2013 : 1st International Conference on Advances in Electronic and Photonic Technologies. Nový Smokovec, Slovakia, June 2-5, 2013. - Žilina : University of Žilina, 2013. - ISBN 978-80-554-0689-3. - p. 266-269. (in English)
- [176] SHTEREVA, K. - TVAROŽEK, V. - NOVOTNÝ, I. - FLICKYNGEROVÁ, S. - VINCZE, A. - VOJS, M. - JEYNES, Ch. - PENG, N.: Nitrogen Doping in Sputtered Ga-Doped Zinc Oxide Thin Films. In: IVC - 19th International Vacuum Congress : Paris, France, September 9-13, 2013. - [s.l.] : IUVSTA, 2013. - p. 2309-2310. (in English)
- [177] SLÁDEK, Ľ. - DAŘÍČEK, M. - JAGELKA, M. - ŠATKA, A. - MIKLOVIČ, P.: Tensometric Sensor System for Human Motion Characterization. In: ADEPT 2013 : 1st International Conference on Advances in Electronic and Photonic Technologies. Nový Smokovec, Slovakia, June 2-5, 2013. - Žilina : University of Žilina, 2013. - ISBN 978-80-554-0689-3. - p. 193-196. (in English)
- [178] SLÁMA, J. - OLAH, V. - GRUSKOVÁ, A. - ŠOKA, M. - FRANEK, J.: Ferrite-Composite Sensors for Challenging Environment Applications. In: ENDE 2013 : 18th International Workshop on Electromagnetic NonDestructive Evaluation. Bratislava, Slovakia, June 25-28, 2013. - Žilina : EDIS, 2013. - ISBN 978-80-554-0713-5. - p. 175-177. (in English)
- [179] SMOLINSKÁ, M. - MACKUŠÁK, T. - TAKÁČOVÁ, A. - JOKRLOVÁ, J. - HRONEC, P. - ČÍK, G.: Methylene blue - zeolite as efficient system of gram-positive and gram-negative bacteria. In: 40th International Conference of Slovak Society of Chemical Engineering : Tatranské Matliare, Slovakia, May 27-31, 2013. - Bratislava : Slovak Society of Chemical Engineering, 2013. - ISBN 978-80-89475-09-4. - CD-ROM, p. 173-178. (in English)
- [180] STOKLAS, R. - GREGUŠOVÁ, D. - HUŠEKOVÁ, K. - KORDOŠ, P.: Interface Charge Characterization of AlGaIn/GaN MOS Structures with High-k Gate Insulator by Capacitance/Conductance Measurements. In: ICNS-10 : 10th International Conference on Nitride Semiconductors. Washington, D.C., August 25-30, 2013. - [s.l.] : MRS, 2013. - S. 275. (in English)
- [181] STOPJAKOVÁ, V. - NAGY, G. - ARBET, D. - MAJER, L. - GYEPES, G.: Low-Power Readout IC with High Dynamic Range for MCM-Based Noise Dosimeter. In: Applied Electronics 2013 : 18th International Conference. Pilsen, Czech Republic, 10-12 September 2013. - Pilsen : University of West Bohemia, 2013. - ISBN 978-80-261-0166-6. - p. 275-278. (in English)
- [182] STUHLÍKOVÁ, Ľ. - BENKOVSKÁ, J. - DONOVAL, M.: An Easy and Effective Creation of E-Learning Courses. In: Distance Learning, Simulation and Communication 2013 : Brno, Czech Republic, May 21-23, 2013. - Brno :

- Armed Forces University, 2013. - ISBN 978-80-7231-919-0. - p. 159-164. (in English)
- [183] STUHLÍKOVÁ, Ľ. - JAKUŠ, J. - RYBÁR, J. - HARMATHA, L. - KOVÁČ, J. - SCIANA, B. - RADZIEWICZ, D. - PUCICKI, D. - TLACZALA, M.: Deep-Level Transient Spectroscopy Study of Triple Quantum Well InGaAsN/GaAs Heterostructures. In: ADEPT 2013 : 1st International Conference on Advances in Electronic and Photonic Technologies. Nový Smokovec, Slovakia, June 2-5, 2013. - Žilina : University of Žilina, 2013. - ISBN 978-80-554-0689-3. - p. 52-55. (in English)
- [184] STUHLÍKOVÁ, Ľ. - BENKOVSKÁ, J. - JAKUŠ, J. - HARMATHA, L. - NEMEC, M. - BENKO, P. - KÓSA, A. - JUHÁSZ, P.: DLTFs Study of Deep Traps in Schottky Diodes Based on AlGaIn/GaN Heterostructure. In: EDS'13. Electronic Devices and Systems IMAPS CS International Conference 2013 : Brno, Czech Republic, 26-27 June 2013. - Brno : VUT, 2013. - ISBN 978-80-214-4754-7. - p. 98-103. (in English)
- [185] STUHLÍKOVÁ, Ľ. - WEIS, M. - JUHÁSZ, P. - KÓSA, A. - HARMATHA, L. - JAKABOVIČ, J.: Deep Level Transient Spectroscopy Study of Pentacene Diode. In: 15 th International Conference on Defects Recognition, Imaging and Physics in Semiconductors : Warsaw, Poland, September 15-19, 2013. - p. 80-81. (in English)
- [186] STUHLÍKOVÁ, Ľ. - RYBÁR, J. - HARMATHA, L. - KOVÁČ, J. - SCIANA, B. - RADZIEWICZ, D. - PUCICKI, D. - TLACZALA, M.: DLTFs Study of p-i-n Diode Based on InGaAsN/GaAs Multi-Quantum Well Structure . In: APCOM 2013. Applied Physics of Condensed Matter : 19th International Conference. Štrbské Pleso, Slovak Republic, June 19-21, 2013. - Bratislava : STU, 2013. - ISBN 978-80-227-3956-6. - p. 293-296. (in English)
- [187] STUHLÍKOVÁ, Ľ. - BENKOVSKÁ, J. - NEMEC, M. - KÓSA, A. - JUHÁSZ, P. - JAKUŠ, J. - BENKO, P.: E-Learning in Engineering Education. In: New Technologies in Education : 6th International Conference. Brno, Czech Republic, 15. 11. 2012. - Brno : Masaryk University, 2013. - ISBN 978-80-210-6402-7. - CD-ROM, [5] p. (in English)
- [188] STUHLÍKOVÁ, Ľ. - HARMATHA, L. - RYBÁR, J. - JAKUŠ, J. - KOVÁČ, J. jr. - NEMEC, M. - PETRUS, M. - SCIANA, B. - RADZIEWICZ, D. - PUCICKI, D. - DAWIDOWSKI, W. - TLACZALA, M.: Investigation of Emission and Capture Processes in Schottky and p-i-n Structures Based on InGaAsN/GaAs Heterostructure. In: EDS'13. Electronic Devices and Systems IMAPS CS International Conference 2013 : Brno, Czech Republic, 26-27 June 2013. - Brno : VUT, 2013. - ISBN 978-80-214-4754-7. - p. 195-200. (in English)
- [189] STUHLÍKOVÁ, Ľ. - KÓSA, A.: Massive Open Online Courses - Challenges and Solutions in Engineering Education. In: ICETA 2013 : 11th IEEE International Conference on Emerging eLearning Technologies and Applications. Starý Smokovec, Slovakia, October 24-25, 2013. - [Piscataway] : IEEE, 2013. - ISBN 978-1-4799-2161-4. - p. 359-360. (in English)
- [190] SZABÓ, O. - PERNÝ, M. - FLICKYNGEROVÁ, S. - VAVRINSKÝ, E. - KOVÁČ, J. jr. - TVAROŽEK, V. - ŠÁLY, V.: Automated Workplace for Measurement of PV Cells. In: ADEPT 2013 : 1st International Conference on Advances in Electronic and Photonic Technologies. Nový Smokovec, Slovakia, June 2-5, 2013. - Žilina : University of Žilina, 2013. - ISBN 978-80-554-0689-3. - p. 109-112. (in English)
- [191] SZABÓ, O. - PERNÝ, M. - LELÁK, J. - ŠÁLY, V. - VÁRY, M. - FLICKYNGEROVÁ, S. - VAVRINSKÝ, E.: DC Diagnostics of Solar Cell Parameters. In: Diagnostika '13 : International Conference on Diagnostics in Electrical Engineering CDEE 2013. Pilsen, Czech Republic, September 2-4, 2013. - Pilsen : University of West Bohemia, 2013. - ISBN 978-80-261-0210-6. - p. 215-218. (in English)
- [192] SZABÓ, O. - FLICKYNGEROVÁ, S. - TVAROŽEK, V.: The SEM Image Evaluation of Sputtered Nanostructured Au Films. In: Perspective Vacuum Methods and Technologies : Štrbské Pleso, Slovak Republic, October 10-13, 2013. - Bratislava : Slovak Vacuum Society, 2013. - ISBN 978-80-971179-2-4. - p. 105-108. (in English)
- [193] SZABÓ, O. - PERNÝ, M. - FLICKYNGEROVÁ, S. - VAVRINSKÝ, E.: Development of the Workplace for Measuring DC Parameters of PV Cells. In: ŠVOČ 2013 : Students Conference. Bratislava, 23 April 2013. - Bratislava : FEI STU, 2013. - ISBN 978-80-227-3909-2. - p. 131-136. (in Slovak)
- [194] SZOBOLOVSZKÝ, R. - BORIŠ, M.: Pulse Inverter for Supplying Audio Modulated Tesla Coil. In: ŠVOČ 2013 : Students Conference. Bratislava, 23 April 2013. - Bratislava : FEI STU, 2013. - ISBN 978-80-227-3909-2. - p. 347-352. (in Slovak)
- [195] ŠATKA, A.: Diagnostics of GaN HEMT Structures by EBIC Method. In: Perspective vacuum methods and technologies : Štrbské Pleso, Slovak Republic, 10 -13 October 2013. - Bratislava : Slovak Vacuum Society, 2013. -

- ISBN 978-80-971179-2-4. - p. 13-18. (in Slovak)
- [197] ŠATKA, A. - PRIESOL, J. - UHEREK, F.: The Study of GaN Nanopyramids by Scanning Electron Microscopy Methods. In: Photonics 2013 : 8th Annual Scientific Workshop of International Laser Centre. Senec, Slovak Republic, February 14-15, 2013. - Bratislava : STU, 2013. - ISBN 978-80-970493-5-5. - p. 43-47. (in Slovak)
- [198] ŠKRINIAROVÁ, J. - BÚC, D. - KOVÁČ, J. - NOVÁK, J.: Deposition of ZnO:Al Thin Films on Tilted GaP-NWs by RF Reactive Magnetron Sputtering. In: ADEPT 2013 : 1st International Conference on Advances in Electronic and Photonic Technologies. Nový Smokovec, Slovakia, June 2-5, 2013. - Žilina : University of Žilina, 2013. - ISBN 978-80-554-0689-3. - p. 282-286. (in English)
- [199] ŠKRINIAROVÁ, J. - PUDIŠ, D. - KUBICOVÁ, I. - KUZMA, A. - KOVÁČ, J. - HRONEC, P. - ŠUŠLÍK, Ľ.: Predefined Structures in LED Surface for Modification of Radiation Characteristics. In: IVC - 19th International Vacuum Congress : Paris, France, September 9-13, 2013. - [s.l.] : IUVESTA, 2013. - p. 526-527. (in English)
- [200] ŠKRINIAROVÁ, J. - BÚC, D. - KOVÁČ, J. - HASENÖHRL, S.: Structural Properties of ZnO Thin Films Deposited on GaP Nanowires by Magnetron Sputtering. In: 8th Solid State Surfaces and Interfaces : Extended Abstract Book. Smolenice Castle, Slovak Republic, November 25-28, 2013. - Bratislava : Comenius University, 2013. - ISBN 978-80-223-3501-0. - p. 178-179. (in English)
- [201] ŠTOFANIK, V. - BREZOVIČ, Z. - MINÁRIK, M. - COCHEROVÁ, E. - KUBINEC, P.: Investigation of Amplitude Effects on Higher Overtones in Stress Compensated Quartz Resonators. In: Radioelektronika 2013 : 23rd Conference Radioelektronika 2013; Pardubice, Czech Republic; 16-17 April 2013. - Pardubice : University of Pardubice, 2013. - ISBN 978-1-4673-5517-9. - p. 98-103. (in English)
- [202] ŠUŠOLIAK, M. - STUHLÍKOVÁ, Ľ. - JAKUŠ, J.: IGBT Interactive Animation Development. In: New Technologies in Education : 6th International Conference. Brno, Czech Republic, 15. 11. 2012. - Brno : Masaryk University, 2013. - ISBN 978-80-210-6402-7. - CD-ROM, [4] p. (in English)
- [203] ŠUTTA, P. - NETRVALOVÁ, M. - NOVOTNÝ, I. - FLICKYNGEROVÁ, S. - TVAROŽEK, V.: Structural Properties of Ga Doped Zinc Oxide Coating Formed by RF Sputtering. In: IVC - 19th International Vacuum Congress : Paris, France, September 9-13, 2013. - [s.l.] : IUVESTA, 2013. - p. 2385-2386. (in English)
- [204] TOMÁŠKA, M.: High Temperature AlGaIn/GaN HEFT Microwave Characterization and Modeling. In: COMITE 2013. 13th Conference on Microwave Techniques. MAREW 2013. Microwave and Radio Electronics Week 2013 : Pardubice, Czech Republic, April 17-18, 2013. - Pardubice : University of Pardubice, 2013. - ISBN 978-1-4673-5513-1. - p. 125-127. (in English)
- [205] TOMÁŠKA, M.: High Temperature AlGaIn/GaN HFET Microwave Investigation. In: ADEPT 2013 : 1st International Conference on Advances in Electronic and Photonic Technologies. Nový Smokovec, Slovakia, June 2-5, 2013. - Žilina : University of Žilina, 2013. - ISBN 978-80-554-0689-3. - p. 40-43. (in English)
- [206] UHEREK, F. - CHOVAN, J. - KUZMA, A. - PÍSEČNÝ, P. - HAŠKO, D. - SEYRINGER, D.: Silicon Nanophotonics. In: ADEPT 2013 : 1st International Conference on Advances in Electronic and Photonic Technologies. Nový Smokovec, Slovakia, June 2-5, 2013. - Žilina : University of Žilina, 2013. - ISBN 978-80-554-0689-3. - p. 1-6. (in English)
- [207] UHEREK, M. - SRNÁNEK, R. - VANČO, Ľ. - WEIS, M. - ŠATKA, A. - KOVÁČ, J. jr. - ULIČNÁ, O. - CHORVÁTOVÁ, A. - CHORVÁT, D.: Identification of Cholesterol in Organic Materials by Micro-Raman Spectroscopy. In: ADEPT 2013 : 1st International Conference on Advances in Electronic and Photonic Technologies. Nový Smokovec, Slovakia, June 2-5, 2013. - Žilina : University of Žilina, 2013. - ISBN 978-80-554-0689-3. - p. 291-294. (in English)
- [208] UHEREK, M. - CHORVÁT, D. - KOVÁČ, J. jr. - ZÁHRADNÍK, P. - CIGÁŇ, M. - MARČEK CHORVÁTOVÁ, A.: Optical diagnostics of cardiovascular diseases . In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 19, Special Issue : Conference ELOSYS, Trenčín, 15.-18.10.2013, p. 64-67. (in Slovak)
- [209] UHRÍK, J. - WEIS, M. - FLICKYNGEROVÁ, S. - JAKABOVIČ, J. - FILO, J. - PUTALA, M.: Application of 2,6-bis(5'-hexyl-2,2'-bithiophene-5-yl)naphthalene for Organic Semiconductor Devices. In: ADEPT 2013 : 1st International Conference on Advances in Electronic and Photonic Technologies. Nový Smokovec, Slovakia, June 2-5, 2013. - Žilina : University of Žilina, 2013. - ISBN 978-80-554-0689-3. - p. 123-126. (in English)
- [210] UŠÁKOVÁ, M. - UŠÁK, E. - REKOŠOVÁ, J. - OLAH, V.: Magnetic and Physical-Mechanical Properties of Polymer

- Composites with Soft Magnetic Fillers. In: APCOM 2013. Applied Physics of Condensed Matter : 19th International Conference. Štrbské Pleso, Slovak Republic, June 19-21, 2013. - Bratislava : STU, 2013. - ISBN 978-80-227-3956-6. - p. 91-95. (in English)
- [211] VANČO, Ľ. - KADLEČÍKOVÁ, M. - VOJS, M. - FLICKYNGEROVÁ, S.: Effect of Interference on Intensity of Dominant Raman Band of Silicon in SiO_x-Si Structure. In: Perspective Vacuum Methods and Technologies : Štrbské Pleso, Slovak Republic, October 10-13, 2013. - Bratislava : Slovak Vacuum Society, 2013. - ISBN 978-80-971179-2-4. - p. 60-63. (in Slovak)
- [212] VARGA, Š. - STUHLÍKOVÁ, Ľ.: MOSFET in Electronic Education. In: ŠVOČ 2013 : Students Conference. Bratislava, 23 April 2013. - Bratislava : FEI STU, 2013. - ISBN 978-80-227-3909-2. - p. 118-123. (in Slovak)
- [213] VÁRY, T. - WEIS, M. - ČÍK, G. - BOMBAROVÁ, K. - CIRÁK, J.: Analysis of Phase Separation in 2D Molecular Systems. In: APCOM 2013. Applied Physics of Condensed Matter : 19th International Conference. Štrbské Pleso, Slovak Republic, June 19-21, 2013. - Bratislava : STU, 2013. - ISBN 978-80-227-3956-6. - p. 111-114. (in English)
- [214] VAVRINSKÝ, E. - POPOVIČ, M. - MOSKAĽOVÁ, D. - KOVÁČIKOVÁ, L. - DONOVAL, M. - TVAROŽEK, V. - DAŘÍČEK, M.: Extrapolation of the Respiratory Rate from ECG Signal. In: ADEPT 2013 : 1st International Conference on Advances in Electronic and Photonic Technologies. Nový Smokovec, Slovakia, June 2-5, 2013. - Žilina : University of Žilina, 2013. - ISBN 978-80-554-0689-3. - p. 165-168. (in English)
- [215] VOJS, M. - MARTON, M. - MICHNIAK, P. - KROMKA, A. - BANDŽUCHOVÁ, L. - ŠVORC, Ľ. - WEBER, B. - DONOVAL, D. - REDHAMMER, R.: Carbon Nanomaterials for Environmental and Health Applications. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 19, Special Issue : Conference ELOSYS, Trenčín, 15.-18.10.2013, p. 68-71. (in Slovak)
- [216] VOJS, M. - BEHÚL, M. - MARTON, M. - MICHNIAK, P. - ŘEHÁČEK, V. - KROMKA, A. - STAŇOVÁ, A. - BANDŽUCHOVÁ, L. - ŠVORC, Ľ.: Carbon Nanotechnology: Health and Environmental Applications. In: Perspective Vacuum Methods and Technologies : Štrbské Pleso, Slovak Republic, October 10-13, 2013. - Bratislava : Slovak Vacuum Society, 2013. - ISBN 978-80-971179-2-4. - p. 113-114. (in English)
- [217] VOJS, M. - BEHÚL, M. - MICHNIAK, P. - ŘEHÁČEK, V. - REDHAMMER, R. - IŽÁK, T. - KROMKA, A.: Determination of Dopamine on a Nanostructured Boron-Doped Diamond Electrode. In: IWEPNM 2013 : 27th International Winterschool on Electronic Properties of Novel Materials Molecular Structures. Kirchberg, Austria, 2-9 March 2013. - p. 176. (in English)
- [218] VOJS, M. - BEHÚL, M. - MICHNIAK, P. - ŘEHÁČEK, V. - MARTON, M. - VESELÝ, M. - KROMKA, A.: Structured Boron Doped Diamond Electrodes for Determination of Dopamine. In: ADEPT 2013 : 1st International Conference on Advances in Electronic and Photonic Technologies. Nový Smokovec, Slovakia, June 2-5, 2013. - Žilina : University of Žilina, 2013. - ISBN 978-80-554-0689-3. - p. 135-139. (in English)
- [219] VOJS, M. - VARGA, M. - BABCHENKO, O. - IŽÁK, T. - MIKOLÁŠEK, M. - KROMKA, A.: Study on Diamond Films Deposited by Pulsed Linear Antenna Microwave Plasma Chemical Vapor deposition from H₂/CH₄/CO₂/N₂ Gas Chemistry. In: 8th Solid State Surfaces and Interfaces : Extended Abstract Book. Smolenice Castle, Slovak Republic, November 25-28, 2013. - Bratislava : Comenius University, 2013. - ISBN 978-80-223-3501-0. - p. 187. (in English)
- [220] VOJS, M. - IŽÁK, T. - VARGA, M. - BABCHENKO, O. - KROMKA, A.: Tailoring of Diamond Film Morphology and Electrical Properties by CH₄/H₂/CO₂/N₂ Gas Chemistry in Large Area MWCVD. In: IVC - 19th International Vacuum Congress : Paris, France, September 9-13, 2013. - [s.l.] : IUVESTA, 2013. - p. 2451-2452. (in English)
- [221] WEIS, M.: Progress and Challenges in organic Field-Effect Transistors. In: ADEPT 2013 : 1st International Conference on Advances in Electronic and Photonic Technologies. Nový Smokovec, Slovakia, June 2-5, 2013. - Žilina : University of Žilina, 2013. - ISBN 978-80-554-0689-3. - p. 113-118. (in English)
- [222] ZÁLUSKÝ, R. - ĎURAČKOVÁ, D. - SEDLÁK, V. - KOVÁČIK, T.: The Use of Neural Network for Data Encryption Standard (DES) . In: APCOM 2013. Applied Physics of Condensed Matter : 19th International Conference. Štrbské Pleso, Slovak Republic, June 19-21, 2013. - Bratislava : STU, 2013. - ISBN 978-80-227-3956-6. - p. 266-269. (in English)
- [223] ZEMANOVÁ, M. - SZÚNYOGH, J. - KADLEČÍKOVÁ, M. - DOBROČKA, E.: Corrosion Study of Amorphous Alloys.

- In: Interaction of Molten Salts with Progressive Inorganic Materials. 4th Special Seminar. Kočovce, Slovak Republic, October 29-30, 2013. - Bratislava : STU, 2013. - ISBN 978-80-227-4063-0. - p. 48-52. (in Slovak)
- [224] ŽÁK, J. - HUBÁLEK, J. - KUČHTA, R. - KADLEC, J. - HAVLÍK, J. - NOVÁK, D. - ŠTEPÁNKOVÁ, O. - STOPJAKOVÁ, V.: Development of Heterogeneous Wearable and Ambient Sensor Network. In: EDS'13. Electronic Devices and Systems IMAPS CS International Conference 2013 : Brno, Czech Republic, 26-27 June 2013. – Brno : VUT, 2013. - ISBN 978-80-214-4754-7. - p. 201-204. (in English)

IX. 3 Part of books

- [1] MATUŠOV, M. - ZAPLETALOVÁ, Ľ. - DUCHOSLAV, L. - HAGARA, M.: Relationship between the Height of Jump Reach and the Height of Ball Contact at Spike in Two Different Age Categories of Female Volleyball Players. In: Acta Facultatis Educationis Physicae Universitatis Comenianae : Publicatio LIII/II. - Bratislava : Comenius University, 2013. - ISBN 978-80-223-3510-2. - p. 23-32. (in English)

INSTITUTE OF NUCLEAR AND PHYSICAL ENGINEERING

<http://www.ujfi.fei.stuba.sk/>



Director of the Institute:

prof. Ing. Vladimír Slugeň, DrSc.

Tel: +421-2-602 91 821

Tel: +421-2-654 27 207

Tel: +421- 918 64 04 33

e-mail: vladimir.slugen@stuba.sk

Deputy directors:

prof. Ing. Vladimír Nečas, PhD.

e-mail: vladimir.necas@stuba.sk

Tel: +421-2-602 91 661

prof. Ing. Július Cirák, PhD.

e-mail: julius.cirak@stuba.sk

Tel: +421-2-602 91 138

General Information

Institute of Nuclear and Physical Engineering was formed on May 1, 2011 by the merger of former Department of Physics with Department of Nuclear Physics and Technology. The Institute is a teaching and research unit of the Faculty of Electrical Engineering and Information Technology (FEI). The main mission of the Institute is educational activities and the integration and creative development of various scientific, research, as well as other technical activities. The institute acts as a special guarantor of the study subjects which are also provided by the institute in the frame of accredited study programmes offered by the Slovak University of Technology. Through its own teaching, scientific, research and development activities, the Institute is responsible in particular for development in the following areas: General Physics and Mathematical Physics, Physics of Condensed Matter and Acoustics, Nuclear and Subnuclear Physics, Material Science, Environmental Engineering, Electrotechnology and Materials, Nuclear Power Engineering and Technology, Biomedical Engineering, Physical Engineering.

Departments of the Institute

Department of Physics

Department of Nuclear Power Engineering and Radioecology

Department of Nuclear Technology and Nuclear Methods

Department of Biomedical Engineering

I. STAFF OF THE INSTITUTE:

| | |
|-----------------------------|---|
| Professors | prof. Ing. Peter Ballo, PhD., prof. Ing. Július Cirák, PhD., prof. Ing. Rudolf Durný, DrSc., prof. RNDr. Július Krempaský, DrSc., prof. Ing. Jozef Lipka, DrSc., prof. Ing. Marcel Miglierini, DrSc., prof. Ing. Vladimír Nečas, PhD., prof. Ing. Márius Pavlovič, PhD., prof. Ing. Jozef Sitek, DrSc., prof. Ing. Vladimír Slugeň, DrSc. |
| Associate Professors | doc. Ing. Peter Bokes, PhD., doc. Ing. Peter Dieška, PhD., doc. RNDr. Edmund Dobročka, PhD., doc. Ing. Ján Haščík, PhD., doc. Ing. Róbert Hinc, PhD., doc. RNDr. Peter Markoš, DrSc., doc. Ing. Andrea Šagátová, PhD., doc. Ing. Ján Vajda, PhD., doc. RNDr. Pavol Valko, PhD. |
| Assistant Professors | Ing. Ondrej Foltin, PhD., RNDr. Juraj Chlpík, PhD., Ing. Katarína Sedlačková, PhD., Ing. Tatiana Šrámková, RNDr. Mária Valková, Mgr. Marek Vančo, PhD., Ing. Klement Vitázek, PhD., Ing. Ivan Zelenay, PhD., Ing. Miroslava Zemanová Diešková, PhD. |
| Research Workers | Ing. Jarmila Degmová, PhD., Ing. Július Dekan, PhD., Ing. Gabriel Farkas, PhD., Ing. Tomáš Hatala, PhD., Ing. Ľubomír Keleši, Mgr. Martin Konôpka, PhD., doc. RNDr. Martin Moško, PhD., Ing. Milan Pavúk, PhD., Ing. Martin Petriska, PhD., Ing. Stanislav Sojak, PhD., Ing. Matúš Stacho, PhD., Ing. Stanislav Stanček, Ing. Tomáš Váry, PhD., Ing. Jana Veterníková, PhD. |
| Technical Staff | Eva Mániková (secretary), Peter Mikula, Mgr. Andrea Podhájska, Zuzana Váciová |
| PhD. Students | Ing. Iveta Bartošová, Ing. Jozef Bokor, RNDr. Katarína Bombarová, Ing. Amine Bouhaddane, Ing. Štefan Čerba, Ing. Martin Hornáček, Mgr. Gergely Kajtár, Ing. Jakub Lüley, Ing. Štefan Motyčák, Ing. Patrik Novák, Ing. Stanislav Pecko, Ing. Veronika Sabelová, Ing. Andrej Slimák, Ing. Mgr. Miroslava Tkáčová, Ing. Eva Vitkovská, Ing. Branislav Vrban |

II. EQUIPMENT

II.1 Teaching and Research Laboratories

- Laboratories of Elementary and Advanced Physics
- Laboratory of Bioelectronics and Organic Electronics.
- Laboratory of Applied Optics
- Laboratory of AFM/MFM Microscopy
- Laboratory of Thermophysical Properties
- Laboratory of Macrostructure of Composites
- Laboratory of Material Simulation
- Laboratory of Optical Spectroscopy
- Laboratory of Spectroscopy
- Center for Computational Materials Science

Nuclear Technologies Centre:

- Computer Laboratory
- Ion Beam Laboratory
- Laboratory of Low Level Radioactivity Measurements
- Laboratory of Mössbauer Spectroscopy
- Laboratory of Neutron Physics
- Laboratory of Positron Annihilation Spectroscopy
- Laboratory of Radioactive Isotopes
- Laboratory of Reactor Physics
- Laboratory of Semiconductor Detectors

II.2 Special Measuring Instruments and Computers

- Mössbauer Spectrometers - 2 units (77 - 1200 K)
- 1 MV Cascade Accelerator. Ion beam analyses: 2 MeV He²⁺ RBS with UHV target chamber, sample heating 300 - 1200 K, 1 MeV H⁺ PIXE; Ion beam modification: 10 keV - 1 MeV ion implantation, high dose $\sim 10^{19}$ ions/cm²
- Life-Time and Angular Correlation Positron Annihilation Spectrometers
- Doppler Broadening Spectrometer
- Low-Background Chamber with HPGe detector and gamma ray spectrometer
- Department's LAN computer network
- 16 PC Cluster (124 CORES) + 7PC Cluster (24 CORES)
- Amptek Experiment's XRF Kit
- KETEK SDD and AXAS-D Systems
- Supercomputer (48 CORES)
- Refrigerator Cooled Cryostat NOK-10-3D
- Langmuir - Blodgett Deposition Device, Nima, U.K.
- Modular LB Technology for Deposition of Organic Layers.
- Spectroscopic Ellipsometer Horiba MM-16
- Measuring microscope CZJ
- Brewster Angle Microscope
- Modular spektrofluorimeter, Horiba, Fluorolog 3

- Atomic Force Microscope VEECO EDGE
- Schott UV Line 9100 Spectrophotometer
- Numerical Server with 16 Nodes (128 CORES) with Infiniband
- 3 Numerical Servers (clusters) with 50 Nodes (120 CORES) - Supporting Infrastructure (incl. Myrinet)
- Sun Storage Tek 6140 FC Maxperf
- 2 x Sun Fire Server

II.3 Special Software

- Particle Beam Optics Laboratory PBO Lab™ 2.1
- Transport
- Trace-3D
- Electrostatic Palette
- WinAGILE
- MATLAB R2006A
- SRIM
- MCNP-4C2, MCNP 5, MCNP x 2.7.0
- VISED
- SCALE 4.4a, SCALE 6
- GENIE 2000, LABSOCS 4.2.1
- GoldSim
- CONFIT
- Field Precision - STATIC FIELD ANALYSIS TOOLKIT (TK 0300)
- Visiplan Suite 4.0 3D ALARA planning tool
- CASINO
- ERANOS 2.0

III. TEACHING

III.1 Undergraduate Study (Bc.)

Subject, semester, hours per week for lectures and for seminars or practical exercises, name of the lecturer

| | | |
|-----------------------------|------------------|--------------------------------|
| Nuclear Installations | (4th sem., 3-2h) | V. Nečas, J. Haščík, V. Slugeň |
| Sources of Radiation | (6th sem., 2-3h) | M. Miglierini |
| Environmentalistics | (6th sem., 3-2h) | J. Sitek |
| Introduction to Physics | (1st sem., 1-2h) | P. Bokes, J. Vajda, J. Chlpík |
| Physics 1 | (2nd sem., 3-3h) | J. Vajda, P. Bokes, |
| Special Seminar - Physics 1 | (2nd sem., 0-2h) | J. Vajda, P. Bokes |
| Physics | (2nd sem., 3-3h) | P. Ballo |
| Special Seminar - Physics | (2nd sem., 0-2h) | P. Ballo |
| Physics 2 | (4th sem., 3-3h) | M. Vančo |
| Special Seminar - Physics 2 | (4th sem., 0-2h) | M. Vančo |
| Physics | (3rd sem., 3-3h) | J- Vajda |
| Special Seminar - Physics | (3rd sem., 0-2h) | J. Vajda |
| Physics 1 | (3rd sem., 3-3h) | M. Vančo |
| Special Seminar - Physics 1 | (3rd sem., 0-2h) | M. Vančo |
| Physics 2 | (3rd sem., 3-3h) | J. Cirák, P. Valko |
| Special Seminar - Physics 2 | (3rd sem., 0-2h) | J. Cirák, P. Valko |
| Physics 3 | (4th sem., 2-2h) | P. Valko |

| | | |
|---|------------------|-----------|
| Modern Physics | (5th sem., 3-2h) | P. Markoš |
| Modeling and Simulation | (5th sem., 2-3h) | P. Ballo |
| Thermodynamics of Materials and Statist. Physics | (6th sem., 3-2h) | M. Moško |
| Solid State Physics | (6th sem., 3-2h) | P. Bokes |

III.2 Graduate Study (Ing.)

| | | |
|---|------------------|-------------------------------|
| Nuclear Physics and Technology | (1st sem., 2-2h) | A. Šagátová |
| Team Project (EE) | (1st sem., 0-4h) | J. Haščík, R. Hince, J. Sitek |
| Theory of Nuclear Reactors | (2nd sem., 2-2h) | J. Haščík |
| Materials of Nuclear Power Plants | (2nd sem., 2-2h) | V. Nečas |
| Atomic and Molecular Spectroscopy | (2nd sem., 2-2h) | M. Miglierini |
| Experimental Reactor Techniques | (2nd sem., 2-2h) | J. Haščík |
| Dosimetry and Radiation Protection | (2nd sem., 2-2h) | R. Hince |
| Methods of Nuclear Physics | (3rd sem., 2-2h) | M. Miglierini |
| Fundamentals of Particle Accelerators | (2nd sem., 2-2h) | M. Pavlovič |
| Biomedical Accelerators | (3rd sem., 2-2h) | M. Pavlovič |
| Operation of Nuclear Power Plants | (3rd sem., 2-2h) | V. Slugeň |
| Decommissioning of Nuclear Power Plants | (3rd sem., 2-2h) | V. Nečas |
| Safety and Reliability of Power Engineering Installation | (4th sem., 2-2h) | V. Slugeň |
| Modern Methods of Material Diagnostics | (4th sem., 2-2h) | E. Dobročka |
| Nuclear electronics | (1st sem., 2-1h) | J. Sitek, M. Petriska |
| Physics of Processes | (1st sem., 3-2h) | P. Bokes |
| Superconductivity and Low Temperature Physics | (1st sem., 2-2h) | P. Valko |
| Electronic Structure of Matter | (1st sem., 2-2h) | P. Bokes, M. Konôpka |
| Radiation Protection and Ecology | (1st sem., 2-2h) | V. Slugeň, R. Hince |
| Field Theory | (2nd sem., 2-2h) | P. Valko |
| Transport Processes in Materials | (1st sem., 3-2h) | P. Dieška, R. Durný |
| Semiconductor and Metallic Materials | (2nd sem., 2-2h) | P. Dieška, R. Durný |
| Bioelectronics | (1st sem., 2-1h) | J. Cirák |
| Principles of Applied Optics | (1st sem., 2-2h) | J. Vajda |
| Non-equilibrium Systems and Chaos | (1st sem., 3-2h) | P. Ballo |
| Nanotechnology | (2nd sem., 2-2) | J. Cirák |
| Applied Optics | (2nd sem., 2-2h) | J. Vajda |
| Computer Physics | (2nd sem., 2-2h) | P. Markoš |
| Biomaterials and Biosystems | (2nd sem., 2-2h) | J. Cirák |
| Photonic crystals | (4th sem., 2-2h) | P. Markoš |

III.4 Distance Study

| | | |
|-----------------------|------------------|----------|
| Nuclear Installations | (6th sem., 12 h) | S. Sojak |
|-----------------------|------------------|----------|

Safety and Reliability of

| | | |
|---------------------------------|------------------|-------------|
| Power Engineering Installations | (4th sem., 12h) | V. Slugeň |
| Physics 1 | (3rd sem., 24 h) | T. Šrámková |
| Physics 2 | (4th sem., 24 h) | T. Šrámková |
| Applied Optics | (2nd sem., 12 h) | J. Vajda |
| Physics of Processes | (1st sem., 12 h) | P. Bokes |

IV. RESEARCH PROJECTS

IV.1 National Scientific Projects (VEGA, APVV, KEGA)

- Radioactive Materials in Perspective Nuclear Fuel Cycles and in Nuclear Installations under Decommissioning Process, VEGA 1/0796/13, V. Nečas
- Pixel Sensors of X- and Gamma Rays for Using Primarily in Digital Imaging, VEGA 2/0062/13, V. Nečas
- Increase of energy safety in SR, OP Research and Development ITMS: 26220220097, V. Nečas
- Design and Realization of Education in Interdisciplinary Branches on International Level, KEGA 019STU-4/2012, M. Pavlovič
- Radiation Hardness of Nanocrystalline Alloys Against Different Types of Radiations, VEGA 1/0286/12, J. Sitek
- Analyse of Radiation Induced Activity in Power Reactor Materials and their Influence on Microstructure, VEGA 1/0204/13, V. Slugeň
- Evaluation of Radiation Resistance of ODS Steels for Fusion and Fission Technologies, VEGA 1/0366/12, J. Degmová
- Research of Slovak Meteorites, APVV-0516-10, J. Sitek
- New Semiconductor Detectors of Neutrons, APVV-0321-11, A. Šagátová
- Nanocrystalline Complexes of Iron in Biological Tissues, VEGA 1/0220/12, M. Miglierini
- Study of Charge Transfer in Ordered Organic Molecular Systems, VEGA 1/0879/11, J. Cirák
- Advanced Materials – Processes and Structures of Organic Electronics, APVV-0262-10, J. Cirák
- National Centre for Research and Application of Renewable Energy Sources, OP Research: IMTS 26240120028, J. Cirák, R. Durný, P. Markoš
- Transport Processes in Inhomogeneous Structures, VEGA 1/0372/13, P. Markoš
- Nanocomposite Thin Films Properties and Applications in Sensorics, VEGA 2/0165/13, R. Durný
- New Challenges in Physics Education at Technical Universities, VEGA, 031STU-4/2013, P. Bokes
- Electromagnetic and Electronic properties γ Small Systems and Metamaterials, APVV-0108-11, P. Markoš
- NANOTIP – Tip-induced SPM processes: Imaging and nanomanipulations, APVV-0207-11, P. Bokes
- Competence Centre for New Materials, Advanced Technologies and Energetics, ERDF, P. Ballo, J. Cirák, Š. Čerba, J. Dekan, M. Miglierini, V. Nečas, M. Pavlovič, M. Pavúk, S. Sojak, A. Šagátová
- Neutronic Analyses of Gas Cooled Fast Reactor, APVV-0123-12, J. Haščík

IV.2 International Scientific Projects

- Depth Profiling Radiation Induced Defect Concentration in DEMO Structural Materials Using Pulsed Low Energy Positron System (PLEPS). 7th Framework Project of the European Atomic Energy Community No FU70-Euratom.CU (2007-2013), V. Slugeň
- Training Schemes on Nuclear Safety Culture for Managers (TRASNUSAFE) 7th Framework Project of the European Atomic Energy Community No249674 (2010-2014), V. Slugeň
- Benchmarking of Advanced Materials Pre-selected for Innovative Nuclear Reactors, IAEA Research Project T11006, V. Slugeň
- Irradiation Tests of Magnetic Alloy and Organic Insulator Materials. Bilateral Agreement STU-GSI Darmstadt, M. Pavlovič
- Structural and Magnetic Properties of Ion Irradiated Metallic Glasses, PL-0032-, M. Miglierini
- European Union - Japan Cooperation, EUJEP 2010-2013, J. Haščík
- ENEN Cooperation with Russian in Nuclear Education, Training and Knowledge Management. J. Haščík
- Proton Implantation for Research Purposes at the JRC-IE, Petten, EC-Project B108510, JRC-IE, Petten, V. Slugeň
- Positron Annihilation Study of Reactor Materials, Project GP01/1011014702 with AREVA
- NP, GmbH, V. Slugeň
- Nanoalloys as Advanced Materials: From Structure to Properties and Applications (Nanoalloy) Cost Action MP 0903, M. Miglierini

V. COOPERATION

V. 1 Cooperation in Slovakia

- DECOM a.s., Trnava
- DECONTA a.s., Trnava
- Comenius University, Bratislava, School of Medicine
- Comenius University, Bratislava, Faculty of Mathematics, Physics and Informatics
- Comenius University, Bratislava, Faculty of Pharmacy Comenius University, Bratislava,
- Comenius University, Bratislava, Faculty of Natural Science
- Slovak Academy of Sciences, Bratislava, Geological Institute,
- Slovak Academy of Sciences, Bratislava, Institute of Electrical Engineering
- Slovak Academy of Sciences, Bratislava, Institute of Measurement Science
- Slovak Academy of Sciences, Bratislava, Institute of Physics
- Slovak Academy of Sciences, Bratislava, Institute of Informatics
- Slovak Academy of Sciences, Bratislava, Institute of Materials and Machine Mechanics
- Slovak Academy of Sciences, Bratislava, Institute of Polymers
- Slovak Academy of Sciences, Košice, Institute of Experimental Physics
- Institute of Preventive and Clinical Medicine, Bratislava
- International Laser Centre, Bratislava
- University of P. J. Šafarik, Institute of Physical Sciences, Košice
- VUJE a.s., Trnava
- Nuclear Regulatory Authority of the Slovak Republic, Bratislava
- Relko Ltd., Bratislava
- Slovak Electric Ltd., (SE a.s.), Bratislava

- Nuclear Decommissioning Company, plc., (JAVYS), Bratislava
- Slovak Electric Ltd., Mochovce Nuclear Power Plant, SE a.s.Mochovce
- Slovak Electric Ltd., Bohunice Nuclear Power Plant, SE a.s. Jaslovské Bohunice
- Slovak Office for Normalization, Metrology and Testing, Bratislava
- Slovak Institute of Metrology, Bratislava
- BIONT Inc., Bratislava
- National Nuclear Fund of Slovak Republic, Bratislava
- Faculty of Chemical and Food Technology, STU, Bratislava
- Faculty of Informatics and Information Technologies, STU, Bratislava
- Faculty of Mechanical Engineering, STU, Bratislava
- University of Trnava, Trnava
- Technical University of Košice, Faculty of Electrical Engineering and Information Technology, Košice
- Slovak Legal Metrology Institute, Banská Bystrica
- University of Žilina, Faculty of Electrical Engineering, Žilina

V. 2 International Cooperation

- All-Russian Scientific Institute of Experimental Physics, Theoretical Physics Department, Sarov, Russia
- Atominstitut der Technischen Universität, Vienna, Austria
- Centro de Investigación y de Estudios Avanzados del IPN Unidad Saltillo, Mexico
- Department of Nuclear Reactors, Czech Technical University in Prague, CzR
- EFDA Close Support Unit, Garching, Germany
- Flerov Laboratory of Nuclear Reactions, Joint Institute of Nuclear Research, Dubna, Russia
- Forschungszentrum Jülich, Institute of Bio- and Nanosystems, Germany
- AREVA-NP, Erlangen, Germany
- Leibniz Institut für Festkörper- und Werkstofforschung, Dresden, Germany
- Institute for Nuclear Research of the Russian Academy of Sciences, Neutron Research Department, Moscow, Russia
- Institute for Theoretical and Experimental Physics, High Energy Density in Matter Produced by Heavy Ion Beam Department, Moscow, Russia
- Institute for Energy, European Commission, JRC Petten
- Institute of Nuclear Techniques, Budapest University of Technology and Economics, Hungary
- Institute of Thin Films and Interfaces, Research Centre Jülich, Germany
- International Atomic Energy Agency, Vienna, Austria
- Laboratory of Nuclear Problems, Joint Institute of Nuclear Research, Dubna, Russia
- Leibniz Institute für Festkörperphysik, University Vienna, Austria
- Nuclear Research Institute, Řež, CzR
- Universität der Bundeswehr, München, Germany
- University of Gent, Belgium
- Palacky University, Olomouc, Czech Republic
- Institute of Experimental and Applied Physics, Czech Technical University in Prague, CzR
- Institute of Inorganic Chemistry, Academy of Sciences of Czech Republic, Řež, CzR
- University of Applied Sciences, Wiener Neustadt, A-2700, Austria
- Czech Technical University in Prague, Faculty of Nuclear Sciences and Physical Engineering, CzR
- Aalto University School of Science and Technology, Finland
- Wrocław University of Technology, Wrocław, Poland
- CENTRALSYNC (Inst. Of Physic, AVČR, Prague, CzR,
- Hungarian Academy of Sciences, Budapest, Hungary)
- Tomáš Baťa University, Zlín, CzR
- Institute of Macromolecular Chemistry, AVČR, Prague, CzR
- Natural Science Faculty, Charles University, Prague, CzR

- University of West Bohemia, Plzeň, CzR
- VŠB-TU, Ostrava, CzR
- FORTH Heraklion, Greece
- Tokyo Institute of Technology, Tokyo, Japan
- Fukuoka University, Fukuoka, Japan
- University of York, U.K.
- Universitat Politècnica de Catalunya, Barcelona, Spain
- Centro de Fisica Nuclear, Lisbon, Portugal
- PTB Braunschweig, Germany
- Humboldt University, Berlin, Germany
- Delft University, Delft, The Netherlands
- Institute of Solid State Physics, Graz University of Technology, Graz, Austria
- Università di Modena e Reggio Emilia, Modena, Italy
- Ames Laboratory, Ames, Iowa, USA
- UF Gainesville, USA
- Korea Atomic Energy Research Institute (KAERI), Daejeon, South Korea

V.3 Contract-based Bussines Activities

- J. Haščík: Periodical Training of Supervising Physicists of the NPP Bohunice, JAVYS and Mochovce on the Experimental Nuclear Reactors. Contract with NPPs Bohunice, Mochovce
- J. Haščík, R. Hincá, J. Lipka, V. Nečas, V. Slugeň: Post-gradual Requalification Training Course: Safety aspects of nuclear installations operation. Contract with SE, a. s.
- M. Pavlovič: Distant Teaching of Radiation and Nuclear Physics at the University of Applied Sciences Wiener Neustadt, Austria
- M. Pavlovič: Distant Teaching of Accelerator Technology at the University of Applied Sciences, Wiener Neustadt, Austira
- J. Haščík, R. Hincá, M. Miglierini, V. Nečas, V. Slugeň, J. Degmová: Post-gradual Requalification Training Course: Decommissioning of Nuclear Installations

VI. THESES

VI. 1 Masters Theses

Masters theses supervised at the Institute of Nuclear and Physical Engineering. The names of supervisors are in brackets.

- [1] M. Bajan: Optimisation of fuel assembly for high performance of reactor VVER-440 (V. Nečas)
- [2] B. Brunner: Study of the influence of the manufacturing process on superconducting properties of MgB₂ wires (P. Kováč)
- [3] J. Holub: Monitoring of radon in residential premises (J. Lipka, R. Hincá)
- [4] M. Kaiser: Study of organic photovoltaic systems (J. Círák)
- [5] J. Korcová: Analysis of nanocrystalline alloys after neutron irradiation (J Sitek)
- [6] S. Pecko: Materials research of nuclear reactors with emphasis on the use of positron annihilation spectroscopy (S. Sojak)
- [7] M. Petrek: Services assurance by Bohunice nuclear power plant (A. Šagátová)
- [8] M. Sojka: Comparison of neutron detectors and their properties (A. Šagátová)

- [9] M. Vyskoč: Application of the MCNPX code for simulation of heavy-ion activation of accelerator construction materials (M. Pavlovič)
- [10] S. Zajkoska: Heat transfer in the TVS diodes with a P-N junction (P. Bokes)

VI.2 PhD. Theses

- [1] T. Hatala: Nanocrystalline alloys studied by synchrotron radiation (M. Miglierini)
- [2] M. Petriska: Advanced approaches in positron lifetime measurement for irradiated materials (V. Slugen)
- [3] J. Šimeg Veterníková: Study of materials for advanced reactor systems (V. Slugeň)
- [4] M. Zemanová Diešková: Electronic structure and transport properties of nano-junctions (P. Bokes)

VI. OTHER ACTIVITIES

- Organization of the Postgraduate Study “Nuclear Installation Operation Safety Aspects” for participants from different organizations. Organized for SE, a. s.
- Organization of students excursion to Atom Institute in Vienna
- Students Practical Exercises at the TRIGA Mark II Reactor in Atom Institute of the Austrian Universities, Vienna, Austria
- Students Practical Exercises at the Training Reactor of the Budapest University of Technology and Economics, Budapest, Hungary
- Students Practical Exercises at the Training Reactor of the Czech Technical University in Prague, Czech Republic
- Organization of French-Slovak Seminary “Overview on Nuclear Fuel Cycle”, Demänová, 4 – 8 February 2013
- Public Lessons for physics popularisation (J. Krempaský, V. Slugeň, M. Pavlovič, P. Ballo)
- Organization of Technical Tour “Physics on the wheels”, CERN, 23 – 29 May 2013
- Contribution to organization of technical exposition and measurement of radiation of human body at festival POHODA 2013 in Trenčín
- Organization of Winter School of Synchrotron Radiation WSSR 2013, 11 – 15 March 2013, Liptovský Ján (M. Miglierini)
- Organization and Program Committee The 19th international conference - Applied Physics of Condensed Matter, APCOM 2013, Štrbské Pleso, 19 – 21 June 2013, (J. Sitek, J. Vajda)
- Organization of the 4th International scientific conference: Renewable energy sources, Tatranské Matliare, 15 – 17 May 2013, (J. Cirák – conference chairman)
- Beamline coordinator in European theoretical spectroscopy facility (P. Bokes)
- Club of physicists (J. Cirák)
- Metamaterials VIII, Prague, CzR, 16 -19 April 2013, (P. Markoš)
- Organization of the 20th Conference of Slovak Physicist, Bratislava, 2 – 5 September 2013, (J. Cirák, P. Markoš, J. Vajda)

VIII. MEMBERSHIP IN INSTITUTIONS/COMMITTEES

VII.1 Membership in National Institutions/Committees

- Slovak National Nuclear Found (V. Slugeň, vice-chairman)
- Slovak Nuclear Society (V. Slugeň - chairman, J. Degmová, J. Haščík, R. Hincá, G. Farkas, K. Vitázek, J. Lipka, M. Miglierini, V. Nečas, M. Pavlovič, M. Petriska, V. Sabelová, J. Sitek, S. Sojak, M. Stacho, A. Šagátová, J. Veterníková,)
- State Examination Committee for the Verification of Operating Staff of Nuclear Installations Specific Abilities (J. Haščík, V. Slugeň)
- Scientific Council of SUT (V. Slugeň)
- Scientific Council of FEIT SUT (V. Slugeň, J. Cirák)
- Scientific Council of FME SUT (R. Durný)
- Board of editors, Journal of Electrical Engineering (P. Ballo)
- Board of Nuclear Safety SE-EBO (J. Haščík)
- Board of Nuclear Safety JAVYS (V. Nečas)
- Council of Nuclear Regulatory Authority of the Slovak Republic (V. Nečas, V. Slugeň)
- Co-ordination Board for Cooperation with JINR Dubna (M. Pavlovič)
- Scientific Council of Slovak Institute of Metrology (V. Nečas)
- Slovak Physical Society (P. Bokes, J. Cirák – vice-chairman, R. Durný, P. Markoš, M. Miglierini, V. Nečas, M. Pavlovič, J. Sitek, M. Zemanová Diešková)
- Slovak Spectroscopic Society (M. Miglierini - president, J. Sitek, member)
- International Union of Pure and Applied Physics, (J. Cirák - chair of Slovak Committee), (P. Markoš - member of Slovak Committee)
- Scientific Board of FMFI UK (P. Markoš)
- Editor of Acta Physica Slovaca (P. Markoš)
- Scientific Committee of Slovak Academy Sciences for Mathematics, Physics and Informatics (P. Markoš, M. Miglierini)
- Committee for Collaboration with Universities of SE – ENEL, (A. Šagátová)
- Slovak Agency for Science (V. Nečas – vice chairman of Committee VEGA 7)

VII.2 Membership in International Institutions/Committees

- European Nuclear Society (V. Slugeň, Deputy President)
- EC Sustainable Nuclear Energy Technology Platform, board member (V. Slugeň)
- ENEN Association (M. Miglierini, J. Haščík, V. Slugeň)
- European Physical Education Network (V. Slugeň)
- German Nuclear Society (V. Slugeň)
- International Board on the Applications of the Mössbauer Effect "IBAME" (M. Miglierini)
- International Journal of Nuclear Energy Science and Technology, Member of the Editorial Board (V. Nečas)
- International Journal of Nuclear Knowledge Management, Member of the Editorial Board (J. Lipka, V. Slugeň)
- OECD/NEA Bank's Computer Program Service (J. Lipka -Liaison Officer)
- The Research Board of Advisors of the American Biographical Institute (M. Pavlovič)
- The Advisory Council of the International Biographical Centre Cambridge (M. Pavlovič)
- The Scientific Board of Nuclear Research Institute Řež, plc, CzR (V. Slugeň)
- The High Scientific Council at European Nuclear Society (V. Slugeň)
- International Jordan Journal of Physics, Member of the International Advisory Board (J. Lipka)
- Evaluator of EC 7th Framework Projects – Area Reactor Systems (V. Slugeň)
- European Nuclear Council (V. Slugeň)

- European Human Resources Observatory in Nuclear, member of senior advisory group (V. Slugeň)
- European Nuclear Energy Forum – member of WG Risks (V. Slugeň)
- International Committee of American Nuclear Society - board member (V. Slugeň)
- American Physical Society (J.Ciráč)
- Europhysical Society (P. Ballo, P. Bokes, J. Ciráč, R. Durný, J. Krempaský, P. Markoš, P. Valko)
- IEEE (J. Ciráč)
- The New York Academy of Sciences (J. Krempaský)
- Academia Scientiarum et Artium Europaea (J. Krempaský)
- Optical Society of America (P. Markoš)

IX. PUBLICATIONS

IX.1 Journals

- [1] BARTOŠOVÁ, I.: Promising Steels for New Generation Nuclear Reactors. In: Bezpečnosť jaderné energie. - ISSN 1210-7085. - Vol. 21, No. 7/8 (2013), p. 228-232. (in Slovak)
- [2] BOČA, R. - DLHÁŇ, Ľ. - KOPÁNI, M. - MIGLIERINI, M. - MRÁZOVÁ, V. - ČAPLOVIČOVÁ, M.: Deposits of Iron Oxides in the Human Spleen. In: Polyhedron. - ISSN 0277-5387. - Vol. 66 (2013), p. 65-69. (in English)
- [3] BOKOR, J. - PAVLOVIČ, M.: Ion Therapy - an Innovative Technology for Cancer Therapy. In: ERIN. - ISSN 1337-9089. - Vol. 6, No. 11 (2013), p. 6-10. (in English)
- [4] BOUHADDANE, A.: Calculation of Induced Activity of the VVER-440/V-230 Reactor Dummy Element at the End of the First Campaign after Installation into the Reactor. In: Posterus. - ISSN 1338-0087. - Vol. 6, Iss. 1 (2013), online [13] p. (in Slovak)
- [5] BOUHADDANE, A.: Determination of Radioactive Isotopes Inventory in Nuclear Reactors Disposal. In: Bezpečnosť jaderné energie. - ISSN 1210-7085. - Vol. 21, No. 7/8 (2013), p. 233-236. (in Slovak)
- [6] CIRÁČ, J.: Concept of Organic Photovoltaics: Operational Principles and Materials. In: Acta Electrotechnica et Informatica. - ISSN 1335-8243. - Vol. 13, No. 1 (2013), p. 32-36. (in English)
- [7] CORON, N. - CUESTA, C. - GARCIA, E. - ...et al- VALKO, P.: Study of Parylene-Coated NaI(Tl) at Low Temperatures for Bolometric Applications. In: Astroparticle Physics. - ISSN 0927-6505. - Vol. 47 (2013), p. 31-37. (in English)
- [8] ČERBA, Š. - DAMIAN, J. I. M. - LŮLEY, J. - VRBAN, B. - FARKAS, G. - NEČAS, V. - HAŠČÍK, J.: Comparison of Thermal Scattering Processing Options for S(alfa, beta) Cards in MCNP. In: Annals of Nuclear Energy. - ISSN 0306-4549. - Vol. 55 (2013), p. 18-22. (in English)
- [9] DUBECKÝ, F. - DUBECKÝ, M. - HUBÍK, P. - KINDL, D. - GOMBIA, E. - BALDINI, M. - NEČAS, V.: Unexpected Current Lowering by a Low Work-Function Metal Contact: Mg/Si-GaAs. In: Solid-State Electronics. - ISSN 0038-1101. - Vol. 82 (2013), p. 72-76. (in English)
- [10] FARKAS, G. - LIPKA, J. - HAŠČÍK, J. - SLUGEŇ, V.: Computation of Ex-Core Detector Weighting Functions for VVER-440 Using MCNP5. In: Nuclear Engineering and Design. - ISSN 0029-5493. - Vol. 261 (2013), p. 226-231. (in English)
- [11] FIDRÍKOVÁ, D. - GREIF, V. - DIEŠKA, P. - ŠTOFANIK, V. - KUBIČÁR, Ľ. - VLČKO, J.: Monitoring of the Temperature-Moisture Regime in St. Martin's Cathedral Tower in Bratislava. In: Environmental Earth Sciences. - ISSN 1866-6280. - Vol. 69, Iss. 4 (2013), p. 1481-1489. (in English)
- [12] FIDRÍKOVÁ, D. - VRETENÁR, V. - ŠIMKOVÁ, I. - GREIF, V. - VLČKO, J. - DIEŠKA, P. - KUBIČÁR, Ľ.: Sensor for Monitoring the Moisture in Porous Materials. In: International Journal of Thermophysics. - ISSN 0195-928X. - Vol. 34, Iss. 10 (2013), p. 1918-1929. (in English)
- [13] HASSAN, K.M. - DEKAN, J.: Mössbauer Study of Fe Phases in Terrestrial Olivine Basalts from Southern Egypt. In: Mineralogia. - ISSN 1899-8526. - Vol. 44, No. 1 (2013), p. 3-12. (in English)
- [14] HORNÁČEK, M. - NEČAS, V.: The Issues Connected with Dismantling of Large Components in the Process of

- Decommissioning of Nuclear Installations and their Assessment from the Perspective of Exposure. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 19, No. 4 (2013), p. 12-13. (in Slovak)
- [15] HORNÁČEK, M. - NEČAS, V.: The Process of Decommissioning of NPPs from the Perspective of Dismantling of Large Components - Current Status and Issues. In: Bezpečnosť jaderné energie. - ISSN 1210-7085. - Vol. 21, No. 7/8 (2013), p. 237-240. (in Slovak)
- [16] HRNČÍŘ, T. - NEČAS, V.: Recycling and Reuse of Very Low Level radioactive Steel in Morotway Tunnel Scenario. In: Nuclear Engineering and Design. - ISSN 0029-5493. - Vol. 265 (2013), p. 534-541. (in English)
- [17] HRNČÍŘ, T. - PÁNIK, M. - ONDRA, F. - NEČAS, V.: The Impact of Radioactive Steel Recycling on the Public and Professionals. In: Journal of Hazardous Materials. - ISSN 0304-3894. - Vol. 254-255 (2013), p. 98-106. (in English)
- [18] CHROMIK, Š. - NISHIDA, A. - ŠTRBÍK, V. - GREGOR, M. - ESPINÓS, J. P. - LIDAY, J. - DURNÝ, R.: The Distribution of Elements in Sequentially Prepared MgB₂ on SiC Buffered Si Substrate and Possible Pinning Mechanisms. In: Applied Surface Science. - ISSN 0169-4332. - Vol. 269 (2013), p. 29-32. (in English)
- [19] JAKABOVIČ, J. - WEIS, M. - KOVÁČ, J. - DONOVAL, D. - DONOVAL, M. - DAŘÍČEK, M. - TELEK, P. - CIRÁK, J. - PENG, Y. - XIE, J. - LV, W. - YANG, T. - YAO, B. - WANG, Y.: Photogenerated Charge Carriers in Double-Layer Organic Field-Effect Transistor. In: Synthetic Metals. - ISSN 0379-6779. - Vol. 175 (2013), p. 47-51. (in English)
- [20] JAKUBEC, J. - KUTIŠ, V. - PETRISKA, M.: Simplified Model of WWER-440 Fuel Assembly for Thermo-Hydraulic Analysis. In: Posterus. - ISSN 1338-0087. - Vol. 6, Iss. 2 (2013), online [8] p. (in English)
- [21] JANÍK, R. - JÓNA, E. - PAJTÁŠOVÁ, M. - ONDRUŠOVÁ, D. - LODUHOVÁ, M. - PAVLÍK, V. - DURNÝ, R. - MOJUMDAR, S.Ch.: Effect of Different Dimethylphenols on the Interactions with Ni²⁺-Exchanged Montmorillonite. In: Journal of Thermal Analysis and Calorimetry. - ISSN 1388-6150. - Vol. 112, Iss. 2 (2013), p. 1053-1058. (in English)
- [22] KLAČANOVÁ, K. - FODRAN, P. - ŠIMON, P. - RAPTA, P. - BOČA, R. - JORÍK, V. - MIGLIERINI, M. - KOLEK, E. - ČAPLOVIČ, Ľ.: Formation of Fe(0)-Nanoparticles via Reduction of Fe(II) Compounds by Amino Acids and Their Subsequent Oxidation to Iron Oxides. In: Journal of Chemistry. - ISSN 2090-9063. - Vol. 2013 (2013), Art. ID 961629, [10] p. (in English)
- [23] KONŮPKA, M. - BOKES, P.: Stroboscopic Wave Packet Description of Time-Dependent Currents Through Ring-Shaped Nanostructures. In: European Physical Journal B. - ISSN 1434-6028. - Vol. 86, Iss. 3 (2013), Art. No. 114, [15] p. (in English)
- [24] KOVÁČIK, J. - EMMER, Š. - BIELEK, J. - KELEŠI, Ľ.: Corrigendum to 'Effect of Composition on Friction Coefficient of Cu-Graphite Composites'. In: Wear. - ISSN 0043-1648. - Vol. 303, Iss. 1-2 (2013), p. 632-633. (in English)
- [25] LENDVAYOVÁ, S. - MORICOVÁ, K. - JÓNA, E. - UHERKOVÁ, S. - KRAXNER, J. - PAVLÍK, V. - DURNÝ, R. - MOJUMDAR, S.Ch.: Thermal Properties of Oxide Glasses. In: Journal of Thermal Analysis and Calorimetry. - ISSN 1388-6150. - Vol. 112, Iss. 2 (2013), p. 1133-1136. (in English)
- [26] MARINGER, F.J. - ŠURÁŇ, J. - KOVÁŘ, P. - ... [et al.] - HINCA, R.: Radioactive Waste Management: Review on Clearance Levels and Acceptance Criteria Legislation, Requirements and Standards. In: Applied Radiation and Isotopes. - ISSN 0969-8043. - Vol. 81 (2013), p. 255-260. (in English)
- [27] MIGLIERINI, M. - BUJDOŠ, M.: Applications of Mössbauer Spectroscopy in Mineralogy. In: Spravodaj Slovenskej spektroskopickéj spoločnosti. - ISSN 1338-0656. - Vol. 20, No. 2 (2013), p. 36-39. (in Slovak)
- [28] MIGLIERINI, M.: Structural Transformations in Metallic Glasses. In: Acta Electrotechnica et Informatica. - ISSN 1335-8243. - Vol. 13, No. 1 (2013), p. 12-15. (in English)
- [29] MIGLIERINI, M. - BUJDOŠ, M.: Surface State Study of Nanoperm-Type Metallic Glass using Mössbauer Spectrometry. In: Spravodaj Slovenskej spektroskopickéj spoločnosti. - ISSN 1338-0656. - Vol. 20, No. 1 (2013), p. 8-12. (in Slovak)
- [30] MIGLIERINI, M. - MATÚŠ, P.: Utilization of Nuclear Resonant Forward Scattering in Geology. In: Spravodaj Slovenskej spektroskopickéj spoločnosti. - ISSN 1338-0656. - Vol. 20, No. 2 (2013), p. 32-35. (in Slovak)
- [31] MIGLIERINI, M.: Winter School of Synchrotron Radiation. In: Spravodaj Slovenskej spektroskopickéj spoločnosti. - ISSN 1338-0656. - roč. 20, č. 1 (2013), s. 13-15. (in Slovak)
- [32] NOVÁK, P. - BOKOR, J.: Physics on Wheels 2013. In: Československý časopis pro fyziku. - ISSN 0009-0700. - Vol. 63,

- Iss. 4 (2013), p. 263-265. (in Slovak)
- [33] NOVÁK, P.: Physics on Wheels II. In: Posterus. - ISSN 1338-0087. - Vol. 6, Iss. 6 (2013), online [7] p. (in Slovak)
- [34] PÁNIK, M. - NEČAS, V.: GOLDSIM Models of Long-Term Radiation Impact of Conditionally Cleared Radioactive Material. In: Progress in Nuclear Energy. - ISSN 0149-1970. - Vol. 67 (2013), p. 88-97. (in English)
- [35] PERNÝ, M. - MIKOLÁŠEK, M. - ŠÁLY, V. - RUŽINSKÝ, M. - ĎURMAN, V. - PAVÚK, M. - HURAN, J. - ORSZÁGH, J. - MATEJČÍK, Š.: Behaviour of Amorphous Silicon Carbide in Au/a-SiC/Si Heterostructures Prepared by PECVD Technology Using Two Different RF Modes. In: Applied Surface Science. - ISSN 0169-4332. - Vol. 269 (2013), p. 143-147. (in English)
- [36] SEDLAČKOVÁ, K. - ZAŤKO, B. - ŠAGÁTOVÁ, A. - NEČAS, V.: Monte Carlo Simulations of the Particle Transport in Semiconductor Detectors of Fast Neutrons. In: Nuclear Instruments & Methods in Physics Research Section A. - ISSN 0168-9002. - Vol. 709 (2013), p. 63-67. (in English)
- [37] SITEK, J. - SEDLAČKOVÁ, K. - DEKAN, J.: Some Applications of Mössbauer Spectroscopy. In: Journal of Physical Science and Application. - ISSN 2159-5348. - Vol. 3, No. 5 (2013), p. 295-300. (in English)
- [38] SLÁMA, J. - ŠOKA, M. - GRUSKOVÁ, A. - DOSOUDIL, R. - JANČÁRIK, V. - DEGMOVÁ, J.: Magnetic Properties of Selected Substituted Spinel Ferrites. In: Journal of Magnetism and Magnetic Materials. - ISSN 0304-8853. - Vol. 326 (2013), p. 251-256. (in English)
- [39] SLIMÁK, A. - NEČAS, V.: Melting of Radioactive Scrap Metals Arisen from the Decommissioning of Nuclear Installations as Decontamination Technology. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 19, No. 4 (2013), p. 14-15. (in Slovak)
- [40] SLIMÁK, A. - NEČAS, V.: Recycling by Melting of Metallic Radioactive Materials Arising from the Decommissioning of Nuclear Installations. Current Status, Prospects and Potential. In: Bezpečnosť jaderné energie. - ISSN 1210-7085. - Vol. 21, No. 7/8 (2013), p. 241-244. (in Slovak)
- [41] SLUGEŇ, V. - HEIN, H. - SOJAK, S. - VETERNÍKOVÁ, J. - PETRISKA, M. - SABELOVÁ, V. - PAVÚK, M. - HINCA, R. - STACHO, M.: Evaluation of the Reactor Pressure Vessel Steels by Positron Annihilation. In: Journal of Nuclear Materials. - ISSN 0022-3115. - Vol. 442 (2013), p. 490-506. (in English)
- [42] SLUGEŇ, V.: Future of Nuclear Power Engineering after Fukushima Accident. In: Atóm.sk. - ISSN 1337-8287. - No. 3 (2013), p. 5. (in Slovak)
- [43] SLUGEŇ, V.: International Conference: Eastern and Central Europe Decommissioning 2013. In: ENS News. - Iss. 41 (2013), online, [3] p. (in English)
- [44] SLUGEŇ, V. - HEIN, H. - SOJAK, S. - EGGER, W. - PAVÚK, M. - VETERNÍKOVÁ, J. - PETRISKA, M. - SABELOVÁ, V. - HINCA, R.: Microstructural Examination of Reactor Pressure Vessel Steels by Positron Annihilation Point of View. In: Progress in Nuclear Energy. - ISSN 0149-1970. - Vol. 62 (2013), p. 1-7. (in English)
- [45] SLUGEŇ, V. - KRYUKOV, A.: Microstructural Study of WWER Reactor Pressure Vessel Steels. In: Nuclear Engineering and Design. - ISSN 0029-5493. - Vol. 263 (2013), p. 308-312. (in English)
- [46] SLUGEŇ, V.: Necessity to Strengthen Research in the Field of Nuclear Energetics in Slovakia. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 19, No. 4 (2013), p. 6-8. (in Slovak)
- [47] SLUGEŇ, V.: Urgency of Strengthening Nuclear Engineering Research at Slovak Universities. In: Bezpečnosť jaderné energie. - ISSN 1210-7085. - Vol. 21, No. 7/8 (2013), p. 225-228. (in Slovak)
- [48] SLUGEŇ, V.: Welcome Address to the Eastern and Central European Decommissioning 2013 Conference. In: ENS News. - Iss. 41 (2013), online, [2] p. (in English)
- [49] ŠAGÁTOVÁ, A. - ZAŤKO, B. - SEDLAČKOVÁ, K. - NEČAS, V. - DUBECKÝ, F. - BOHÁČEK, P. - CHODÁK, I.: Semi-Insulating GaAs Detectors Optimized for Fast Neutron Detection. In: Journal of Instrumentation. - ISSN 1748-0221. - Vol. 8 (2013), Art. No. 3016, [7] p. (in English)
- [50] ZEMANOVÁ-DIEŠKOVÁ, M. - ŠTICH, I. - BOKES, P.: Rigidity of the Conductance of an Anchored Dithioazobenzene Optomechanical Switch. In: Physical Review B. - ISSN 1098-0121. - Vol. 87, Iss. 24 (2013), Art. No. 245418, [8] p. (in English)

- [51] ZEMANOVÁ-DIEŠKOVÁ, M. - FERRETTI, A. - BOKES, P.: Tunneling through Al/AlO_x/Al Junction: Analytical Models and First-Principles Simulations. In: Physical Review B. - ISSN 1098-0121. - Vol. 87, Iss. 19 (2013), Art. No. 195107, [8] p. (in English)

IX.1.1 Reviews in journals

- [1] BOKES, P.: Review on: Fradkin, E.: Field Theories of Condensed Matter Physics. Cambridge University Press, 2013. In: Československý časopis pro fyziku. - ISSN 0009-0700. - Vol. 63, No. 6 (2013), p. 399. (in English)

IX.2 Conference proceedings

- [1] BAJAN, M. - DAŘÍLEK, P. - NEČAS, V.: Highly Enriched Alternatives of VVER-4401 Fuel Assembly. In: 23rd Symposium of AER : Štrbské Pleso, Slovakia, 30 September - 4 October 2013. - Budapest : AER, 2013. - ISBN 978-963-7351-21-1. - Part. 1, p. 345-351. (in English)
- [2] BAJAN, M. - DAŘÍLEK, P. - NEČAS, V.: Fuel Optimisation for High Power of Reactor VVER-440. In: ŠVOČ 2013 : Students Conference. Bratislava, 23. April 2013. - Bratislava : FEI STU, 2013. - ISBN 978-80-227-3909-2. - p. 211-216. (in Slovak)
- [3] BAJAN, M. - NEČAS, V.: Some Reactor Properties of the New Designed Nuclear Fuels after Neutron Irradiation. In: APCOM 2013. Applied Physics of Condensed Matter : 19th International Conference. Štrbské Pleso, Slovak Republic, June 19-21, 2013. - Bratislava : STU, 2013. - ISBN 978-80-227-3956-6. - p. 119-126. (in English)
- [4] BAJAN, M. - NEČAS, V. - ZAJAC, R. - DAŘÍLEK, P.: The Optimisation of the Nuclear Fuel for Uprated Reactor Power. In: Increase of Energy Safety of the Slovak Republic : Workshop. Tatranské Matliare, Slovakia, May 21-23, 2013. - Bratislava : STU, 2013. - ISBN 978-80-89402-63-2. - p. 9-14. (in English)
- [5] BARTOŠOVÁ, I.: Cladding Tube Materials for Advanced Nuclear Facilities with Closed Fuel Cycle. In: Students Conference PriF UK 2013. Bratislava, 24. April 2013 : - Bratislava : Comenius University, 2013. - ISBN 978-80-223-3392-4. - p. 899-904. (in English)
- [6] BARTOŠOVÁ, I. - ČÍŽEK, J.: Perspective Steels for Generation IV and Fusion Reactors. In: APCOM 2013. Applied Physics of Condensed Matter : 19th International Conference. Štrbské Pleso, Slovak Republic, June 19-21, 2013. - Bratislava : STU, 2013. - ISBN 978-80-227-3956-6. - p. 127-130. (in English)
- [7] BARTOŠOVÁ, I.: Perspective Steels for the New Generation of Nuclear Reactors. In: Nuclear Power Engineering in the Young Generation Works : Nicolaus Meeting of Young Generation CNS. Brno, Czech Republic, 5.-7.12.2012. - Prague : Czech Nuclear Society, 2013. - ISBN 978-80-02-02439-2. - [6] p. (in Slovak)
- [8] BARTOŠOVÁ, I. - DEKAN, J.: Study of 9Cr- ODS Steel by Positron Annihilation Spectroscopy and Mössbauer Spectroscopy. In: ELITECH'13 : 15th Conference of Doctoral Students. Bratislava, Slovakia, 5 June 2013. - Bratislava : STU, 2013. - ISBN 978-80-227-3947-4. - CD-ROM, [4] p. (in English)
- [9] BOČA, R. - DLHÁŇ, Ľ. - KOPÁNI, M. - MIGLIERINI, M.: Magnetic/non-magnetic iron oxides in the human brain. In: XXIV. International Conference on Coordination and Bioinorganic Chemistry. Smolenice Castle, Slovakia, June 2 - 7, 2013. - Bratislava : Slovak University of Technology Press, 2013. - ISBN 978-80-227-3918-4. - ISBN 1335-308X. - p. 37. (in English)
- [10] BOHÁČ, V. - DIEŠKA, P. - VRETENÁR, V.: Uncertainty Analysis of Pulse Transient Method for Cylindrical Samples. In: Measurement 2013 : 9th International Conference on Measurement. Smolenice, Slovakia, May 27-30, 2013. - Bratislava : Slovak Academy of Sciences, 2013. - ISBN 978-80-969672-5-4. - p. 227-230. (in English)
- [11] BOKES, P.: "Hill Climb Racing", X-moto" and Newton Laws. In: Tvorivý učiteľ fyziky VI. : Národný festival fyziky 2013. Smolenice, Slovak Republic, 7.-10.4.2013. - Bratislava : Slovenská fyzikálna spoločnosť, 2013. - ISBN 978-80-971450-0-2. - p. 52-58. (in Slovak)
- [12] BOKOR, J. - PAVLOVIČ, M. - ŠAGÁTOVÁ, A.: Application of the S3M Code in Transport of Ion Beams in Matter.

- In: APCOM 2013. Applied Physics of Condensed Matter : 19th International Conference. Štrbské Pleso, Slovak Republic, June 19-21, 2013. - Bratislava : STU, 2013. - ISBN 978-80-227-3956-6. - p. 170-173. (in English)
- [13] BOKOR, J. - PAVLOVIČ, M.: Ion Therapy - An Innovative Technology for Cancer Therapy. In: ERIN 2013. Proceedings of abstracts with full papers on CD : 7th international conference for young researchers and Ph.D. students. Častá-Papiernička, Slovakia, May 15-17, 2013. - Bratislava : STU, 2013. - ISBN 978-80-227-3934-4. - CD-ROM, [6] p. (in English)
- [14] BOMBAROVÁ, K. - CHLPÍK, J. - FLICKYNGEROVÁ, S. - NOVOTNÝ, I. - CIRÁK, J.: Optical Analysis of ZnO Thin Films Using Spectroscopic Ellipsometry and Reflectometry. In: APCOM 2013. Applied Physics of Condensed Matter : 19th International Conference. Štrbské Pleso, Slovak Republic, June 19-21, 2013. - Bratislava : STU, 2013. - ISBN 978-80-227-3956-6. - p. 249-253. (in English)
- [15] BOMBAROVÁ, K. - CHLPÍK, J. - FLICKYNGEROVÁ, S. - NOVOTNÝ, I. - CIRÁK, J.: Study of Conductive Oxides Thin Films by Spectroscopic Ellipsometry. In: ECOF 13 : 13th European Conference on Organised Films. Cork, Ireland, 8.-12.7.2013. – Tyndall, 2013. - p. P24. (in English)
- [16] BOUHADDANE, A. - FARKAS, G.: Calculation of Induced Activity in the Reactor V-230 Dummy Element. In: ELITECH'13 : 15th Conference of Doctoral Students; Bratislava, Slovakia, 5 June 2013. - Bratislava : STU, 2013. - ISBN 978-80-227-3947-4. - CD-ROM, [4] p. (in English)
- [17] BOUHADDANE, A. - FARKAS, G.: Calculation of Induced Activity in the V-230 Reactor. In: APCOM 2013. Applied Physics of Condensed Matter : 19th International Conference. Štrbské Pleso, Slovak Republic, June 19-21, 2013. - Bratislava : STU, 2013. - ISBN 978-80-227-3956-6. - p. 139-144. (in English)
- [18] BOUHADDANE, A.: Determination of Radiation Parameters in the Disposal of Nuclear Reactors. In: Nuclear Power Engineering in the Young Generation Works : Nicolaus Meeting of Young Generation CNS. Brno, Czech Republic, 5.-7.12.2012. - Praha : Česká nukleární společnost, 2013. - ISBN 978-80-02-02439-2. - p. 91-96. (in Slovak)
- [19] BOUHADDANE, A. - FARKAS, G. - SLUGEŇ, V.: Radionuclide Inventory Calculations for Decommissioning Purposes. In: ECED 2013. Eastern and Central Europe Decommissioning : International Conference on Decommissioning of Nuclear Facilities. Trnava, Slovakia, June 18-20, 2013. - Trnava : SNUS, 2013. - ISBN 978-80-969943-9-7. - CD-ROM, [7] p. (in English)
- [20] BOUHADDANE, A. - FARKAS, G. - SLUGEŇ, V.: Radionuclide Inventory Calculations in VVER-440 Reactor Components. In: 23rd Symposium of AER : Štrbské Pleso, Slovakia, 30 September - 4 October 2013. - Budapest : AER, 2013. - ISBN 978-963-7351-21-1. -Part. 2, p. 689-695. (in English)
- [21] BOUHADDANE, A. - FARKAS, G. - SLUGEŇ, V.: Radionuclide Inventory in Neutron Activated Radioactive Waste. In: Regional Seminar on Radioactive Waste Disposal : Seminar Proceedings. Senec, Slovakia, September 8-9, 2013. - Trnava : Decom, 2013. - ISBN 978-80-971498-0-2. - CD ROM [7] p. (in English)
- [22] BUTVIN, P. - BUTVINOVÁ, B. - KUZMINSKI, M. - SLAWSKA-WANIEWSKA, A. - SITEK, J. - MAŤKO, I. - KADLEČÍKOVÁ, M.: Effect of Surfaces in FeNbCuBSiP Ribbons. In: CSMAG '13. 15th Czech and Slovak Conference on Magnetism : Košice, Slovak Republic, June 17-21, 2013. - Košice : Pavel Jozef Šafárik University, 2013. - ISBN 978-80-8152-015-0. - p. 136. (in English)
- [23] CIRÁK, J.: Physical Properties of 2D Organic Molecular Systems: Study of Processes on Biomembranes. In: 19th Conference of Slovak Physicists : Prešov, Slovak Republic, 3.-6.9.2013. - Košice : Slovak Physical Society, 2013. - ISBN 978-80-970625-8-3. - p. 25-30. (in English)
- [24] CIRÁK, J. - KAISER, M. - BOMBAROVÁ, K. - NÁDAŽDY, V. - IVANČO, J. - WEIS, M.: Charge Transport in Polythiophene-Fullerene Films for Photovoltaic Applications. In: ECOF 13 : 13th European Conference on Organised Films. Cork, Ireland, 8.-12.7.2013. - p. O2. (in English)
- [25] ČERBA, Š. - LEE, H.C. - LIM, H.S. - NOH, J.M.: A Feasibility and Optimization Study on a Small Space Reactor with 20w/o Uranium Fuel. In: Transactions of the Korean Nuclear Spring Meeting : Gyeongju, Korea, October 14-25, 2013. - Daejeon : Korean Nuclear Society, 2013. - p. 171-172. (in English)
- [26] DEGMOVÁ, J. - SLUGEŇ, V. - KRŠJAK, V.: Advanced Characterisation of the Neutron Irradiated VVER Weld Materials. In: APCOM 2013. Applied Physics of Condensed Matter : 19th International Conference. Štrbské

- Pleso, Slovak Republic, June 19-21, 2013. - Bratislava : STU, 2013. - ISBN 978-80-227-3956-6. - p. 82-86. (in English)
- [27] DEKAN, J. - SITEK, J. - SEDLAČKOVÁ, K.: Analysis of Magnetic Compounds of Košice Meteorite Using Mössbauer Spectrometry. In: APCOM 2013. Applied Physics of Condensed Matter : 19th International Conference. Štrbské Pleso, Slovak Republic, June 19-21, 2013. - Bratislava : STU, 2013. - ISBN 978-80-227-3956-6. - p. 99-102. (in English)
- [28] DEKAN, J. - LIPKA, J. - SLUGEŇ, V.: Application of Mössbauer Spectroscopy on Corrosion Products of NPP. In: Hyperfine Interactions. - ISSN 0304-3843. - Vol. 218 : Proceedings of the International Symposium on the Industrial Applications of the Mössbauer Effect (ISIAME 2012), Dalian, China, 2-7 September 2012, PART II/III (2013), p. 151-155. (in English)
- [29] DEKAN, J. - SLUGEŇ, V.: Mössbauer Phase Composition Analysis of the Corrosion Products. In: NENE 2013 : 22nd International Conference Nuclear Energy for New Europe. Bled, Slovenia, September 9-12, 2013. - Ljubljana : Nuclear Society of Slovenia, 2013. - ISBN 978-961-6207-36-2. - DVD-Rom, p. 317.1-7. (in English)
- [30] DOBROČKA, E. - NOVÁK, P. - VALLO, M. - LALINSKÝ, T.: Grazing Incidence X-Ray Diffraction: Study of Depth Distribution of Chemical Phase Concentration. In: Materials Structure in Chemistry, Biology, Physics and Technology. - ISSN 1211-5894. - Vol. 20, No. 2 : Struktura 2013. Češkovice 9.-12.9.2013, p. 61-62. (in English)
- [31] DUBECKÝ, F. - ZAŤKO, B. - GOMBIA, E. - ŠAGÁTOVÁ, A. - NEČAS, V.: Detection Performance Study of Si-GaAs Detectors with Novel Electrode Metallization. In: APCOM 2013. Applied Physics of Condensed Matter : 19th International Conference. Štrbské Pleso, Slovak Republic, June 19-21, 2013. - Bratislava : STU, 2013. - ISBN 978-80-227-3956-6. - p. 186-191. (in English)
- [32] DUBECKÝ, F. - DUBECKÝ, M. - MIČUŠÍK, M. - HUBÍK, P. - KINDL, D. - GOMBIA, E. - ŠAGÁTOVÁ, A. - NEČAS, V.: M/Si-GaAs/M Devices: Contact Chemistry and Electronic Transport. In: 8th Solid State Surfaces and Interfaces : Extended Abstract Book. Smolenice Castle, Slovak Republic, November 25-28, 2013. - Bratislava : Comenius University, 2013. - ISBN 978-80-223-3501-0. - p. 42. (in English)
- [33] DUBECKÝ, F. - KOVÁČ, J. - KOVÁČ, J. jr. - ZAŤKO, B. - OSWALD, J. - HUBÍK, P. - KINDL, D. - VANKO, G. - GOMBIA, E. - FERRARI, C. - BOHÁČEK, P. - ŠAGÁTOVÁ, A. - NEČAS, V.: 4H-SiC and Novel Si GaAs-Based M-S-M Radiation Hard Photodetectors Applicable in UV, EUV, and Soft X-Ray Detection: Design, Technology, and Performance Testing. In: Proceedings of SPIE. Vols. 8771-8781 : SPIE Optics and Optoelectronics 2013 : Prague, Czech Republic, 15-18 April 2013. SPIE - The International Society for Optical Engineering, 2013. - ISBN 978-081949584-6. - CD-ROM, [7] p. (in English)
- [34] HARMATHA, L. - ŽIŠKA, M. - ŠAGÁTOVÁ, A. - HYBLER, P. - BENKO, P. - NEMEC, M.: Effects of Electron-Irradiation on Electrical Properties of AgCa/Si Schottky Diodes. In: APCOM 2013. Applied Physics of Condensed Matter : 19th International Conference. Štrbské Pleso, Slovak Republic, June 19-21, 2013. - Bratislava : STU, 2013. - ISBN 978-80-227-3956-6. - p. 178-181. (in English)
- [35] HASIAK, M. - MIGLIERINI, M. - LUKIEWSKI, M. - KALETA, J. - ZBROSZCZYK, J.: Low Field Magnetic Properties of FeCo-Based Alloys. In: CSMAG '13. 15th Czech and Slovak Conference on Magnetism : Košice, Slovak Republic, June 17-21, 2013. - Košice : Pavol Jozef Šafárik University, 2013. - ISBN 978-80-8152-015- - p. 112. (in English)
- [36] HASIAK, M. - MIGLIERINI, M. - LUKIEWSKI, M. - KALETA, J.: The Impact of Microstructure upon Soft Magnetic Properties of Cobalt-Doped-Metallic Glasses. In: SMM 21. Soft Magnetic Materials : Soft Magnetic Materials Conference. Budapest, Hungary, September 1-4, 2013. - Budapest : Hungarian Academy of Sciences, 2013. - E1-06. (in English)
- [37] HATALA, T. - MIGLIERINI, M.: Nanoperm-Type Metallic Glasses Studied by CEMS/CXMS and Nuclear Inelastic Scattering Techniques. In: APCOM 2013. Applied Physics of Condensed Matter : 19th International Conference. Štrbské Pleso, Slovak Republic, June 19-21, 2013. - Bratislava : STU, 2013. - ISBN 978-80-227-3956-6. - p. 135-138. (in English)
- [38] HINCA, R. - SKÁLA, L.: Application of Scaling Factors Method for Computing Algorithm. In: ECED 2013. Eastern and Central Europe Decommissioning : International Conference on Decommissioning of Nuclear Facilities. Trnava, Slovakia, June 18-20, 2013. - Trnava : SNUS, 2013. - ISBN 978-80-969943-9-7. - CD-ROM, [5] p.

(in English)

- [39] HINCA, R. - SLUGEŇ, V.: Emplacement of Radiation Protection in New Education Structure of FEI STU in Bratislava. In: XXXV. Dny radiační ochrany, Třeboň, 11.-15.11.2013. - Prague : CTU in Prague, 2013. - ISBN 978-80-01-05356-0. - p. 72. (in Slovak)
- [40] HORNÁČEK, M. - NEČAS, V.: A Brief Overview of Issues Connected with Dismantling of Large Components in the Process of Decommissioning of Nuclear Installations. In: Nuclear Power Engineering in the Young Generation Works : Nicolaus Meeting of Young Generation CNS. Brno, Czech Republic, 5.-7.12.2012. - Prague : Czech Nuclear Society, 2013. - ISBN 978-80-02-02439-2. - p. 97-102. (in Slovak)
- [41] HORNÁČEK, M. - NEČAS, V.: An analysis of Influence of Input Parameters on the External Exposure during Dismantling of Steam Generator. In: ECED 2013. Eastern and Central Europe Decommissioning : International Conference on Decommissioning of Nuclear Facilities. Trnava, Slovakia, June 18-20, 2013. - Trnava : SNUS, 2013. - ISBN 978-80-969943-9-7. - CD-ROM, [13] p. (in English)
- [42] HORNÁČEK, M. - NEČAS, V.: An Analysis of Nuclear Installations Decommissioning Process from the Perspective of Dismantling of Large Components. In: IYCE 2013 : 4th International Youth Conference on Energetics. Siófok, Hungary, 6.-8.6.2013. - Danvers : IEEE, 2013. - ISBN 978-1-4673-5554-4. - [7] p. (in English)
- [43] HORNÁČEK, M. - NEČAS, V.: The Analysis of the Process of Dismantling of Large Components Used in NPP from the Perspective of RAW Disposal. In: Regional Seminar on Radioactive Waste Disposal : Seminar Proceedings. Senec, Slovakia, September 8-9, 2013. - Trnava : Decom, 2013. - ISBN 978-80-971498-0-2. - CD ROM [12] p. (in English)
- [44] HORNÁČEK, M. - NEČAS, V.: The Influence of Time on the Partial Activities of Dismantling of Steam Generator. In: ELITECH'13 : 15th Conference of Doctoral Students; Bratislava, Slovakia, 5 June 2013. - Bratislava : STU, 2013. - ISBN 978-80-227-3947-4. - CD-ROM, [6] p. (in English)
- [45] CHLPÍK, J. - BOMBAROVÁ, K. - CIRÁK, J.: Development of Ellipsometric Methods to the Investigation of Phenomena at Surfaces and Interfaces for biosensing. In: COST Thematic Workshop "Biomimetic Structures and DNA Technology in Biosensing" : Bratislava, Slovak Republic, 8.-10.4.2013. - Bratislava : Comenius University, 2013. - ISBN 978-80-8147-006-6. - p. 17. (in English)
- [46] CHLPÍK, J. - SOHOVÁ, M. - HIANIK, T. - CIRÁK, J.: Total Internal Reflection Ellipsometry for Biosensor Applications. In: APCOM 2013. Applied Physics of Condensed Matter : Proceedings of the 19th International Conference. Štrbské Pleso, Slovak Republic, June 19-21, 2013. - Bratislava : STU, 2013. - ISBN 978-80-227-3956-6. - p. 254-257. (in English)
- [47] CHLPÍK, J. - SOHOVÁ, M. - BOMBAROVÁ, K. - HIANIK, T. - CIRÁK, J.: Spectroscopic Ellipsometer as a SPR Biosensor. In: ECOF 13 : 13th European Conference on Organised Films. Cork, Ireland, 8.-12.7.2013. - p. P25. (in English)
- [48] JANÍČEK, F. - CERMAN, A. - MOTYČÁK, Š. - HAJDUČEK, P.: The Use of Published Literature on Teaching Students. In: Renewable Energy Sources 2013 : 4th International Scientific Conference OZE 2013. Tatranské Matliare, Slovakia, May 21-23, 2013. - Bratislava : SITU, 2013. - ISBN 978-80-89402-64-9. - p. 229-234. (in English)
- [48] JUHÁR, P. - HORNÁČEK, M. - NEČAS, V.: The Overview of Dismantling Techniques of Reactor Pressure Vessel. In: ŠVOČ 2013. Students Conference. Bratislava, 23. April 2013. - Bratislava : FEI STU, 2013. - ISBN 978-80-227-3909-2. - p. 223-226. (in Slovak)
- [50] KAISER, M. - NÁDAŽDY, V. - IVANČO, J. - CIRÁK, J.: Photovoltaic Cells Based on Polymer-Fullerene Blend. In: Renewable Energy Sources 2013 : 4th International Scientific Conference OZE 2013. Tatranské Matliare, Slovakia, May 21-23, 2013. - Bratislava : STU, 2013. - ISBN 978-80-89402-64-9. - p. 409-414. (in English)
- [51] KASNÁR, F. - PAVLOVIČ, M.: Radiation Hardness of Electronic Devices. In: ŠVOČ 2013 : Students Conference. Bratislava, 23. April 2013. - Bratislava : FEI STU, 2013. - ISBN 978-80-227-3909-2. - p. 201-204. (in English)
- [52] KATRÍK, P. - MUSTAFIN, E. - STRAŠÍK, I. - PAVLOVIČ, M.: Some Problems of Residual Activity Measurements. In: APCOM 2013. Applied Physics of Condensed Matter : 19th International Conference. Štrbské Pleso, Slovak Republic, June 19-21, 2013. - Bratislava : STU, 2013. - ISBN 978-80-227-3956-6. - p. 115-118. (in English)

- [53] KONÔPKA, M. - BOKES, P.: Electric Current Modulation by Gate Frequency in a Quantum Ring Nanotransistor. In: APCOM 2013. Applied Physics of Condensed Matter : 19th International Conference. Štrbské Pleso, Slovak Republic, June 19-21, 2013. - Bratislava : STU, 2013. - ISBN 978-80-227-3956-6. - p. 216-220. (in English)
- [54] KRAJČOVIČ, M. - NEČAS, V.: Impact of Legislation Change on Handling with 14C Radioisotope in NPP V1. In: ŠVOČ 2013 : Students Conference. Bratislava, 23. April 2013. - Bratislava : FEI STU, 2013. - ISBN 978-80-227-3909-2. - p. 217-222. (in Slovak)
- [55] LANČOK, A. - STIBR, B. - MIGLIERINI, M. - KMJEC, T. - KOHOUT, J. - BAKARDIJEV, M.: Mössbauer Spectroscopy of the $[\text{Fe}(\text{C}_6\text{H}_6\text{-nMe}_n)_2]^{2+}$ Dications. In: ICAME 2013. International Conference on the Applications of the Mössbauer Effect : Opatija, Croatia, September, 1-6, 2013. - Zagreb : Ruder Boškovič Institute, 2013. - ISBN 978-953-6690-97-8. - p. P3-10. (in English)
- [56] LIPKA, J. - SITEK, J. - DEKAN, J. - SEDLAČKOVÁ, K.: Analyses of Rumanová Meteorite. In: ICAME 2013. International Conference on the Applications of the Mössbauer Effect : Opatija, Croatia, September, 1-6, 2013. - Zagreb : Ruder Boškovič Institute, 2013. - ISBN 978-953-6690-97-8. - p. P7-7. (in English)
- [57] LIPKA, J. - SITEK, J. - DEKAN, J. - DEGMOVÁ, J. - PORUBČAN, V.: Mössbauer Study of Slovak Meteorites. In: Hyperfine Interactions. - ISSN 0304-3843. - Vol. 218 : Proceedings of the International Symposium on the Industrial Applications of the Mössbauer Effect (ISIAME 2012), Dalian, China, 2-7 September 2012, PART II/III (2013), p. 107-111. (in English)
- [58] LÜLEY, J. - VRBAN, B. - YUN, S. - KIM, S.J.: Validation of Sensitivity Analysis Code APSTRACT for Fast Reactor Design. In: Transactions of the Korean Nuclear Spring Meeting : Gwangju, Korea, May 30-31, 2013. - Daejeon : Korean Nuclear Society, 2013. - p. 181-182. (in English)
- [59] MARKOŠ, P.: Critical Regime of Anderson Transition: Numerical Experiment vs. Analytical Theory. In: 19th Conference of Slovak Physicists : Prešov, Slovak Republic, 3.-6.9.2013. - Košice : Slovak Physical Society, 2013. - ISBN 978-80-970625-8-3. - p. 19-24. (in English)
- [60] MIGLIERINI, M.: Amorphous-to-Nanocrystalline Transformation in Metallic Glasses Probed by 57Fe Nuclei. In: ICAME 2013. International Conference on the Applications of the Mössbauer Effect : Opatija, Croatia, September, 1-6, 2013. - Zagreb : Ruder Boškovič Institute, 2013. - ISBN 978-953-6690-97-8. - p. I-3. (in English)
- [61] MIGLIERINI, M. - HATALA, T. - BUJDOŠ, M.: Depth-Selective Study of Surface Crystallization in Nanoperm-Type Alloys. In: CSMAG '13. 15th Czech and Slovak Conference on Magnetism : Košice, Slovak Republic, June 17-21, 2013. - Košice : Pavol Jozef Šafárik University, 2013. - ISBN 978-80-8152-015-0. - p. 74. (in English)
- [62] MIGLIERINI, M. - LANČOK, A. - KOPÁNI, M.: Chemical States of Iron in Biological Tissues. In: The 4th International Scientific Conference Applied Natural Sciences 2013 : Nový Smokovec, Slovakia, October 2-4, 2013. - Trnava : University of SS.Cyril and Methodius in Trnava, 2013. - ISBN 978-80-8105-502-7. - p. 54-58. (in English)
- [63] MIGLIERINI, M. - LANČOK, A. - KOPÁNI, M. - BOČA, R.: Iron Oxide Nanoparticles for Hyperthermia. In: The 4th International Scientific Conference Applied Natural Science 2013 : Nový Smokovec, October 2-4, 2013. - Trnava : University of SS.Cyril and Methodius in Trnava, 2013. - ISBN 978-80-8105-501-0. - p. 40. (in English)
- [64] MIGLIERINI, M. - PAVÚK, M.: Mössbauer and MFM Investigations of Surface Magnetism in Nanoperm Nanocrystalline Alloys. In: CSMAG '13. 15th Czech and Slovak Conference on Magnetism : Košice, Slovak Republic, June 17-21, 2013. - Košice : Pavol Jozef Šafárik University, 2013. - ISBN 978-80-8152-015-0. - p. 115. (in English)
- [65] MIGLIERINI, M. - BOČA, R. - KOPÁNI, M. - LANČOK, A.: Mössbauer and SQUID Characterization of Iron in Human Tissue: Case of Globus Pallidus. In: CSMAG '13. 15th Czech and Slovak Conference on Magnetism : Košice, Slovak Republic, June 17-21, 2013. - Košice : Pavol Jozef Šafárik University, 2013. - ISBN 978-80-8152-015-0. - p. 204. (in English)
- [66] MIGLIERINI, M. - MATÚŠ, P.: Nuclear Resonances in Geology. In: Analytika v geológii a v životnom prostredí 2013. Spišská Nová Ves, Slovak Republic, 13.- 15. 11. 2013. - Bratislava : Štátny geologický ústav Dionýza Štúra, 2013. - ISBN 978-80-89343-87-4. - p. 37-42. (in Slovak)
- [67] NÁDAŽDY, V. - KAISER, M. - IVANČO, J. - JERSEL, M. - VEGSO, K. - ŠIFFALOVÍČ, P. - CIRÁK, J. - MAJKOVÁ, E.:

- Selected Aspects of Organic Solar Cell Preparation. In: APCOM 2013. Applied Physics of Condensed Matter : 19th International Conference. Štrbské Pleso, Slovak Republic, June 19-21, 2013. - Bratislava : STU, 2013. - ISBN 978-80-227-3956-6. - p. 245-248. (in English)
- [68] NOVÁK, P. - DOBROČKA, E. - VALLO, M. - LALINSKÝ, T. - BALLO, P.: Depth Distribution of Chemical Phase Concentration Determined by Grazing Incidence X-Ray Diffraction. In: APCOM 2013. Applied Physics of Condensed Matter : 19th International Conference. Štrbské Pleso, Slovak Republic, June 19-21, 2013. - Bratislava : STU, 2013. - ISBN 978-80-227-3956-6. - p. 96-99. (in English)
- [69] NOVÁK, P. - DOBROČKA, E. - BALLO, P.: Introduction to Grazing Incidence X-ray Diffraction. In: ELITECH'13 : 15th Conference of Doctoral Students; Bratislava, Slovakia, 5 June 2013. - Bratislava : STU, 2013. - ISBN 978-80-227-3947-4. - CD-ROM, [4] p. (in English)
- [70] PAJERSKÝ, P. - NEČAS, V.: The Issues Connected with Release of Radioactive Materials into the Environment and their Impact on the Public and Environment in Case of Concrete Rubble. In: ŠVOČ 2013 : Students Conference. Bratislava, 23. April 2013. - Bratislava : FEI STU, 2013. - ISBN 978-80-227-3909-2. - p. 227-232. (in Slovak)
- [71] PASTOREK, M. - CHLPÍK, J.: Interference Properties of Ag Nanoparticles Multilayers. In: ŠVOČ 2013 : Students Conference. Bratislava, 23. April 2013. - Bratislava : FEI STU, 2013. - ISBN 978-80-227-3909-2. - p. 197-200. (in English)
- [72] PAVLOVIČ, M. - ŠAGÁTOVÁ, A. - SEDLAČKOVÁ, K.: Application of the S3M and MCNPX Codes in Development of the Neutron Detectors with a Conversion Layer. In: 12th International Conference on Applications of Nuclear Techniques : Crete, Greece, June 23-29, 2013. - Art. No. 17. (in English)
- [73] PAVLOVIČ, M. - MIGLIERINI, M. - MUSTAFIN, E. - SEIDL, T. - ŠOKA, M. - STRAŠÍK, I. - ENSINGER, W.: Influence of High-Energy Heavy Ions on Magnetic Susceptibility of Soft Magnetic Metallic Glasses. In: CSMAG '13. 15th Czech and Slovak Conference on Magnetism : Košice, Slovak Republic, June 17-21, 2013. - Košice : Pavol Jozef Šafárik University, 2013. - ISBN 978-80-8152-015-0. - p. 72. (in English)
- [74] PAVLOVIČ, M. - MIGLIERINI, M. - MUSTAFIN, E. - ENSINGER, W. - ŠAGÁTOVÁ, A. - SEIDL, T. - ŠOKA, M.: Influence of Xenon Ion Irradiation on Magnetic Susceptibility of Soft-Magnetic Metallic Alloys. In: APCOM 2013. Applied Physics of Condensed Matter : 19th International Conference. Štrbské Pleso, Slovak Republic, June 19-21, 2013. - Bratislava : STU, 2013. - ISBN 978-80-227-3956-6. - p. 78-81. (in English)
- [75] PAVÚK, M. - MIGLIERINI, M. - SITEK, J.: Magnetic Structure at the Surface of a FeZrB Alloy. In: APCOM 2013. Applied Physics of Condensed Matter : 19th International Conference. Štrbské Pleso, Slovak Republic, June 19-21, 2013. - Bratislava : STU, 2013. - ISBN 978-80-227-3956-6. - p. 103-106. (in English)
- [76] PETRISKA, M. - SLUGEŇ, V. - VETERNÍKOVÁ, J. - SOJAK, S.: Digital Set-Ups for Positron Annihilation Spectroscopy at PAS Laboratory FEI STU Bratislava. In: Instrumentation for Digital Nuclear Spectroscopy : IAEA Technical Meeting. Vienna, Austria 11-15 October 2010. - Vienna : IAEA, 2013. - ISBN 978-92-0-141310-9. - p. 67-73. (in English)
- [77] PETRISKA, M. - SLUGEŇ, V. - SABELOVÁ, V. - SOJAK, S. - VETERNÍKOVÁ, J.: QtCDB2 Software for Coincidence Doppler Broadening Measurement System. In: Journal of Physics: Conference Series. - ISSN 1742-6588. - Vol. 443 : 16th International Conference on Positron Annihilation (ICPA-16). Bristol, United Kingdom, August 19-24, 2012. IOP Publishing, 2013, Art. No. 012086. (in English)
- [78] PETRISKA, M. - SABELOVÁ, V. - SLUGEŇ, V. - SOJAK, S. - STACHO, M. - VETERNÍKOVÁ, J.: Software for Digital Coincidence Doppler Broadening Setup. In: Materials Science Forum. - ISSN 0255-5476. - Vol. 733 : 10th International Workshop on Positron and Positronium Chemistry (PPC-10), Smolenice, Slovakia, September 05-09, 2011. Trans Tech Publications Inc., 2013. - ISBN 978-303785518-8, p. 318-321. (in English)
- [79] PETRISKA, M. - SOJAK, S. - SLUGEŇ, V.: Positron Lifetime Setup Based on DRS4 Evaluation Board. In: SLOPOS-13 : 13th International Workshop on Slow Positron Beam Techniques and Applications. Munich, Germany, September 15-20, 2013. - München : Technische Universität München, 2013. - p. 133. (in English)
- [80] PÍSEČNÝ, P. - CHLPÍK, J. - CHOVAN, J. - HAŠKO, D. - VINCZE, A. - HRONEC, P. - DOBROČKA, E. - UHEREK, F.: Preparation and Characterization of Materials Layers for Photonic Structures. In: ADEPT 2013 : 1st International Conference on Advances in Electronic and Photonic Technologies. Nový Smokovec, High Tatras, Slovakia, June

- 2-5, 2013. - Žilina : University of Žilina, 2013. - ISBN 978-80-554-0689-3. - p. 258-261. (in English)
- [81] SABELOVÁ, V. - PETRISKA, M. - VETERNÍKOVÁ, J. - SLUGEŇ, V. - DEGMOVÁ, J. - KILPELÄINEN, S.: Defect Detection in Fe-Cr Alloys with Positron Annihilation Doppler Broadening Spectroscopy. In: Materials Science Forum. - ISSN 0255-5476. - Vol. 733 : 10th International Workshop on Positron and Positronium Chemistry (PPC-10), Smolenice, Slovakia, September 05-09, 2011. Trans Tech Publications Inc., 2013. - ISBN 978-303785518-8, p. 270-273. (in English)
- [82] SABELOVÁ, V. - KRŠJAK, V. - PETRISKA, M. - SLUGEŇ, V.: Investigation of Highly Activated Materials by Conventional Positron Annihilation Spectroscopy. In: APCOM 2013. Applied Physics of Condensed Matter : 19th International Conference. Štrbské Pleso, Slovak Republic, June 19-21, 2013. - Bratislava : STU, 2013. - ISBN 978-80-227-3956-6. - p. 131-134. (in English)
- [83] SEDLAČKOVÁ, K. - ZAŤKO, B. - ŠAGÁTOVÁ, A. - NEČAS, V.: MCNPX Monte Carlo Simulations of Particle Transport in SiC Semiconductor Detectors of Fast Neutrons. In: 15th International Workshop on Radiation Imaging Detectors - IWORID : Paris, France, June 23-27, 2012. - Paris : Synchrotron Soleil, 2013. - PO-2-42. (in English)
- [84] SEDLAČKOVÁ, K. - ZAŤKO, B. - ŠAGÁTOVÁ, A. - NEČAS, V.: Properties of SiC Semiconductor Detector of Fast Neutrons Investigated Using MCNPX Code. In: APCOM 2013. Applied Physics of Condensed Matter : 19th International Conference. Štrbské Pleso, Slovak Republic, June 19-21, 2013. - Bratislava : STU, 2013. - ISBN 978-80-227-3956-6. - p. 62-65. (in English)
- [85] SITEK, J. - SEDLAČKOVÁ, K. - DEKAN, J.: Analysis of Volcano Rock from Canary Islands. In: APCOM 2013. Applied Physics of Condensed Matter : 19th International Conference. Štrbské Pleso, Slovak Republic, June 19-21, 2013. - Bratislava : STU, 2013. - ISBN 978-80-227-3956-6. - p. 66-69. (in English)
- [86] SITEK, J. - PAVÚK, M. - DEKAN, J.: Magnetic Properties of Irradiated Nanocrystalline Alloys. In: SMM 21. Soft Magnetic Materials : Soft Magnetic Materials Conference. Budapest, Hungary, September 1-4, 2013. - Budapest : Hungarian Academy of Sciences, 2013. - p. 158. (in English)
- [87] SITEK, J. - DEKAN, J. - PAVLOVIČ, M.: Radiation Damage Study of Fe-Based Nanocrystalline Materials. In: CSMAG '13. 15th Czech and Slovak Conference on Magnetism : Košice, Slovak Republic, June 17-21, 2013. - Košice : Pavol Jozef Šafárik University, 2013. - ISBN 978-80-8152-015-0. - p. 91. (in English)
- [88] SLIMÁK, A. - NEČAS, V.: Decontamination and Conditioning of Radioactive Scrap Metals Arisen from the Decommissioning of Nuclear Facilities by Melting. In: ELITECH'13 : 15th Conference of Doctoral Students; Bratislava, Slovakia, 5 June 2013. - Bratislava : STU, 2013. - ISBN 978-80-227-3947-4. - CD-ROM, [6] p. (in English)
- [89] SLIMÁK, A. - NEČAS, V.: Evaluation of an External Exposure of the Workers during the Melting of Radioactive Scrap Metal Arisen from the Decommissioning of Nuclear Installations. In: ECED 2013. Eastern and Central Europe Decommissioning : International Conference on Decommissioning of Nuclear Facilities. Trnava, Slovakia, June 18-20, 2013. - Trnava : SNUS, 2013. - ISBN 978-80-969943-9-7. - CD-ROM, [8] p. (in English)
- [90] SLIMÁK, A. - NEČAS, V.: Management of Metallic Radioactive Materials from Nuclear Installations Decommissioning. In: IYCE 2013 : 4th International Youth Conference on Energetics. Siófok, Hungary, 6.-8.6.2013. - Danvers : IEEE, 2013. - ISBN 978-1-4673-5554-4. - [7] p. (in English)
- [91] SLIMÁK, A. - NEČAS, V.: Recycling of Metallic Radioactive Materials from the Decommissioning of Nuclear Installations by Melting - Current Practices, Aspects and Utilization Possibilities. In: Nuclear Power Engineering in the Young Generation Works : Nicolaus Meeting of Young Generation CNS. Brno, Czech Republic, 5.-7.12.2012. - Praha : Česká nukleární společnost, 2013. - ISBN 978-80-02-02439-2. - p. 103-107. (in Slovak)
- [92] SLIMÁK, A. - NEČAS, V.: The Impact of Melting of Contaminated Metallic Materials Arisen from the Decommissioning of Nuclear Installations on the Radioactive Waste Disposal in the Waste Management Strategy. In: Regional Seminar on Radioactive Waste Disposal. Senec, Slovakia, September 8-9, 2013. - Trnava : Decom, 2013. - ISBN 978-80-971498-0-2. - CD ROM [10] p. (in English)
- [93] SLUGEŇ, V. - HEIN, H. - SOJAK, S. - VETERNÍKOVÁ, J. - PETRISKA, M.: Evaluation of Defects in the German and Russian Reactor Pressure Vessel Steels. In: SLOPOS-13 : 13th International Workshop on Slow Positron Beam Techniques and Applications. Munich, Germany, September 15-20, 2013. - München : Technische Universität

- München, 2013. - p. 59. (in English)
- [94] SLUGEŇ, V. - HEIN, H. - SOJAK, S. - VETERNÍKOVÁ, J.: Irradiation Induced Damage of the Reactor Pressure Vessel Steels Studied by Positron Annihilation Lifetime Techniques. In: Technical Meeting on Degradation of Primary Components of Pressurised Water Cooled Nuclear Power Plants : Current Issues and Future Challenges. Vienna, Austria, November 5-8, 2013. - Vienna : IAEA, 2013. - p. 1-20. (in English)
- [95] SLUGEŇ, V. - SOJAK, S. - EGGER, W.: Advanced Characterization of Irradiated WWER Reactor Pressure Vessel Steels. In: APCOM 2013. Applied Physics of Condensed Matter : 19th International Conference. Štrbské Pleso, Slovak Republic, June 19-21, 2013. - Bratislava : STU, 2013. - ISBN 978-80-227-3956-6. - p. 87-90. (in English)
- [96] SLUGEŇ, V. - ŠIMEG VETERNÍKOVÁ, J. - SOJAK, S.: Positron Study of Small Pinning Sites in YBa₂Cu₃O_{7-d}. In: Intermetallics 2013 : Kloster Banz, Germany, 30 September - 4 October 2013. - Frankfurt am Main : Deutsche Gesellschaft für Materialkunde e.V, 2013. - p 91. (in English)
- [97] SLUGEŇ, V. - VETERNÍKOVÁ, J. - PETRISKA, M. - SOJAK, S. - HINCA, R. - DEGMOVÁ, J. - BALLO, P. - STACHO, M.: Non-Destructive Evaluation of Perspective Steels for Fusion Technologies. In: Applications of Research Reactors towards Research on Materials for Nuclear Fusion Technology. - Vienna : IAEA, 2013. - ISBN 978-92-0-113713-5. - p. 86-96. (in English)
- [98] SLUGEŇ, V. - KRYUKOV, A. - PETRISKA, M. - VETERNÍKOVÁ, J. - SOJAK, S. - SABELOVÁ, V. - HINCA, R.: PALS Combined with Charpy-V Tests at WWER Reactor Pressure Vessel Steels. In: Journal of Physics: Conference Series. - ISSN 1742-6588. - Vol. 443 : 16th International Conference on Positron Annihilation (ICPA-16). Bristol, United Kingdom, August 19-24, 2012 (2013), Art.No. 012012, [5] p. (in English)
- [99] SLUGEŇ, V.: Slovak Strategy of a Back-End Part of Nuclear Energy and Financing of Decommissioning of NPP A1. In: ECED 2013. Eastern and Central Europe Decommissioning : International Conference on Decommissioning of Nuclear Facilities. Trnava, Slovakia, June 18-20, 2013. - Trnava : SNUS, 2013. - ISBN 978-80-969943-9-7. - CD-ROM, [4] p. (in English)
- [100] SLUGEŇ, V.: Strategy of Back-end of Nuclear Energy in Slovak Republic and Financing of Decommissioning of NPP A1. In: IAEA Report on Decommissioning and Remediation after a Nuclear Accident : International Experts Meeting. Vienna, Austria, 28 January - 1 February 2013. - Vienna : IAEA, 2013. - p. 211/1PD. (in English)
- [101] SLUGEŇ, V. - VETERNÍKOVÁ, J. - DEGMOVÁ, J. - KILPELÄINEN, S. - TUOMISTO, F. - KRŠJAK, V.: Vacancy Type Defects in Oxide Dispersion Strengthened Steels. In: Materials Science Forum. - ISSN 0255-5476. - Vol. 733 : 10th International Workshop on Positron and Positronium Chemistry (PPC-10), Smolenice, Slovakia, September 05-09, 2011 (2013). - ISBN 978-303785518-8, p. 264-269. (in English)
- [102] SOJAK, A. - SLUGEŇ, V. - PETRISKA, M. - ŠIMEG VETERNÍKOVÁ, J. - STACHO, M. - SABELOVÁ, V.: Study of Ions Implanted RAFM Steels with Application of Positron Annihilation Spectroscopy. In: NENE 2013 : 22nd International Conference Nuclear Energy for New Europe. Bled, Slovenia, September 9-12, 2013. - Ljubljana : Nuclear Society of Slovenia, 2013. - ISBN 978-961-6207-36-2. - DVD-ROM, p. 314.1-7. (in English)
- [103] SOJAK, S. - SLUGEŇ, V. - EGGER, W. - RAVELLI, L. - PETRISKA, M. - STACHO, M. - VETERNÍKOVÁ, J. - SABELOVÁ, V.: Application of Positron Annihilation Spectroscopy for Investigation of Reactor Steels. In: APCOM 2013. Applied Physics of Condensed Matter : 19th International Conference. Štrbské Pleso, Slovak Republic, June 19-21, 2013. - Bratislava : STU, 2013. - ISBN 978-80-227-3956-6. - p. 70-73. (in English)
- [104] SOJAK, S. - SLUGEŇ, V. - EGGER, W. - RAVELLI, L. - PETRISKA, M. - VETERNÍKOVÁ, J. - STACHO, M.: Study of Ions Implanted RAFM Steels by Pulsed Low Energy Positron Systems. In: SLOPOS-13 : 13th International Workshop on Slow Positron Beam Techniques and Applications. Munich, Germany, September 15-20, 2013. - München : Technische Universität München, 2013. - p. 88. (in English)
- [105] SOJAK, S. - SLUGEŇ, V. - EGGER, W. - RAVELLI, L. - PETRISKA, M. - STANČEK, S. - SAHUL, M. - SKARBA, M. - PRIPUTEN, P. - STACHO, M. - VETERNÍKOVÁ, J. - HINCA, R. - SABELOVÁ, V.: PLEPS Study of Ion Implanted and Annealed Fe-11.62% Cr Alloys. In: Journal of Physics: Conference Series. - ISSN 1742-6588. - Vol. 443 : 16th International Conference on Positron Annihilation (ICPA-16). Bristol, United Kingdom, August 19-24, 2012., Art. No. 012036, [4] p. (in English)
- [106] SOJAK, S. - SABELOVÁ, V. - PETRISKA, M. - EGGER, W. - RAVELLI, L. - ŠIMEG VETERNÍKOVÁ, J. - STACHO, M. -

- SLUGEŇ, V.: Study of Ions Implanted Fe-Cr Alloys with Application of Positron Annihilation Spectroscopy. In: 8th Solid State Surfaces and Interfaces : Extended Abstract Book. Smolenice Castle, Slovak Republic, November 25-28, 2013. - Bratislava : Comenius University, 2013. - ISBN 978-80-223-3501-0. - p. 172. (in English)
- [107] SOJAK, S. - SLUGEŇ, V. - KRŠJAK, V. - EGGER, W. - RAVELLI, L. - PETRISKA, M. - STANČEK, S. - SKARBA, M. - PRIPUTEN, P. - VITÁZEK, K. - STACHO, M. - VETERNÍKOVÁ, J. - SABELOVÁ, V.: Thermal Annealing Influence on Ions Implanted Fe-Cr Model Alloys. In: Materials Science Forum. - ISSN 0255-5476. - Vol. 733 : 10th International Workshop on Positron and Positronium Chemistry (PPC-10), Smolenice, Slovakia, September 05-09, 2011 (2013). - ISBN 978-303785518-8, p. 274-277. (in English)
- [108] STACHO, M. - KRŇÁČ, Š. - SOJAK, S. - HINCA, R. - SLUGEŇ, V.: Analysis of Dose Rate Spectra in NPP Building. In: XXXV. Dny radiační ochrany, Třeboň, 11.-15.11.2013 : - Prague : Czech Technical University, 2013. - ISBN 978-80-01-05356-0. - p. 95. (in Slovak)
- [109] STACHO, M. - SITEK, J. - HINCA, R. - SOJAK, S. - SLUGEŇ, V.: Gamma Spectroscopic Analysis of Irradiated Fe-Ni-Nb-B Alloy. In: APCOM 2013. Applied Physics of Condensed Matter : 19th International Conference. Štrbské Pleso, Slovak Republic, June 19-21, 2013. - Bratislava : STU , 2013. - ISBN 978-80-227-3956-6. - p. 191-194. (in English)
- [110] STACHO, M. - HINCA, R. - SOJAK, S. - SLUGEŇ, V.: Spectral Dose Rate Calculation Using Whole Spectrum Processing Approach within Energy Range up to 10 MeV. In: NENE 2013 : 22nd International Conference Nuclear Energy for New Europe. Bled, Slovenia, September 9-12, 2013. - Ljubljana : Nuclear Society of Slovenia, 2013. - ISBN 978-961-6207-36-2. - DVD-ROM, p. 805.1-7. (in English)
- [111] SUROVČÍK, L. - BOKES, P.: How to Walk a Ladder. In: ŠVOČ 2013 : Students Conference. Bratislava, 23. April 2013. - Bratislava : FEI STU, 2013. - ISBN 978-80-227-3909-2. - p. 192-196. (in Slovak)
- [112] ŠAGÁTOVÁ, A. - ZAŤKO, B. - SEDLAČKOVÁ, K. - HYBLER, P. - DUBECKÝ, F. - NEČAS, V.: GaAs Detectors Irradiated by Low Doses of Electrons. In: 15th International Workshop on Radiation Imaging Detectors - IWORID : Paris, France, June 23-27, 2012. - Paris : Synchrotron Soleil, 2013. - PO-3-39. (in English)
- [113] ŠAGÁTOVÁ, A. - PAVLOVIČ, M. - HYBLER, P. - SEDLAČKOVÁ, K. - ZAŤKO, B. - NEČAS, V.: Simulations for Irradiation of Silicon-Based Structures. In: APCOM 2013. Applied Physics of Condensed Matter : 19th International Conference. Štrbské Pleso, Slovak Republic, June 19-21, 2013. - Bratislava : STU, 2013. - ISBN 978-80-227-3956-6. - p. 182-185. (in English)
- [114] VAJDA, J. - VANČO, M.: Theoretical Model of Scattering of Electromagnetic Radiation in Media with Periodically Changing Permittivity. In: APCOM 2013. Applied Physics of Condensed Matter : 19th International Conference. Štrbské Pleso, Slovak Republic, June 19-21, 2013. - Bratislava : STU, 2013. - ISBN 978-80-227-3956-6. - p. 258-261. (in English)
- [115] VÁRY, T. - WEIS, M. - ČÍK, G. - BOMBAROVÁ, K. - CIRÁK, J.: Analysis of Phase Separation in 2D Molecular Systems. In: APCOM 2013. Applied Physics of Condensed Matter : 19th International Conference. Štrbské Pleso, Slovak Republic, June 19-21, 2013. - Bratislava : STU, 2013. - ISBN 978-80-227-3956-6. - p. 111-114. (in English)
- [116] VETERNÍKOVÁ, J. - STANČEK, S. - SABELOVÁ, V. - SKARBA, M. - DEGMOVÁ, J. - SLUGEŇ, V.: Helium Implantation of ODS Steels. In: Nuclear Power Engineering in the Young Generation Works : Nicolaus Meeting of Young Generation CNS. Brno, Czech Republic, 5.-7.12.2012. - Praha : Česká nukleární společnost, 2013. - ISBN 978-80-02-02439-2. - p. 175-180. (in Slovak)
- [117] VETERNÍKOVÁ, J. - SLUGEŇ, V. - PETRISKA, M. - ŠKARBA, M. - SOJAK, S. - SABELOVÁ, V. - BARTOŠOVÁ, I.: Study of Structural Anisotropy of Commercial Oxide-Dispersion Strengthened Steels. In: SLOPOS-13 : 13th International Workshop on Slow Positron Beam Techniques and Applications. Munich, Germany, September 15-20, 2013. - München : Technische Universität München, 2013. - p. 83. (in English)
- [118] VETERNÍKOVÁ, J. - SLUGEŇ, V. - SABELOVÁ, V. - SOJAK, S. - PETRISKA, M.: Non-Destructive Study of New Construction Materials for Advanced Nuclear Reactors. In: APCOM 2013. Applied Physics of Condensed Matter : 19th International Conference. Štrbské Pleso, Slovak Republic, June 19-21, 2013. - Bratislava : STU, 2013. - ISBN 978-80-227-3956-6. - p. 74-77. (in English)
- [119] VETERNÍKOVÁ, J. - KILPELÄINEN, S. - SKARBA, M. - TUOMISTO, F. - SLUGEŇ, V. - DEGMOVÁ, J. - SABELOVÁ, V. -

- SOJAK, S.: Positron Annihilation Measurements Performed on Oxide-Dispersion Strengthened Steels. In: Materials Science Forum. - ISSN 0255-5476. - Vol. 733 : 10th International Workshop on Positron and Positronium Chemistry (PPC-10), Smolenice, Slovakia, September 05-09, 2011 (2013). - ISBN 978-303785518-8, p. 278-281. (in English)
- [120] VETERNÍKOVÁ, J. - SLUGEŇ, V. - STANČEK, S. - DEGMOVÁ, J. - SABELOVÁ, V. - SOJAK, S. - PETRISKA, M. - HINCA, R.: Positron Study of Alpha Particles Effect on Oxide-Dispersion-Strengthened Steels. In: Journal of Physics: Conference Series. - ISSN 1742-6588. - Vol. 443 : 16th International Conference on Positron Annihilation (ICPA-16). Bristol, United Kingdom, August 19-24, 2012 (2013), Art. No. 012016. (in English)
- [121] VITKOVSKÁ, E. - ŠRANK, R. - BALLO, P.: Genetic Algorithm, an Efficient Tool for Structure Optimization. In: ELITECH'13 : 15th Conference of Doctoral Students; Bratislava, Slovakia, 5 June 2013. - Bratislava : STU, 2013. - ISBN 978-80-227-3947-4. - CD-ROM, [6] s. (in English)
- [122] VITKOVSKÁ, E. - BALLO, P.: Optimization of Fe[100] Symmetric Tilt Grain Boundaries by Genetic Algorithm. In: APCOM 2013. Applied Physics of Condensed Matter : 19th International Conference. Štrbské Pleso, Slovak Republic, June 19-21, 2013. - Bratislava : STU, 2013. - ISBN 978-80-227-3956-6. - p. 199-202. (in English)
- [123] VRBAN, B. - LÜLEY, J. - EAN, N.K. - KIM, S.J.: ATCROSS - Cross Section Adjustment Tool for Fast Reactor Design. In: Transactions of the Korean Nuclear Spring Meeting : Gyeongju, Korea, October 14-25, 2013. - Daejeon : Korean Nuclear Society, 2013. - p. 187-188. (in English)
- [124] ZACHAR, M. - HRNČÍŘ, T. - PÁNIK, M. - DANIŠKA, V. - NEČAS, V.: Project CONRELMAT - Conditional Release of Materials from Decommissioning. In: ECED 2013. Eastern and Central Europe Decommissioning : International Conference on Decommissioning of Nuclear Facilities. Trnava, Slovakia, June 18-20, 2013. - Trnava : SNUS, 2013. - ISBN 978-80-969943-9-7. - CD-ROM, [7] p. (in English)
- [125] ZAJKOSKA, S. - BOKES, P.: Propagation of Heat in Transition Voltage Suppressor Diodes. In: ŠVOČ 2013 : Students Conference. Bratislava, 23. April 2013. - Bratislava : FEI STU, 2013. - ISBN 978-80-227-3909-2. - p. 186-191. (in Slovak)
- [126] ZAJKOSKA, S. - BOKES, P.: Simulation of Heat Flow In TVS Diodes. In: APCOM 2013. Applied Physics of Condensed Matter : 19th International Conference. Štrbské Pleso, Slovak Republic, June 19-21, 2013. - Bratislava : STU, 2013. - ISBN 978-80-227-3956-6. - p. 211-215. (in English)
- [127] ZAŤKO, B. - DUBECKÝ, F. - SEDLAČKOVÁ, K. - ŠAGÁTOVÁ, A. - BOHÁČEK, P. - SEKÁČOVÁ, M. - NEČAS, V.: Analysis of 4H-SiC Schottky Diode as a Detector of Ionizing Radiation. In: APCOM 2013. Applied Physics of Condensed Matter : 19th International Conference. Štrbské Pleso, Slovak Republic, June 19-21, 2013. - Bratislava : STU, 2013. - ISBN 978-80-227-3956-6. - p. 174-177. (in English)
- [128] ZAŤKO, B. - SEDLAČKOVÁ, K. - DUBECKÝ, F. - ŠAGÁTOVÁ, A. - BOHÁČEK, P. - NEČAS, V.: Semiconductor Detector Based on 4H-SiC and Analysis of Its Active Region Thickness. In: 15th International Workshop on Radiation Imaging Detectors - IWORID : Paris, France, June 23-27, 2012. - Paris : Synchrotron Soleil, 2013. - PO-3-43. (in English)
- [129] ZEMANOVÁ-DIEŠKOVÁ, M. - ŠTICH, I. - BOKES, P.: Rigidity of the Conductance of an Anchored Dithioazobenzene Optomechanical Switch. In: Electron Transport through Atoms, Molecules and NanoWires: Advances in Experiment and Theory : 543. WE-Heraeus-Seminar. Bad Honnef, Germany, 27-31 October 2013. - Hanau : WE Heraeus Stiftung, 2013. - poster 4. (in English)

IX.3 Parts of Books

- [1] BOČA, R. - KOPÁNI, M. - MIGLIERINI, M. - ČAPLOVIČOVÁ, M. - MRÁZOVÁ, V. - DLHÁŇ, L.: Magnetic and Non-Magnetic Iron-Oxide Deposits in Basal Ganglia. In: Horizons in Neuroscience Research : Vol. 12. - New York : Nova Science, 2013. - ISBN 978-1-62618-964-5. - p. 135-214. (in English)

IX. 4 Textbooks

- [1] CIRÁK, J. - BOKES, P. - DIEŠKA, P. - CHLPIK, J. - KONŮPKA, M. - MARKOŠ, P. - ŠRÁMKOVÁ, T. - TÓBIK, J. - VALKOVÁ,

- M. - VANČO, M.: Collection of Problems and Exercises in physics for Students of Electrotechnical and Informatic Faculties of Technical Universities. - Bratislava : Slovak University of Technology Press, 2013. - 229 p. - ISBN 978-80-227-3868-2. (in Slovak)
- [2] MARKOŠ, P.: Photonic Crystals and Metamaterials. - Košice : Institute of Experimental Physics Slovak Academy of Sciences, 2013. - 89 p. - ISBN 978-80-89656-04-2. (in Slovak)
- [3] PAVLOVIČ, M.: Accelerator Technology for Medical Physicists. - Bratislava : Slovak University of Technology Press, 2013. - CD ROM, 202 p. - ISBN 978-80-227-4106-4. (in English)
- [4] PAVLOVIČ, M.: Electrostatic Accelerators for Materials Science. - Bratislava : Slovak University of Technology Press, 2013. - CD ROM, 185 p. - ISBN 978-80-227-4107-1. (in English)
- [5] PAVLOVIČ, M.: Radiation and Nuclear Physics for Medical Physicists. - Bratislava : Slovak University of Technology Press, 2013. - CD ROM, 195 p. - ISBN 978-80-227-4045-6. (in English)

INSTITUTE OF POWER AND APPLIED ELECTRICAL ENGINEERING

http://www.fei.stuba.sk/generate_page.php?page_id=3623



Director of the Institute:

prof. Ing. František Janíček, PhD.

Tel: +421-2-602 91 298

Fax: +421-2-654 25 826

e-mail: frantisek.janicek@stuba.sk

Deputy director:

prof. Ing. Justín Murín, DrSc.

e-mail: justin.murin@stuba.sk

Tel/Fax: +421-2-654 27 192

Institute Secretary: Mgr. Miriam Szabová

e-mail: miriam.szabova@stuba.sk

Tel: +421-2-602 91 831

Fax: +421-2-654 25 826

General Information

Institute of Power and Applied Electrical Engineering FEI STU is specialized in development of the following areas: electrical power engineering, heavy current engineering, light engineering, electrotechnology, renewable energy, applied mechanics and mechatronics, economics and management in electrical power engineering and safety of electric equipment.

The main role of the institute is integrated and developed factually related educational, scientific, research and development activities by creative way. The lecturers of institute are specialized in subjects in all three levels of accredited degree programs.

The institute has well equipped laboratories in which are solved scientific and research projects in the domestic and foreign grants and also European programs. We consider an important part of our work cooperation with industry, where members of the institute are involved in solving of scientific and specialized tasks for the partners from Slovak Republic, as well as various European countries.

Departments of Institute of Power and Applied Electrical Engineering

Department of Electrical Power Engineering

Department chair: doc. Ing. Anton Beláň, PhD.
e-mail: anton.belan@stuba.sk

Tel.: +421-2-602 91 306 (249)
Fax: +421-2-654 25 826

Department of Materials and Technologies

Department chair: doc. Ing. Jaroslav Lelák, PhD.
e-mail: jaroslav.lelak@stuba.sk

Tel/Fax: +421-2-654 25 822

Department of Applied Mechanics and Mechatronics (until 1.7.2013)

Department chair: prof. Ing. Justín Murín, DrSc.
e-mail: justin.murin@stuba.sk

Tel/Fax: +421-2-654 27 192

Department of Heavy Current Engineering

Department chair: doc. Ing. Ľudovít Hüttner, PhD.
e-mail: ludovit.huttner@stuba.sk

Tel.: +421-2-602 91 471
Fax: +421-2-654 20 415

I. STAFF of INSTITUTION

| | |
|-----------------------------|---|
| Professors | prof. Ing. Justín Murín, DrSc., prof. Ing. Viktor Ferencey, CSc., prof. Ing. Ľudovít Klug, PhD., prof. Ing. František Janíček, PhD., prof. Ing. Alfonz Smola, PhD. |
| Associate Professors | doc. Ing. Vladimír Kutiš, PhD., doc. Ing. Ľudovít Hüttner, PhD., doc. Ing. Ferdinand Valent, PhD., doc. Ing. Anna Grusková, PhD., doc. Ing. Jaroslav Lelák, PhD., doc. Ing. Vladimír Šály, PhD., doc. Ing. Miroslav Kopča, PhD., doc. Ing. Anton Beláň, PhD., doc. Ing. Ivan Daruľa, PhD., doc. Ing. Žaneta Eleschová, PhD., doc. Ing. Dionýz Gašparovský, PhD., doc. Ing. Pavol Šandrik, PhD. |
| Assistant Professors | Ing. Andrej Kalaš, PhD., Ing. Vladimír Goga, PhD., Ing. Tibor Sedlár, Ing. Juraj Matej, PhD., Ing. Viktor Kráľovič, Ing. Ladislav Borba, PhD., Ing. Michal Duč-Anci, PhD., Ing. Ľudovít Jurčacko, Ing. Juraj Packa, PhD., Ing. Peter Poljovka, PhD., Ing. Michal Váry, PhD., Ing. Attila Kment, PhD., Ing. František Krasňan, PhD., Ing. Marek Pípa, PhD., |

Mgr. Miroslava Smitková, PhD.

| | |
|--------------------------|---|
| Research Workers | Ing. Róbert Fric, PhD., Ing. Michal Ružinský, PhD., Ing. Vladimír Ďurman, PhD., Ing. Peter Janiga, Ing. Juraj Kubica, Ing. Martin Smieško |
| Part-time Workers | Prof. Ing. Miroslav Vereš, PhD., Ing. Stanislav Stančík, Ing. Juraj Paulech, Ing. Jurja Hrabovský, Ing. Tomáš Jediný |
| Technical Staff | Katarína Beringerová, Katarína Kermietová, František Erdödy, Jana Jusková, Jozef Hubač, Anna Ferenčíková, Marián Kamendy, Ing. Miroslava Hošťáková, Katarína Knežíková, Mgr. Marta Liptáková, Eva Molotová, Zuzana Študentová |
| PhD. Students | Ing. Rastislav Belák, Ing. Viktor Královič, Ing. Tibor Sedlár, Ing. Juraj Paulech, Ing. Stanislav Stančík, Ing. Vladimír Staňák, Ing. Martin Bugár, Ing. Martin Kandl, Ing. Juraj Hrabovský, Ing. Tomáš Jediný, Ing. Emil Mojto, Ing. Peter Heretik, Ing. Peter Bartko, Ing. Vladimír Halička, Ing. Miloš Glasa, Ing. Milan Uhrík, Ing. Igor Kertész, Ing. Ján Chudiváni, Ing. Milan Perný, Ing. Ján Budaj, Ing. Martin Kusko, Ing. Peter Arnold, Ing. Zlatko Baláš, Ing. Peter Hajduček, Ing. Matej Janík, Ing. Peter Kovaľ, Ing. Martin Liška, Ing. Anton Rusnák, Ing. Juraj Šedivý, Ing. Igor Šulc, Ing. Igor Tomiš, Mgr. Marián Uhrík |

II. EQUIPMENT

II.1 Teaching and Research Laboratories

- Laboratory of Thermopower Machines and Devices
- Laboratory of Mechanics of Strength and Deformable Bodies
- Centre of Designing and Computational Mechanics
- Laboratory for Testing and Measurement of Electric Machines
- Laboratory of Special Electric Machines
- Laboratory of Short Circuit Tests (with a high current generator source 35 kA, 2 MVA, 440 V)
- Laboratory of Short Circuit Tests (with a capacitor source)
- Laboratory of Controlled Drives and Servosystems
- Laboratory of Power Electronics
- Common laboratories Schneider – FEI STU –FIIT STU
- Photovoltaic Laboratory
- High Voltage and Ageing Tests Laboratory
- Laboratory of Cables and Wires
- Laboratory of Health Protection at Work
- Laboratory of Dielectric Properties of Materials
- Laboratory of Electrical Components
- Laboratory of Liquid Dielectrics
- Laboratory of Magnetic Materials
- Laboratory of High Voltage Technology
- Laboratory of Lighting Technology

- Solar Energy Laboratory
- Laboratory of Electrical Installations
- Laboratory of Special Problems of Power Engineering
- Laboratory of Electrical Protections
- Laboratory of Renewable Energy Sources

II.2 Special Measuring Instruments, Software and Computers

- Measuring device Quantum X
- Insert Press Monitoring System DMF-P V3
- Boiler Gas Analyser Industrial Combustion Optimiser Neotronics
- Experimental Impulse Turbine F800 - Hilton, Ltd. England
- Advantech PC-LabCard PCI 1710 with equipment
- Digital Oscilloscope RIGOL DS1052E
- Waveform Generator RIGOL DG1012
- Horizon Fuel Cell Software Adaptor
- Renewable Energy Education Science Set
- GWL Power Lithium-Ion Battery Charger: 48V DC 30A
- IR Thermometer FLUKE 572
- Mathematica 6
- Matlab R14
- Catia V5
- SolidEdge V20
- NX5
- ANSYS Multiphysics Release 13
- MSC.Software
- AutoCAD
- IQ – 100
- Lucas-Nülle didactic equipment for subjects Power Electronics and Controlled Drives
- SIMOVERT, SIMOREG and VONSCH power converters
- Laboratory stands with digital signal processors TMS 320 C 50
- Computers room Schneider – FEI STU –FIIT STU
- Test Chambers for Combined Ageing Tests of Insulating Systems
- Solar Simulator for Photovoltaics
- Climatic Test Chamber FEUTRON
- Systems for Measuring of Complex Impedance
- Vibration Magnetometer PVM-1
- Solar Cells Electric Characterization Equipment
- Power network analyzer BK 550
- Cascade transformer, 1200 kV, 1500 kVA
- Impulse generator, 2500 kV, 100 kJ
- Installation system Instabus EIB
- Photometric integrator \varnothing 3 m
- Spectrofotometer
- Luminance meter

III. TEACHING

III.1 Undergraduate Study (Bc.)

Subject, semester, hours per week for lectures and for seminars or practical exercises, name of the lecturer.

| | | |
|--|-------------------|---|
| Basis of Engineering and Technical Documentation | (1st sem., 2-2h) | M. Vereš, T. Sedlár |
| CAD in Technical Documentation | (opt. sem., 1-3h) | A. Kalaš |
| Mechanics (for Electrotechnics) | (5th sem., 3-2h) | J. Murín |
| Mechanics (for Automotive Electronics) | (6th sem., 2-2h) | J. Murín |
| Introduction to Modelling and Simulation | (5th sem., 3-2h) | V. Kutiš, A. Beláň |
| Structural Elements and Systems | (5th sem., 2-2h) | M. Vereš |
| Design of Vehicles | (6th sem., 2-2h) | J. Matej |
| Continuum Mechanics | (5th sem., 2-2h) | J. Murín |
| Electric Machines | (5th sem., 3-2h) | Ľ. Hüttner |
| Electric Apparatus and Distribution Stations | (6th sem., 3-2h) | F. Valent, F. Janíček |
| Automotive electrotechnics | (5th sem., 2-2h) | Ľ. Hüttner, L. Borba, A. Smola, J. Lelák |
| Safety and Protection of Health at Work I | (1st sem., 1-2h) | M. Kopča, J. Packa |
| Safety and Protection of Health at Work | (1st sem., 1-2h) | M. Kopča, V. Šály |
| Materials for Electrical Engineering | (3rd sem., 2-3h) | V. Šály |
| Materials and Technology for Electrical Engineering | (3rd sem., 2-3h) | J. Lelák |
| Safety and Protection of Health at Work II | (4th sem., 1-4h) | M. Kopča, V. Šály |
| Technological Processes | (6th sem., 2-3h) | V. Šály |
| Safety of Electric Equipment | (6th sem., 2-1h) | M. Kopča |
| Transmission and Distribution of Electrical Energy | (4th sem., 3-2h) | Ž. Eleschová |
| High Voltage Technology | (5th sem., 2-3h) | P. Šandrik |
| Modelling and Simulation Basis | (5th sem., 3-2h) | A. Beláň, V. Kutiš |
| Automotive Electrotechnics | (6th sem., 3-2h) | A. Smola, Ľ. Hüttner |
| Energy Sources and Conversion | (6th sem., 3-2h) | F. Janíček, I. Daruľa |
| Electrical Apparatus and Substations | (6th sem., 3-2h) | F. Janíček, F. Valent |
| Lighting Technology | (6th sem., 3-2h) | A. Smola |

III.2 Graduate Study (Ing.)

| | | |
|--|------------------|-------------|
| Nuclear Power Facilities | (1st sem., 2-2h) | V. Kutiš |
| CAE of Mechatronic Systems | (1st sem., 3-2h) | V. Goga |
| Applied Mechanics | (1st sem., 2-2h) | J. Murín |
| Vehicle Dynamics | (1st sem., 2-2h) | V. Ferencey |
| Designing of Luminaires | (2nd sem., 3-2h) | R. Fric |
| Designing by Higher CAD Systems | (2nd sem., 1-3h) | R. Fric |
| Numerical Solution of Field Theory Problems | (2nd sem., 3-2h) | J. Murín |
| Finite Element Methods for Mechatronics | (1st sem., 2-3h) | J. Murín |
| Computational Solution of Field Theory Problem | (2nd sem., 3-2h) | J. Murín |
| Power Units of Automobiles | (2nd sem., 3-2h) | V. Ferencey |
| Virtual Prototyping of Mechatronic systems | (3th sem., 2-3h) | J. Matej |
| Advanced Power Units of Automobiles | (4th sem., 2-2h) | V. Ferencey |

| | | |
|---|------------------|-------------------------------|
| Design of Complex Mechatronic Systems | (4th sem., 2-3h) | V. Ferencey, Š. Kozák |
| Electric Drives and Power Electronics | (1st sem., 2-2h) | L. Borba |
| Selected Chapters from Electric Apparatus | (1st sem., 2-2h) | F. Valent |
| Special Electric Machines | (2nd sem., 3-2h) | Ľ. Klug |
| CAD of Electric Power Equipment | (3rd sem., 2-2h) | Ľ. Klug, Ľ. Hüttner |
| Electronic Energy Converters | (2nd sem., 2-2h) | L. Borba |
| Electric Traction Systems | (3rd sem., 2-2h) | L. Borba |
| Utilisation of Electrical Energy | (3rd sem., 2-2h) | Ľ. Hüttner, A. Smola |
| Electric Heating Devices | (3rd sem., 2-2h) | Ľ. Hüttner |
| Technology of Electronic Devices | (1st sem., 2-2h) | M. Kopča |
| Renewable Energy Sources | (1st sem., 2-1h) | M. Ružinský |
| Technology of Ceramic Composites | (2nd sem., 2-2h) | A. Grusková |
| Materials Physics 2 | (2nd sem., 2-3h) | V. Ďurman |
| Photovoltaic Cells and Systems | (3rd sem., 2-2h) | V. Šály |
| Quality Management | (3rd sem., 2-1h) | P. Poljovka |
| Quality Management | (4th sem., 2-1h) | P. Poljovka |
| Metallic and Optical Cables | (3rd sem., 2-2h) | J. Lelák |
| Safety of Electric Equipment | (2nd sem., 2-1h) | M. Kopča |
| Steady State in Power System | (1st sem., 2-2h) | Ž. Eleschová |
| Electrical Networks | (1st sem., 2-2h) | A. Beláň, M. Pípa |
| Theoretical Photometry and Colorimetry Krasňan | (1st sem., 2-2h) | D. Gašparovský, F. |
| Light Sources and Ballasts | (1st sem., 2-2h) | A. Smola |
| Electrical Part of Power Stations | (2nd sem., 2-2h) | I. Daruľa |
| Transient Phenomena in Power System | (2nd sem., 2-2h) | Ž. Eleschová |
| Diagnostics and Expert Systems | (2nd sem., 2-2h) | P. Šandrik |
| Applied Electrical Power Engineering | (2nd sem., 2-2h) | A. Beláň |
| Environmental Ecology | (3rd sem., 2-2h) | I. Daruľa, J. Kubica |
| Luminaires | (2nd sem., 2-2h) | D. Gašparovský |
| Measurement of Light and Colours Krasňan | (2nd sem., 2-2h) | D. Gašparovský, F. |
| Power System Control | (3rd sem., 2-2h) | A. Beláň |
| Electrical Energy Utilization | (3rd sem., 2-2h) | D. Gašparovský, Ľ. Hüttner |
| Nonconventional Energy Sources | (3rd sem., 2-2h) | I. Daruľa |
| Protections and Automatics | (3rd sem., 2-2h) | F. Janíček |
| Electrical Lines | (3rd sem., 2-2h) | D. Gašparovský |
| Lighting Systems | (3rd sem., 2-2h) | A. Smola, F. Krasňan |
| Modelling and Power System Control | (3rd sem., 2-2h) | A. Beláň |
| Artificial Lighting | (4th sem., 2-1h) | A. Smola |

III.3 Undergraduate and Graduate Study for Foreign Students in English

All subjects can be lectured in English.

III.4 Distance Study

| | | |
|--|------------------|-------------------------------|
| Basis of Engineering and Technical Documentation | (1st sem.) | T. Sedlár |
| Mechanics | (5th sem.) | J. Murín |
| Introduction to Modelling and Simulation | (5th sem.) | V. Kutiš, A. Beláň |
| CAE of Mechatronic Systems | (1st sem.) | V. Goga |
| Numerical Solution of Field Theory Problems | (2nd sem.) | J. Murín |
| Applied Mechanics | (1st sem.) | J. Murín |
| Electric Machines | (3rd year) | Ľ. Hüttner |
| Electric Apparatus and Distribution Stations | (6th sem., 3-2h) | Ľ. Hüttner, F. Janíček |
| Electric Drives and Power Electronics | (1st year) | L. Borba |
| Utilisation of Electrical Energy | (2nd year) | Ľ. Hüttner, A. Smola |
| Safety and Protection of Health at Work I | (1st sem.) | M. Kopča |
| Safety and Protection of Health at Work II | (4th sem.) | M. Kopča |
| Materials for Electrical Engineering | (3rd sem.) | J. Lelák |
| Transmission and Distribution of Electrical Energy | (4th sem., 3-2h) | Ž. Eleschová |
| High Voltage Technology | (5th sem., 2-3h) | P. Šandrik |
| Modelling and Simulation Basis | (5th sem., 3-2h) | A. Beláň, V. Kutiš |
| Automotive Electrotechnics | (6th sem., 3-2h) | A. Smola, Ľ. Hüttner |
| Energy Sources and Conversion | (6th sem., 3-2h) | F. Janíček, I. Daruľa |
| Electrical Apparatus and Substations | (6th sem., 3-2h) | F. Janíček, F. Valent |
| Lighting Technology | (6th sem., 3-2h) | A. Smola |
| Steady State in Power System | (1st sem., 2-2h) | Ž. Eleschová |
| Electrical Networks | (1st sem., 2-2h) | A. Beláň, M. Pípa |
| Theoretical Photometry and Colorimetry | (1st sem., 2-2h) | D. Gašparovský, F. Krasňan |
| Light Sources and Ballasts | (1st sem., 2-2h) | A. Smola |
| Electrical Part of Power Stations | (2nd sem., 2-2h) | I. Daruľa |
| Transient Phenomena in Power System | (2nd sem., 2-2h) | Ž. Eleschová |
| Diagnostics and Expert Systems | (2nd sem., 2-2h) | P. Šandrik |
| Applied Electrical Power Engineering | (2nd sem., 2-2h) | A. Beláň |
| Environmental Ecology | (3rd sem., 2-2h) | I. Daruľa, J. Kubica |
| Luminaires | (2nd sem., 2-2h) | D. Gašparovský |
| Measurement of Light and Colours | (2nd sem., 2-2h) | D. Gašparovský, F. Krasňan |
| Power System Control | (3rd sem., 2-2h) | A. Beláň |
| Electrical Energy Utilization | (3rd sem., 2-2h) | D. Gašparovský, Ľ. Hüttner |
| Nonconventional Energy Sources | (3rd sem., 2-2h) | I. Daruľa |
| Protections and Automatics | (3rd sem., 2-2h) | F. Janíček |
| Electrical Lines | (3rd sem., 2-2h) | D. Gašparovský |
| Lighting Systems | (3rd sem., 2-2h) | A. Smola, F. Krasňan |

Modelling and Power System Control
Artificial Lighting

(3rd sem., 2-2h)
(4th sem., 2-1h)

A. Beláň
A. Smola

IV. RESEARCH PROJECTS

IV.1 National Scientific Projects

- Development of the New Multiphysical Beam Finite Elements with Composite or Functionally Graded Materials. VEGA 1/0093/10. Duration 2010-2011 (completed). (J. Murín).
- Research of Hybrid Powertrain Control Strategies of Vehicle in the Term of Ecological Parameters, Economical Efficiency and Vehicle Performances. VEGA 1/0627/10. Duration 2010-2011 (completed). (V. Ferencey).
- Support of Technical Design and Construction of Vehicle with Electric Drivetrain at FEIT STU. OVVČ/2011. Duration 2011-2012 (solved). (V. Matej).
- Advanced piezoelectric MEMS pressure sensors. APVV-0450-10. Duration 2011-2014 (started). (principal investigator: T. Lalinsky - ELU SAV, co-workers: V. Kutiš - KMECH FEI STU).
- Research and Development of New Information Technologies for Prediction and Solution of Crisis Situations and Security of Habitants CRISIS ITMS 26240220060. Duration 2011-2013 (started). (principal investigator: L. Hluchý - SAV, co-workers: V. Ferencey, J. Murín - KMECH FEI STU).
- Research on Properties of Composite Materials Based on Micro-Filler for Electrical Insulation Systems, VEGA1/0445/10. Duration 2010-2011 (completed). (J. LeLák).
- Materials and Material Structures for Photovoltaic Cells and Modules, VEGA 1/0443/10. Duration 2010-2011 (completed). (V. Šály).
- Research and Preparation of Perspective Magnetic, Nanomagnetic and Hybrid Composite Materials for New Applications in Electrical Engineering and Automobile Industry, VEGA 1/0575/09. Duration 2009-2011 (completed). (J. Sláma, A. Grusková, V. Ďurman).
- Structural and Magnetic Changes of Disordered and Nanocrystalline Alloys, VEGA 1/0606/09. Duration 2009-2011 (completed). (J. Sitek, A. Grusková).
- Research and Synthesis of Electronic Composites and Magnetic Dielectrics, VEGA 1/0529/10. Duration 2010-2011 (completed). (R. Dosoudil, A. Grusková).
- Integrated analysis of the solar power plants. APVV-0280-10. Duration: 2011-2014 (started). (F. Janíček)
- Integrated Analysis of the Renewable Energy Sources. VEGA 1045/11 Duration: 2011-2014. (started). (M. Smitková)
- Power Quality and Reliability of Electricity Supply. VEGA 1/0687/09. Duration: 2009-2011 (completed). (F. Janíček).
- Integration of Renewable Energy Laboratory into Pedagogical Process Using Multimedia Interactive Web Interface. KEGA 3/7248/09 Duration: 2009-2011 (completed). (F. Janíček).
- Centre of Competence in New Materials, Advanced Technologies and Power Engineering. Duration: 2011-2014 (started). ITMS 26240220073. (F. Janíček).
- National Centre for Research and Applications of Renewable Energy Sources. Duration: 2009-2011 (completed). ITMS 26240120016. (F. Janíček).
- Finalizing of the National Centre for Research and Applications of Renewable Energy Sources. Duration: 2010-2012 (solved). ITMS 26240120028. (F. Janíček).
- Efficient control of generation and consumption of power from renewable energy sources (cooperation with Slovak Academy of Sciences). Duration: 2010-2013 (solved). ITMS 26240220028. (F. Janíček).
- Light and lightning technology research centre (cooperation with OMS spol. s r. o.). Duration: 2011-2014 (started). ITMS 26220220150. (A. Smola)

- Improvement of power system reliability (cooperation with VUJE a. s.). Duration: 2011-2013 (solved). ITMS 26220220077. (F. Janíček).
- Applied research of optimization and control of power systems with smart grids (cooperation with Microstep-HDO). Duration: 2011-2014 (started). ITMS 26240220069. (F. Janíček).
- Transformers for the power stations based on renewable energy sources (cooperation with BEZ Transformátory, a. s.). Duration: 2011-2014 (started). ITMS 26240220066. (F. Janíček).
- Wind and solar power accumulation system with vanadium batteries (cooperation with Hydrogen Slovakia). Duration: 2011-2014 (started). ITMS 26220220133. (F. Janíček).
- Research and Technology Transfer Support of Decentralised Energy Sources at STU Using Available Biomass. Duration: 2009-2011 (completed). ITMS 26240220028. (F. Janíček).
- Research and Technology Transfer Support of Low-Potential Heat for Electric Power Generation at STU. Duration: 2009-2011 (completed). ITMS 26220220023. (F. Janíček).

IV.2 International Scientific Projects

- Preparation and Characterization of Materials Based on Iron Oxides by Magnetic Methods, Czech /Slovak cooperation, ZS-4/2001-2015. Duration 2001-2015 (solved). (J. Šubrt, A. Grusková).

V. COOPERATION

V.1 Cooperation in Slovakia

- Sova, a.s., Bratislava
- Škoda Auto Slovakia, s.r.o., Bratislava
- Institute of Construction and Architecture, Slovak Academy of Sciences
- IPT, s.r.o., Pezinok
- OMS, s.r.o., Senica
- SEZ, a.s., Dolný Kubín
- MyEnergy, a.s., Bratislava
- Ministry of Interior of the Slovak Republic
- Defense and Strategy Studies Institute, a.s.
- International Laser Centre, Bratislava
- Armed Forces Academy of General Milan Rastislav Štefánik, Liptovský Mikuláš
- KIWA, s.r.o., Nitra
- Siemens, s.r.o, Bratislava
- LEGRAND Slovakia, s.r.o.
- MOELLER Slovakia, s.r.o.
- OEZ Slovakia, s.r.o.
- SCHNEIDER-ELECTRIC, s.r.o.
- BSH Drives and Pumps, s.r.o., Michalovce
- PHOENIX CONTACT, s.r.o., Košice
- CHIRANA Medical, s.r.o., Stará Turá
- SCHRACK Technik, s.r.o.
- VUKI, a.s., Bratislava
- EZ-Elektromont, a.s., Bratislava
- MURAT, s.r.o., Pezinok
- BEZ, a.s., Bratislava
- HAKL, s.r.o, Bratislava
- DELTA ENERGY SYSTEMS, s.r.o., Bratislava
- SYLEX, s.r.o., Bratislava

- Elkonď HHK, a.s., Trstená
- Institute of Electrical Engineering, Slovak Academy of Sciences, Bratislava
- Institute of Physics, Slovak Academy of Sciences, Bratislava
- VUSAPL, a.s., Nitra
- ELBA, a.s., Kremnica
- PPC Ćab, a.s., Nové Sady
- TAU-CHEM, s.r.o., Bratislava
- All Deco, s.r.o., Jaslovské Bohunice
- Institute of Materials Research, Slovak Academy of Sciences, Košice
- Elektroservis, a.s., Bratislava
- SONY Slovakia, s.r.o., Nitra Plant
- UPJŠ Košice
- Nuclear Power Plants Research Institute (VÚJE, a.s.) Trnava
- Slovak Power Company (SE – Enel, a.s.) Bratislava
- Hydro Power Plants (SE-VET) Trenčín
- Nuclear Power Plants (SE-EBO) Jaslovské Bohunice
- Nuclear Power Plants (SE-EMO) Mochovce
- Nuclear Decommissioning Company (JAVYS, a.s.) Jaslovské Bohunice
- Nuclear Regulatory Authority of the Slovak Republic, Bratislava
- Slovak Electricity Transmission System (SEPS, a.s.) Bratislava
- Western Slovak Distribution Company (ZSE, a.s.) Bratislava
- Central Slovak Distribution Company (SSE, a.s.) Žilina
- Eastern Slovak Distribution Company (VSE, a.s.) Košice
- Regulatory Office for Network Industries (ÚRSO) Bratislava
- Faculty of Electrical Engineering and Information Technology TU Košice
- Faculty of Electrical Engineering ŽU Žilina
- University of Alexander Dubček, Trenčín
- Siemens, s.r.o., Bratislava
- ABB, s.r.o., Bratislava
- Microstep-HDO, a.s., Bratislava
- Philips Slovakia, s.r.o., Bratislava
- Osram Slovakia, s.r.o., Nové Zámky
- Slovak Telekom, a.s., Bratislava
- Slovnaft, a.s., Bratislava
- Orgeco, s.r.o., Nové Zámky
- AMI, s.r.o., Nové Zámky
- SLOS, s.r.o., Banská Bystrica
- Bellux, s.r.o., Bratislava
- OMS, s.r.o., Senica
- Bellatrix, s.r.o., Košice
- ŽOS Trnava, a.s., Trnava
- Applied Precision, s.r.o.
- Slovak Institute of Metrology
- RELKO, s.r.o.
- Nafta, a.s.
- Polyservis, a.s.
- Schneider Electric Slovakia, s.r.o.
- Volkswagen Slovakia, a.s.
- Elektro Global Slovakia, s.r.o.

V.2 International Cooperation

- Energovýzkum, s.r.o., Brno, Czech Republic
- Vienna University of Technology, Austria
- Technical University Ilmenau, Germany
- University College of Swansea, United Kingdom
- FSB University Zagreb, Croatia
- TU Rijeka, Croatia
- TU Novi Sad, Serbia
- TU Niš, Serbia
- University of Defence, Brno, Czech Republic
- DEHN+SOHNE, Neumarkt, Germany
- OEZ Letohrad, Czech Republic
- HESS TRADING, Sudoměřice, Czech Republic
- M.SCHNEIDER, Vienna, Austria
- PHOENIX CONTACT, Brno, Czech Republic
- ABB Corporate Research, Baden Daettwil, Switzerland
- Institute of Anorganic Chemistry, Academy of Sciences, Řež, Czech Republic
- Piezoceram, s.r.o., Hradec Králové, Czech Republic
- Motorpal, a.s., Světlá Hora, Czech Republic
- Silcotec Europe, Ltd., Ireland
- PROTECH Group, s.r.o., Klatovy, Czech Republic
- Fraunhofer Institute for Solar Energy Systems ISE, Freiburg, Germany
- Solartec, s.r.o., Rožnov pod Radhoštěm, Czech Republic
- Foundation for Research and Technology, MRG-IESL, Heraklion, Crete, Greece
- WSC – World Solar Challenge, Adelaide, Australia
- Warsaw University of Technology, Poland
- WREN - World Renewable Energy Network, Reading, United Kingdom
- UA of BAJA CALIFORNIA, Mexicali, Mexico
- Aristotle University, Thessaloniki, Greece
- Angel Kunchev University of Rousse, Bulgaria
- TU Ilmenau, Germany
- Osram, GmbH, München, Germany
- ABB, s.r.o., Brno, Czech Republic
- Czech Technical University in Prague, Czech Republic
- West Bohemian University Pilsen, Czech Republic
- Brno University of Technology, Czech Republic
- VŠB – Technical University of Ostrava, Czech Republic
- GE Lighting, Budapest, Hungary
- Tungsram Schröder, Budapest, Hungary
- Electrical Testing Facility, Prague, Czech Republic
- MEI Moscow, Russia
- Tashkent Institute of Irrigation and Melioration, Faculty of Electrification and Automation, Tashkent, Uzbekistan
- Saint Cyril and Methodius University, Faculty of Electrical Engineering and Information Technologies, Skopje, Macedonia
- Visteon, Nový Jičín, Czech Republic
- Helvar, Frankfurt, BRD
- Tridonic, Dornbirn, Austria
- Thorn Lighting CS, Prague, Czech Republic
- Politechnika Opolska, Opole, Poland
- Silesian University of Technology, Gliwice, Poland

- Tianjin University, Tianjin, China
- NKT Cables, Velké Meziříčí, Czech Republic

V.3 Contract-based Business Activities

- Long Time Combine Ageing Tests of Insulation Systems. Contract with ABB Corporate Research, Baden Daettwil, Switzerland (J. Lelák et al.)
- Treatment of Data&Signal Cables. Contract with Silcotec Europe Ltd. Ireland (J. Lelák et al.)
- Measurement of Dielectric Properties of Cables. Contract with VUJE jsc, Trnava VUJE (J. Lelák et al.)
- Impulse and AC Breakdown Voltage Tests of 22 kV XLPE Cables. Contract with NKT Cables Velké Meziříčí k.s., NKT Group, Czech Republic (J. Lelák et al.)
- Testing of High Voltage Ceramic Insulators and Fuse Holders. Contract with Polyservis s.r.o., Nitra (J. Lelák et al.)
- Expertise Water Penetration Cause to Power Cables in Grounds of KIA Motors Factory. Contract with Prompt s.r.o. Martin (J. Lelák et al.)
- Type Tests of Traction Transformer 4900 kVA Typu TIT-4900-25/2x1700. Contract with EVPU, j.s.c. Nová Dubnica (J. Lelák et al.)
- Testing of High Voltage Joints. Contract with Murat Ltd. Pezinok (J. Lelák et al.)
- Verification of the Possibility of Water Removing from Power Cables in Grounds of KIA Motors Factory. Contract with Takenaka GmbH (J. Lelák et al.)
- Analysis of Solar Park Connection to Distribution Net. Contract with ZSE, a.s. (Ž. Eleschová, A. Beláň)
- Analysis of Impact of Renewable Sources on Power System of Slovak Republic. Contract with SEPS, a.s. (F. Janíček et al.)
- Load Flow Calculation in 22 kV Distribution Net – Node Žarnovica. Contract with SSE, a.s. (A. Beláň, Ž. Eleschová)

VI. THESES

VI.1 Masters Theses

Masters theses supervised at the Departments of Institute of Power and Applied Electrical Engineering. The names of supervisors are in brackets.

- [1] Mojto, E.: Modeling the Mixing of Coolant Before Entering the Fuel Assemblies in Reactor VVER-440 (V. Kutiš)
- [2] Dzuba, J.: Dynamic Simulation of MEMS Piezoelectric Pressure Sensor (V. Kutiš)
- [3] Jeleník, O.: Structural Analysis of the Vessel for Small Pumping Hydro Power Plant (J. Murín)
- [4] Heretík, P.: Thermo-Mechanical Analysis of Fuel Cell (J. Murín)
- [5] Pagáč, M.: Optimal Design Preferences of Serial Hybrid Powertrain in Vehicle (J. Matej)
- [6] Krivosudský, P.: Optimal Cooperation of Serial Hybrid Powertrain in Vehicle (J. Matej)
- [7] Michlík, M.: Damping Vibration Control of Flexible Arm Traction Drive (V. Goga)
- [8] Durila, J.: Solution of Transient States of Synchronous Generator by MATLAB Program (Ľ. Klug)
- [9] Firický, E.: Real Time Monitoring of PV Moduls Working Conditions (M. Váry)
- [10] Adamec, P.: Combined Production of Heat and Power (I. Daruľa)
- [11] Címer, A.: Sizing of Cable Connections in the Electrical Transmission and Distribution Networks (P. Arnold)
- [12] Cintula, B.: Risk Analysis of the Power System Collapse (Ž. Eleschová)
- [13] Čech, M.: Proposal for a PV Power Plant for the Selected Location (M. Pípa)
- [14] Ďurinda, J.: Energy Potential of Roofs of Public and Industrial City Buildings (I. Tomiš)
- [15] Faktor, M.: Accumulation of Electric Power (I. Daruľa)

- [16] Fedor, M.: Proposal for Design Solution of Goniophotometer (F. Krasňan)
- [17] Homola, P.: Energy Potential of Houses Roofs on Selected Site (I. Tomiš)
- [18] Hricko, T.: Typized Technology Proposal for Small Hydropower Plants (M. Pípa)
- [19] Chlepčok, M.: Possibilities for Evaluating and Improving Safety of Operation of Distribution Lines in Terms of Ecological Aspects of Bird Protection (A. Kment)
- [20] Kaločay, R.: Photovoltaic Power Generation and Storage for the House in Island Regime (I. Tomiš)
- [21] Jagelka, M.: Lighting in Historic Buildings (F. Krasňan)
- [22] Jusko, T.: Modern Systems of Public Lighting for the Future (D. Gašparovský)
- [23] Kaniščák, F.: Proposal of 100 MWp PV Power Plant with Partial Accumulation and Regulation of Power Supplied (I. Tomiš)
- [24] Kasenčák, L.: Illumination of Castles (A. Smola)
- [25] Korčok, J.: Illumination and Lighting of Svätotrojčné Public Square in Krupina (A. Smola)
- [26] Koutob, T.: Implementation of Off-grid Photovoltaic Systems in the Republic of Benin (I. Tomiš)
- [27] Krč-Jediný, T.: Electric Power Generation from Wind (I. Daruľa)
- [28] Kubinec, M.: Proposal for Functional Solar Power Plants with a Fixed Mounting Panels (M. Pípa)
- [29] Kubinský, M.: Illumination of Historical and Modern Landmarks (F. Krasňan)
- [30] Kukla, A.: Biomass for Energy Production (I. Daruľa)
- [31] Kulač, M.: Testing of Lightning Fixtures in Accordance with the Requirements of Technical Standards (D. Gašparovský)
- [32] Kuľka, B.: Automobile Lightning (A. Smola)
- [33] Lang, P.: Legislation for Automobile Lightning (A. Smola)
- [34] Lehotský, J.: Poles for Outdoor Power Lines (M. Pípa)
- [35] Mészáros, T.: Proposal for Luminance Analyzer (F. Krasňan)
- [36] Mikulík, V.: Possibilities of Energy Savings in Lighting (F. Krasňan)
- [37] Molnárová, V.: Energy Savings Using Light Guides (A. Smola)
- [38] Mutňanský, P.: Evaluation and Visualization of Data System Measuring the Current (A. Kment)
- [39] Pavučok, J.: Cogeneration Project Source for the Selected Application (M. Pípa)
- [40] Pazdera, M.: Verification of the Illuminance Calculation by the Measurement (D. Gašparovský)
- [41] Pólya, P.: Small Hydroelectric Project for the Selected Location (M. Pípa)
- [42] Síleš, J.: Proposal for Lamp to Stimulate Biorhythms (F. Krasňan)
- [43] Škovran, M.: Proposal for PV Power Plant with Installed Capacity of 2 MW (I. Tomiš)
- [44] Štefka, B.: Minimisation of Higher Harmonics in the High-voltage Test Circuits (M. Pípa)
- [45] Viglaš, D.: Overview of the Current European Energy Legislation and Technical Standards (M. Liška)

VI.1 PhD. Theses

- [1] Horák, M.: Fault locating methods for distribution networks 22 kV (A. Beláň)

VII. OTHER ACTIVITIES

- Participation with the Stuba Green Team on the Formula Student Electric Race Car Project. (V. Staňák)
- Expert in Mechanical Engineering (T. Sedlár)
- Activities in: Renewable Energy World/PennWell's International Directories, 2011-2012 Review Issue (M. Ružinský)
- Bilateral Agreement, Socrates Programme Higher Education (ERASMUS) STU Bratislava - Angel Kunchev University of Rousse (V. Šály)
- The Accredited Educational Activity 'The Education in the Area of Safety and Protection of

Health at Work - § 21, § 22, § 23' (M. Kopča)

- The Accredited Educational Activity 'The Electrical Minimum' (M. Kopča)
- Participation on World Solar Challenge 2001, Across Australia, 16 – 23 October 2011, Darwin to Adelaide as scientific Support and Official Observer WSC 2011 (M. Ružinský)
- The Guarantee of the International Scientific Event 'POWER ENGINEERING 2011', Tatranské Matliare, May 2011 (F. Janíček)

VIII. MEMBERSHIP IN INSTITUTIONS/COMMITTEES

VIII.1 Membership in National Institutions/Committees

- Co-chairman in Slovak Society for Mechanics (J. Murín)
- Slovak Society for Mechanics (V. Kutiš)
- Vice President of Association of the Defence Industry of the Slovak Republic (V. Ferencey)
- Membership in the editorial board of journal: Mechanical Engineering (J. Murín)
- Member of Scientific Council of the FEI STU (J. Murín)
- Vice-chairman of Common departmental committee of scientific department 26- 32- 9 Electromechanical Energy Conversion in Slovak Republic (Ľ. Hüttner)
- Member of Common departmental committee of scientific department 26-32-9 Electromechanical Energy Conversion in Slovak Republic (F. Valent)
- Members of Common departmental committee of scientific department 5.2.11 Electromechanical Energy Conversion at STU FEI (Ľ. Klug, Ľ. Hüttner, F. Valent)
- Member of Common departmental committee of scientific department 5.2.11 Electromechanical Energy Conversion at University of Žilina (Ľ. Hüttner)
- Member of IEE (Ľ. Hüttner, F. Valent)
- Chairman of Technical Standardization Committee No. 43 (Electrical Power Engineering) at Slovak Institute for Standardization (A. Beláň)
- Chairman of Technical Standardization Committee No. 108 (Light and Lighting) at Slovak Institute for Standardization (A. Smola)
- Member of Technical Standardization Committee No. 20 (Light Fittings and Light Sources) at Slovak Institute for Standardization (A. Smola)
- Chairman of Technical Standardization Committee No. 84 (Electrical Installations and Protection against Electric Shock) at Slovak Institute for Standardization (D. Gašparovský)
- Member of Slovak Academy of Engineering Sciences (F. Janíček)
- Member of Academic Board of FEI STU in Bratislava (F. Janíček, V. Kutiš, J. Lelák)
- Member of Academic Board of STU in Bratislava (F. Janíček, J. Lelák)
- Member of Academic Board of Faculty of Mechatronics Trenčín University (F. Janíček)
- Member of Minister Economy Collegium (F. Janíček)
- Chairman of Council for State Programs of Ministry of Education SR and Ministry of Economy SR (F. Janíček)
- Member of Academic Board of Academy of the Armed Forces of General Milan Rastislav Štefánik in Liptovský Mikuláš (F. Janíček)
- Chairman of Expert Committee for Electrical Engineering, Information Technology, Automation and Control of Science and Technology Assistance Agency (F. Janíček)
- Member of Slovak Nuclear Forum (F. Janíček)
- Board of Trustees Chairman of Konfucius Institute at STU in Bratislava (F. Janíček)
- Chairman of Administer Group of SE-ENEL – STU (F. Janíček)
- Chairman of Slovak Committee of World Energy Council (F. Janíček)
- Director of Forensic Institute of Electrical and Computer Technology (A. Smola)
- Vicepresident of the Association of Slovak Scientific and Technological Societies (A. Smola)

- Members of the Slovak Lighting Society (A. Smola, F. Krasňan, P. Janiga, A. Rusnák)
- Chairman of the Slovak Lighting Society (D. Gašparovský)
- Member of the Presidium of Slovak Electrotechnical Association (D. Gašparovský)
- Members of the Slovak national Committee CIE (D. Gašparovský, A. Smola, F. Krasňan, P. Janiga, A. Rusnák)
- Chairman of Departmental Committee of Scientific Department 5.2.30 Electrical Power Engineering (F. Janíček)
- Members of Departmental Committee of Scientific Department 5.2.30 Electrical Power Engineering (A. Beláň, Ž. Eleschová, I. Daruľa, A. Smola)
- Members of Common Departmental Committee of Scientific Department 39-25-9 Nuclear Power Engineering (I. Daruľa)
- Members of Common Departmental Committee of Scientific Department 26-34-9 Electrical Power Engineering (F. Janíček, A. Smola)
- Member of Editorial Board of the Journal EE - Elektrotechnika a energetika (Journal of Electrical and Power Engineering), Bratislava (F. Janíček)
- Member of Editorial Board of the Journal of Electrical Engineering, Bratislava (F. Janíček)
- Member of Editorial Board of the Journal TZB Haustechnik (Technical Buildings Installations), Bratislava (A. Smola)
- Member of Editorial Board of the Internet Journal 'Ageing of Electroinsulation Systems' (A. Beláň)
- Head of the Institute of Experts at the Faculty of Electrical Engineering and Information Technology, STU Bratislava (A. Smola)
- Members of Program Board of the Conference Electrical Engineering, Information Technology and Telecommunication 'ELOSYS 2011', Trenčín, October 2011 (A. Beláň, F. Janíček, A. Smola)

VIII.2 Membership in International Institutions/Committees

- Chair of Slovak branch of Central European Association for Computational Mechanics (CEACM) (J. Murín)
- European Community on Computational Methods in Applied Sciences (ECCOMAS) (J. Murín)
- International Association for Computational Mechanics (IACM) (J. Murín)
- Central European Association for Computational Mechanics (CEACM) (V. Kutiš)
- Institute for Mechanics of Materials and Structures, TU Vienna, Austria (J. Murín)
- Membership in the Scientific Editorial Advisory Board of Journal: Engineering Review, Croatia (M. Vereš)
- Member of the States Representatives Group on the Hydrogen and Fuel Cells programs in Europe (V. Ferencey)
- Membership in the editorial board of journal: Recent patents on Engineering (J. Murín)
- Member of Editorial board of the journal 'Electrical machines building and electrical equipment', Odessa National Polytechnic University, Ukraine (Ľ. Hüttner)
- Senior Member, IEEE - EDS (Electron Devices Society), USA (M. Ružinský)
- Member of International Steering Committee of 'World Renewable Energy Forum and Exhibition', WREF, Denver, Colorado (M. Ružinský)
- WREN - World Renewable Energy Council /Network, UK (M. Ružinský, V. Šály)
- CIGRE – International Council on Large Electric Systems, Paris (A. Beláň)
- CIRED – International Conference on Electricity Distribution, London (A. Beláň)
- IEEE - Institute of Electrical and Electronics Engineers, New Jersey (A. Beláň)
- Member of World Energy Council, London (F. Janíček)
- Member of Committee on Energy Research and Technology IEA, Paris (F. Janíček)
- IEC TC – International Electric Committee No. 42 – High Voltage Technology (P. Šandrik)
- CIE – International Commission on Illumination, Vienna (D. Gašparovský, A. Smola, F. Krasňan, M. Pípa)
- Honorary member 'Society friends of public lighting', CzR (A. Smola)

- Members of International Editorial Board of Internet Journal Energy Spectrum, Brno (F. Janíček, A. Smola)
- Member of Editorial Board of the Journal Světlo, Prague, Czech Republic (A. Smola)
- Member of Editorial Board of the Journal Electrical Engineering in Practice, Ostrava, Czech Republic (A. Beláň)
- Members of International Scientific Committee of the 12th International Scientific Conference Electric Power Engineering 2011, Dlouhé Stráně, Czech Republic, May 2011 (A. Beláň, Ž. Eleschová, F. Janíček)
- Members of International Programme Committee of the 10th International Conference 'Energy – Ecology – Economy 2011', Tatranské Matliare, May 2011 (I. Daruľa, Ž. Eleschová, F. Janíček)

IX. PUBLICATIONS

IX.1 Journals

- [1] BELÁŇ, A. - VIGLAŠ, D. - CINTULA, B. - HERETÍK, P. - KOVÁČ, M. - VOLČKO, V. - CERMAN, A.: Internal Energy Market and Renewable Energy Sources. In: Posterus. - ISSN 1338-0087. - Vol. 6, Iss. 5 (2013), online [7] p. (in English)
- [2] BELÁŇ, A. - CINTULA, B. - VIGLAŠ, D. - HERETÍK, P. - KOVÁČ, M. - VOLČKO, V. - CERMAN, A.: Photovoltaic Cells Efficiency of Electricity Production. In: Posterus. - ISSN 1338-0087. - Vol. 6, Iss. 9 (2013), online [6] p. (in English)
- [3] BELÁŇ, A. - VOLČKO, V. - HERETÍK, P. - KOVÁČ, M. - CINTULA, B. - VIGLAŠ, D. - CERMAN, A.: The Development of Wind Power Engineering in Europe. In: Posterus. - ISSN 1338-0087. - Vol. 6, Iss. 4 (2013), online [6] p. (in Slovak)
- [4] BELÁŇ, A. - VOLČKO, V. - HERETÍK, P. - KOVÁČ, M. - CINTULA, B. - VIGLAŠ, D. - CERMAN, A.: The Model of Photovoltaic Cell. - ISSN 1338-0087. - Vol. 6, Iss. 10 (2013), online [12] p. (in Slovak)
- [5] CINTULA, B.: Conference Smart Metering/Smart Grid. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 19, Iss. 1 (2013), p. 7. (in Slovak)
- [6] FIRICKÝ, E. - VÁRY, M.: Accelerated Thermal Ageing Procedures. In: Posterus. - ISSN 1338-0087. - Vol. 6, Iss. 4 (2013), online [12] p. (in English)
- [7] FIRICKÝ, E. - LELÁK, J.: An Overview to Power Equipment Lifetime. In: Posterus. - ISSN 1338-0087. - Vol. 6, Iss. 1 (2013), online [9] p. (in English)
- [8] GAŠPAROVSKÝ, D.: Measurement of Daylight Illuminance Levels in Transient Periods for Public Lighting Control. In: Przegląd elektrotechniczny. - ISSN 0033-2097. - Vol. 89, Iss. 6 (2013), p. 320-323. (in English)
- [9] GLASA, M. - KIRÁLY, R. - HÜTTNER, Ľ.: Contactor - Arrester: The Modeling of Electric Devices by Finite Element Method. In: Posterus. - ISSN 1338-0087. - Vol. 6, Iss. 3 (2013), online [7] p. (in Slovak)
- [10] GLASA, M. - PAULECH, J.: The Computer Models of MOV for Electric and Thermal Analysis. In: Energetika. - ISSN 0375-8842. - Vol. 63, No. 2 (2013), p. 85-89. (in Slovak)
- [11] GOGA, V.: Cellular Solids: Solid Foams and Honeycomb Structures. In: Materials Engineer. - ISSN 1337-8953. - Vol. 5 (2013), http://www.materialing.com/bunkove_telesa. (in Slovak)
- [12] GOGA, V.: Mechanical Vibration, Chapter 2: Free Vibration of Undamped 1-DOF Linear System, Part 2: Dynamics of Vibration. In: Posterus. - ISSN 1338-0087. - Vol. 6, Iss. 1 (2013), online [5] p. (in English)
- [13] GOGA, V. - BOŽEK, P.: Regulation of Mechanical Systems. In: Strojárstvo - Strojnírenstvi. - ISSN 1335-2938. - Vol. 17, No. 3 (2013), p. 90-91. (in Slovak)
- [14] GOGA, V. - BOŽEK, P.: Robot Arm Control Based on Simulation Supported by INS. In: Strojárstvo - Strojnírenstvi. - ISSN 1335-2938. - Vol. 17, No. 5 (2013), p. 138-140, [146-148]. (in Slovak)
- [15] GOGA, V. - PAULECH, J. - VÁRY, M.: Cooling of Electrical Cu Conductor with PVC Insulation - Analytical, Numerical and Fluid Flow Solution. In: Journal of Electrical Engineering. - ISSN 1335-3632. - Vol. 64, No. 2 (2013), p. 92-99. (in English)

- [16] GRINAJ, L.: Easton Arena with LED Lighting. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 19, No. 6 (2013), p. 41. (in Slovak)
- [17] HERETÍK, P. - KOVÁČ, M. - SMITKOVÁ, M. - BELÁŇ, A. - VOLČKO, V. - HERETÍK, P.: Research on Transformer Interaction Caused by Inrush Current and Parametric Study of this Phenomenon. In: International Journal of Energy. - ISSN 1998-4316. - Vol. 7, Iss. 3 (2013), p. 72-81. (in English)
- [18] HERETÍK, P. - KOVÁČ, M.: Transformer Differential Protection and Analysis of its Activities during Abnormal Phenomena in the Power. In: Posterus. - ISSN 1338-0087. - Vol. 6, Iss. 1 (2013), online [9] p. (in Slovak)
- [19] HURAN, J. - PERNÝ, M. - MIKOLÁŠEK, M. - ŠÁLY, V. - KOBZEV, A. P. - KLEINOVÁ, A.: Electrical and Structural Characterization of Carbon Based Thin Films as a Part of Heterostructures with Crystalline Silicon for PV Applications. In: Jemná mechanika a optika. - ISSN 0447-6441. - Vol. 58, No. 2 (2013), p. 67-70. (in Slovak)
- [20] HÜTTNER, Ľ. - KUJAN, V.: Improvement of the Power Factor of an Asynchronous Motor Operated at no Load. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 19, No. 6 (2013), p. 36-38. (in Slovak)
- [21] CHOCHOĽ, P. - LIŠKA, M.: Pilot Project LINKY as the Solution of Installing the Intelligent Measurement Systems in France. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 19, No. 1 (2013), p. 32-33. (in Slovak)
- [22] CHUDIVÁNI, J. - HÜTTNER, Ľ.: Brushless Synchronous Motor with Concentric and with Distributed Winding. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 19, No. 6 (2013), p. 28-30. (in Slovak)
- [23] CHUDIVÁNI, J.: Investigation the Magnetic Fields of Brushless Motor with Concentrated Coils on the Stator. In: Posterus. - ISSN 1338-0087. - Vol. 6, Iss. 2 (2013), online [5] p. (in English)
- [24] JAKUBEC, J. - KUTIŠ, V. - PETRISKA, M.: Simplified Model of WWER-440 Fuel Assembly for Thermo-Hydraulic Analysis. In: Posterus. - ISSN 1338-0087. - Vol. 6, Iss. 2 (2013), online [8] p. (in English)
- [25] JANÍČEK, F. - VOLČKO, V. - CERMAN, A. - CINTULA, B.: Current Situation of the Implementation of Smart Grid in the World and the Position of Slovak Republic in this Issue. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 19, No. 1 (2013), p. 17-18. (in Slovak)
- [26] JANÍČEK, F. - HERETÍK, P. - KOVÁČ, M. - VIGLAŠ, D.: Implementation of Intelligent Measuring Systems in Europe and the Position of Slovak Republic in this Issue. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 19, No. 1 (2013), p. 19-21. (in Slovak)
- [27] JANÍČEK, F. - VIGLAŠ, D. - CINTULA, B.: Intelligent Measuring Systems - Legislative Development in Slovakia. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 19, No. 1 (2013), p. 22-23. (in Slovak)
- [28] JANÍČEK, F. - BELÁŇ, A. - VOLČKO, V. - CINTULA, B.: Selected Recommendations and Requirements for the Implementation of Intelligent Measuring Systems and Selected Pilot Projects in some Member States of the European Union. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 19, No. 1 (2013), p. 13-16. (in Slovak)
- [29] JANÍČEK, F. - BELÁŇ, A. - CERMAN, A. - HERETÍK, P. - KOVÁČ, M. - VOLČKO, V. - CINTULA, B. - VIGLAŠ, D.: Developments and Current Trends in Hydropower. In: Posterus. - ISSN 1338-0087. - Vol. 6, Iss. 7 (2013), online [7] p. (in Slovak)
- [30] JANIGA, P. - GAŠPAROVSKÝ, D.: Measurement of Power Characteristics in Public Lighting Networks. In: Przegląd elektrotechniczny. - ISSN 0033-2097. - Vol. 89, Iss. 6 (2013), p. 324-327. (in English)
- [31] KMENT, A.: High-Voltage Laboratory of FEI STU in Bratislava. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 19, Iss. 5 (2013), p. 34-35. (in Slovak)
- [32] KMENT, A.: Visit of Ing. Ľubomír Vážny, Deputy Prime Minister of SR for Investments. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 19, Iss. 5 (2013), p. 5. (in Slovak)
- [33] KÓMAR, L. - RUSNÁK, A. - DUBNIČKA, R.: Analysis of Diffuse Irradiance from Two Parts of Sky Vault Divided by Solar Meridian Using Portable Spectral Sky-Scanner. In: Solar Energy. - ISSN 0038-092X. - Vol. 96 (2013),

- p. 1-9. (in English)
- [34] KONÍČEK, M. - BELÁŇ, A. - CINTULA, B.: The Methods of Reactive Power Compensation of Photovoltaic Power Plants. In: Posterus. - ISSN 1338-0087. - Vol. 6, Iss. 9 (2013), online [11] p. (in Slovak)
- [35] KOPČA, M. - VÁRY, M.: Dimensioning of Cables and Wires in Low Voltage Electrical Installations. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 19, No. 6 (2013), Suppl. Volt, p. 4-7. (in Slovak)
- [36] KUGLER, S. - FOTIU, P.A. - MURÍN, J.: The Numerical Analysis of FGM Shells with Enhanced Finite Elements. In: Engineering Structures. - ISSN 0141-0296. - Vol. 49 (2013), p. 920-935. (in English)
- [37] KUBICA, J. - LENĎÁK, F.: Electric Power at the Children Comenius University. In: Spektrum. - ISSN 1336-2593. - Vol. 20, Iss. 2 (2013), p. 10. (in Slovak)
- [38] KUSKO, M. - ŠÁLY, V. - PERNÝ, M.: Comparison of Translation Techniques by PV Module Diagnostics at Outdoor Conditions. In: Electrotehnica, Electronica, Automatica. - ISSN 1582-5175. - Vol. 61, No. 2 (2013), p. 45-50. (in English)
- [39] LELÁK, J. - FIRICKÝ, E. - VÁRY, M. - PACKA, J. - SKORŠEPOVÁ, T.: The Effect of Temperature and Temperature Rise Test of Distribution Transformers. In: Materials Science and Technology. - ISSN 1335-9053. - Vol. 13, No. 2 (2013), p. 26-33. (in English)
- [40] LELÁK, J. - VÁRY, M.: Experimental and Computational Assessment of Stray Currents Flowing through Distant Buried Electrode. In: Electrotehnica, Electronica, Automatica. - ISSN 1582-5175. - Vol. 61, No. 3 (2013), p. 21-26. (in English)
- [41] LIPNICKÝ, L.: Lighting Design of Rest Areas. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 19, No. 5 (2013), p. 40-41. (in Slovak)
- [42] MARTINS, F. - SMITKOVÁ, M.: Life Cycle Analysis. In: Energetika. - ISSN 0375-8842. - Vol. 63, No. 12 (2013), p. 698-700. (in Slovak)
- [43] MATEJ, J. - LACZKÓ, A.: Fuel Consumption Analysis of Motor Vehicle. In: Posterus. - ISSN 1338-0087. - Vol. 6, Iss. 1 (2013), online [6] p. (in English)
- [44] MATEJ, J.: Ideal and Real Forces on Automobile Driving Wheels. In: Posterus. - ISSN 1338-0087. - Vol. 6, Iss. 4 (2013), online [9] p. (in Slovak)
- [45] MATEJ, J.: Parameters that Affect Automobile Fuel Consumption. In: Posterus. - ISSN 1338-0087. - Vol. 6, Iss. 3 (2013), online [5] p. (in English)
- [46] MATEJ, J.: Simulation of the Engine and Automobile Driveability during a Driving Cycle. In: Posterus. - ISSN 1338-0087. - Vol. 6, Iss. 2 (2013), online [9] p. (in English)
- [47] MURÍN, J. - AMINBAGHAI, M. - KUTIŠ, V. - HRABOVSKÝ, J.: Modal Analysis of the Fgm Beams with Effect of Axial Force under Longitudinal Variable Elastic Winkler Foundation. In: Engineering Structures. - ISSN 0141-0296. - Vol. 49 (2013), p. 234-247. (in English)
- [48] MURÍN, J. - AMINBAGHAI, M. - HRABOVSKÝ, J. - KUTIŠ, V. - KUGLER, S.: Modal Analysis of the FGM Beams with Effect of the Shear Correction Function. In: Composites Part B: Engineering. - ISSN 1359-8368. - Vol. 45, Iss. 1 (2013), p. 1575-1582. (in English)
- [49] MURÍN, J. - SEDLÁR, T. - PAULECH, J. - KUTIŠ, V. - JANÍČEK, F.: Steel Constructions of the Transmission System, Quality and Preconditions of their Exact Production at EXC3. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 19, No. 6 (2013), p. 14-15. (in Slovak)
- [50] ORAVSKÝ, I. - CINTULA, B. - VOLČKO, V. - JANIGA, P.: Comparison of Calculated and Measured Power Lines Parameters of the Laboratory Model of Power System. In: Posterus. - ISSN 1338-0087. - Vol. 6, Iss. 12 (2013), online [14] p. (in Slovak)
- [51] PERNÝ, M. - ŠÁLY, V.: Application of Thin Films of Amorphous Silicon Carbide in Photovoltaics. In: Alternativní energie. - ISSN 1212-1673. - Vol. 16, No. 2 (2013), p. 8-11. (in Slovak)
- [52] PERNÝ, M. - MIKOLÁŠEK, M. - ŠÁLY, V. - RUŽINSKÝ, M. - ĎURMAN, V. - PAVÚK, M. - HURAN, J. - ORSZÁGH, J. -

- MATEJČÍK, Š.: Behaviour of Amorphous Silicon Carbide in Au/a-SiC/Si Heterostructures Prepared by PECVD Technology Using Two Different RF Modes. In: Applied Surface Science. - ISSN 0169-4332. - Vol. 269 (2013), p. 143-147. (in English)
- [53] PERNÝ, M. - MIKOLÁŠEK, M. - ŠÁLY, V. - PACKA, J. - HURAN, J.: Electric Transport Mechanisms in Heterostructures a-SiC/c-Si for Heterojunction Solar Cells. In: Electrotehnica, Electronica, Automatica. - ISSN 1582-5175. - Vol. 61, No. 2 (2013), p. 15-19. (in English)
- [54] PERNÝ, M. - MIKOLÁŠEK, M. - ŠÁLY, V. - PACKA, J. - HURAN, J.: Characteristics of Au/a-SiC/c-Si/Al Nitrogen Doped Heterostructures Fabricated by PECVD Method. Part 1. In: Jemná mechanika a optika. - ISSN 0447-6441. - Vol. 58, No. 9 (2013), p. 269-271. (in Slovak)
- [55] PERNÝ, M. - MIKOLÁŠEK, M. - ŠÁLY, V. - PACKA, J. - HURAN, J.: Characteristics of Au/a-SiC/c-Si/Al Nitrogen Doped Heterostructures Fabricated by PECVD Method. Part 2. In: Jemná mechanika a optika. - ISSN 0447-6441. - Vol. 58, No. 10 (2013), p. 276-277. (in Slovak)
- [56] PERNÝ, M. - ŠÁLY, V. - VÁRY, M.: The Thermographic Cameras in the Diagnosis of Photovoltaic Cells and Modules : 1. Factors Affecting the Operation of PV Systems. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 19, No. 4 (2013), Suppl. Volt, p. 6-8. (in Slovak)
- [57] PERNÝ, M. - ŠÁLY, V. - VÁRY, M.: The Thermographic Cameras in the Diagnosis of Photovoltaic Cells and Modules : 2. Nondestrúktívne Contactless Diagnostics and Management of PV Systems. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 19, No. 5 (2013), Supl. Volt, p. 9-11. (in Slovak)
- [58] PÍPA, M.: Laboratory for Solar System Testing. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 19, No. 6 (2013), p. 8-9, 15. (in Slovak)
- [59] PONIŠŤ, P. - SMITKOVÁ, M.: Energy in Your Region. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 19, Iss. 6 (2013), p. 10. (in Slovak)
- [60] RIBAR, E.: Electric Scooter from the FEI STU Workshop - "Feiter 1". In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 19, No. 1 (2013), Suppl. Volt, p. 16. (in Slovak)
- [61] RUŽIŇSKÝ, M.: Solar Cars in Year 2013. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 19, No. 6 (2013), Suppl. Volt, p. 10-13. (in Slovak)
- [62] SKORŠEPOVÁ, T.: Design of a Sensor System with Surface Plasmon Polaritons Utilization Using a Polarimeter. In: Jemná mechanika a optika. - ISSN 0447-6441. - Vol. 58, No. 10 (2013), p. 277-281. (in English)
- [63] SKORŠEPOVÁ, T. - LELÁK, J.: Failures of the OPGW. In: Posterus. - ISSN 1338-0087. - Vol. 6, Iss. 12 (2013), online. (in Slovak)
- [64] SKORŠEPOVÁ, T.: The Growth of Water Trees in XLPE Cable's Insulation. In: Posterus. - ISSN 1338-0087. - Vol. 6, Iss. 9 (2013), online [6] p. (in English)
- [65] SLÁMA, J. - ŠOKA, M. - GRUSKOVÁ, A. - DOSOUDIL, R. - JANČÁRIK, V. - DEGMOVÁ, J.: Magnetic Properties of Selected Substituted Spinel Ferrites. In: Journal of Magnetism and Magnetic Materials. - ISSN 0304-8853. - Vol. 326 (2013), p. 251-256. (in English)
- [66] SMITKOVÁ, M.: Hydrogen and its Usage in the Energy Systems. In: Energetika. - ISSN 0375-8842. - Vol. 63. No. 7 (2013), p. 435-438. (in Slovak)
- [67] SMITKOVÁ, M.: Renewable Energy Sources. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 19, No. 2 (2013), p. 8-9. (in Slovak)
- [68] SMITKOVÁ, M.: Activities FEI STU at Primary and Secondary Schools. In: Strojárstvo - Strojnírenství. - ISSN 1335-2938. - Vol. 17, Iss. 2 (2013), p. 65. (in Slovak)
- [69] SMITKOVÁ, M. - JANIČEK, F.: National Centre for Research and Application of Renewable Energy Sources. In: Energetika, strojárstvo. - Bratislava : Infoma Business Trading, s.r.o., 2013. - ISBN 978-80-89087-58-7. - p. 55. (in Slovak)
- [70] SMOLA, A. - BALAŠ, Z.: Healthy Light - Light as the Sky: Artificial Light Should Be as Similar as Possible to Daylight. In: TzB Haustechnik. - ISSN 1210-356X. - Vol.21, No. 3 (2013), p. 54-56. (in Slovak)

- [71] STAŇÁK, V. - BUGÁR, M. - GLASA, M.: Accumulation of Electric Energy from Renewable Energy Sources in the VRFB Plant. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 19, No. 2 (2013), p. 10-13. (in Slovak)
- [72] STAŇÁK, V.: Background to the Development of Electromobility. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 19, No. 2 (2013), Suppl. Volt, p. 6-7. (in Slovak)
- [73] SZABÓ, O. - PERNÝ, M. - ŠÁLY, V. - PACKA, J. - FLICKYNGEROVÁ, S. - VAVRINSKÝ, E.: Automated Workstation for Measuring Parameters and Parasitic Resistances of Solar Cells. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 19, No. 3 (2013), p. 12-15. (in Slovak)
- [74] UHRÍK, M.: Analysis of AC Drives for Electric Vehicles. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 19, No. 5 (2013), p. 19-22. (in Slovak)
- [75] UHRÍK, M.: Application of Advanced Numerical Methods in the Identification of Selected Parameters of Synchronous Machines. In: Journal of Electrical and Electronics Engineering (JEEE). - ISSN 1844-6035. - Vol. 6, No. 2 (2013), p. 33-36. (in English)
- [76] UHRÍK, M.: Development of Sensor for Detecting Defects in Rotors of Induction Machines. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 19, No. 6 (2013), p. 33-36. (in Slovak)
- [77] UHRÍK, M.: Operation Characteristics of Synchronous Machines with Permanent Magnets FED by Frequency Converters with Non-Harmonic Output. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 19, No. 6 (2013), p. 30-32. (in Slovak)
- [78] UHRÍK, M.: Risks and Elimination of Bearing Currents in Rotating Electrical Machines. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 19, No. 4 (2013), Suppl. Volt, p. 9-11. (in Slovak)
- [79] VÁRY, M. - FIRICKÝ, E.: Electrical Insulation System Ageing Caused by Electrical, Multifactorial and Environmental Stresses. In: Posterus. - ISSN 1338-0087. - Vol. 6, Iss. 6 (2013), online [11] p. (in English)
- [80] VÁRY, M. - FIRICKÝ, E.: The Comprehensive Assessment of the Electrical Insulation Systems. In: Posterus. - ISSN 1338-0087. - Vol. 6, Iss. 10 (2013), online [7] p. (in English)
- [81] VOLČKO, V. - ELESCHOVÁ, Ž. - LIŠKA, M. - SMITKOVÁ, M.: Loss of Distributed Generation in Case of Fault in Distributing Net. In: Universal Journal of Engineering Science. - ISSN 2331-6624. - Vol. 1, No. 4 (2013), p. 133-138. (in English)

IX.2 Conference Proceedings

- [1] ARNOLD, P.: High Voltage Laboratory. In: ELITECH'13 : 15th Conference of Doctoral Students; Bratislava, Slovakia, 5 June 2013. - Bratislava : STU, 2013. - ISBN 978-80-227-3947-4. - CD-ROM, [4] p. (in English)
- [2] ARNOLD, P. - KMENT, A. - PÍPA, M. - JANIČEK, F.: Insulation System Defects of Renewable Energy Sources. In: Renewable Energy Sources 2013 : 4th International Scientific Conference OZE 2013. Tatranské Matliare, Slovakia, May 21-23, 2013. - Bratislava : STU, 2013. - ISBN 978-80-89402-64-9. - p. 145-148. (in English)
- [3] BALAŽIA, M. - VOZÁRIK, M. - SMITKOVÁ, M.: Situation of the Renewable Sources in Slovakia. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 19, Special Issue : Conference ELOSYS, Trenčín, 15.-18.10.2013, p. 72-75. (in Slovak)
- [4] BALAŽIA, M. - VOZÁRIK, M. - SMITKOVÁ, M.: Situation of the Selected Renewable Sources in Slovakia. In: Renewable Energy Sources 2013 : 4th International Scientific Conference OZE 2013. Tatranské Matliare, Slovakia, May 21-23, 2013. - Bratislava : STU, 2013. - ISBN 978-80-89402-64-9. - p. 149-154. (in English)
- [5] BARČÍK, M. - GAŠPAROVSKÝ, D. - JANIGA, P.: Analysis of Luminance Ratio on the Road with Different Weather Condition. In: Light 2013 : 20th International Conference. Podbanské, Slovakia, October 23-25, 2013. - Bratislava : KONGRES Management s.r.o., 2013. - ISBN 978-80-89275-35-9. - p. 250-257. (in English)
- [6] BARČÍK, M. - SMOLA, A. - FALTUS, M.: Glare in Traffic. In: Light 2013 : 20th International Conference. Podbanské, Slovakia, October 23-25, 2013. - Bratislava : KONGRES Management s.r.o., 2013. - ISBN 978-80-89275-35-9. - p. 270-275. (in English)

- [7] BARČÍK, M. - JANÍK, M. - FUTÓ, T.: Measurement of Automobile and Train Headlights Using Luminance Analyzer. In: ELITECH'13 : 15th Conference of Doctoral Students; Bratislava, Slovakia, 5 June 2013. - Bratislava : STU, 2013. - ISBN 978-80-227-3947-4. - CD-ROM, [4] p. (in English)
- [8] BARČÍK, M. - JANÍK, M.: Practical Measurement of Glare from the Train Headlight using Visibility Level Method. In: Light 2013 : 20th International Conference. Podbanské, Slovakia, October 23-25, 2013. - Bratislava : KONGRES Management s.r.o., 2013. - ISBN 978-80-89275-35-9. - p. 258-263. (in English)
- [9] BARČÍK, M. - JANIGA, P.: Results of Luminance Measurements of Roads at Dry, Wet and Snowy Surface. In: Lux Junior 2013. 11. Internationales Forum für den lichttechnischen Nachwuchs. Dörfeld bei Ilmenau, Germany, 27.-29.9.2013. - Ilmenau : TU, 2013. - ISBN 978-3-927787-46-9. - CD-ROM [7] p. (in English)
- [10] BARČÍK, M. - JANÍK, M.: Use of the Luminance Analyzer to Measure Luminous Curves of Automobile and Train Headlights. In: Light 2013 : 20th International Conference. Podbanské, Slovakia, October 23-25, 2013. - Bratislava : KONGRES Management s.r.o., 2013. - ISBN 978-80-89275-35-9. - p. 264-269. (in English)
- [11] BELÁŇ, A. - LIŠKA, M. - CINTULA, B. - ELESCHOVÁ, Ž.: Voltage Sags Evaluating Methods, Power Quality and Voltage Sags Assessment Regarding Voltage Dip Immunity of Equipment. In: Energy, Environmental and Structural Engineering Series. - ISSN 2227-4359. - Vol. 19. Recent Advances in Energy Planning and Environment : Proceedings of the 7th WSEAS International Conference on Energy Planning, Energy Saving, Environmental Education (EPESE'13); Paris, France, 29-31 October 2013. - WSEAS Press, 2013, p. 89-95. (in English)
- [12] BRILLA, I. - JANÍČEK, F.: Numerical Solution of Boundary Inverse Problems of Electrical Conductivity for Plane Orthotropic Media. In: CAIP 2013 : 11 Congreso Internationale de Computación Aplicada a la Industria de Procesos. Lima, 21 al 24 de Octubre del 2013. - Lima : Pontifica Universidad Católica del Perú, 2013. - CD-ROM, [10] p. (in English)
- [13] CINTULA, B. - ELESCHOVÁ, Ž. - BELÁŇ, A. - VIGLAŠ, D.: Comparison of Selected Failures on Dynamic Stability During Power System Operation. In: ELITECH'13 : 15th Conference of Doctoral Students; Bratislava, Slovakia, 5 June 2013. - Bratislava : STU, 2013. - ISBN 978-80-227-3947-4. - CD-ROM, [6] p. (in English)
- [14] CINTULA, B. - BELÁŇ, A. - ELESCHOVÁ, Ž. - VIGLAŠ, D. - VOLČKO, V.: Impact of Automatic Reclosing on the Dynamic Stability of Synchronous Generator. In: Elektroenergetika 2013 : 7th International Scientific Symposium on Electrical Power Engineering. Stará Lesná, Slovakia, September 18-20, 2013. - Košice : Technical University, 2013. - ISBN 978-80-553-1441-9. - p. 525-530. (in English)
- [15] CINTULA, B. - ELESCHOVÁ, Ž. - BELÁŇ, A.: Impact of N-k Events in Selected Substation Type on the Dynamic Stability of Synchronous Generator. In: Energy, Environmental and Structural Engineering Series. - ISSN 2227-4359. - Vol. 19. Recent Advances in Energy Planning and Environment : Proceedings of the 7th WSEAS International Conference on Energy Planning, Energy Saving, Environmental Education (EPESE'13); Paris, France, 29-31 October 2013. - WSEAS Press, 2013, p. 44-49. (in English)
- [16] CINTULA, B. - VIGLAŠ, D. - BELÁŇ, A.: Photovoltaic Cells Technology and Price Development on World Markets. In: Renewable Energy Sources 2013 : 4th International Scientific Conference OZE 2013. Tatranské Matliare, Slovakia, May 21-23, 2013. - Bratislava : STU, 2013. - ISBN 978-80-89402-64-9. - p. 361-364. (in English)
- [17] DAŇO, J. - HÜTTNER, Ľ.: Comprehensive System for Overvoltage Protection in Photovoltaics. In: Renewable Energy Sources 2013 : 4th International Scientific Conference OZE 2013. Tatranské Matliare, Slovakia, May 21-23, 2013. - Bratislava : STU, 2013. - ISBN 978-80-89402-64-9. - p. 365-370. (in English)
- [18] DOSOUDIL, R. - UŠÁKOVÁ, M. - GRUSKOVÁ, A. - SLÁMA, J.: Effect of Filler Mixture Ratio on Permeability of Multicomponent Soft Magnetic Composites. In: CSMAG '13. 15th Czech and Slovak Conference on Magnetism : Košice, Slovak Republic, June 17-21, 2013. - Košice : Pavol Jozef Šafárik University, 2013. - ISBN 978-80-8152-015-0. - p. 327. (in English)
- [19] DUBNIČKA, R. - GAŠPAROVSKÝ, D. - GRINAJ, L.: Analysis of Illuminance Grid at Verification of the Indoor Lighting by Means of Field Measurement. In: Lighting Engineering 2013 : 22nd International Symposium. Bled, Slovenia, October 10-11, 2013. - Maribor : Slovensko društvo za razsvetljavo, 2013. - ISBN 978-961-

- 248-400-2. - p. 51-58. (in English)
- [20] DUBNIČKA, R. - RUSNÁK, A. - PÍPA, M.: Analysis of Performance Parameters of Illuminance Meters per CIE DS 023 Quality Indices for Specific Field Measurements. In: Proceedings of CIE Centenary Conference "Towards a New Century of Light" : Paris, France, 15-16 April 2013. - Vienna : Commission Internationale de l'Eclairage, 2013. - ISBN 978-3-902842-44-2. - p. 282-289. (in English)
- [21] DUBNIČKA, R. - RUSNÁK, A. - JANIGA, P. - GRINAJ, L. - PRENOSIL, J. - CHMELA, J.: Comparative Measurements of Photometric Properties of Luminaires with LED Technology. In: Light 2013 : 20th International Conference. Podbanské, Slovakia, October 23-25, 2013. - Bratislava : KONGRES Management s.r.o., 2013. - ISBN 978-80-89275-35-9. - p. 282-290. (in English)
- [22] DUBNIČKA, R. - SMOLA, A. - RUSNÁK, A. - GRINAJ, L.: Influence of Cosine Error of Illuminance Meter at Verification of Lighting Systems. In: Course of Lighting Technology XXX : Loučná nad Desnou, Czech Republic, 30.9.-2.10. 2013. – Ostrava Technical University, 2013. - ISBN 978-80-248-3174-9. - p. 99-102. (in Slovak)
- [23] DUBNIČKA, R. - SMOLA, A. - RUSNÁK, A. - GRINAJ, L.: Influence of Uncertainty Measurement of Light Intensity Distribution of Curve of Luminaire at Realisation of Lighting Systems. In: Course of Lighting Technology XXX : Loučná nad Desnou, Czech Republic, 30.9.-2.10. 2013. - Ostrava : Technical University, 2013. - ISBN 978-80-248-3174-9. - p. 110-114. (in Slovak)
- [24] DUBNIČKA, R. - GAŠPAROVSKÝ, D. - RUSNÁK, A. - SMOLA, A. - RADITSCHOVÁ, J. - LIESKOVSKÁ, L.: Light Quality Aspects of Indoor Lighting. In: Enhancement of Energy Safety of Slovak Republic : Scientific Conference. Modra-Harmónia, Slovak Republic, November 28, 2013. - Trnava : VUJE, 2013. - ISBN 978-80-89402-66-3. - p. 7-9. (in English)
- [25] DUBNIČKA, R. - BARČÍK, M. - RUSNÁK, A.: Measurement of Surface According to the Requirements of EN 12464-1. In: Lux Junior 2013 : 11. Internationales Forum für den lichttechnischen Nachwuchs. Dörnfeld bei Ilmenau, Germany, 27.-29.9.2013. - Ilmenau : TU, 2013. - ISBN 978-3-927787-46-9. - CD-ROM [13] p. (in English)
- [26] DUBNIČKA, R.: Mesopic Photometry using Spectroradiometric Means. In: Lux Junior 2013 : 11. Internationales Forum für den lichttechnischen Nachwuchs. Dörnfeld bei Ilmenau, Germany, 27.-29.9.2013. - Ilmenau : TU, 2013. - ISBN 978-3-927787-46-9. - CD-ROM [7] p. (in English)
- [27] DUBNIČKA, R. - RUSNÁK, A. - GRINAJ, L.: Optical Efficacy with Innovative Light Sources. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 19, Special Issue : Conference ELOSYS, Trenčín, 15.-18.10.2013, p. 84-87. (in English)
- [28] DUBNIČKA, R. - GAŠPAROVSKÝ, D. - RUSNÁK, A.: Relation between the Grid for Calculation/Measurement and Resulting Luminous Parameters for Illumination of Indoor WorkPlaces. In: Proceedings of CIE Centenary Conference "Towards a New Century of Light" : Paris, France, 15-16 April 2013. - Vienna : Commission Internationale de l'Eclairage, 2013. - ISBN 978-3-902842-44-2. - p. 941-950. (in English)
- [29] DUBNIČKA, R. - RUSNÁK, A. - PÍPA, M.: Using of CCD Based Fibre Optic Spectroradiometers in Photometric Measurements under Different Conditions. In: Proceedings of CIE Centenary Conference "Towards a New Century of Light" : Paris, France, 15-16 April 2013. - Vienna : Commission Internationale de l'Eclairage, 2013. - ISBN 978-3-902842-44-2. - p. 611-615. (in English)
- [30] ĎURMAN, V. - LELÁK, J. - ŠÁLY, V.: Application of the Combined Voltage Impedance Spectroscopy for Insulation Diagnostics. In: Diagnostika '13 : International Conference on Diagnostics in Electrical Engineering CDEE 2013. Pilsen, Czech Republic, September 2-4, 2013. - Pilsen : University of West Bohemia, 2013. - ISBN 978-80-261-0210-6. - p. 117-119. (in English)
- [31] ĎURMAN, V. - ŠÁLY, V. - PERNÝ, M.: Dielectric Properties of PVB Foils for Photovoltaic Modules. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 19, Special Issue : Conference ELOSYS, Trenčín, 15.-18.10.2013, p. 88-91. (in English)
- [32] ĎURMAN, V. - PERNÝ, M. - ŠÁLY, V.: On the Problematics of Solar Cell Dynamic Properties Measurements under Illumination. In: Renewable Energy Sources 2013 : 4th International Scientific Conference OZE 2013.

- Tatranské Matliare, Slovakia, May 21-23, 2013. - Bratislava : STU, 2013. - ISBN 978-80-89402-64-9. - p. 377-380. (in English)
- [33] ĎURMAN, V. - LELÁK, J. - ŠÁLY, V.: Polarization Processes in Thermoplastic Polyurethane Insulation. In: Elektroenergetika 2013 : 7th International Scientific Symposium on Electrical Power Engineering. Stará Lesná, Slovakia, September 18-20, 2013. - Košice : Technical University, 2013. - ISBN 978-80-553-1441-9. - p. 374-376. (in English)
- [34] ELESCHOVÁ, Ž. - BELÁŇ, A. - KOVÁČ, M. - LIŠKA, M. - KÓSA, K.: Analysis of the Voltage Stability of Slovak Transmission System - Impact of the Equipment Maintenance. In: Elektroenergetika 2013 : 7th International Scientific Symposium on Electrical Power Engineering. Stará Lesná, Slovakia, September 18-20, 2013. - Košice : Technical University, 2013. - ISBN 978-80-553-1441-9. - p. 52-55. (in English)
- [35] FERATI, S. - JANÍČEK, F.: Economic Calculation for the Installation of Photovoltaic System in a Reference Building. In: Electric Power Engineering 2013 : 14th International Scientific Conference. Kouty nad Desnou, Czech Republic, May 28-30, 2013. - Ostrava : VŠB - Technical University of Ostrava, 2013. - ISBN 978-80-248-2988-3. - CD ROM, [6] p. (in English)
- [36] FERENČY, V. - STAŇÁK, V. - BUGÁR, M. - MADARÁS, J.: Perspectives of Development of Electric Mobility. In: Renewable Energy Sources 2013 : 4th International Scientific Conference OZE 2013. Tatranské Matliare, Slovakia, May 21-23, 2013. - Bratislava : STU, 2013. - ISBN 978-80-89402-64-9. - p. 183-188. (in English)
- [37] FIRICKÝ, E. - VÁRY, M. - LELÁK, J.: The Effect of Soiling on Photovoltaic Systems Condition and Performance. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 19, Special Issue : Conference ELOSYS, Trenčín, 15.-18.10.2013, p. 92-94. (in English)
- [38] FIRICKÝ, E. - LELÁK, J.: The Origin and the Effect of Repetitive Impulses. In: ELITECH'13 : 15th Conference of Doctoral Students; Bratislava, Slovakia, 5 June 2013. - Bratislava : STU, 2013. - ISBN 978-80-227-3947-4. - CD-ROM, [5] p. (in English)
- [39] GAŠPAROVSKÝ, D.: Calculation of the Operation Time of Road Lighting. In: Proceedings of CIE Centenary Conference "Towards a New Century of Light" : Paris, France, 15-16 April 2013. - Vienna : Commission Internationale de l'Eclairage, 2013. - ISBN 978-3-902842-44-2. - p. 999-1008. (in English)
- [40] GAŠPAROVSKÝ, D. - RADITSCHOVÁ, J.: Energy Efficiency versus Cost Optimalization for Lighting in Buildings. In: LUX EUROPA Krakow 2013 : 12th European Lighting Conference. Krakow, Poland, September 17-19, 2013. - Warszawa : Polski Komitet Oświetleniowy SEP, 2013. - ISBN 978-83-910849-6-0. - p. 41-48. (in English)
- [41] GAŠPAROVSKÝ, D.: Energy Performance of Buildings According to New Regulations and Standards. In: 38th Conference of Slovak Engineers : Bratislava, 20.-21.3.2013. - Bratislava : SEZ, 2013. - p. 82-93. (in Slovak)
- [42] GAŠPAROVSKÝ, D.: Problems of the Standard STN 33 2000-5-559: 2013-03 Part 5-559: Selection and Erection of Electrical Equipment. In: 38th Conference of Slovak Engineers : Bratislava, 20.-21.3.2013. - Bratislava : SEZ, 2013. - p. 114-123. (in Slovak)
- [43] GAŠPAROVSKÝ, D.: Energy Performance Numerical Indicators of Public Lighting. In: Light 2013 : 20th International Conference. Podbanské, Slovakia, October 23-25, 2013. - Bratislava : KONGRES Management s.r.o., 2013. - ISBN 978-80-89275-35-9. - p. 291-301. (in English)
- [44] GAŠPAROVSKÝ, D. - RADITSCHOVÁ, J.: Home Lighting. In: Light 2013 : 20th International Conference. Podbanské, Slovakia, October 23-25, 2013. - Bratislava : KONGRES Management s.r.o., 2013. - ISBN 978-80-89275-35-9. - p. 194-205. (in English)
- [45] GAŠPAROVSKÝ, D. - LIESKOVSKÁ, L.: Characteristics of the Illumination of School Boards. In: Light 2013 : 20th International Conference. Podbanské, Slovakia, October 23-25, 2013. - Bratislava : KONGRES Management s.r.o., 2013. - ISBN 978-80-89275-35-9. - p. 156-165. (in Slovak)
- [46] GAŠPAROVSKÝ, D. - SMOLA, A.: Illumination of School Boards in Educational Buildings. In: LUX EUROPA Krakow 2013 : 12th European Lighting Conference. Krakow, Poland, September 17-19, 2013. - Warszawa : Polski Komitet Oświetleniowy SEP, 2013. - ISBN 978-83-910849-6-0. - p. 547-553. (in English)

- [47] GAŠPAROVSKÝ, D. - RADITSCHOVÁ, J.: Lighting Properties and Efficiency of Luminaires Exceeding their Lifetime. In: Proceedings of CIE Centenary Conference "Towards a New Century of Light" : Paris, France, 15-16 April 2013. - Vienna : Commission Internationale de l'Eclairage, 2013. - ISBN 978-3-902842-44-2. - p. 317-326. (in English)
- [48] GAŠPAROVSKÝ, D. - RADITSCHOVÁ, J. - LIESKOVSKÁ, L.: Parameters of Lighting of School Blackboards. In: Course of Lighting Technology XXX : Loučná nad Desnou, Czech Republic, 30.9.-2.10. 2013. – Ostrava : VŠB- Technical University, 2013. - ISBN 978-80-248-3174-9. - p. 57-64. (in Slovak)
- [49] GLASA, M. - HÜTTNER, L. - STAŇÁK, V.: The Possibilities of Overvoltage Protection of Photovoltaic Sources. In: Renewable Energy Sources 2013 : 4th International Scientific Conference OZE 2013. Tatranské Matliare, Slovakia, May 21-23, 2013. - Bratislava : STU, 2013. - ISBN 978-80-89402-64-9. - p. 381-386. (in English)
- [50] GOGA, V. - BOŽEK, P.: Application of INS to Mechatronic Systems Control and Regulation Using Virtual Dynamic Models. In: Proceedings of the 2013 International Conference on Process Control : Štrbské Pleso, Slovakia, June 18-21, 2013. - Piscataway : IEEE, 2013. - ISBN 978-80-227-3951-1. - CD-ROM, p.185-189. (in English)
- [51] GOGA, V.: Finite Element Analysis of the Strain Gauge Measurement. In: Applied Mechanics 2013 : Proceedings of Extended Abstracts of the 15th International Scientific Conference. Velké Karlovice, Czech Republic, April 15-18, 2013. - Ostrava : VŠB - Technical University, 2013. - ISBN 978-80-248-2978-4. - CD ROM, [2] p. (in English)
- [52] GOGA, V.: Plane Stress - Finite Element Analysis and Experimental Measurement. In: Experimental Stress Analysis : 51th International Conference. Litoměřice, Czech Republic, June 11-13, 2013. - Ústí nad Labem : Univerzita J.E.Purkyně, 2013. - ISBN 978-80-7414-579-7. - CD-ROM, [8] p. (in English)
- [53] GOGA, V.: Simulation of the Strain Gauge Measurement Using ANSYS. In: Techsoft Engineering ANSYS 2013 : User's Meeting and Conference. Mikulov, Czech Republic, May 29-31, 2013. - Prague : Arcadea, 2013. - ISBN 978-80-905040-2-8. - p. 47-54. (in English)
- [54] GOGA, V.: Stress Analysis Performed by Finite Element Simulation of the Strain Gauge Measurement in ANSYS. In: 21st SVS FEM ANSYS Users' Group Meeting and Conference 2013 : Luhačovice, Czech Republic, 12.-14.6.2013. - Brno : SVS FEM s.r.o, 2013. - ISBN 978-80-905525-0-0. - online, [9] p. (in English)
- [55] GRINAJ, L. - DUBNIČKA, R.: Colorimetric Etalons of LED Technology. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 19, Special Issue : Conference ELOSYS, Trenčín, 15.-18.10.2013 (2013), p. 95-98. (in English)
- [56] GRINAJ, L. - SMOLA, A. - KUROČKA, M.: Equipment for Regulating Circadian Rhythms. In: Light 2013 : 20th International Conference. Podbanské, Slovakia, October 23-25, 2013. - Bratislava : KONGRES Management s.r.o., 2013. - ISBN 978-80-89275-35-9. - p. 239-245. (in English)
- [57] GRINAJ, L. - DUBNIČKA, R. - SMOLA, A.: Etalons of Luminance for Calibration Photometric Scale of Luminance Meter. In: Course of Lighting Technology XXX : Loučná nad Desnou, Czech Republic, 30.9.-2.10. 2013. – Ostrava : VŠB – Technical University, 2013. - ISBN 978-80-248-3174-9. - p. 103-109. (in Slovak)]
- [58] GRINAJ, L. - SMOLA, A.: Occupancy Buildings for Evaluation of Energy Performance of Lighting. In: Light 2013 : 20th International Conference. Podbanské, Slovakia, October 23-25, 2013. - Bratislava : KONGRES Management s.r.o., 2013. - ISBN 978-80-89275-35-9. - p. 224-228. (in English)
- [59] GRINAJ, L. - SMOLA, A.: Possibilities of using LED Systems and Technologies to Improve the Energy Performance of Buildings. In: Course of Lighting Technology XXX : Loučná nad Desnou, Czech Republic, 30.9.-2.10. 2013. – Ostrava : VŠB-Technical University, 2013. - ISBN 978-80-248-3174-9. - p. 232-234. (in Slovak)
- [60] GRINAJ, L. - DUBNIČKA, R.: Realisations of Etalons of Photometric Quantities. In: Light 2013 : 20th International Conference. Podbanské, Slovakia, October 23-25, 2013. - Bratislava : KONGRES Management s.r.o., 2013. - ISBN 978-80-89275-35-9. - p. 229-238. (in English)
- [61] HAJDUČEK, P. - CERMAN, A.: Exergy Demand Analysis of Biomass Cogeneration Unit. In: ELITECH'13 : 15th Conference of Doctoral Students; Bratislava, Slovakia, 5 June 2013. - Bratislava : STU, 2013. - ISBN 978-80-

- 227-3947-4. - CD-ROM, [5] p. (in English)
- [62] HAJDUČEK, P. - JANÍČEK, F.: LCA Analysis of the Multistage Thermic Processing of Biomass. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 19, Special Issue : Conference ELOSYS, Trenčín, 15.-18.10.2013, p. 99-103. (in Slovak)
- [63] HERETÍK, P. - KOVÁČ, M. - SMITKOVÁ, M. - BELÁŇ, A. - VOLČKO, V.: Analysis of Selected System Factors on Sympathetic Inrush Current of Shunt Wound Transformers. In: Recent Advances in Electrical Engineering Series. - ISSN 1790-5117. - Vol. 22. Recent Researches in Electric Power and Energy Systems : Proceedings of the 13th International Conference on Electric Power Systems, High Voltages, Electric Machines (POWER '13); 1st International Conference on Power and Energy Systems (POES '13); Crete Island, Greece, 27-29 August 2013. - WSEAS Press, 2013. - ISBN 978-960-474-328-5, p. 332-337. (in English)
- [64] HERETÍK, P. - KOVÁČ, M.: Modeling and Simulation of PV Cell Using Matlab/Simulink. In: Renewable Energy Sources 2013 : 4th International Scientific Conference OZE 2013. Tatranské Matliare, Slovakia, May 21-23, 2013. - Bratislava : STU, 2013. - ISBN 978-80-89402-64-9. - p. 391-396. (in English)
- [65] HERETÍK, P. - BELÁŇ, A. - KOVÁČ, M. - VOLČKO, V.: Proposal of Current Transformers for Rapid Protection Relay. In: ELITECH'13 : 15th Conference of Doctoral Students; Bratislava, Slovakia, 5 June 2013. - Bratislava : STU, 2013. - ISBN 978-80-227-3947-4. - CD-ROM, [5] p. (in English)
- [66] HERETÍK, P. - BELÁŇ, A. - KOVÁČ, M. - VOLČKO, V.: Protecting of PV Power Plant / Model of Current Transformer. In: Elektroenergetika 2013 : 7th International Scientific Symposium on Electrical Power Engineering. Stará Lesná, Slovakia, September 18-20, 2013. - Košice : Technical University, 2013. - ISBN 978-80-553-1441-9. - p. 488-491. (in English)
- [67] HERETÍK, P. - KOVÁČ, M. - VIGLAŠ, D.: Smart Metering in Europe. In: Renewable Energy Sources 2013 : 4th International Scientific Conference OZE 2013. Tatranské Matliare, Slovakia, May 21-23, 2013. - Bratislava : STU, 2013. - ISBN 978-80-89402-64-9. - p. 199-204. (in English)]
- [68] HERETÍK, P. - MURÍN, J. - HALAJ, M.: Induction Motor Torque and Acceleration Calculation. In: ELITECH'13 : 15th Conference of Doctoral Students; Bratislava, Slovakia, 5 June 2013. - Bratislava : STU, 2013. - ISBN 978-80-227-3947-4. - CD-ROM, [6] p. (in English)
- [69] HRABOVSKÝ, J. - MURÍN, J.: Influence of the Axial Force on the Eigenfrequency of the FGM Beam. In: ELITECH'13 : 15th Conference of Doctoral Students; Bratislava, Slovakia, 5 June 2013. - Bratislava : STU, 2013. - ISBN 978-80-227-3947-4. - CD-ROM, [4] p. (in English)]
- [70] HRABOVSKÝ, J. - MURÍN, J. - KUTIŠ, V. - PAULECH, J.: Modal Analysis of FGM Beam Structures. In: Applied Mechanics 2013 : 15th International Scientific Conference. Velké Karlovice, Czech Republic, April 15-18, 2013. - Ostrava : VŠB - Technical University of Ostrava, 2013. - ISBN 978-80-248-2978-4. - CD-ROM, [2] p. (in English)
- [71] HRABOVSKÝ, J. - MURÍN, J. - AMINBAGHAI, M. - KUTIŠ, V.: Stiffness Optimization of the Functionally Graded Material Microactuator . In: APCOM 2013. Applied Physics of Condensed Matter : 19th International Conference. Štrbské Pleso, Slovak Republic, June 19-21, 2013. - Bratislava : STU, 2013. - ISBN 978-80-227-3956-6. - p. 203-206. (in English)
- [72] HÜTTNER, Ľ. - GLASA, M.: Electric-Thermal Analysis of Metal Oxide Varistor. In: XXth Symposium on Physics of Switching Arc : Brno, Czech Republic, 2-6 September 2013. - Brno : University of Technology, 2013. - ISBN 978-80-214-4753-0. - p. 183-186. (in English)
- [73] HÜTTNER, Ľ. - JURČACKO, Ľ. - VALENT, F. - EHRHARDT, A. - SCHREITER, S.: Simulating the Behaviour of Lightning Current Arresters when Interrupting Mains Follow Currents. In: XXth Symposium on Physics of Switching Arc : Brno, Czech Republic, 2-6 September 2013. - Brno : University of Technology, 2013. - ISBN 978-80-214-4753-0. - p. 187-190. (in English)
- [74] HÜTTNER, Ľ. - JURČACKO, Ľ. - VALENT, F. - EHRHARDT, A.: The Simulation of Follow Current Interruption in Lightning Arrester. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 19, Special Issue : Conference ELOSYS, Trenčín, 15.-18.10.2013 (2013), p. 109-112. (in Slovak)
- [75] CHUDIVÁNI, J.: Comparison the Magnetic Fields of Synchronous Brushless Motor. In: ELITECH'13

- [elektronický zdroj] : 15th Conference of Doctoral Students; Bratislava, Slovakia, 5 June 2013. - Bratislava : STU, 2013. - ISBN 978-80-227-3947-4. - CD-ROM, [5] p. (in English)
- [76] CHUDIVÁNI, J. - HÜTTNER, Ľ. - JANÍČEK, F.: Chosen Properties Synchronous Machine Used as a Source of Electricity in the Wind Power Station. In: Renewable Energy Sources 2013 : 4th International Scientific Conference OZE 2013. Tatranské Matliare, Slovakia, May 21-23, 2013. - Bratislava : STU, 2013. - ISBN 978-80-89402-64-9. - p. 489-494. (in English)
- [77] CHUDIVÁNI, J.: Investigation the Operating Properties of Brushless Motor Used in Dental Technology. In: Poster 2013 : 17th International Student Conference on Electrical Engineering. Prague, Czech Republic, May 16, 2013. - Prague : CTU, 2013. - ISBN 978-80-01-05242-6. - CD ROM, [5] p. (in English)]
- [78] CHUDIVÁNI, J.: Investigation the Operating Properties of synchronous Brushless Motor used in Vacuum Cleaner. In: IDS 2013. International Doctoral Seminar 2013 : 8th International Doctoral Seminar (IDS 2013), Dubrovnik, 13 - 15 May 2013. - Zagreb : University of Zagreb, 2013. - ISBN 978-953-6071-40-1. - p. 126-132. (in English)
- [79] CHUDIVÁNI, J. - HÜTTNER, Ľ. - UHRÍK, M.: Properties the Concentrated Windings Used in Electric Machines. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 19, Special Issue : Elosys ELOSYS, Trenčín, 15.-18.10.2013 (2013), p. 113-117. (in English)
- [80] CHUDIVÁNI, J. - HÜTTNER, Ľ. - KUBICA, J.: The Electromagnetic Calculation of Synchronous Brushless Motor with Electronic Commutation. In: Electric Power Engineering 2013 : 14th International Scientific Conference. Kouty nad Desnou, Czech Republic, May 28-30, 2013. - Ostrava : VŠB - Technical University of Ostrava, 2013. - ISBN 978-80-248-2988-3. - [4] p. (in English)
- [81] JAKUBEC, J. - MOJTO, E. - PAULECH, J. - KUTIŠ, V.: CFD and Structural Study of Solar Panel. In: ELITECH'13 : 15th Conference of Doctoral Students; Bratislava, Slovakia, 5 June 2013. - Bratislava : STU, 2013. - ISBN 978-80-227-3947-4. - CD-ROM, [3] s. (in English)
- [82] JAKUBEC, J. - MOJTO, E. - PAULECH, J. - KUTIŠ, V. - MURÍN, J.: Coupled CFD and Structural Study of Solar Panel. In: Renewable Energy Sources 2013 : 4th International Scientific Conference OZE 2013. Tatranské Matliare, Slovakia, May 21-23, 2013. - Bratislava : STU, 2013. - ISBN 978-80-89402-64-9. - p. 403-408. (in English)
- [83] JANÍČEK, F. - SMITKOVÁ, M. - SZABOVÁ, M.: How to Increase Interest in the Power Engineering Education. In: Renewable Energy Sources 2013 : 4th International Scientific Conference OZE 2013. Tatranské Matliare, Slovakia, May 21-23, 2013. - Bratislava : STU, 2013. - ISBN 978-80-89402-64-9. - p. 209-212. (in Slovak)
- [84] JANÍČEK, F. - LIŠKA, M. - PERNÝ, M. - SMITKOVÁ, M. - STAŇÁK, V. - VÁRY, M.: Laboratories of the Institute of Power and Applied Electrical Engineering and their Usage for Primary and Secondary Schools. In: Renewable Energy Sources 2013 : 4th International Scientific Conference OZE 2013. Tatranské Matliare, Slovakia, May 21-23, 2013. - Bratislava : STU, 2013. - ISBN 978-80-89402-64-9. - p. 213-216. (in English)
- [85] JANÍČEK, F. - BELÁŇ, A. - LIŠKA, M. - CINTULA, B.: Laboratory of Intelligent Measuring Systems. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 19, Special Issue : Conference ELOSYS, Trenčín, 15.-18.10.2013, p. 118-123. (in Slovak)]
- [86] JANÍČEK, F. - HAJDUČEK, P.: Life-Cycle Analysis Using Ecoinvent Database of Pyrolysis Cogeneration Unit. In: Renewable Energy Sources 2013 : 4th International Scientific Conference OZE 2013. Tatranské Matliare, Slovakia, May 21-23, 2013. - Bratislava : STU, 2013. - ISBN 978-80-89402-64-9. - p. 77-82. (in English)
- [87] JANÍČEK, F. - POLJOVKA, P.: Management Systems in the Organization. In: Innovative Trends in Construction and Real Estate Sector - ITCRES 2013 : International Scientific Conference. Bratislava, Slovakia, May 9-10, 2013. - Bratislava : STU, 2013. - ISBN 978-80-227-3932-0. - CD ROM, [4] p. (in English)
- [88] JANÍČEK, F. - CERMAN, A. - KUBICA, J. - LENĎÁK, F.: Possibilities for the Deployment of Renewable Energy Sources with the Capacity up to 10 kW. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 19, Special Issue : Conference ELOSYS, Trenčín, 15.-18.10.2013, p. 124-127. (in Slovak)
- [89] JANÍČEK, F. - LAZORÍK, S. - LENĎÁK, F. - RZAVSKÝ, P.: The Proposal for the Reconstruction of the Laboratory of Digital Protective Relays. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 19,

Special Issue : Conference ELOSYS, Trenčín, 15.-18.10.2013, p. 128-131. (in Slovak)

- [90] JANÍČEK, F. - KÉRY, J. - CERMAN, A.: Noise Reduction in Chosen Power Substation. In: Elektroenergetika 2013 : 7th International Scientific Symposium on Electrical Power Engineering. Stará Lesná, Slovakia, September 18-20, 2013. - Košice : Technical University, 2013. - ISBN 978-80-553-1441-9. - p. 164-167. (in English)
- [91] JANÍČEK, F. - VOLČKO, V. - ELESCHOVÁ, Ž. - VIGLAŠ, D. - HERETÍK, P. - LENĎÁK, F.: Reference Architecture Model of Smart Grid. In: Energofórum 2013 : What affects the Price of Electricity? Vyhne, Slovak Republic, 17.-18. 10. 2013. - Sféra, a.s., 2013. - ISBN 978-80-971375-1-9. - p. 85-88. (in English)
- [92] JANÍČEK, F. - WAGNER, J. - ALTUS, J. - BELÁŇ, A. - GADUŠ, J. - GÖMÖRY, F. – et al.: Strategy of Research Development and Innovations in the Slovak Republic by 2020. In: Slovak Energy Annual. - Bratislava : REPUBLIC s.r.o., 2013. - S. 161-164. (in Slovak)
- [93] JANÍČEK, F. - ŠČEPÁNEK, M. - BELÁŇ, A. - CHRAPČIAK, I. - CERMAN, A. - LENĎÁK, F.: Roadmap for Smart Metering in the Slovak Republic. In: Energofórum 2013 : What affects the Price of Electricity? Vyhne, 17.-18. 10. 2013. - Sféra, a.s., 2013. - ISBN 978-80-971375-1-9. - p. 67-82. (in English)
- [94] JANÍČEK, F. - POLJOVKA, P. - CERMAN, A.: Support of Energy Thinking in the Organization. In: Renewable Energy Sources 2013 : 4th International Scientific Conference OZE 2013. Tatranské Matliare, Slovakia, May 21-23, 2013. - Bratislava : STU, 2013. - ISBN 978-80-89402-64-9. - p. 217-220. (in English)
- [95] JANÍČEK, F. - LAZORÍK, S. - LENĎÁK, F. - RZAVSKÝ, P.: The Energy Policy of the Slovak Republic. In: Renewable Energy Sources 2013 : 4th International Scientific Conference OZE 2013. Tatranské Matliare, Slovakia, May 21-23, 2013. - Bratislava : STU, 2013. - ISBN 978-80-89402-64-9. - p. 221-228. (in English)
- [96] JANÍČEK, F. - CERMAN, A. - MOTYČÁK, Š. - HAJDUČEK, P.: The Use of Published Literature on Teaching Students. In: Renewable Energy Sources 2013 : 4th International Scientific Conference OZE 2013. Tatranské Matliare, Slovakia, May 21-23, 2013. - Bratislava : STU, 2013. - ISBN 978-80-89402-64-9. - p. 229-234. (in English)
- [97] JANÍČEK, F. - CERMAN, A. - KÉRY, J. - HAJDUČEK, P.: Unconventional Renewable Energy Sources. In: Renewable Energy Sources 2013 : 4th International Scientific Conference OZE 2013. Tatranské Matliare, Slovakia, May 21-23, 2013. - Bratislava : STU, 2013. - ISBN 978-80-89402-64-9. - p. 235-240. (in English)
- [98] JANIGA, P.: Application Smart Metering to Operation of Public Lighting Network. In: Light 2013 : 20th International Conference. Podbanské, Slovakia, October 23-25, 2013. - Bratislava : KONGRES Management s.r.o., 2013. - ISBN 978-80-89275-35-9. - p. 213-218. (in English)
- [99] JANIGA, P. - GAŠPAROVSKÝ, D.: Electric Parameters in Street Lighting Networks. In: Lux Junior 2013 : 11. Internationales Forum für den lichttechnischen Nachwuchs. Dörfeld bei Ilmenau, Germany, 27.-29.9.2013. - Ilmenau : TU Ilmenau, 2013. - ISBN 978-3-927787-46-9. - CD-ROM [10] p. (in English)
- [100] JANIGA, P. - LIŠKA, M. - VIGLAŠ, D. - CINTULA, B.: Electrical Parameters in Distribution Network with Electric Vehicle Charger. In: Recent Advances in Energy, Environment, Economics and Technological Innovation : 4th International Conference on Development, Energy, Environment, Economics (DEEE'13). Paris, France, October 29-31, 2013. - [S.l.] : WSEAS Press, 2013. - ISBN 978-960-474-343-8. - p. 69-72. (in English)
- [101] JANIGA, P. - LIŠKA, M. - JANÍČEK, F.: Influence Electric Vehicle Charging to Power system. In: Electric Power Engineering 2013 [elektronický zdroj] : 14th International Scientific Conference. Kouty nad Desnou, Czech Republic, May 28-30, 2013. - Ostrava : VŠB - Technical University, 2013. - ISBN 978-80-248-2988-3. - [6] p. (in English)
- [102] JANIGA, P. - GAŠPAROVSKÝ, D. - JANÍČEK, F. - BELÁŇ, A. - ELESCHOVÁ, Ž. - VIGLAŠ, D.: Measuring Electric Parameters in Street Lighting Networks. In: Recent Advances in Electrical and Computer Engineering : 12th WSEAS Int. Conf. on Applications of Electrical Engineering (AEE'13); 12th WSEAS Int. Conf. on Applications of Computer Engineering (ACE'13); 7th Int. Conf. on Communications and Information Technology (CIT'13); 7th Int. Conf. on Circuits, Systems and Signals (CSS'13). Cambridge, MA, USA, 30.1.-1.2.2013. - WSEAS Press, 2013. - ISBN 978-1-61804-156-2. - p. 27-31. (in English)
- [103] JANIGA, P. - JANÍČEK, F.: Power Quality in Off-Grid Network Powered by Inverter. In: Renewable Energy

- Sources 2013 : 4th International Scientific Conference OZE 2013. Tatranské Matliare, Slovakia, May 21-23, 2013. - Bratislava : STU, 2013. - ISBN 978-80-89402-64-9. - p. 205-208. (in English)
- [104] JANIGA, P. - ELESCHOVÁ, Ž. - VIGLAŠ, D.: Program for Calculation Parameters of Power Systems during Short-Circuit. In: Recent Advances in Energy Planning and Environment : 7th WSEAS International Conference on Energy Planning, Energy Saving, Environmental Education (EPSE'13). Paris, France, October 29-31, 2013. - WSEAS Press, 2013. - ISBN 978-960-474-346-9. - p. 61-64. (in English)
- [105] JANIGA, P. - GAŠPAROVSKÝ, D. - BARČÍK, M.: The Use of Smart Metering Technology in Operation of Public Lifting Networks. In: Course of Lighting Technology XXX : Loučná nad Desnou, Czech Republic, 30.9.-2.10. 2013. – Ostrava : VŠB – Technical University, 2013. - ISBN 978-80-248-3174-9. - p. 194-199. (in Slovak)
- [106] JEDINÁK, M. - ZAFKOVÁ, L. - JANÍČEK, F.: Defence Plan of the Transmission System in the Context of an Increase Renewable Energy Sources Installation. In: Renewable Energy Sources 2013 : 4th International Scientific Conference OZE 2013. Tatranské Matliare, Slovakia, May 21-23, 2013. - Bratislava : STU, 2013. - ISBN 978-80-89402-64-9. - p. 241-245. (in English)
- [107] JEDINÁK, M. - JANÍČEK, F.: Remedial Actions to Fulfillment of the N-1 Security Criterion Implemented in the Region of Central and Eastern Europe. In: Electric Power Engineering 2013 : 14th International Scientific Conference. Kouty nad Desnou, Czech Republic, May 28-30, 2013. - Ostrava : VŠB - Technical University, 2013. - ISBN 978-80-248-2988-3. - CD-ROM, [4] p. (in English)
- [108] JEDINÁK, M. - ŠMIDOVIČ, R. - JANÍČEK, F.: The Impact of Unplanned Transits of Power Flows on Transmission System Operation. In: Elektroenergetika 2013 : 7th International Scientific Symposium on Electrical Power Engineering. Stará Lesná, Slovakia, September 18-20, 2013. - Košice : Technical University of Košice, 2013. - ISBN 978-80-553-1441-9. - p. 98-100. (in English)
- [109] KERTÉSZ, I.: The Simulation of Electrodynamic Fields in Current Path of Circuit Breaker. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 19, Special Issue : Conference ELOSYS, Trenčín, 15.-18.10.2013, p. 132-134. (in Slovak)
- [110] KERTÉSZ, I.: Thermal Effects of Discharge Current on Electrical Devices. In: ELITECH'13 : 15th Conference of Doctoral Students; Bratislava, Slovakia, 5 June 2013. - Bratislava : STU, 2013. - ISBN 978-80-227-3947-4. - CD-ROM, [4] p. (in English)
- [111] KMENT, A. - PÍPA, M. - JANÍČEK, F.: Biogas Station of Renewable Energy Sources Laboratory. In: Renewable Energy Sources 2013 : 4th International Scientific Conference OZE 2013. Tatranské Matliare, Slovakia, May 21-23, 2013. - Bratislava : STU, 2013. - ISBN 978-80-89402-64-9. - p. 83-88. (in English)
- [112] KMENT, A. - PÍPA, M. - JANÍČEK, F. - ARNOLD, P.: Medium Voltage Cables Impulse Tests. In: Enhancement of Energy Safety of Slovak Republic : Scientific Conference. Modra-Harmónia, Slovak Republic, November 28, 2013. - Trnava : VUJE, 2013. - ISBN 978-80-89402-66-3. - p. 19-21. (in English)
- [113] KMENT, A. - PÍPA, M. - ARNOLD, P. - JANÍČEK, F.: Photovoltaic Power Plant of National Centre for Research and Application of Renewable Energy Sources. In: Renewable Energy Sources 2013 : 4th International Scientific Conference OZE 2013. Tatranské Matliare, Slovakia, May 21-23, 2013. - Bratislava : STU, 2013. - ISBN 978-80-89402-64-9. - p. 423-426. (in English)
- [114] KMENT, A. - PÍPA, M. - JANÍČEK, F.: Present Days at High-Voltage Laboratory of FEI STU in Bratislava. In: Electric Power Engineering 2013 : 14th International Scientific Conference. Kouty nad Desnou, Czech Republic, May 28-30, 2013. - Ostrava : VŠB - Technical University, 2013. - ISBN 978-80-248-2988-3. - [4] p. (in English)
- [115] KMENT, A. - PÍPA, M. - JANÍČEK, F. - ARNOLD, P.: Verification Tests at 123 kV Mobile Substation. In: Enhancement of Energy Safety of Slovak Republic : Scientific Conference. Modra-Harmónia, Slovak Republic, November 28, 2013. - Trnava : VUJE, 2013. - ISBN 978-80-89402-66-3. - p. 13-17. (in Slovak)
- [116] KÓMAR, L. - RUSNÁK, A. - DUBNÍČKA, R.: Analysis of Diffuse Sky Irradiance using Portable Spectral Sky-Scanner. In: Light 2013 : 20th International Conference. Podbanské, Slovakia, October 23-25, 2013. - Bratislava : KONGRES Management s.r.o., 2013. - ISBN 978-80-89275-35-9. - p. 8-13. (in English)
- [117] KONÍČEK, M. - BELÁŇ, A. - CINTULA, B.: Analysis of Reactive Power Compensation of Photovoltaic Power

- Plant Connected into LV Voltage Level. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 19, Special Issue : Conence ELOSYS, Trenčín, 15.-18.10.2013 (2013), p. 135-139. (in English)
- [118] KOPČA, M.: The Legal Aspects of Working on the Selected Electric Equipments in Terms of Practice. In: 39th Conference of Slovak Engineers: Poprad, 6-7. 11. 2013. - Bratislava : SEZ, 2013. - p. 27-33. (in Slovak)
- [119] KOPČA, M. - VÁRY, M.: Ageing Tests of Insulating Materials. In: Enhancement of Energy Safety of Slovak Republic : Scientific Conference. Modra-Harmónia, Slovak Republic, November 28, 2013. - Trnava : VUJE, 2013. - ISBN 978-80-89402-66-3. - p. 23-25. (in Slovak)
- [120] KOPČA, M. - VÁRY, M. - LELÁK, J.: Complex Methodics of Insulation Systems Lifetime Evaluation. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 19, Special Issue : Conference ELOSYS, Trenčín, 15.-18.10.2013, p. 144-149. (in Slovak)
- [121] KOPČA, M. - VÁRY, M. - LELÁK, J.: Life Time of Electroinsulating Materials, Power Cables and Wires in the Combined Stresses Conditions. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 19, Special Issue : Conference ELOSYS, Trenčín, 15.-18.10.2013, p. 144-149. (in Slovak)
- [122] KOPČA, M. - VÁRY, M.: Protection of PV Systems against Atmospheric Electricity Part II: Lightning & Surge Protection. In: Renewable Energy Sources 2013 : 4th International Scientific Conference OZE 2013. Tatranské Matliare, Slovakia, May 21-23, 2013. - Bratislava : STU, 2013. - ISBN 978-80-89402-64-9. - p. 419-422. (in English)
- [123] KOPČA, M. - VÁRY, M.: Protection of PV Systems against Atmospheric Electricity Part I: Risk Assessment. In: Renewable Energy Sources 2013 : 4th International Scientific Conference OZE 2013. Tatranské Matliare, Slovakia, May 21-23, 2013. - Bratislava : STU, 2013. - ISBN 978-80-89402-64-9. - p. 415-418. (in English)
- [124] KOPČA, M. - VÁRY, M.: Proper Dimensioning Assessment and Fusing of Wires and Cables in Electrical Installations. In: 39th Conference of Slovak Engineers : Poprad, 6-7. 11. 2013. - Bratislava : SEZ, 2013. - p. 16-26. (in Slovak)
- [125] KOPČA, M. - VÁRY, M.: The Impact of Electrical and Electrothermal Stress on Electroinsulating Systems Lifetime Focusing on Cables and Wires in Electrical Installations In: Eltech SK 2013 : 4th National Meeting of Electrical Engineers, Designers, Workers in Electrical Engineering. Štrbské Pleso, Slovak Republic, 11.-13.6.2013. - Nitra : Pavel Hála Elektro Management, 2013. - CD ROM, [6] p. (in Slovak)
- [126] KOPČA, M. - VÁRY, M.: Environmental Stress Impacts on the Electrical Insulating Systems Ageing. In: Projektanti 2013 : 3rd National Meeting of Projectants and Electrical Constructors. Piešťany, 22.-24.10.2013. - Nitra : Pavel Hála Elektro Management, 2013. - CD ROM, [9] p. (in Slovak)
- [127] KOPČA, M. - VÁRY, M.: The Effects of Heat on Insulation Lifetime. In: Enhancement of Energy Safety of Slovak Republic : Scientific Conference. Modra-Harmónia, Slovak Republic, November 28, 2013. - Trnava : VUJE, 2013. - ISBN 978-80-89402-66-3. - p. 27-29. (in Slovak)
- [128] KOVÁČ, M. - HERETÍK, P. - ELESCHOVÁ, Ž.: Analysis of Ferroresonance. In: Elektroenergetika 2013 : 7th International Scientific Symposium on Electrical Power Engineering. Stará Lesná, Slovakia, September 18-20, 2013. - Košice : Technical University, 2013. - ISBN 978-80-553-1441-9. - p. 48-51. (in English)
- [129] KOVÁČ, M. - HERETÍK, P. - VOLČKO, V. - ELESCHOVÁ, Ž.: Ferroresonant Oscillations in Electrical Power System. In: ELITECH'13 : 15th Conference of Doctoral Students; Bratislava, Slovakia, 5 June 2013. - Bratislava : STU, 2013. - ISBN 978-80-227-3947-4. - CD-ROM, [5] p. (in English)]
- [130] KUBICA, J. - JANÍČEK, F.: Parametrization of Biogas Station for Evaluation of the Project. In: Electric Power Engineering 2013 : 14th International Scientific Conference. Kouty nad Desnou, Czech Republic, May 28-30, 2013. - Ostrava : VŠB - Technical University, 2013. - ISBN 978-80-248-2988-3. - CD-ROM, [4] p. (in English)
- [131] KUBICA, J. - JANÍČEK, F.: Simulation of Biogas Stations to Evaluate its Potential. In: Renewable Energy Sources 2013 : 4th International Scientific Conference OZE 2013. Tatranské Matliare, Slovakia, May 21-23, 2013. - Bratislava : STU, 2013. - ISBN 978-80-89402-64-9. - p. 89-92. (in English)
- [132] KUĽKA, B. - KOVÁČIK, I.: Comparison the Cost of Running Air Conditioner Depending on the Lights and Light Sources on the Odontical Area. In: Light 2013 : 20th International Conference. Podbanské, Slovakia,

- October 23-25, 2013. - Bratislava : KONGRES Management s.r.o., 2013. - ISBN 978-80-89275-35-9. - p. 31-37. (in English)
- [133] KULKA, B.: Mechanical Solutions of Adaptive Headlight Systems. In: Course of Lighting Technology XXX : Loučná nad Desnou, Czech Republic, 30.9.-2.10. 2013. - : VŠB – Technical University, 2013. - ISBN 978-80-248-3174-9. - p. 268-272. (in Slovak)
- [134] KULKA, B.: New Rules for Household Lighting. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 19, Special Issue : Conference ELOSYS, Trenčín, 15.-18.10.2013, p. 155-157. (in Slovak)
- [135] KULKA, B. - SMOLA, A.: New Rules for Lighting in Residential Areas. In: Course of Lighting Technology XXX : Loučná nad Desnou, Czech Republic, 30.9.-2.10. 2013. - : VŠB – Technical University, 2013. - ISBN 978-80-248-3174-9. - p. 65-69. (in Slovak)
- [136] KULKA, B. - SMOLA, A.: Rating of Energy Performance in Residential Buildings. In: Lux Junior 2013 : 11. Internationales Forum für den lichttechnischen Nachwuchs. Dörfeld bei Ilmenau, Germany, 27.-29.9.2013. - Ilmenau : TU Ilmenau, 2013. - ISBN 978-3-927787-46-9. - CD-ROM [8] p. (in English)
- [137] KULKA, B.: Rating of Energy Performance in Residential Buildings. In: ELITECH'13 [elektronický zdroj] : 15th Conference of Doctoral Students; Bratislava, Slovakia, 5 June 2013. - Bratislava : Nakladateľstvo STU, 2013. - ISBN 978-80-227-3947-4. - CD-ROM, [4] s. (in English)
- [138] KUTIŠ, V. - GÁLIK, G. - RÝGER, I. - MURÍN, J. - HRABOVSKÝ, J. - PAULECH, J. - LALINSKÝ, T.: FEM Analysis of SAW Sensor. In: Applied Mechanics 2013 : 15th International Scientific Conference. Velké Karlovice, Czech Republic, April 15-18, 2013. - Ostrava : VŠB - Technical University, 2013. - ISBN 978-80-248-2978-4. - CD ROM, [2] p. (in English)
- [139] KUTIŠ, V. - GÁLIK, G. - RÝGER, I. - PAULECH, J. - MURÍN, J. - HRABOVSKÝ, J. - LALINSKÝ, T.: FEM Model of Surface Acoustic Wave Sensor with Sensitive Layer. In: 21st SVS FEM ANSYS Users' Group Meeting and Conference 2013 : Luhačovice, Czech Republic, 12.-14.6.2013. - Brno : SVS FEM s.r.o, 2013. - ISBN 978-80-905525-0-0. - online, [7] p. (in English)
- [140] KUTIŠ, V. - GÁLIK, G. - RÝGER, I. - PAULECH, J. - MURÍN, J. - HRABOVSKÝ, J. - LALINSKÝ, T.: Modal and Transient Analysis of SAW MEMS Sensor. In: APCOM 2013. Applied Physics of Condensed Matter : 9th International Conference. Štrbské Pleso, Slovak Republic, June 19-21, 2013. - Bratislava : STU, 2013. - ISBN 978-80-227-3956-6. - p. 221-225. (in English)
- [141] KUTIŠ, V. - DZUBA, J. - PAULECH, J. - MURÍN, J. - HRABOVSKÝ, J. - LALINSKÝ, T.: Piezoelectric Analysis of MEMS Pressure Sensor. In: APCOM 2013. Applied Physics of Condensed Matter : 19th International Conference. Štrbské Pleso, Slovak Republic, June 19-21, 2013. - Bratislava : STU, 2013. - ISBN 978-80-227-3956-6. - p. 225-228. (in English)
- [142] KUTIŠ, V. - MOJTO, E. - JAKUBEC, J. - PAULECH, J. - URBAN, P.: VFD Analysis of VVER 440 Fuel Assembly. In: Techsoft Engineering ANSYS 2013 : User's Meeting and Conference. Mikulov, Czech Republic, May 29-31, 2013. - Prague : Arcadea, 2013. - ISBN 978-80-905040-2-8. - p. 87-94. (in English)
- [143] LELÁK, J. - POLJOVKA, P.: Energiemanagement. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 19, Special Issue : Conference ELOSYS, Trenčín, 15.-18.10.2013, p. 165-166. (in Slovak)
- [144] LELÁK, J. - VÁRY, M.: Estimation of Underground PE Insulated Identification Cable Critical Stray Currents Loading. In: Elektroenergetika 2013 : 7th International Scientific Symposium on Electrical Power Engineering. Stará Lesná, Slovakia, September 18-20, 2013. - Košice : Technical University, 2013. - ISBN 978-80-553-1441-9. - p. 363-365. (in English)
- [145] LELÁK, J. - FIRICKÝ, E. - VÁRY, M. - PACKA, J.: Impact of RES Power Plant Operation Conditions on Equipments Lifetime. In: Increase of Energy Safety of the Slovak Republic : Workshop. Tatranské Matliare, Slovakia, May 21-23, 2013. - Bratislava : STU. - ISBN 978-80-89402-63-2. - p. 42-44. (in English)
- [146] LELÁK, J. - FIRICKÝ, E. - VÁRY, M. - PACKA, J.: Operation Conditions and Temperature Rise Test of Prefabricated Substations for RES. In: Renewable Energy Sources 2013 : 4th International Scientific Conference OZE 2013. Tatranské Matliare, Slovakia, May 21-23, 2013. - Bratislava : STU, 2013. - ISBN 978-80-89402-64-9. - p. 269-272. (in English)

- [147] LELÁK, J. - VÁRY, M. - KOPČA, M.: Power and Current Loading Tests of Cables and Electrical Devices. In: Elektrotechnológia 2013 : International Conference. Terchová, Slovak Republic, 5.-7.6.2013. - Žilina : University of Žilina, 2013. - ISBN 978-80-89072-65-1. - p. 19-22. (in English)
- [148] LIPNICKÝ, L. - GAŠPAROVSKÝ, D.: Structure of Rooms in Office Buildings Depending on Lighting Requirements. In: Light 2013 : 20th International Conference. Podbanské, Slovakia, October 23-25, 2013. - Bratislava : KONGRES Management s.r.o., 2013. - ISBN 978-80-89275-35-9. - p. 246-249. (in English)
- [149] LIPNICKÝ, L. - GAŠPAROVSKÝ, D.: Structure of Rooms in School Buildings in Terms of Lighting Requirements. In: Course of Lighting Technology XXX : Loučná nad Desnou, Czech Republic, 30.9.-2.10. 2013. – Ostrava : VŠB – Technical University, 2013. - ISBN 978-80-248-3174-9. - p. 73-79. (in Slovak)
- [150] LIŠKA, M. - ELESCHOVÁ, Ž. - BELÁŇ, A. - JANÍČEK, F.: Control of Storage Element Dispatch in Photovoltaic Power Plant According to the Prediction of Electricity Production. In: Recent Advances in Electrical and Computer Engineering : 12th WSEAS Int. Conf. on Applications of Electrical Engineering (AEE'13); 12th WSEAS Int. Conf. on Applications of Computer Engineering (ACE'13); 7th Int. Conf. on Communications and Information Technology (CIT'13); 7th Int. Conf. on Circuits, Systems and Signals (CSS'13). Cambridge, MA, USA, 30.1.-1.2.2013. - WSEAS Press, 2013. - ISBN 978-1-61804-156-2. - p. 23-26. (in English)
- [151] LIŠKA, M. - ELESCHOVÁ, Ž. - BELÁŇ, A.: Operation of 1MW Photovoltaic Power Plant with the Accumulation Regulator. In: Renewable Energy Sources 2013 : 4th International Scientific Conference OZE 2013. Tatranské Matliare, Slovakia, May 21-23, 2013. - Bratislava : STU, 2013. - ISBN 978-80-89402-64-9. - p. 427-431. (in English)
- [152] LIŠKA, M. - ELESCHOVÁ, Ž. - BELÁŇ, A. - JANIGA, P. - JANÍČEK, F.: Proposal of the Methodology to Determine Maximum Installed Power of Renewable Power Sources in Power System. In: Electric Power Engineering 2013: 14th International Scientific Conference. Kouty nad Desnou, Czech Republic, May 28-30, 2013. - Ostrava : VŠB - Technical University, 2013. - ISBN 978-80-248-2988-3. - [4] p. (in English)
- [153] MÁCHA, M. - RUSNÁK, A. - DUBNÍČKA, R. - GAŠPAROVSKÝ, D.: Efficiency of Luminaires with Respect of their Maintenance and Lifetime. In: Enhancement of Energy Safety of Slovak Republic : Scientific Conference. Modra-Harmónia, Slovak Republic, November 28, 2013. - Trnava : VUJE, 2013. - ISBN 978-80-89402-66-3. - p. 63-65. (in English)
- [154] MOJTO, E. - JAKUBEC, J. - PAULECH, J. - KUTIŠ, V. - MURÍN, J.: Application of CFD in Renewable Energy Sources. In: Renewable Energy Sources 2013 : 4th International Scientific Conference OZE 2013. Tatranské Matliare, Slovakia, May 21-23, 2013. - Bratislava : STU, 2013. - ISBN 978-80-89402-64-9. - p. 273-276. (in English)
- [155] MOJTO, E. - JAKUBEC, J. - PAULECH, J. - KUTIŠ, V.: CFD Study of Wind Turbines Mutual Influence. In: ELITECH'13 : 15th Conference of Doctoral Students; Bratislava, Slovakia, 5 June 2013. - Bratislava : STU, 2013. - ISBN 978-80-227-3947-4. - CD-ROM, [3] p. (in English)
- [156] MURÍN, J. - AMINBAGHAI, M. - HRABOVSKÝ, J. - KUTIŠ, V.: New Beam Finite Element for Dynamic Analysis of Functionally Graded Material Structures. In: APCOM 2013. Applied Physics of Condensed Matter : 19th International Conference. Štrbské Pleso, Slovak Republic, June 19-21, 2013. - Bratislava : STU, 2013. - ISBN 978-80-227-3956-6. - p. 207-210. (in English)
- [157] MURÍN, J. - AMINBAGHAI, M. - HRABOVSKÝ, J. - KUTIŠ, V.: Torsional Free Vibration of FGM Beams. In: Euromech Colloquium 541 : New Advances in the Nonlinear Dynamics and Control of Composites for Smart Engineering Design. Senigallia, Italy, June 3-6, 2013. - Ancona : Clua Edizioni, 2013. - ISBN 978-88-87965-72-8. - p. 1-6. (in English)
- [158] PACKA, J. - ŠÁLY, V.: The Influence of Water and Humidity on the Cable Insulation Electric Characteristics for Photovoltaic Applications. In: Renewable Energy Sources 2013 : 4th International Scientific Conference OZE 2013. Tatranské Matliare, Slovakia, May 21-23, 2013. - Bratislava : STU, 2013. - ISBN 978-80-89402-64-9. - p. 443-446. (in English)
- [159] PAULECH, J. - GOGA, V. - VÁRY, M.: Cooling of Vertically Arranged Insulated Electric Conductor by Free Convection. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 19, Special Issue :

- ELOSYS, Trenčín, 15.-18.10.2013, p. 174-177. (in English)
- [160] PAULECH, J. - MURÍN, J. - HRABOVSKÝ, J. - KUTIŠ, V.: New FGM Finite Element for Electro-Thermal Analyses. In: Applied Mechanics 2013 : 15th International Scientific Conference. Velké Karlovice, Czech Republic, April 15-18, 2013. - Ostrava : VŠB - Technical University, 2013. - ISBN 978-80-248-2978-4. - CD ROM, [2] p. (in English)
- [161] PAULECH, J. - HRABOVSKÝ, J. - MURÍN, J. - KUTIŠ, V.: New Finite Link Element for Thermoelectric Analysis of FGM Materials. In: ELITECH'13 : 15th Conference of Doctoral Students; Bratislava, Slovakia, 5 June 2013. - Bratislava : STU, 2013. - ISBN 978-80-227-3947-4. - CD-ROM, [5] p. (in English).
- [162] PAULECH, J. - JAKUBEC, J. - KUTIŠ, V. - MOJTO, E.: Solar Panel for Parking Spot - Coupled CFD and Structural Study. In: 21st SVS FEM ANSYS Users' Group Meeting and Conference 2013 : Luhačovice, Czech Republic, 12.-14.6.2013. - Brno : SVS FEM s.r.o, 2013. - ISBN 978-80-905525-0-0. - online, [6] p. (in English)
- [163] PERNÝ, M. - VÁRY, M. - ŠÁLY, V. - PACKA, J.: Ac Characterization of Organic Bulk Solar Cells. In: Enhancement of Energy Safety of Slovak Republic : Scientific Conference. Modra-Harmónia, Slovak Republic, November 28, 2013. - Trnava : VUJE, 2013. - ISBN 978-80-89402-66-3. - p. 43-45. (in English)
- [164] PERNÝ, M. - MIKOLÁŠEK, M. - HURAN, J. - VÁRY, M. - ŠÁLY, V.: Amorphous SiC Thin Films Prepared at Different Temperatures for PV Applications. In: 8th Solid State Surfaces and Interfaces : Extended Abstract Book. Smolenice Castle, Slovak Republic, November 25-28, 2013. - Bratislava : Comenius University, 2013. - ISBN 978-80-223-3501-0. - p. 137-138. (in English)
- [165] PERNÝ, M. - MIKOLÁŠEK, M. - ŠÁLY, V. - ĎURMAN, V. - HURAN, J.: Amorphous Silicon Carbide Thin Films for Heterojunction Solar Cells. In: Renewable Energy Sources 2013 : 4th International Scientific Conference OZE 2013. Tatranské Matliare, Slovakia, May 21-23, 2013. - Bratislava : STU, 2013. - ISBN 978-80-89402-64-9. - p. 447-450. (in English)
- [166] PERNÝ, M. - VÁRY, M. - ŠÁLY, V. - PACKA, J.: Electric Characterization of Bulk Organic Solar Cell in the Dark and under Illumination. In: 8th Solid State Surfaces and Interfaces : Extended Abstract Book. Smolenice Castle, Slovak Republic, November 25-28, 2013. - Bratislava : Comenius University, 2013. - ISBN 978-80-223-3501-0. - p. 135-136. (in English)
- [167] PERNÝ, M. - ŠÁLY, V. - FIRICKÝ, E. - PACKA, J. - VÁRY, M.: Impedance Spectroscopy of Concentrator PV Cells. In: 28th European Photovoltaic Solar Energy Conference and Exhibition : Paris, France, 30 September - 4 October 2013. - Munich : WIP, 2013. - ISBN 3-936338-33-7. - p. 555-558. (in English)
- [168] PERNÝ, M. - ŠÁLY, V. - VÁRY, M. - ĎURMAN, V.: Infrared Thermography as a Useful Diagnostic Tool in Photovoltaics. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 19, Special Issue : Conference ELOSYS, Trenčín, 15.-18.10.2013, p. 178-182. (in English)
- [169] PERNÝ, M. - VÁRY, M. - HURAN, J. - MIKOLÁŠEK, M. - ŠÁLY, V. - KOBZEV, A. P.: Optimization of Amorphous Silicon Carbide Thin Films for Heterojunction Solar Cells. In: 28th European Photovoltaic Solar Energy Conference and Exhibition : Paris, France, 30 September - 4 October 2013. - Munich : WIP, 2013. - ISBN 3-936338-33-7. - p. 1915-1918. (in English)
- [170] PERNÝ, M. - ŠÁLY, V. - PACKA, J.: The Research Activities of the Department of Materials and Technologies for the Use of Thin Layers of Amorphous Silicon Carbide in Photovoltaics. In: Elektrotechnológia 2013 : International Conference. Terchová, Slovak Republic, 5.-7.6.2013. - Žilina : University of Žilina, 2013. - ISBN 978-80-89072-65-1. - p. 23-25. (in Slovak)
- [171] PÍPA, M. - KMENT, A. - JANÍČEK, F.: Biogas Power Plant Based on Dry Fermentation. In: Enhancement of Energy Safety of Slovak Republic : Scientific Conference. Modra-Harmónia, Slovak Republic, November 28, 2013. - Trnava : VUJE, 2013. - ISBN 978-80-89402-66-3. - p. 47-49. (in English)
- [172] PÍPA, M. - KMENT, A. - JANÍČEK, F.: Cogeneration Units in Laboratories of STU. In: Enhancement of Energy Safety of Slovak Republic : Scientific Conference. Modra-Harmónia, Slovak Republic, November 28, 2013. - Trnava : VUJE, 2013. - ISBN 978-80-89402-66-3. - p. 51-52. (in English)
- [173] PÍPA, M. - KMENT, A. - JANÍČEK, F.: Current State of Renewable Energy Sources Laboratory at FEI STU in Bratislava. In: Electric Power Engineering 2013 : 14th International Scientific Conference. Kouty nad

- Desnou, Czech Republic, May 28-30, 2013. - Ostrava : VŠB - Technical University, 2013. - ISBN 978-80-248-2988-3. - [5] p. (in English)
- [174] PÍPA, M. - KMENT, A. - MARČOK, J.: Electro-Pneumatic Accumulation System. In: Renewable Energy Sources 2013 : 4th International Scientific Conference OZE 2013. Tatranské Matliare, Slovakia, May 21-23, 2013. - Bratislava : STU, 2013. - ISBN 978-80-89402-64-9. - p. 283-288. (in English)
- [175] PÍPA, M. - KMENT, A. - JANÍČEK, F.: Laboratory of Measurements of Photovoltaic System. In: Enhancement of Energy Safety of Slovak Republic : Scientific Conference. Modra-Harmónia, Slovak Republic, November 28, 2013. - Trnava : VUJE, 2013. - ISBN 978-80-89402-66-3. - p. 59-61. (in English)
- [176] PÍPA, M. - KMENT, A. - JANÍČEK, F.: Laboratory of National Centre for Research and Applications of Renewable Energy Sources. In: Electric Power Engineering 2013 : 14th International Scientific Conference. Kouty nad Desnou, Czech Republic, May 28-30, 2013. - Ostrava : VŠB - Technical University, 2013. - ISBN 978-80-248-2988-3. - [5] p. (in English)
- [177] PÍPA, M. - KMENT, A. - JANÍČEK, F.: Laboratory of RESAT FEI STU in Bratislava - Current State. In: Renewable Energy Sources 2013 : 4th International Scientific Conference OZE 2013. Tatranské Matliare, Slovakia, May 21-23, 2013. - Bratislava : STU, 2013. - ISBN 978-80-89402-64-9. - p. 289-294. (in English)
- [178] PÍPA, M. - KMENT, A. - JANÍČEK, F.: ORC Unit Like Accessory of Cogeneration Unit. In: Enhancement of Energy Safety of Slovak Republic : Scientific Conference. Modra-Harmónia, Slovak Republic, November 28, 2013. - Trnava : VUJE, 2013. - ISBN 978-80-89402-66-3. - p. 55-57. (in English)
- [179] PÍPA, M. - KMENT, A. - JANÍČEK, F.: Radiometric, Thermometric and Climatic Laboratory for Photovoltaic Systems. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 19, Special Issue : Conference ELOSYS, Trenčín, 15.-18.10.2013, p. 183-185. (in English)
- [180] PÍPA, M. - KMENT, A. - JANÍČEK, F.: RES Laboratory of National Centre for Research and Applications of Renewable Energy Sources. In: Renewable Energy Sources 2013 : 4th International Scientific Conference OZE 2013. Tatranské Matliare, Slovakia, May 21-23, 2013. - Bratislava : STU, 2013. - ISBN 978-80-89402-64-9. - p. 295-300. (in English)
- [181] PODBERSKÁ, M. - HAJDUČEK, P.: Design of Biomass to Liquid Technology in Conditions of Slovak Republic. In: Renewable Energy Sources 2013 : 4th International Scientific Conference OZE 2013. Tatranské Matliare, Slovakia, May 21-23, 2013. - Bratislava : STU, 2013. - ISBN 978-80-89402-64-9. - p. 105-110. (in English)
- [182] PODBERSKÁ, M. - HAJDUČEK, P.: Gasification Methods. In: Renewable Energy Sources 2013 : 4th International Scientific Conference OZE 2013. Tatranské Matliare, Slovakia, May 21-23, 2013. - Bratislava : STU, 2013. - ISBN 978-80-89402-64-9. - p. 110-116. (in English)
- [183] RIBAR, E. - MURÍN, J.: Mathematical Model of a Supercapacitor Cell. In: ELITECH'13 : 15th Conference of Doctoral Students; Bratislava, Slovakia, 5 June 2013. - Bratislava : STU, 2013. - ISBN 978-80-227-3947-4. - CD-ROM, [5] p. (in English)
- [184] RIBAR, E. - BUGÁR, M. - STAŇÁK, V.: Propulsion System Design for a Small Electric Scooter with Hybrid Energy Storage. In: Renewable Energy Sources 2013 : 4th International Scientific Conference OZE 2013. Tatranské Matliare, Slovakia, May 21-23, 2013. - Bratislava : STU, 2013. - ISBN 978-80-89402-64-9. - p. 301-306. (in English)
- [185] RUSNÁK, A. - DUBNIČKA, R. - KÓMAR, L.: Measurement and Evaluation of Spectral Characteristics of Sky Types. In: Light 2013 : 20th International Conference. Podbanské, Slovakia, October 23-25, 2013. - Bratislava : KONGRES Management s.r.o., 2013. - ISBN 978-80-89275-35-9. - p. 174-181. (in English)
- [186] RUSNÁK, A. - DUBNIČKA, R. - SMOLA, A.: Relation between the Luminance and Correlated Colour Temperature for Based on Luminance Distribution on Hemisphere. In: Light 2013 : 20th International Conference. Podbanské, Slovakia, October 23-25, 2013. - Bratislava : KONGRES Management s.r.o., 2013. - ISBN 978-80-89275-35-9. - p. 166-173. (in English)
- [187] RUSNÁK, J. - PINČÍK, E. - ŠÁLY, V. - PERNÝ, M. - RUŽINSKÝ, M.: The Developed Measuring System for Studying Electrical Properties of Photovoltaic Cells. In: 8th Solid State Surfaces and Interfaces : Extended Abstract Book. Smolenice Castle, Slovak Republic, November 25-28, 2013. - Bratislava : Comenius

- University, 2013. - ISBN 978-80-223-3501-0. - p. 156-157. (in English)
- [188] RUŽINSKÝ, M. - PERNÝ, M. - ŠÁLY, V.: Solar Car Races in the World. In: Renewable Energy Sources 2013 : 4th International Scientific Conference OZE 2013. Tatranské Matliare, Slovakia, May 21-23, 2013. - Bratislava : STU, 2013. - ISBN 978-80-89402-64-9. - p. 455-460. (in English)
- [189] SKORŠEPOVÁ, T. - LELÁK, J.: Defect of the Optical Ground Wire. In: Enhancement of Energy Safety of Slovak Republic : Scientific Conference. Modra-Harmónia, Slovak Republic, November 28, 2013. - Trnava : VUJE, 2013. - ISBN 978-80-89402-66-3. - p. 67-70. (in English)
- [190] SKORŠEPOVÁ, T. - LELÁK, J.: History of Cable's Insulation System and High Voltage Cables. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 19, Special Issue : Conference ELOSYS, Trenčín, 15.-18.10.2013, p. 190-193. (in English)
- [191] SKORŠEPOVÁ, T. - LELÁK, J.: Hydropotential of OECD Countries Focusing on Norway. In: Elektrotechnológia 2013 : International Conference. Terchová, Slovak Republic, 5.-7.6.2013. - Žilina : University of Žilina, 2013. - ISBN 978-80-89072-65-1. - p. 26-32. (in Slovak)
- [192] SKORŠEPOVÁ, T. - LELÁK, J.: Hydropower Potential and Hydro Power Plant. In: Renewable Energy Sources 2013 : 4th International Scientific Conference OZE 2013. Tatranské Matliare, Slovakia, May 21-23, 2013. - Bratislava : STU, 2013. - ISBN 978-80-89402-64-9. - p. 513-518. (in English)
- [193] SKORŠEPOVÁ, T. - LELÁK, J.: Water and Electrical Trees in Cable Insulation. In: ELITECH'13 : 15th Conference of Doctoral Students; Bratislava, Slovakia, 5 June 2013. - Bratislava : STU, 2013. - ISBN 978-80-227-3947-4. - CD-ROM, [4] p. (in English)
- [194] SKORŠEPOVÁ, T.: Water and Electrical Trees in Insulation Systems of HV Cables. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 19, Special Issue : Conference ELOSYS, Trenčín, 15.-18.10.2013, p. 194-196. (in Slovak)
- [195] SLÁMA, J. - GRUSKOVÁ, A. - JANČÁRIK, V. - UŠÁK, E. - ŠOKA, M.: Fe Substitution/Deficiency Influence on the Magnetic Properties of NiZn Ferrites. In: SMM 21. Soft Magnetic Materials Conference. Budapest, Hungary, September 1-4, 2013. - Budapest : Hungarian Academy of Sciences, 2013. - D1-05. (in English)
- [196] SLÁMA, J. - OLAH, V. - GRUSKOVÁ, A. - ŠOKA, M. - FRANEK, J.: Ferrite-Composite Sensors for Challenging Environment Applications. In: ENDE 2013 : 18th International Workshop on Electromagnetic NonDestructive Evaluation. Bratislava, Slovakia, June 25-28, 2013. - Žilina : EDIS, 2013. - ISBN 978-80-554-0713-5. - p. 175-177. (in English)
- [197] SLÁMA, J. - GRUSKOVÁ, A. - GONZÁLES ANGELES, A. - ŠOKA, M. - DOSOUDIL, R.: Magnetic Comparison of Several Divalent and Tetravalent Ions Mixtures Substituted Ba Ferrite. In: CSMAG '13. 15th Czech and Slovak Conference on Magnetism : Košice, Slovak Republic, June 17-21, 2013. - Košice : Pavol Jozef Šafárik University, 2013. - ISBN 978-80-8152-015-0. - p. 152. (in English)
- [198] SLÁMA, J. - GRUSKOVÁ, A. - ŠOKA, M. - DOSOUDIL, R.: Structural and Magnetic Properties of Be-Substituted NiZn Ferrite. In: SMM 21. Soft Magnetic Materials Conference. Budapest, Hungary, September 1-4, 2013. - Budapest : Hungarian Academy of Sciences, 2013. - D1-04. (in English)
- [199] SMITKOVÁ, M.: Accumulation of Energy. In: Renewable Energy Sources 2013 : 4th International Scientific Conference OZE 2013. Tatranské Matliare, Slovakia, May 21-23, 2013. - Bratislava : STU, 2013. - ISBN 978-80-89402-64-9. - p. 307-310. (in English)
- [200] SMITKOVÁ, M. - JANÍČEK, F.: Efficiency of the Westinghouse Cycle. In: Elektroenergetika 2013 : 7th International Scientific Symposium on Electrical Power Engineering. Stará Lesná, Slovakia, September 18-20, 2013. - Košice : Technical University, 2013. - ISBN 978-80-553-1441-9. - p. 215-217. (in English)
- [201] SMITKOVÁ, M. - JANÍČEK, F. - ELESCHOVÁ, Ž. - BELÁŇ, A. - LIŠKA, M.: Impact of the Electricity Mix to the Selected Indicators. In: Recent Advances in Electrical and Computer Engineering : 12th WSEAS Int. Conf. on Applications of Electrical Engineering (AEE'13); 12th WSEAS Int. Conf. on Applications of Computer Engineering (ACE'13); 7th Int. Conf. on Communications and Information Technology (CIT'13); 7th Int. Conf. on Circuits, Systems and Signals (CSS'13). Cambridge, MA, USA, 30.1.-1.2.2013. - WSEAS Press, 2013. - ISBN 978-1-61804-156-2. - p. 15-18. (in English)

- [202] SMITKOVÁ, M. - JANÍČEK, F. - PERNÝ, M. - PÍPA, M.: National Centre for Research and Application of Renewable Energy Sources. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 19, Special Issue : Conference ELOSYS, Trenčín, 15.-18.10.2013, p. 197-199. (in English)
- [203] SMITKOVÁ, M. - MARTINS, F. - JANÍČEK, F. - HAJDUČEK, P.: Renewable Energy Support in Portugal and in Slovakia. In: Electric Power Engineering 2013 : 14th International Scientific Conference. Kouty nad Desnou, Czech Republic, May 28-30, 2013. - Ostrava : VŠB - Technical University, 2013. - ISBN 978-80-248-2988-3. - p. 535-539. (in English)
- [204] SMITKOVÁ, M. - JANÍČEK, F. - MARTINS, F.: Study of the European Energy Scenarios. In: 6th International Conference on Sustainable Energy and Environmental Protection : Maribor, Slovenia, 20-23 August 2013. - Maribor : University of Maribor, 2013. - ISBN 978-961-248-379-1. - p. 263-369. (in English)
- [205] SMITKOVÁ, M. - MARTINS, F.: World and Europe Energy Scenarios. In: Renewable Energy Sources 2013 : 4th International Scientific Conference OZE 2013. Tatranské Matliare, Slovakia, May 21-23, 2013. - Bratislava : STU, 2013. - ISBN 978-80-89402-64-9. - p. 311-316. (in English)
- [206] SMOLA, A.: Saving Artificial Lighting. In: House for 3E Energy saving - Energy secure - Economically efficient. - Bratislava : Eurostav, 2013. - ISBN 978-80-89228-36-2. - p. 95-102. (in Slovak)
- [207] STAŇÁK, V. - BUGÁR, M. - RIBAR, E. - MADARÁS, J. - NOGE, F.: Propulsion System of Advanced Electric Vehicle. In: Renewable Energy Sources 2013 : 4th International Scientific Conference OZE 2013. Tatranské Matliare, Slovakia, May 21-23, 2013. - Bratislava : STU, 2013. - ISBN 978-80-89402-64-9. - p. 317-322. (in English)
- [208] SZABÓ, O. - PERNÝ, M. - FLICKYNGEROVÁ, S. - VAVRINSKÝ, E. - KOVÁČ, J. jr. - TVAROŽEK, V. - ŠÁLY, V.: Automated Workplace for Measurement of PV Cells. In: ADEPT 2013 : 1st International Conference on Advances in Electronic and Photonic Technologies. Nový Smokovec, Slovakia, June 2-5, 2013. - Žilina : University of Žilina, 2013. - ISBN 978-80-554-0689-3. - p. 109-112. (in English)
- [209] SZABÓ, O. - PERNÝ, M. - LELÁK, J. - ŠÁLY, V. - VÁRY, M. - FLICKYNGEROVÁ, S. - VAVRINSKÝ, E.: DC Diagnostics of Solar Cell Parameters. In: Diagnostika '13 : International Conference on Diagnostics in Electrical Engineering CDEE 2013. Pilsen, Czech Republic, September 2-4, 2013. - Pilsen : University of West Bohemia, 2013. - ISBN 978-80-261-0210-6. - p. 215-218. (in English)
- [210] SZABÓ, O. - PERNÝ, M. - FLICKYNGEROVÁ, S. - VAVRINSKÝ, E.: Development of Measuring Workplace to DC Photovoltaic Cells Characterization. In: ŠVOČ 2013 : Students Conference. Bratislava, 23. April 2013. - Bratislava : FEI STU, 2013. - ISBN 978-80-227-3909-2. - p. 131-136. (in Slovak)
- [211] ŠÁLY, V. - PACKA, J. - ĎURMAN, V. - PAPADIMITRIOU, L.: Conduction Measurement in LiNbO3 Electrolyte Thin Films. In: Renewable Energy Sources 2013 : 4th International Scientific Conference OZE 2013. Tatranské Matliare, Slovakia, May 21-23, 2013. - Bratislava : STU, 2013. - ISBN 978-80-89402-64-9. - p. 323-328. (in English)
- [212] ŠÁLY, V. - PACKA, J. - VÁRY, M. - PERNÝ, M. - ĎURMAN, V. - KULICH, O. - SCHLOSSER, V.: Degradation of Solar Cells and Modules under Potential Stress. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 19, Special Issue : Conference ELOSYS, Trenčín, 15.-18.10.2013, p. 186-189. (in English)
- [213] TSOUANIS, A. - STAŇÁK, V.: Electric Mobility Based on Permanent Magnet DC Motors Using Lithium Batteries. In: ELITECH'13 : 15th Conference of Doctoral Students; Bratislava, Slovakia, 5 June 2013. - Bratislava : STU, 2013. - ISBN 978-80-227-3947-4. - CD-ROM, [6] p. (in English)
- [214] UHRÍK, M.: Leakage Inductance of Windings of Axial Flux Machines Used in Sources of Wind Power Plants. In: Renewable Energy Sources 2013 : 4th International Scientific Conference OZE 2013. Tatranské Matliare, Slovakia, May 21-23, 2013. - Bratislava : STU, 2013. - ISBN 978-80-89402-64-9. - p. 519-523. (in English)
- [215] UHRÍK, M.: Modelling and Simulation of Stepper Motors with Permanent Magnets. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 19, Special Issue : Conference ELOSYS, Trenčín, 15.-18.10.2013, p. 210-213. (in English)
- [216] VÁRY, M. - FIRICKÝ, E. - DUBNIČKA, R.: Impact of Irradiation on Si Solar Cells for Concentrator Applications Efficiency. In: Light 2013 : 20th International Conference. Podbanské, Slovakia, October 23-25, 2013. -

- Bratislava : KONGRES Management s.r.o., 2013. - ISBN 978-80-89275-35-9. - p. 219-223. (in English)
- [217] VÁRY, M. - PERNÝ, M. - FIRICKÝ, E. - ŠÁLY, V. - PACKA, J.: In-Situ Assessment and Monitoring of PV System Operation. In: Diagnostika '13 : International Conference on Diagnostics in Electrical Engineering CDEE 2013. Pilsen, Czech Republic, September 2-4, 2013. - Pilsen : University of West Bohemia, 2013. - ISBN 978-80-261-0210-6. - p. 57-61. (in English)
- [218] VÁRY, M. - FIRICKÝ, E. - DANIŠ, M. - ŠÁLY, V.: Laboratory and In-situ Measurement of PV Systems Efficiency Temperature Dependence. In: Renewable Energy Sources 2013 : 4th International Scientific Conference OZE 2013. Tatranské Matliare, Slovakia, May 21-23, 2013. - Bratislava : STU, 2013. - ISBN 978-80-89402-64-9. - p. 467-470. (in English)
- [219] VIGLAŠ, D. - BELÁŇ, A. - VOLČKO, V. - CINTULA, B.: The Internal Market in Electricity and Legislative Developments in Slovak Republic. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 19, Special Issue : Conference ELOSYS, Trenčín, 15.-18.10.2013, p. 214-216. (in English)
- [220] VIGLAŠ, D. - CINTULA, B. - HERETÍK, P. - KOVÁČ, M.: The Possibilities for Reducing Impact of PVE on Voltage in the Distribution System. In: Renewable Energy Sources 2013 : 4th International Scientific Conference OZE 2013. Tatranské Matliare, Slovakia, May 21-23, 2013. - Bratislava : STU, 2013. - ISBN 978-80-89402-64-9. - p. 471-477. (in English)
- [221] VIGLAŠ, D. - CINTULA, B.: Voltage Quality in the Distribution System. In: ELITECH'13 : 15th Conference of Doctoral Students; Bratislava, Slovakia, 5 June 2013. - Bratislava : STU, 2013. - ISBN 978-80-227-3947-4. - CD-ROM, [5] p. (in English)
- [222] VOLČKO, V. - ELESCHOVÁ, Ž. - LIŠKA, M.: Distributed Generation Tripping During Fault in Distribution Net. In: Renewable Energy Sources 2013 : 4th International Scientific Conference OZE 2013. Tatranské Matliare, Slovakia, May 21-23, 2013. - Bratislava : STU, 2013. - ISBN 978-80-89402-64-9. - p. 333-339. (in English)
- [223] VOLČKO, V. - ELESCHOVÁ, Ž. - VIGLAŠ, D. - HERETÍK, P.: Smart Grid - Reference Architecture. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 19, Special Issue : Conference ELOSYS, Trenčín, 15.-18.10.2013, p. 217-220. (in English)
- [224] VOLČKO, V. - ELESCHOVÁ, Ž. - KOVÁČ, M. - HERETÍK, P.: The Influence of Transformer Impedance on Short Circuit Current. In: ELITECH'13 : 15th Conference of Doctoral Students; Bratislava, Slovakia, 5 June 2013. - Bratislava : STU, 2013. - ISBN 978-80-227-3947-4. - CD-ROM, [3] p. (in English)
- [225] VOZÁRIK, M. - BALAŽIA, M. - DARUĽA, I. - SMIEŠKO, M. - SMITKOVÁ, M.: SWOT Analysis of Renewable Energy Sources. In: Renewable Energy Sources 2013 : 4th International Scientific Conference OZE 2013. Tatranské Matliare, Slovakia, May 21-23, 2013. - Bratislava : STU, 2013. - ISBN 978-80-89402-64-9. - p. 341-348. (in English)
- [226] VOZÁRIK, M. - BALAŽIA, M. - SMITKOVÁ, M.: Analysis of Renewable Sources. In: Energetika, strojárstvo. - Bratislava : Infoma Busines Trading, s.r.o., 2013. - ISBN 978-80-89087-58-7. - p. 56-58. (in Slovak)

IX.3 Part of books

- [1] DANKO, J. - MILESICH, T. - BUGÁR, M. - MADARÁS, J.: Characteristic Model of a Shock Absorber in an Unmanned Ground Vehicle. In: Scientific Proceedings Faculty of Mechanical Engineering STU Bratislava. - ISSN 1338-1954. - Vol. 20/2012. - Bratislava : STU, 2013, p. 37-43. (in English)
- [2] FERENČEY, V. - BUGÁR, M. - MADARÁS, J.: The Possibilities of Simulating a UGV 'S Agility and Drivability. In: Scientific Proceedings Faculty of Mechanical Engineering STU Bratislava. - ISSN 1338-1954. - Vol. 20/2012. - Bratislava : STU, 2013, p. 51-57. (in English)

IX.4 Textbooks

- [1] BORBA, L.: Electric Drives and Power Electronics. - Bratislava : STU, 2013. - 227 p. - ISBN 978-80-227-3858-3. (in Slovak)

- [2] GAŠPAROVSKÝ, D.: ABC for Specialisation in Electrical Engineering. - Bratislava : SEZ, 2013. - 458 p. - ISBN 978-80-8106-0588. (in Slovak)
- [3] KOPČA, M. - PACKA, J. - VÁRY, M.: Safety of Electrical Appliances. - Bratislava : STU, 2013. - 215 p. - ISBN 978-80-227-3902-3. (in Slovak)
- [4] KOPČA, M. - VÁRY, M.: Safety of Electrical Appliances-Instructions for Exercises : Instructions for Exercises. - Bratislava : STU, 2013. - 64 p. - ISBN 978-80-227-3901-6. (in Slovak)

IX.5 Patents and Standards

- [1] LELÁK, J. - MURÍN, J. - JANÍČEK, F. - HARSÁNYI, Z.: Universal Device for Measurement of Torsion of Beams : Patent No.: 6551, Mediation Date : 2.10.2013. - 5 p. (in Slovak)
- [2] SEDLÁR, T. - MURÍN, J. - KRÁLOVIČ, V. - KALAŠ, A.: Universal Device for Measurement of Torsion of Beams : Patent No.: 6389, Mediation Date : 22.1.2013. - 10 p. (in Slovak)

INSTITUTE OF TELECOMMUNICATIONS



Director of the Institute

prof. Ing. Ivan Baroňák, PhD.

Tel: +421-2-682 79 604

Fax: +421-2-682 79 601

e-mail: ivan.baronak@stuba.sk

Deputy director: doc. Ing. Rastislav Róka, PhD.

Institute secretary: Michaela Bujková

Administrative staff: Zlatica Mihinová (secretary)

General Information

A main objective of the Institute of Telecommunications is to integrate and in a proactive way evolve content-related educational, scientific, research, experimental and other professional activities. The IT guarantees subjects of the education within the scope of accredited educational programs provisioned at the Slovak University of Technology. By means of educational, scientific, research, experimental and other professional activities, the Institute of Telecommunications is responsible for development of following areas: telecommunication systems, networks and services, the signal processing and multimedia.

Telecommunications are a relatively young program consequential on long-time work and experience. Students take a high concern in the study of Telecommunications and their practical applications are extraordinary in Slovakia and abroad. The pedagogical activity of the Institute of Telecommunications involves the bachelor degree program (Bc.), the master degree program (Ing.), the doctoral degree program (PhD.) and the whole-life education.

The Institute of Telecommunications aims at sustaining its position as a major centre of science and research. By its scientific and professional activities, the IT belongs to progressive teams – the Vice-premier of SR and the Minister of Education „Scientific and Technological Team of the Year“ Award, the „EUROPROJEKT 2011“

Award. Workers of the IT are members of many expert technical committees. The IT solves multiple scientific, technical, government and international projects and has long-time fellowships with telecommunication companies and research institutes in Slovakia and abroad. The IT makes initiatives for participating in European scientific and educational projects. The IT actively supports a development and a popularization of new telecommunication technologies by organizing and co-organizing of international conferences and workshops. A quantity of valuable scientific publications in foreign and national scientific and professional journals and in proceedings from significant international scientific conferences shows evidence of the high professional level of the IT FEI STU members.

Departments of Institute of Telecommunications

Digital Signal Processing

Department chair: doc. Ing. Gregor Rozinaj, PhD.

Switching Systems

Department chair: doc. Ing. Martin Medvecký, PhD.

Transmission Systems

Department chair: prof. Ing. Peter Farkaš, DrSc.

I. STAFF

| | |
|-----------------------------|---|
| Professors | prof. Ing. Ivan Baroňák, PhD., prof. Ing. Peter Farkaš, DrSc., prof. Ing. Jaroslav Polec, PhD. |
| Associate Professors | doc. Ing. Ján Čuchran, PhD., doc. Ing. Kvetoslava Kotuliaková, PhD., doc. Ing. Martin Medvecký, PhD., doc. Ing. Miloš Orgoň, PhD., doc. Ing. Jarmila Pavlovičová, PhD., doc. Ing. Rastislav Róka, PhD., doc. Ing. Gregor Rozinaj, PhD., doc. Ing. Ján Zodl, PhD. |
| Assistant Professors | Ing. Jozef Čepko, PhD., Mgr. Rastislav Guľaša, Ing. Michal Halás, PhD., JUDr. Milan Hlušák, Ing. Ján Hodál, Ing. Erik Chromý, PhD., Ing. Juraj Kačur, PhD., Ing. Matej Kavacký, PhD., Mgr. Lucia Maxonová, Ing. Tomáš Páleník, PhD., Ing. Martin Rakús, PhD., Ing. Renáta Rybárová, PhD., Ing. Eva Samuhelová, Ing. Matúš Turcsány, PhD., Ing. Radoslav Vargic, PhD., Ing. Juraj Vojtko, PhD. |
| Research Workers | Ing. Miroslav Talanda, Ing. Martin Turi Nagy, PhD., Ing. Stanislav Klučík, PhD. |
| Technical Staff | Zlatica Mihinová (secretary), Michaela Bujková, Mgr. Monika Csonková, Ing. Rozália Hudíková, Ing. Maroš Michalík, Alexandra Šafariková |

PhD. Students Ing. Daniel Adamko, Ing. Tomáš Balogh, Ing. Jozef Ban, Ing. Marián Beniak, Ing. Ivan Bešťák, Ing. Juraj Blichár, Ing. Filip Čertík, Ing. Tibor Csóka, Ing. Monika Dávideková, Ing. Ivan Drozd, Ing. Jozef Kenyeres, Ing. Ladislav Kočkovič, Ing. Anna Kondelová, Ing. Adrián Kováč, Ing. Peter Kubizniak, Ing. Ján Kulík, Ing. Matej Kultán, Ing. Martin Lackovič, Ing. Ivan Lapin, Ing. Marek Loderer, Ing. Juraj Londák, Ing. Denisa Luknárová, Ing. Michal Martinovič, Ing. Ivan Minárik, Ing. Angela Mordelová, Ing. Karol Nagy, Ing. Michal Pištek, Juraj Pavlovič, Ing. Ján Tóth, Ing. Marek Vančo, Ing. Mário Varga, Ing. Matúš Vasek, Ing. Ján Vrabec

II. EQUIPMENT

II.1 Teaching and Research Laboratories

- Audioacoustical Laboratory
- E-learning Multimedia Laboratory
- Laboratory of Data Transmission
- Laboratory of Digital Signal Processing
- Laboratory of Next Generation Networks
- Laboratory of Multimedia Communication
- Laboratory of Telecommunications Management Network
- Laboratory of Telecommunications Technology (Optical SDH, RWS)
- NGN Lab

II.2 Special Measuring Instruments and Computers

- Optical Network (SDH – STM, 155 Mbit/s)
- Optical Network (ATM – 155 Mbit/s)
- Multiplexor NORTEL S/DMS 1X (16 x 2,048 Mbit/s)
- IMS platform ALCATEL – LUCENT (Center of Excellence)
- Laboratory NGN PABX OXO Communication Server
- Private Telecommunication System ALCATEL OXE
- Testing System for Delay in IP Networks: CISCO routers 1800 and SW IxChariot®
- FWA system (26 GHz) - VoIP via GTS Slovakia
- FWA system (3,5 GHz) - VoIP and High Speed Internet via GTS Slovakia
- Broadband experimental data network (10 Gbit/s)
- NGN platform for Testbeds and Interconnects
- Telecommunications Videoconference Systems
- Measuring set Wandel and Goltermann IBT 10 (for ISDN interface S0 and U)
- Siemens Node Integrator – Software for Simulation of TMN
- Measuring set Siemens - Carrier Frequency Level Test (Set W2008-K/D2008-K)
- Logic Analyzer Philips PM 3570
- Telecommunications Instructional Teaching Modelling System TIMS-301
- Spectral analyzer HP 3589A

- CAN analyzer CANLAB
- IQ Kiosk

III. TEACHING

III.1 Undergraduate Study (Bc.)

Subject, semester, hours per week for lectures and for seminars or practical exercises, name of the lecturer:

| | | |
|---|------------------|------------------------|
| Telecommunication Technologies | (3rd sem., 3-2h) | M. Orgoň |
| Telecommunication Technologies | (4th sem., 3-2h) | M. Orgoň |
| Communication and Information Networks | (4th sem., 3-2h) | M. Halás |
| Communication Systems | (4th sem., 3-1h) | M. Rakús |
| Digital Communications | (4th sem., 3-2h) | P. Farkaš |
| Analog and Digital Signal Processing I | (5th sem., 3-2h) | R. Vargic |
| Communication Protocols | (5th sem., 3-2h) | T. Páleník |
| Mobile and Satellite Communications I | (5th sem., 3-2h) | P. Farkaš, M. Turcsány |
| Telecommunications Transmission Lines | (5th sem., 3-2h) | J. Čuchran, R. Róka |
| Analog and Digital Signal Processing II | (6th sem., 3-2h) | J. Pavlovičová |
| Digital Transmission Systems and Networks | (6th sem., 3-2h) | J. Čuchran, R. Róka |
| Switching Systems I | (6th sem., 3-2h) | I. Baroňák |

III.2 Graduate Study (Ing.)

| | | |
|---|------------------|------------------------|
| Digital Signal Processing | (1st sem., 3-2h) | G. Rozinaj |
| Mobile and Satellite Communications II | (1st sem., 3-2h) | P. Farkaš, M. Turcsány |
| Mobile and Satellite Communications III | (2nd sem., 3-2h) | P. Farkaš, M. Turcsány |
| Image Compression | (1st sem., 3-2h) | J. Polec |
| Switching Systems II | (1st sem., 3-2h) | I. Baroňák |
| Security of Communication Networks and Services | (1st sem., 3-2h) | M. Orgoň |
| Integration of Digital Networks and Services | (2nd sem., 3-2h) | E. Chromý |
| Probabilistic Models in Telecommunications | (2nd sem., 3-2h) | J. Polec |
| Broadband Switching Systems | (3rd sem., 3-2h) | M. Medvecký |
| Digital Image Processing | (3rd sem., 3-2h) | J. Pavlovičová |
| Digital Speech Processing | (3rd sem., 3-2h) | G. Rozinaj |
| Classification methods for signal processing | (3rd sem., 3-2h) | J. Kačur |
| Optical Communication Systems and Networks | (3rd sem., 3-2h) | R. Róka |
| Private Telecommunication Networks and Services | (3rd sem., 2-3h) | I. Baroňák |
| Telecommunication Legislative | (3rd sem., 2-3h) | I. Baroňák |
| Telecommunication Systems Management | (3rd sem., 3-2h) | M. Medvecký |
| Wavelets and Filter Banks | (3rd sem., 3-2h) | R. Vargic |

III.2 Doctoral study (PhD.)

| | |
|--|------------|
| Theory of Switching and Methodology of its Application in Telecommunications | I. Baroňák |
| Optical Communications - Theory and Methodology of its Application in Telecommunications | J. Čuchran |

| | |
|---|--------------------------|
| Digital Communications Theory and its Applications in Telecommunications Distributed and Photonic Switching – Theory and Methodology of Application in Telecommunications | P. Farkaš M. Medvecký |
| Network Security- Theory and Methodology of its use in Telecommunications | M. Orgoň |
| Digital Image Processing – Theory and Methodology of Applications in Telecommunications | J. Pavlovičová |
| Theory of communication Networks and Methodology its Application in Telecommunications | P. Podhradský |
| Queueing Theory and Methodology of Applications in Telecommunications | J. Polec |
| Optical Transmission Media – Theory and Methodology of its Application in Telecommunications | R. Róka |
| Digital Signal Processing - Theory and Methodology of Applications in Telecommunications | G. Rozinaj |

IV. RESEARCH PROJECTS

IV.1 National Scientific Projects

- Operating program research and development. Center of excellence – SMART technologies, networks and Services II. (IMS Platform for NGN). OPVaV - 2008/4.1/01–SORO. Duration: 2010-2013 (completed). (I. Baroňák)
- Constructing methods for context analysis of text - METKAT. STU grant. Duration: 15.2.2013 - 31.12.2013 (completed). (I. Drozd)
- Modeling of traffic and traffic parameters in IPTV networks. STU grant. Duration: 15.2.2013 - 31.12.2013 (completed). (S. Klúčík)
- 3D Face Recognition. STU grant. Duration: 15.2.2013 - 31.12.2013 (completed). (M. Vančo)
- NARGES - New Algorithms for Gesture Recognition. STU grant. Duration: 15.2.2013 - 31.12.2013 (completed). (I. Minárik)
- Advanced Image Processing Algorithms for Effective Human Face Retrieval and Coding. VEGA 1/0961/11. Duration: 2011-2013 (completed). (J.Pavlovičová)
- The Optimization of Video Coding Efficiency for Transmission and Record. VEGA 1/0602/11. Duration: 2011-2013 (completed). (J. Polec)
- Analysis and Proposal for Advanced Optical Access Networks in the NGN Converged Infrastructure Utilizing Fixed Transmission Media for Supporting Multimedia Services. VEGA 1/0106/11. Duration: 2011-2013 (completed). (R. Róka)
- Optimization of the LTS rules for the phonetic transcription of text. STU grant. Duration: 15.2.2013 - 31.12.2013 (completed). (M. Vasek)
- University's scientific park of STU Bratislava (ÚT participation). ITMS 26240220084. Duration: 4/2013 – 6/2015 (solved). (I. Baroňák)
- Coding for distributed information Cloud infrastructure. VEGA 1/0518/13. Duration: 2013-2016 (solved). (P. Farkaš)
- Utilization of Web-based Training and Learning Systems at the Development of New Educational Programs in the Area of Optical Transmission Media. KEGA 039STU-4/2013. Duration: 2013-2015 (solved). (R. Róka)
- MINCA - Multimedia Information and Communication Technologies - Study Programme in English. KEGA 047STU-4/2013. Duration: 2013-2015 (solved). (G. Rozinaj)
- IMUROSA - Integration of Multimedia Signal Processing Methods into Multimodal Interface and

- Network Applications. VEGA 1/0708/13. Duration: 2013-2015 (solved). (G. Rozinaj)
- MUFLON - Advanced Multimedia Services in the Environment of ICT Future Networks. APVV-0258-12. Duration: 2013-2016 (solved). (G. Rozinaj)

IV.2 International Scientific Project

- FP7 HBB-Next - Next-Generation Hybrid Broadcast Broadband, Small or medium-scale focused research project (STREP) proposal ICT Call 7. FP7-ICT-2011-7- 287848. Duration: 2011-2014 (solved). (G. Rozinaj - FEI STU coordinator)
- IMProVET – Innovative Methodology for Promising VET Areas, Lifelong Learning Programme Leonardo da Vinci Multilateral Projects - Transfer of Innovation 2011. Grant Agreement n° CZ/11/LLP-LdV/TOI/134011. Duration: 2011-2014 (solved). (G.Rozinaj - local coordinator)

V. COOPERATION

V.1 Cooperation in Slovakia

- Alcasys
- Alcatel Lucent Slovakia
- ALISON Slovakia
- API
- Comenius University in Bratislava
- Council for Broadcasting and Retransmission
- Ericsson Slovakia, Bratislava
- GTS Slovakia
- ITM
- Methodical Pedagogical Centers
- Ministry of Economy of Slovak Republic
- Ministry of Interior of Slovak Republic
- Ministry of Transport, Construction and Regional development of Slovak Republic
- NextiraOne
- Nokia Siemens Networks
- NVIDIA, USA
- Orange Slovakia
- PROFiber Networking, Trnava
- PTT Research Institute, Banská Bystrica
- Siemens PSE Slovakia
- Slovak Agricultural University in Nitra
- Slovak Association of Electrotechnical Companies
- Slovak Statistical Office of Slovak Republic
- Slovak Telekom
- Society of Lifelong Learning in Bratislava
- Technical University in Košice
- Telecommunication Office of Slovak Republic
- Telecommunication Users Group Slovakia
- Tesla, Liptovský Hrádok
- University of Trnava
- University of Žilina
- Constantine the Philosopher University, Nitra

V.2 International Cooperation

- Aalborg University Center for Person Kommunikation, Denmark
- Alcatel Stuttgart, Germany
- ARC Seibersdorf research GmbH, Austria
- Budapest Polytechnic, Hungary
- Blekinge Institute of Technology, Sweden
- CELN Prague, CzR
- Croatian Academy of Engineering, Zagreb, HR
- ČVUT in Prague, CzR
- Deutsche Telecom Laboratory in Berlin
- Deutsche Telecom University in Leipzig
- Ericsson, Sweden
- École Nationale des Télécommunications de Bretagne (ENST)
- EMMERCE EEIG, Linköping, Sweden
- Fachhochschule Heilbronn, Germany
- Fachhochschule Oldenburg, Ostfriesland, Wilhelmshaven, University of Applied Sciences, Germany
- Economic Chamber, CzR
- Institut National des Télécommunications (INT), Evry, France
- ISEP Paris, France
- Kingston University, Faculty of Technology, the UK
- Lancaster University, the UK
- The Charta 77 Foundation, CzR
- Nortel, Vienna, Austria
- Polish Academy of Sciences Gliwice, Poland
- Politechnica Poznań, Poland
- Politecnico di Milano
- Portugal Telecom Inovacao (PT Inovacao)
- Rechenzentrum der RWTH Aachen, Germany
- T-Mobile, CzR
- Telenor, Norway
- The National and Kapodistrian University of Athens, Greece
- TU Budapest, Hungary
- TU Graz, Austria
- TU Ljubljana, Slovenia
- TU Maribor, Slovenia
- TU Wien, Austria
- TU Zagreb, Croatia
- TU Tampere
- University of Central Lancashire, the UK
- University of Strathclyde, Glasgow, the UK
- University of Versailles, France
- University of West Bohemia in Pilsen, CzR
- Universty of Hradec Kralove, CzR
- UPC Barcelona, Spain

- VŠB TU in Ostrava, CzR
- VUT in Brno, CzR

VI. THESES

VI.1 Masters Theses

Masters theses written as part of the 5-year-study plan supervised at the Department of Telecommunications. The names of supervisors are in brackets:

- [1] Baran, T.: Communication solution proposal for mobile application that provides communication between the CA, computer and user's mobile device (P. Budiš)
- [2] Baštigál, M.: Theoretic-technical aspects of optic access networks construction (R. Róka)
- [3] Behúl, T.: Admission control methods in NGN networks (E. Chromý)
- [4] Bejdák, D.: Proposed corporate telephony network solution based on Asterisk platform (K. Kotuliaková)
- [5] Bezák, M.: The Use of PLC Technology to Provide New Services (M. Orgoň)
- [6] Bezúrová, A.: Implementation of VoIP technology (M. Talanda)
- [7] Bicko, T.: System of identification and authentication of speaker (J. Vojtko)
- [8] Bíro, T.: Measurements of channel characteristics with WSN (T. Páleník)
- [9] Csóka, T.: Software analyzer of security communication protocols transmitted by an electronic security device (ESD) over a telephone line (J. Polec)
- [10] Divičanová, M.: The compatibility of software based PBXs Asterisk and 3CX (M. Medvecký)
- [11] Doboš, J.: Development of software tools, which are used in search of new binary self-repairing codes (M. Rakús)
- [12] Fačkovec, Ľ.: Security aspects of the wireless network technology used in a corporate network (M. Orgoň)
- [13] Fedor, A.: Resources to simulation of electronic circuits and systems (P. Farkaš)
- [14] Fejfar, M.: Interoperability in IMS networks (M. Kavacký)
- [15] Gábrišová, J.: Design and Implementation of the DWDM system using optical fibers (P. Pavlík)
- [16] Gála, L.: In-Home PLC communication networks on power distribution lines (R. Róka)
- [17] Gorelka, A.: Implementation of SBC within test environment of OpenIMS Core and Asterisk (M. Halás)
- [18] Hanus, M.: Design and realization of corporate network in the IPv4 environment (K. Kotuliaková)
- [19] Hirner, V.: Markovov model of error channels (J. Polec)
- [20] Chovan, R.: IMS Platform (I. Baroňák)
- [21] Jakube, M.: PBX software solutions (S. Klučik)
- [22] Jakuš, T.: The impact of mechanisms to ensure QoS parameters WiFi networks on quality of VoIP communication (M. Halás)
- [23] Janík, M.: Evaluation of selected queue scheduling algorithms in QoS enabled systems (M. Medvecký)
- [24] Jašurková, A.: Implementation of VoIP technology to private telephone networks (M. Talanda)
- [25] Juhász, P.: Possibilities for the utilization of the Carrier Ethernet technology in metropolitan area networks (R. Róka)
- [26] Kasnár, M.: Security of Company Infrastructure (M. Orgoň)
- [27] Kaštíl, M.: VoIP technologies and their use in the SR (M. Talanda)
- [28] Kedro, M.: Markov Models in Contact Center Environment (E. Chromý)
- [29] Kenyeres, M.: Localization in wireless sensors networks (J. Kenyeres)
- [30] Kliment, M.: IMS platform (I. Baroňák)
- [31] Kocián, A.: QoS provisioning in MPLS technology (M. Medvecký)
- [32] Konôpka, M.: The Providing of Triple Play Services by Means of FTTx Technology (M. Medvecký)
- [33] Kosár, F.: Coding and Decoding of Turbo codes (T. Páleník)
- [34] Kušnierik, M.: Linear network coding (P. Farkaš)

- [35] Lackovič, M.: IPTV traffic source modeling (S. Klučík)
- [36] Lancz, G.: Decoding of LDPC Codes (T. Páleník)
- [37] Lehotský, P.: Tunneling mechanisms in the IPv6 (K. Kotuliaková)
- [38] Leško, P.: Adaptive streaming for delivery of multimedia services and multiscreen applications (J. Londák)
- [39] Mačo, P.: Management of IPTV and its assurance in a NGN environment (J. Mikula)
- [40] Maslík, J.: NGN network simulation in OMNeT++ (M. Medvecký)
- [41] Mestyánek, T.: Service IPTV (E. Chromý)
- [42] Mihalovič, J.: Coding facial images with using geometric transformations (J. Polec)
- [43] Michalových, L.: Quality assessment of video signals (J. Polec)
- [44] Mikloš, D.: Automatic System for Video Content Retrieval (J. Pavlovičová)
- [45] Mrváň, A.: Coding techniques for reducing dynamics of OFDM (P. Farkaš)
- [46] Müllner, J.: Technical concept of IMS (M. Kavacký)
- [47] Novák, P.: The traffic protection at the data transmission in the optical medium (R. Róka)
- [48] Oravkinová, M.: Evaluation of the quality of video signals with one-hand and two hand alphabet (J. Polec)
- [49] Pavúková, I.: Analysis and comparison of multimedia services provided on the basis of xDSL technologies in Slovakia (J. Čuchran)
- [50] Pida, P.: Speaker identification based on formant analysis (J. Vojtko)
- [51] Poročák, T.: Measurement of transmission parameters of optical elements (R. Róka)
- [52] Poruban, M.: Digital signature and certification authority (A. Kováč)
- [53] Raškovič, V.: RFID Security (M. Orgoň)
- [54] Sedliak, M.: IMS test network (I. Baroňák)
- [55] Slíž, J.: Measurement of interference WSN and WiFi (T. Páleník)
- [56] Sobkuliak, M.: Standard IEEE 802.11i (P. Trúchly)
- [57] Súkeník, M.: Modeling operational parameters of IP contact centers (I. Baroňák)
- [58] Šimek, M.: Adaptive GOP structure (J. Polec)
- [59] Šišulák, D.: Elearning for subject Digital Transport Hierarchy (E. Samuhelová)
- [60] Škerda, P.: Quality of service for services OTT TV and IPTV in heterogeneous telecommunications environment (J. Mikula)
- [61] Šumný, M.: Systems OSS/BSS in VoIP and NGN environment (J. Londák)
- [62] Šupala, D.: Security architectures in hybrid multimedia networks (J. Matejka)
- [63] Tilinger, P.: Configuration of routing protocols in IPv6 and IPv6 multihoming (K. Kotuliaková)
- [64] Ulehla, M.: The impact of security on IP telephony QoS parameters (M. Halás)
- [65] Urban, P.: Propose solution of VoIP infrastructure (S. Klučík)
- [66] Uváčková, A.: Providing of Triple play services over DOCSIS technology (M. Medvecký)
- [67] Vacek, M.: Equalization in OFDM communication system (T. Páleník)
- [68] Valkovič, Š.: The ensurance of errorless transmission in LTE through hybrid-ARQ schemes deployment (K. Kotuliaková)
- [69] Višenka, F.: Needs and possibilities of data security in small and medium-sized enterprises (R. Kiškovač)
- [70] Votruba, A.: Implementation of IP telephony services with high robustness (M. Hrubý)
- [71] Zbončák, J.: IPTV service via IMS network (M. Kavacký)
- [72] Zváč, P.: Detection of salient regions (J. Kučerová)
- [73] Zvonek, Ľ.: Quality evaluation of static images (J. Polec)

VI.2 PhD Theses

- [1] Hirner, T.: Unequal Coding of Images (J. Polec)
- [2] Kondelová, A.: Modification of Prosody in Speech Synthesis (G. Rozinaj)
- [3] Kováč, A.: VoIP Communication Securing Methods and Modelling of Their Effects on QoS through Modified E-Model (M. Orgoň)

- [4] Massner, S.: Control of interconnectivity in the NGN environment (P. Podhradský)
 [5] Tóth, J.: Context Analysis of Text (G. Rozinaj)

VII. OTHER ACTIVITIES

VII.1 Conferences and Seminars Organized by the Department

- ELOSYS 2013, October 2013 Trenčín, Slovak Republic, (cooperation with FEI STU Bratislava)
- 15th Conference of Doctoral Students - ELITECH 2013, May 2013, Bratislava, Slovak Republic, (cooperation with FEI STU Bratislava)
- 7th International Workshop on Speech and Signal Processing Redžúr 2013, May 2013
 Viena, Austria, (cooperation with FEI STU Bratislava and TU Viena)
- Conference: World Telecommunication and Information Society Day 2013 (WTISD), May 2013, Bratislava, Slovak Republic, (cooperation with SES)
- International Conference - RTT 2013 – Research Telecommunication Technology 2013, September 2013, Senec, Slovak Republic, (cooperation with FEI STU Bratislava)

VIII. MEMBERSHIP IN INSTITUTION/COMMITTEES

VIII.1 Membership in National Institution/Committees

- I. Baroňák: ETS norms, member of National Committee TNK No. 41 for Telecommunications, Transformation of ETS Norms in National Environment
- I. Baroňák: Award of J.Murgaš 2012: member of Committee MDPT SR a SES, Selection Candidate of Award of J.Murgaš for Year 2012
- I. Baroňák: Member of Grant Committee of Ministry of Transport, Construction and Regional Development of Slovak Republic, Bratislava
- I. Baroňák: Scientific Board of the Faculty, Slovak University of Technology in Bratislava, Faculty of Electrical Engineering and Information Technology
- I. Baroňák: VEGA, projects reviewer
- I. Baroňák: APVV (Slovak Research and Development Agency), projects reviewer
- P. Farkaš: Accreditations Committee of Slovak Government - working group for information sciences, information and communication technologies with responsibility also for the area of automation and telecommunications
- J. Kačur: VEGA, projects reviewer
- M. Medvecký: Conference ELITECH 2013, chairman of the session and reviewer
- M. Orgoň: VEGA, project reviewer
- J. Pavlovičová: Scientific Board of the Faculty, Slovak University of Technology in Bratislava, Faculty of Electrical Engineering and Information Technology
- J. Pavlovičová: KEGA, projects reviewer
- J. Pavlovičová: VEGA, projects reviewer
- J. Pavlovičová: Chair of 15th Conference of Doctoral Students ELITECH 2013
- J. Polec: VEGA, projects reviewer
- J. Polec: KEGA, projects reviewer
- J. Polec: Foundation of SPP, projects reviewer
- R. Róka: APVV (Slovak Research and Development Agency), projects reviewer
- R. Róka: CTF in Slovak Republic
- R. Róka: Conference ELITECH 2013, reviewer

VIII.2 Membership in International Institution/Committees

- I. Baroňák: ETSI
- I. Baroňák: CTF in Slovak Republic, Executive committee member - CTF in Slovak Republic
- I. Baroňák: Conference with International Participation: ELOSYS 2013, October 2013, Trenčín, Slovak Republic, member of Program committee,
- I. Baroňák: International Conference - NoTeS 2013 – New Technology and Services in Telecommunications, **Praha, June 2013**, member of Program Committee
- I. Baroňák: International Conference – KTTO Knowledge in Telecommunication Technologies and Optics, November 2013, Scientific and Programme Committee
- I. Baroňák: Journal: AEEE (Advances in Electrical and Electronic Engineering), member of Editorial Board and reviewer
- I. Baroňák: Journal: Radioengineering, member of Editorial Board and reviewer
- I. Baroňák: Journal: Elektrověst, member of Editorial Board and reviewer
- I. Baroňák: GAČR (Grant Agency of Czech Republic), projects reviewer
- I. Baroňák: Journal of Electrical Engineering, reviewer
- I. Baroňák: Journal: Acta electrotechnica et informatica, reviewer
- I. Baroňák: Journal: Integrated Computer-Aided Engineering, reviewer
- I. Baroňák: Conference: World Telecommunication and Information Society Day 2013 (WTISD), May 2013, Bratislava, Slovak Republic, (cooperation with SES), chairman of Program committee
- I. Baroňák: International Conference - RTT 2013 – Research Telecommunication Technology 2013, Senec, Slovak Republic, September 2013, chairman of Program Committee
- P. Farkaš: Journal - Digital Signal Processing, Elsevier, reviewer
- P. Farkaš: Journal - Slaboproudý obzor, member of Editorial Board of the journal
- P. Farkaš: URSI – Official Member in Scientific Commission C - Signals and Systems
- P. Farkaš: Faculty of Informatics Paneuropean University Scientific Board member
- P. Farkaš: IEEE Czechoslovakia Section Chair
- P. Farkaš: GAČR (Grant Agency of Czech Republic), project reviewer
- P. Farkaš: Program committee member and reviewer in following conferences: European Wireless (EW 2013) Guildford, UK, Wireless Telecommunication Symposium (WTS 2013) Phoenix, Arizona, USA, Applied electronics (AE 2013), Plzen, Czech Republic, IEEE Africon 2013, Mauritius, 24-th annual IEEE International Symposium on Personal, Indoor and Mobile Radio Communications (PIMRC 2013) London, UK, IEEE International Conference on Signal Processing and Communications Systems (ICSPCS 2013) Gold Coast Australia, IEEE Global Conference on Signal and Information Processing (GlobalSIP 2013) Austin, Texas, USA.
- M. Halas: Conference RTT 2013, reviewer
- E. Chromý: Journal Advances in Electrical and Electronic Engineering, member of International Scientific Editorial Board and reviewer
- E. Chromý: Research Journal of Modeling and Simulation, member of Editorial Board and reviewer
- E. Chromý: International Conference KTTO 2013, Hradec nad Moravicí, Czech Republic, member of Scientific and Programme Committee
- E. Chromý: International Conference RTT 2013, Senec, Slovak Republic, member of Organizing and Reviewers Committees
- E. Chromý: Conference: World Telecommunication and Information Society Day 2013 (WTISD), May 2013, Bratislava, Slovak Republic, (cooperation with SES), member of Program Committee
- E. Chromý: International Journal of Communication Networks and Information Security, reviewer
- E. Chromý: WSEAS Transactions on Communications Journal, reviewer
- E. Chromý: WSEAS Transactions on Systems Journal, reviewer
- E. Chromý: 17th WSEAS International Conference on Systems, reviewer
- E. Chromý: 36th International Conference TSP 2013, Rome, Italy, reviewer
- J. Kačur: Hindawi, reviewer

- J. Kačur: Electrotechnics magazine - Elektrotechnika, reviewer
- J. Kačur: TSP 2013, reviewer
- J. Kačur: RTT 2013, reviewer
- J. Kačur: Workshop Redžúr 2013, member of Program and Reviewers Committees
- S. Klučík: 15th International Conference on Research in Telecommunication Technologies – RTT 2013, Senec, Slovak Republic, member of Organizing Committee
- A. Kondelová: Workshop Redžúr 2013, member of Organizing and Reviewers Committees
- K. Kotuliaková: Conference RTT 2013, member of the Programme Committee, chairman of Organizing Committee
- Medvecký: Conference TSP 2013, Scientific Programme Committee member and reviewer
- M. Medvecký: Journal - Journal of Applied Research and Technology, reviewer
- M. Medvecký: Journal - AEEE, reviewer
- M. Medvecký: Conference ELOSYS 2013, chairman of the section
- M. Medvecký: Conference RTT 2013, reviewer
- M. Orgoň: Conference ELOSYS 2013, member of Program and Reviewers Committees
- M. Orgoň: Radioengineering, reviewer
- M. Orgoň: Journal - AEEE, reviewer
- M. Orgoň: Conference TSP 2013, Roma, Italy, reviewer
- M. Orgoň: Conference RTT 2013, reviewer
- T. Páleník: IEEE
- J. Pavlovičová: Journal of Electrical Engineering, reviewer
- J. Pavlovičová: ELITECH'13, member of Program and Review Committee
- J. Pavlovičová: Workshop Redžúr 2013, member of Program and Review Committee
- J. Polec: Radioengineering, member of Editorial Board
- J. Polec: World Academy of Science, Engineering and Technology, reviewer
- J. Polec: International Conference WASET, Barcelona October 2013, section chair
- M. Rakús: IEEE, IEEE Czechoslovakia Chapter- Executive Committee member
- M. Rakús: Conference RTT 2013, reviewer
- R. Róka: IEEE
- R. Róka: International Journal of Communication Networks and Information Security, Area Editor
- R. Róka: International Journal of Communication Networks and Information Security, member of the Editorial Board and reviewer
- R. Róka: International Journal of Computer Communications and Wireless Networks, member of the Editorial Board and reviewer
- R. Róka: International Journal of Distributed Sensor Networks, reviewer
- R. Róka: Journal Advances in Electrical and Electronic Engineering, reviewer
- R. Róka: Journal Elektrotechnika, reviewer
- R. Róka: Journal Measurement Science Review, reviewer
- R. Róka: Journal Radioengineering, reviewer
- R. Róka: Conference TSP 2013, member of the Scientific Programme Committee and reviewer
- R. Róka: Conference OK 2013, member of the Scientific Programme Committee
- R. Róka: Conference KTTO 2013, chairman of the section
- R. Róka: Conference RTT 2013, co-chairman of the Scientific and Programme Committee, chairman of Reviewer Committee, chairman of the section
- G. Rozinaj: IET
- G. Rozinaj: Workshop Redžúr 2013, General Chair
- G. Rozinaj: Workshop Redžúr 2013, member of Program and Reviewers Committees
- G. Rozinaj: International Journal of Signal and Imaging Systems Engineering (IJSISE) member of Editorial board
- G. Rozinaj: Conference IWSSIP 2013, member of Program and Reviewers Committees
- G. Rozinaj: Journal of Electrical Engineering, reviewer
- G. Rozinaj: Acta Electrotechnica et Informatica, member of Editorial Board
- G. Rozinaj: EURASIP Journal on Advances in Signal Processing, member of Editorial Board

- G. Rozinaj: Conference ELMAR 2013, member of Program and Reviewers Committees, invited lecturer, chairman of the session
- R. Rybárová: Workshop Redžúr 2013, reviewer
- J. Tóth: Workshop Redžúr 2013, member of Organizing and Reviewers Committees
- M. Turi Nagy: Workshop Redžúr 2013, member of Program and Reviewers Committees

- M. Turi Nagy: Conference RTT 2013, member of Program Committee
- R. Vargic: Workshop Redžúr 2013, reviewer
- R. Vargic: Radioengineering, reviewer
- R. Vargic: Elektrovie, reviewer
- R. Vargic: EURASIP Journal on Advances in Signal Processing, reviewer

IX. PUBLICATIONS

IX.1 Journals

- [1] BAROŇÁK, I. - ZIGO, B.: The Role of Telecommunications in the Next-Generation Energy Networks - Smart Grid. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 19, No. 1 (2013), p. 34-36. (in Slovak)
- [2] BAROŇÁK, I. - CHROMÝ, E.: Telecommunications from FEI on ELOSYS 2013. In: Spektrum. - ISSN 1336-2593. - Vol. 20, Iss. 3 (2013), p. 10. (in Slovak)
- [3] BEŠŤÁK, I. - ORGOŇ, M.: Smart Technologies in Telecommunications. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 19, No. 3 (2013), p. 34-35. (in Slovak)
- [4] BEŠŤÁK, I. - ORGOŇ, M.: The Use of Encryption Algorithms in PLC Networks. In: International Journal of Information Technology and Business Management. - ISSN 2304-0777. - Vol. 13, Iss. 1 (2013), p. 38-43. (in English)
- [5] HANÚSKOVÁ, V. - PAVLOVIČOVÁ, J. - ORAVEC, M. - BLAŠKO, R.: Diabetic Retinopathy Screening by Bright Lesions Extraction from Fundus Images. In: Journal of Electrical Engineering. - ISSN 1335-3632. - Vol. 64, No. 5 (2013), p. 311-316. (in English)
- [6] HERIBANOVÁ, P. - KUČEROVÁ, J. - POLEC, J.: Key Frames Extraction for Sign Language Using Visual Attention Approach. In: World Academy of Science, Engineering and Technology. - ISSN 2010-376X. - Iss. 82 (2013), p. 561-567. (in English)
- [7] HERIBANOVÁ, P. - POLEC, J. - MARTINOVIČ, M.: Video Quality Control Using a ROI and Two-Component Weighted Metrics. In: World Academy of Science, Engineering and Technology. - ISSN 2010-376X. - Iss. 79 (2013), p. 708-711. (in English)
- [8] HIRNER, T. - POLEC, J.: Unequal Error Protection of Facial Features for Personal ID Images Coding. In: World Academy of Science, Engineering and Technology. - ISSN 2010-376X. - Iss. 78 (2013), p. 472-478. (in English)
- [9] CHROMÝ, E. - JADROŇ, M. - KAVACKÝ, M. - KLUČIK, S.: Admission Control in IMS Networks. In: Advances in Electrical and Electronic Engineering. - ISSN 1336-1376. - Vol. 11, No. 5 Sp. Iss (2013), p. 373-379. (in English)
- [10] CHROMÝ, E. - JADROŇ, M. - BEHÚL, T.: Admission Control Methods in IP Networks. In: Advances in Multimedia. - ISSN 1687-5680. - Vol. 2013 (2013), Art. No. 918930. (in English)
- [11] CHROMÝ, E. - BEHÚL, T.: Measurement Based Admission Control Methods in IP Networks. In: International Journal of Information Technology and Computer Science. - ISSN 2074-9007. - Vol. 5, Iss. 10 (2013), p. 1-8. (in English)
- [12] KENYERES, J. - KENYERES, M. - RUPP, M. - FARKAŠ, P.: Connectivity-Based Self-Localization in WSNs. In: Radioengineering. - ISSN 1210-2512. - Vol. 22, No. 3 (2013), p. 818-827. (in English)
- [13] KAČUR, J. - ROZINAJ, G.: Building Accurate and Robust HMM Models for Practical ASR Systems. In: Telecommunication Systems. - ISSN 1018-4864. - Vol. 52, No. 3 (2013), p. 1683-1696. (in English)
- [14] KLUČIK, S. - LACKOVIČ, M.: Modelling of H.264 MPEG2 TS Traffic Source. In: Advances in Electrical and Electronic

- Engineering. - ISSN 1336-1376. - Vol. 11, No. 5 Sp. Iss (2013), p. 404-409. (in English)
- [15] KOČKOVIČ, L. - BAROŇÁK, I.: Alternatives Providing IPTV Using IMS. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 19, No. 1 (2013), p. 37-39. (in Slovak)
- [16] KONDELOVÁ, A. - TÓTH, J. - ROZINAJ, G.: Statistical Approach for Prosody Contour Modeling based on Sentence Classification. In: Elektrovue. - ISSN 1213-1539. - Vol. 4. No. 2 (2013), online, p. 34-39. (in English)
- [17] KOTULIAKOVÁ, K. - ŠIMLAŠTIKOVÁ, D. - POLEC, J.: Analysis of ARQ Schemes. In: Telecommunication Systems. - ISSN 1018-4864. - Vol. 52, No. 3 (2013), p. 1677-1682. (in English)
- [18] KRULIKOVSKÁ, L. - POLEC, J. - MARTINOVIČ, M.: Adaptive Group of Pictures Structure Based On the Positions of Video Cuts. In: World Academy of Science, Engineering and Technology. - ISSN 2010-376X. - Iss. 79 (2013), p. 618-621. (in English)
- [19] MARTINOVIČ, M. - POLEC, J. - KOTULIAKOVÁ, K.: An Adaptive ARQ - HARQ Method with Two RS Codes. In: World Academy of Science, Engineering and Technology. - ISSN 2010-376X. - Iss. 76 (2013), p. 225-229. (in English)
- [20] MOKRÁŇ, M. - RÓKA, R.: Phase Shift Keying in the Optical Transmission Medium. In: Posterus. - ISSN 1338-0087. - Vol. 6, Iss. 11 (2013), online [12] p. (in Slovak)
- [21] PARTILA, P. - VOZNAK, M. - KOVÁČ, A. - HALÁS, M.: Jitter Buffer Loss Estimate for Effective Equipment Impairment Factor. In: International Journal of Mathematics and Computers in Simulation. - ISSN 1998-0159. - Vol. 7, Iss. 3 (2013), p. 241-248. (in English)
- [22] PETRÁŠ, D. - BAROŇÁK, I. - CHROMÝ, E.: Presence Service in IMS. In: The Scientific World Journal. - ISSN 1537-744X. - Vol. 2013 (2013), Art.No. 606790, [8] p. (in English)
- [23] PIŠTEK, M. - MEDVECKÝ, M.: Bandwidth Allocation Methods in MPLS-TE Networks. In: Posterus. - ISSN 1338-0087. - Vol. 6, Iss. 10 (2013), online [15] p. (in English)
- [24] POLEC, J. - ŠIMEK, M. - MARTINOVIČ, M. - ŠIKUDOVA, E.: A Content-Based Optimization of Data Stream Television Multiplex. In: World Academy of Science, Engineering and Technology. - ISSN 2010-376X. - Iss. 82 (2013), p. 418-423. (in English)
- [25] POLEC, J. - HIRNER, V. - MARTINOVIČ, M. - KOTULIAKOVÁ, K.: A Generator from Cascade Markov Model for Packet Loss and Subsequent Bit Error Description. In: World Academy of Science, Engineering and Technology. - ISSN 2010-376X. - Iss. 76 (2013), p. 219-224. (in English)
- [26] POLEC, J. - HERIBANOVÁ, P. - HIRNER, T.: Key Frames Extraction for Sign Language Video Analysis and Recognition. In: World Academy of Science, Engineering and Technology. - ISSN 2010-376X. - Iss. 78 (2013), p. 479-483. (in English)
- [27] RÓKA, R.: Application of PLC Technology in the Access Network and Analysis of Transmission Parameters of PLC Signals. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 19, No. 1 (2013), p. 40-42. (in Slovak)
- [28] RÓKA, R.: The Analysis of SARDANA HPON Networks Using the HPON Configuration. In: Advances in Electrical and Electronic Engineering. - ISSN 1336-1376. - Vol. 11, No. 5 Sp. Iss. (2013), p. 522-527. (in English)
- [29] RÓKA, R.: The Analysis of Success HPON Networks Using the HPON Network Configurator. In: Advances in Electrical and Electronic Engineering. - ISSN 1336-1376. - Vol. 11, No. 5 Sp. Iss. (2013), p. 420-425. (in English)
- [30] ROZINAJ, G.: Editorial. In: Telecommunication Systems. - ISSN 1018-4864. - Vol. 52, No. 3 (2013), p. 1615-1616. (in English)
- [31] TÓTH, J. - KONDELOVÁ, A. - ROZINAJ, G.: Advanced Text Categorization Methods with Statistical Approach. In: Elektrovue. - ISSN 1213-1539. - Vol. 4. No. 2 (2013), online, p. 40-44. (in English)
- [32] VARGIC, R. - KOTULIAK, I. - VRÁBEL, A. - HUSÁK, F.: Provisioning of VoIP Services for Mobile Subscribers Using WiFi Access Network. In: Telecommunication Systems. - ISSN 1018-4864. - Vol. 52, No. 3 (2013), p. 1705-1711. (in English)
- [33] VOJTKO, J. - KAČUR, J. - ROZINAJ, G. - KÖRÖSI, J.: Acoustic Model Training for Speech Recognition over Mobile Networks. In: International Journal of Signal and Imaging Systems Engineering. - ISSN 1748-0698. - Vol.6, No. 2 (2013), p. 65-74. (in English)
- [34] YASSINE, A. - FARKAŠ, P.: One Hybrid ARQ for Broadcasting or Multicasting in Wireless Erasure Channel. In: Telecommunication Systems. - ISSN 1018-4864. - Vol. 52, No. 3 (2013), p. 1525-1532. (in English)

IX.2 Conference Proceedings

- [1] ADAMKO, D. - ORGOŇ, M.: Operational Management of Domestic Wireless Networks. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 19, Special Issue : Conference ELOSYS, Trenčín, 15.-18.10.2013, p. 221-223. (in Slovak)
- [2] BAN, J. - FÉDER, M. - JIRKA, V. - LODERER, M. - OMELINA, Ľ. - ORAVEC, M. - PAVLOVIČOVÁ, J.: An Automatic Training Process Using Clustering Algorithms for Face Recognition System. In: Proceedings ELMAR-2013 : 55th International Symposium. Zadar, Croatia, 25-27 September 2013. - Zadar : Croatian Society Electronics in Marine, 2013. - ISBN 978-953-7044-14-5. - p. 15-18. (in English)
- [3] BAN, J. - FÉDER, M. - OMELINA, Ľ. - ORAVEC, M. - PAVLOVIČOVÁ, J.: Face Recognition under Partial Occlusion and Noise. In: EUROCON 2013 : IEEE Conference. Zagreb, Croatia, 1-4 July 2013. - Piscataway : IEEE, 2013. - ISBN 978-1-4673-2231-7. - p. 2072-2079. (in English)
- [4] BAROŇÁK, I. - ŽIGO, B.: Center of Excelent – Smart Technologies, Systems and Services. In: New Technology and Services in Telecommunications : 7th Czech-Slovak Conference. Prague, Czech Republic, 19.-20.6.2013. - Prague : ČSVTS, 2013. - CD-ROM, [11] p. (in Slovak)
- [5] BELAN, B. - ORGOŇ, M.: The Impact of Encryption to Protect Data Transmitted in the Network PLC. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 19, Special Issue : Conference ELOSYS, Trenčín, 15.-18.10.2013, p. 255-258. (in Slovak)
- [6] BEŠŤÁK, I. - KOSZTOLÁNYI, J. - ORGOŇ, M.: Secure Communication in PLC Networks. In: RTT 2013. Research in Telecommunication Technology: 15th International Conference. Senec, Slovak Republic, September 11-13, 2013. - Bratislava : FEI STU, 2013. - ISBN 978-80-227-4026-5. - CD-ROM, p. 102-109. (in English)
- [7] BLICHÁR, J. - KAČUR, J. - VARGA, M. - DROZD, I.: Development of Speaker Identification Application for HBB - NEXT Project. In: Redžúr 2013 : 7th International Workshop on Multimedia and Signal Processing; Smolenice, Slovakia, May 1, 2013. - Bratislava : STU, 2013. - ISBN 978-80-227-3921-4. - p. 45-48. (in English)
- [8] ČERTÍK, F.: Advanced Modulation Techniques and their Resistance to the Polarization Mode Dispersion PMD. In: KTTO 2013. Knowledge in Telecommunication Technologies and Optic : 13th International Conference. Hradec nad Moravicí, Czech Republic, September 4-6, 2013. - Ostrava : VŠB - Technical University of Ostrava, 2013. - p. 15. (in English)
- [9] ČERTÍK, F.: The Propagation of Higher Modulated Formats Via Single Mode Optical Fiber. In: RTT 2013. Workshop Research in Telecommunication Technology : Senec, Slovak Republic, September 11-13, 2013. - Bratislava : STU, 2013. - ISBN 978-80-227-4025-8. - p. 71-82. (in English)
- [10] ČERTÍK, F.: The Propagation of 10 Gbit/s OOK Modulated Signal via SM Optical Fiber. In: RTT 2013. Research in Telecommunication Technology: 15th International Conference. Senec, Slovak Republic, September 11-13, 2013. - Bratislava : FEI STU, 2013. - ISBN 978-80-227-4026-5. - CD-ROM, p. 96-101. (in English)
- [11] DANÓCI, R. - BAROŇÁK, I.: Admission Control Methods in IMS Networks. In: ŠVOČ 2013 : Students Conference. Bratislava, Slovak Republic, 23 April 2013. - Bratislava : FEI STU, 2013. - ISBN 978-80-227-3909-2. - p. 402-407. (in Slovak)
- [12] DÁVIDEKOVÁ, M. - FARKAŠ, P. - RUŽICKÝ, E.: Generalized Construction of Two-Dimensional Complete Complementary Codes. In: TSP 2013 Telecommunications and Signal Processing : 36th International Conference on Telecommunications and Signal Processing; Rome, Italy, July 2-4, 2013. - Brno : VUT, 2013. - ISBN 978-1-4799-0403-7. - p. 747-750. (in English)
- [13] DÁVIDEKOVÁ, M.: Generalized Construction of Two-Dimensional Quasi Complete Complementary Codes. In: IDS 2013. International Doctoral Seminar 2013 : 8th International Doctoral Seminar (IDS 2013), Dubrovnik, 13 - 15 May 2013. - Zagreb : University of Zagreb, 2013. - ISBN 978-953-6071-40-1. - p. 46-52. (in English)
- [14] DROZD, I. - ROZINAJ, G.: HMM-Based Speech Synthesis. In: Redžúr 2013 :7th International Workshop on Multimedia and Signal Processing; Smolenice, Slovakia, 1. Máj 2013. - Bratislava : STU, 2013. - ISBN 978-80-227-3921-4. - p. 1-4. (in English)
- [15] DROZD, I. - TÓTH, J. - ROZINAJ, G.: Text Categorization Implementation into the Modular Speech Synthesizer. In: Proceedings ELMAR-2013 : 55th International Symposium. Zadar, Croatia, 25-27 September 2013. - Zadar : Croatian Society Electronics in Marine, 2013. - ISBN 978-953-7044-14-5. - p. 195-198. (in English)
- [16] FAČKOVEC, Ľ. - ORGOŇ, M.: Measuring the Impact of Security Protocols for Bit Rate. In: EE časopis pre elektrotechniku a

- energetiku. - ISSN 1335-2547. - Vol. 19, Special Issue : Conference ELOSYS, Trenčín, 15.-18.10.2013, p. 228-233. (in Slovak)
- [17] FARKAŠ, P. - RUŽICKÝ, E.: Modified Conditionally Double Error Correcting Weighted Sum Codes. In: Applied Electronics 2013 : 18th International Conference. Pilsen, Czech Republic, 10-12 September 2013. - Pilsen : University of West Bohemia, 2013. - ISBN 978-80-261-0166-6. - p. 1-2. (in English)
- [18] FARKAŠ, P. - RUŽICKÝ, E.: Physical Layer Network Coding with Feedback for One Simple Body Area Wireless Sensor Network. In: ICHI 2013 The International Conference on Health Informatics : IFMBE Proceedings Vol. 42. Vilamoura, Portugal, November 7-9 2013. - Heidelberg : Springer, 2013. - ISBN 978-3-319-03004-3. - CD-ROM, p. 152-154. (in English)
- [19] FARKAŠ, P. - RUŽICKÝ, E.: Two New Families of Simple Trans-Control Codes. In: SoftCom 2013 : International Conference on Software Telecommunications and Computer Networks. Split-Primošten, Croatia, September 18-20, 2013. - Split : University of Split, 2013. - ISBN 978-953-290-041-5. - USB [4] p. (in English)
- [21] GRAJCIAR, P. - PAVLOVIČOVÁ, J. - ORAVEC, M.: Simulation of Routing Protocols in Ad-Hoc Wireless Networks. In: IN-TECH 2013 : International Conference on Innovative Technologies, Budapest, Hungary 10.-13.09.2013. - Rijeka : Faculty of Engineering University of Rijeka, 2013. - ISBN 978-953-6326-88-4. - p. 213-216. (in English)
- [22] HÖSSNER, F. - ORGOŇ, M.: The Use of PLC Networks for Telecommunication Purposes. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 19, mimoriadne No. : ELOSYS, Trenčín, 15.-18.10.2013 (2013), p. 239-242. (in Slovak)
- [23] HÖSSNER, F. - BELAN, B. - ŠTURDÍK, T. - ORGOŇ, M.: Measurement of Transmission Speed and Impact of Encryption on the PLC Network. In: ŠVOČ 2013 : Students Conference. Bratislava, Slovak Republic, 23 April 2013. - Bratislava : FEI STU, 2013. - ISBN 978-80-227-3909-2. - p. 442-447. (in Slovak)
- [24] CHROMÝ, E. - JADROŇ, M. - KAVACKÝ, M. - KLUČIK, S.: Admission Control in IMS Networks. In: KTTO 2013. Knowledge in Telecommunication Technologies and Optic : 13th International Conference. Hradec nad Moravicí, Czech Republic, September 4-6, 2013. - Ostrava : VŠB - Technical University of Ostrava, 2013. - p. 21. (in English)
- [25] CHROMÝ, E. - ORGOŇ, M.: Institute of Telecommunications on ELOSYS 2012. In: Yearbook of the FEI STU Alumni and Friends Association 2012. - Bratislava : STU, 2013. - ISBN 978-80-227-3869-9. - p. 103-104. (in Slovak)
- [26] CHROMÝ, E. - PETRÁN, Š. - KAVACKÝ, M.: Modeling of Contact Center Traffic. In: RTT 2013. Research in Telecommunication Technology : 15th International Conference. Senec, Slovak Republic, September 11-13, 2013. - Bratislava : FEI STU, 2013. - ISBN 978-80-227-4026-5. - CD-ROM, p. 110-115. (in English)
- [27] JADROŇ, M. - CHROMÝ, E.: Control Methods in IMS Networks. In: ŠVOČ 2013 : Students Conference. Bratislava, Slovak Republic, 23 April 2013. - Bratislava : FEI STU, 2013. - ISBN 978-80-227-3909-2. - p. 453-458. (in Slovak)
- [28] JANÍK, M. - MEDVECKÝ, M.: The Comparison of QSD Algorithms with QoS Support. In: ŠVOČ 2013 : Students Conference. Bratislava, Slovak Republic, 23 April 2013. - Bratislava : FEI STU, 2013. - ISBN 978-80-227-3909-2. - p. 459-464. (in Slovak)
- [29] JANVARS, T. - FARKAŠ, P.: Punctured 2D Turbo Product Codes and Their Performance. In: TSP 2013 : 36th International Conference on Telecommunications and Signal Processing; Rome, Italy, July 2-4, 2013. - Brno : VUT, 2013. - ISBN 978-1-4799-0403-7. - p. 259-262. (in English)
- [30] JUHAS, J. - HALCIN, J. - ORGOŇ, M.: Use Modern Technology to Promote Traditional Slovak Folk Culture. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 19, Special Issue : Conference ELOSYS, Trenčín, 15.-18.10.2013, p. 243-247. (in Slovak)
- [31] KÁČER, J. - ORGOŇ, M.: Proposal VPN Network for Medium-Sized Enterprise. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 19, Special Issue : Conference ELOSYS, Trenčín, 15.-18.10.2013, p. 248-250. (in Slovak)
- [32] KAČUR, J. - VARGA, M. - ROZINAJ, G.: Speaker Identification in a Multimodal Interface. In: Proceedings ELMAR-2013 : 55th International Symposium. Zadar, Croatia, 25-27 September 2013. - Zadar : Croatian Society Electronics in Marine, 2013. - ISBN 978-953-7044-14-5. - p. 191-194. (in English)
- [33] KLUČIK, S. - LACKOVIČ, M.: IPTV Packet Delay Variation and its Probability Density Functions in Walled Garden

- Environment. In: RTT 2013. Research in Telecommunication Technology : 15th International Conference. Senec, Slovak Republic, September 11-13, 2013. - Bratislava : FEI STU, 2013. - ISBN 978-80-227-4026-5. - CD-ROM, p. 116-121. (in English)
- [34] KLUČIK, S. - LACKOVIČ, M.: Modelling of H.264 MPEG2 TS Traffic Source. In: KTTO 2013. Knowledge in Telecommunication Technologies and Optic : 13th International Conference. Hradec nad Moravicí, Czech Republic, September 4-6, 2013. - Ostrava : VŠB - Technical University of Ostrava, 2013. - p. 21. (in English)
- [35] KOCIÁN, A. - MEDVECKÝ, M.: The Impact of Routing on Quality of Service in MPLS Networks. In: ŠVOČ 2013 : Students Conference. Bratislava, Slovak Republic, 23 April 2013. - Bratislava : FEI STU, 2013. - ISBN 978-80-227-3909-2. - p. 471-475. (in Slovak)
- [36] KOČKOVIČ, L. - BAROŇÁK, I.: Open-Source Private Branch Exchanges Asterisk Solution. In: RTT 2013. Workshop Research in Telecommunication Technology : Senec, Slovak Republic, September 11-13, 2013. - Bratislava : STU, 2013. - ISBN 978-80-227-4025-8. - p. 119-128. (in English)
- [37] KONDELOVÁ, A. - TÓTH, J. - SEMBER, M. - ROZINAJ, G.: Prosody Modification by using Sinusoidal Models. In: Redžúr 2013 : 7th International Workshop on Multimedia and Signal Processing. Smolenice, Slovakia, May 1, 2013. - Bratislava : STU, 2013. - ISBN 978-80-227-3921-4. - p. 9-13. (in English)
- [40] KULTAN, M. - MEDVECKÝ, M.: Comparison of Positioning Methods and Systems and Proposition of Ultrasound Positioning System for Precise Applications. In: RTT 2013. Workshop Research in Telecommunication Technology : Senec, Slovak Republic, September 11-13, 2013. - Bratislava : STU, 2013. - ISBN 978-80-227-4025-8. - p. 13-24. (in English)
- [41] LACKOVIČ, M.: Modelling an IPTV Traffic Source. In: ŠVOČ 2013 : Students Conference. Bratislava, Slovak Republic, 23 April 2013. - Bratislava : FEI STU, 2013. - ISBN 978-80-227-3909-2. - p. 415-420. (in Slovak)
- [42] LODERER, M. - PAVLOVIČOVÁ, J.: Comparison of Gabor Filters for Facial Features Localization. In: Redžúr 2013 : 7th International Workshop on Multimedia and Signal Processing. Smolenice, Slovakia, May 1, 2013. - Bratislava : STU, 2013. - ISBN 978-80-227-3921-4. - p. 61-64. (in English)
- [43] MINÁRIK, I. - ROZINAJ, G.: Brain-Inspired Techniques for Gesture Recognition. In: Redžúr 2013 : 7th International Workshop on Multimedia and Signal Processing. Smolenice, Slovakia, May 1, 2013. - Bratislava : STU, 2013. - ISBN 978-80-227-3921-4. - p. 53-56. (in English)
- [44] MOKRÁŇ, M. - RÓKA, R.: Phase Modulation Formats in the Optical Transmission Medium. In: ŠVOČ 2013 : Students Conference. Bratislava, Slovak Republic, 23 April 2013. - Bratislava : FEI STU, 2013. - ISBN 978-80-227-3909-2. - p. 390-395. (in Slovak)
- [45] MOLČAN, Ľ. - MITRO, M. - VANČO, M.: Gesture Recognition for HBB-Next. In: Redžúr 2013 : 7th International Workshop on Multimedia and Signal Processing. Smolenice, Slovakia, May 1, 2013. - Bratislava : STU, 2013. - ISBN 978-80-227-3921-4. - p. 49-52. (in English)
- [46] ORGOŇ, M. - BEŠŤÁK, I.: Mobile Networks Security. In: RTT 2013. Workshop Research in Telecommunication Technology : Senec, Slovak Republic, September 11-13, 2013. - Bratislava : STU, 2013. - ISBN 978-80-227-4025-8. - p. 129-136. (in English)
- [47] PETRÁN, Š. - CHROMÝ, E.: Traffic Modeling in Contact Centers. In: ŠVOČ 2013 : Students Conference. Bratislava, Slovak Republic, 23 April 2013. - Bratislava : FEI STU, 2013. - ISBN 978-80-227-3909-2. - p. 408-413. (in Slovak)
- [48] PETRÁŠ, D. - BAROŇÁK, I.: Presence Service in IMS. In: ŠVOČ 2013 : Students Conference. Bratislava, Slovak Republic, 23 April 2013. - Bratislava : FEI STU, 2013. - ISBN 978-80-227-3909-2. - p. 465-470. (in Slovak)
- [49] PIŠTEK, M. - MEDVECKÝ, M.: Comparison of Standardized Bandwidth Constraint Models. In: ELITECH'13 : 15th Conference of Doctoral Students. Bratislava, Slovakia, 5 June 2013. - Bratislava : STU, 2013. - ISBN 978-80-227-3947-4. - CD-ROM, [6] p. (in English)
- [50] PIŠTEK, M. - MEDVECKÝ, M.: Performance Evaluation of Maximum Allocation Model. In: RTT 2013. Workshop Research in Telecommunication Technology : Senec, Slovak Republic, September 11-13, 2013. - Bratislava : STU, 2013. - ISBN 978-80-227-4025-8. - p. 99-110. (in English)
- [51] PIŠTEK, M. - MEDVECKÝ, M.: Performance Evaluation of Maximum Allocation with Reservation Bandwidth Constraints

- Model. In: RTT 2013. Workshop Research in Telecommunication Technology : Senec, Slovak Republic, September 11-13, 2013. - Bratislava : STU, 2013. - ISBN 978-80-227-4025-8. - p. 122-127. (in English)
- [52] POSOLDOVÁ, A. - ORAVEC, M. - ROZINAJ, G.: Classification and Preprocessing of Data for Television Recommendation System. In: Proceedings ELMAR-2013 : 55th International Symposium. Zadar, Croatia, 25-27 September 2013. - Zadar : Croatian Society Electronics in Marine, 2013. - ISBN 978-953-7044-14-5. - p. 215-218. (in English)
- [53] RÓKA, R.: The Analysis of Hybrid Passive Optical Networks Using the HPON Network Configurator. In: IN-TECH 2013 : International Conference on Innovative Technologies. Budapest, Hungary 10.-13.09.2013. - Rijeka : Faculty of Engineering University of Rijeka, 2013. - ISBN 978-953-6326-88-4. - p. 401-404. (in English)
- [54] RÓKA, R.: The Analysis of SARDANA HPON Networks using the HPON Network Configurator. In: KTTO 2013. Knowledge in Telecommunication Technologies and Optic : 13th International Conference. Hradec nad Moravicí, Czech Republic, September 4-6, 2013. - Ostrava : VŠB - Technical University of Ostrava, 2013. - p. 14. (in English)
- [55] RÓKA, R.: The Analysis of SUCCESS HPON Networks using the HPON Networks Configurator. In: KTTO 2013. Knowledge in Telecommunication Technologies and Optic : 13th International Conference. Hradec nad Moravicí, Czech Republic, September 4-6, 2013. - Ostrava : VŠB - Technical University of Ostrava, 2013. - p. 15. (in English)
- [56] SIGETI, P. - ORAVEC, M. - PAVLOVIČOVÁ, J.: Some Aspects of QoS in Wireless Networks. In: Proceedings ELMAR-2013 : 55th International Symposium. Zadar, Croatia, 25-27 September 2013. - Zadar : Croatian Society Electronics in Marine, 2013. - ISBN 978-953-7044-14-5. - p. 173-176. (in English)
- [57] STRACENSKÝ, T. - MEDVECKÝ, M.: Link Protection in MPLS Networks. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 19, Special Issue : Conference ELOSYS, Trenčín, 15.-18.10.2013, p. 251-254. (in Slovak)
- [58] ŠALÍK, P. - RÓKA, R. - ČERTÍK, F.: Modulation Format Duobinary in the Optical Transmission Medium. In: ŠVOČ 2013 : Students Conference. Bratislava, Slovak Republic, 23 April 2013. - Bratislava : FEI STU, 2013. - ISBN 978-80-227-3909-2. - p. 396-401. (in Slovak)
- [59] ŠIMONČÍK, T. - CHROMÝ, E.: Admission Control Methods and Proposal of Time Window Mechanism for Measured Sum Algorithm. In: ŠVOČ 2013 : Students Conference. Bratislava, Slovak Republic, 23 April 2013. - Bratislava : FEI STU, 2013. - ISBN 978-80-227-3909-2. - p. 378-383. (in Slovak)
- [60] ŠIŠULÁK, D. - SAMUHELOVÁ, E.: Program to Learn Digital and Optical Transport Hierarchy. In: ŠVOČ 2013 : Students Conference. Bratislava, Slovak Republic, 23 April 2013. - Bratislava : FEI STU, 2013. - ISBN 978-80-227-3909-2. - p. 437-441. (in Slovak)
- [61] ŠPILKA, M. - VASEK, M.: Context Analysis. In: ŠVOČ 2013 : Students Conference. Bratislava, Slovak Republic, 23 April 2013. - Bratislava : FEI STU, 2013. - ISBN 978-80-227-3909-2. - p. 384-389. (in Slovak)
- [62] ŠPILKA, M. - VASEK, M.: Weighting of Words in Context Analysis. In: Redžúr 2013. 7th International Workshop on Multimedia and Signal Processing. Smolenice, Slovakia, May 1, 2013. - Bratislava : STU, 2013. - ISBN 978-80-227-3921-4. - p. 27-30. (in English)
- [63] ŠTOFAŇÁK, M. - ČAVOJSKÝ, M. - VANČO, M.: Image Preprocessing for 3D Face Recognition using Kinect. In: Redžúr 2013 : 7th International Workshop on Multimedia and Signal Processing. Smolenice, Slovakia, May 1, 2013. - Bratislava : STU, 2013. - ISBN 978-80-227-3921-4. - p. 57-60. (in English)
- [64] ŠTURDÍK, T. - ORGOŇ, M.: Proposal for a Method of Protecting Fixed Network Infrastructure with Wireless Access. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 19, Special Issue : Conference ELOSYS, Trenčín, 15.-18.10.2013, p. 255-258. (in Slovak)
- [65] TALANDA, M. - BEZÚROVÁ, A.: Implementation of VoIP Technology. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 19, Special Issue : Conference ELOSYS, Trenčín, 15.-18.10.2013, p. 259-262. (in Slovak)
- [66] TÓTH, J. - KONDELOVÁ, A. - ROZINAJ, G.: N-Gram-Based Text Categorization. In: Redžúr 2013 : 7th International Workshop on Multimedia and Signal Processing. Smolenice, Slovakia, May 1, 2013. - Bratislava : STU, 2013. - ISBN 978-80-227-3921-4. - p. 23-26. (in English)
- [67] TURI NAGY, M. - VARGIC, R.: Comparison of SN and HSWT Model for Speech. In: Redžúr 2013 : 7th International Workshop on Multimedia and Signal Processing. Smolenice, Slovakia, May 1, 2013. - Bratislava : STU, 2013. - ISBN 978-80-227-3921-4. - p. 15-18. (in English)

- [68] TURI NAGY, M. - VARGIC, R.: Hybrid Sinusoidal Wavelet Transform Model vs. Sinusoidal Plus Noise Model for Audio Signal Processing. In: RTT 2013. Research in Telecommunication Technology : 15th International Conference. Senec, Slovak Republic, September 11-13, 2013. - Bratislava : FEI STU, 2013. - ISBN 978-80-227-4026-5. - CD-ROM, p. 49-52. (in English)
- [69] VALKOVIČ, Š. - KOTULIAKOVÁ, K.: Comparison of Hybrid-ARQ Transmission Schemes for LTE. In: RTT 2013. Research in Telecommunication Technology : 15th International Conference. Senec, Slovak Republic, September 11-13, 2013. - Bratislava : FEI STU, 2013. - ISBN 978-80-227-4026-5. - CD-ROM, p. 38-43. (in English)
- [70] VANČO, M. - MINÁRIK, I. - ROZINAJ, G.: Dynamic Gesture Recognition for Next Generation Home Multimedia. In: Proceedings ELMAR-2013 : 55th International Symposium. Zadar, Croatia, 25-27 September 2013. - Zadar : Croatian Society Electronics in Marine, 2013. - ISBN 978-953-7044-14-5. - p. 219-222. (in English)
- [71] VANČO, M. - MINÁRIK, I. - ROZINAJ, G. - PAVLOVIČOVÁ, J.: Robust Gesture Recognition for Touchless Multimedia Environment. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 19, Special Issue : Conference ELOSYS, Trenčín, 15.-18.10.2013, p. 263-266. (in Slovak)
- [72] VARGIC, R. - TURI NAGY, M.: Usage of Asymmetry of Transients in Audio Compression. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 19, Special Issue : Conference ELOSYS, Trenčín, 15.-18.10.2013, p. 267-270. (in English)
- [73] VASEK, M. - ROZINAJ, G.: Optimization of Letter to Sound Rules Construction. In: SPS 2013 : Signal Processing Symposium. Jachranka Village, Poland, June 5-7, 2013. - Piscataway : IEEE, 2013. - ISBN 978-1-4673-6318-1. - CD-ROM, [6] p. (in English)
- [74] VASEK, M. - ROZINAJ, G.: Relations between Graphemes and Phonemes in Slovak Language. In: Redžúr 2013 : 7th International Workshop on Multimedia and Signal Processing. Smolenice, Slovakia, May 1, 2013. - Bratislava : STU, 2013. - ISBN 978-80-227-3921-4. - p. 19-22. (in English)

IX.3 Books

- [1] RAKÚS, M.: Communication Systems Modelling with TIMS : Volume D6-Advanced Spread Spectrum Experiments. - Camperdown : Emona Instruments Pty Ltd, 2013. - [162] p. - ISBN 978-1-921903-09-0. (in English)
- [2] RAKÚS, M.: Communication Systems Modelling with TIMS : Volume D7-Advanced BER Experiments. - Camperdown : Emona Instruments Pty Ltd, 2013. - [181] p. - ISBN 978-1-921903-10-6. (in English)
- [3] RYBÁROVÁ, R. - ROZINAJ, G.: Methods of Teaching for Speech Synthesis. - Bratislava : STU, 2013. - 172 p. - ISBN 978-80-227-4033-3. (in Slovak)

IX.4 Parts of Book

- [1] KELLOVSKÝ, M. - BAROŇÁK, I. - KOČKOVIČ, L.: Signalling in IMS and Sizing Traffic Load HSS. In: Ročenka 2012. Fórum pre komunikačné technológie. - Banská Bystrica : DALI-BB, s.r.o., 2013. - ISBN 978-80-81410-31-4. - p. 50-60. (in Slovak)
- [2] PETRÁŠ, D. - BAROŇÁK, I. - CHROMÝ, E.: Presense Service in IMS. In: Ročenka 2012. Fórum pre komunikačné technológie. - Banská Bystrica : DALI-BB, s.r.o., 2013. - ISBN 978-80-81410-31-4. - p. 61-71. (in Slovak)

IX.5 Textbooks

- [1] KOTULIAKOVÁ, K. - KAČUR, J. - PŮŠTENYI, S. - RUS, M. - SLOVÁK, P. - SMIK, J. - ŠIPKOVSKÝ, M.: Modeling Methods for Communication Functions III. Routing. - Bratislava : STU, 2013. - CD-ROM, 94 p. - ISBN 978-80-227-33952-8. (in Slovak)
- [2] PODHRADSKÝ, P. - DÚHA, J. - TRÚCHLY, P. - BLICHÁR, J.: NGN (Next Generation Networks) - Selected Topics. - Prague : Czech Technical University in Prague, 2013. - 126 p. - ISBN 978-80-01-05294-5. (in English)
- [3] PODHRADSKÝ, P. - MIKÓCZY, E. - DÚHA, J. - TRÚCHLY, P. - BLICHÁR, J.: Next Generation Networks) - Selected

Topics. - Prague : Czech Technical University in Prague, 2013. - 137 p. - ISBN 978-80-01-05295-2. (in Slovak, in Czech)

[4] ROZINAJ, G. - RYBÁROVÁ, R. - MINÁRIK, I.: Multimedia. - Prague : Czech Technical University in Prague, 2013. - 123 p. - ISBN 978-80-01-05313-3. (in Swedish, in Czech)

[5] ROZINAJ, G. - RYBÁROVÁ, R. - MINÁRIK, I. - KAČUR, J.: Multimédia. - 1.vyd. - Prague : Czech Technical University in Prague, 2013. - 131 p. - ISBN 978-80-01-05312-6. (in Slovak, in English)

OFFICE FOR EUROPEAN UNION PROGRAMMS



Head of the Office

Assoc. Prof. Dr. Marian Veselý

Tel: +421-2-60291 107

Fax: +421-2-65411452

e-mail: marian.vesely@stuba.sk

General Information

Office for European Union Programmes (OEUP) at Faculty of EE&IT (FEEIT) functions since its establishment in 2000 as an autonomous Office of this Faculty. The main task is to support and develop international collaboration in the area of educational, research, cultural and entrepreneurial activities with an aim to increase the participation of groups and individuals mainly from FEEIT in international projects and to secure an effective development of human resources at FEEIT. Into the scope of the OEUP also belongs a preparation of international projects including a generation of professional and financial conditions for execution of international mobility for STU graduates.

OEUP activities could be summarized as follows:

- Organization and caring out international mobility programmes for STU graduates
- Search for new forms of international collaboration including new project proposal preparation within EU programmes and further elaboration of contacts with abroad ,
- Active collaboration and cooperation within national and international projects with other Slovak Universities,
- Further development of contacts with non-governmental organizations mainly in the area of education and research, deepening of contacts with state and private organizations in the area of education, research and collaboration with industry,
- Advisory and consulting service in the area of preparation, submission and management of EU projects, including organization of seminars and training,
- Help in search for domestic and foreign partners for projects within EU programmes ,
- Coordination of international research, education and other project preparation,
- Communication with National Agencies and National Contact Points for individual EU programmes,
- Advisory and consulting activity within preparation and carrying out of events with foreign participation (workshops, seminars, conferences, etc.),
- Preparation of events initiated by foreign partners.

OEUP itself has coordinated and was carrying out educational, research, supporting and other projects.

Leonardo da Vinci program mobility projects, granted to OEUP, represent for STU graduates a significant milestone in their professional life. This is happening also thanks to professional preparation of these specialized stays by OEUP.

OEUP is acting also in Leonardo da Vinci LLL program focused on vocational training (students, teachers of vocational/high schools oriented to ICT, as well as on vocational training of staff of ICT companies and further institutions)

I. STAFF

| | |
|-----------------------------|--|
| Professors | Prof. Dr. Pavol Podhradský |
| Associate Professors | Assoc. Prof. Dr. Marian Veselý |
| Research Workers | Dr. Eugen Mikóczy Dr. Andrea Staňová Darina Matušíková, MSc. |

II. EQUIPMENT

II.1 Teaching and Research Laboratories

None

II.2 Special Measuring Instruments and Computers

- devices and components for HBB-NEXT multimodal interface subsystem (PCs, SMART TV and supported components)
- devices and components for user identification subsystem (notebooks, video-camera for iris recognition, KINECTs, XBOX)

III. TEACHING

III.1 Undergraduate Study (Bc.)

None

III.2 Graduate Study (Ing.)

None

IV. RESEARCH PROJECTS

IV.1 National Scientific Projects

- UVP STU project within Structural Funds, OP Research and Development, support of Research and Development in Bratislava Region, Transfer of Knowledge and Technologies as a result of Research and

Development into praxis in Bratislava Region, contribution to project proposal submitted at the end of 2012 (M. Veselý, A. Staňová)

IV.2 International Scientific Project

- HBB-Next (Hybrid Broadcast Broadband Next Generation), FP7 No. 287848. Duration: 2011-2014 (solved). (P. Podhradský)
- IMProVET (Innovative Methodology for Promising VET Areas), LdV No. CZ/11/LLP-LdV/TOI/134011. Duration: 2011-2013 (solved). (P. Podhradský)
- STELA (STU Graduates in European EU Market), LdV No. 12322 0399, completed in 2013. (M. Veselý)
- Project „Development of International Collaboration for a Purpose of Transfer and Implementation of Research and Development Results into Educational Programs“ OP Education, Coordinator SPU Nitra (M. Veselý)
- Projekt iMUSEUM „Integrierte Multifunktionssysteme für Energiewandlung, Energiespeicherung und Energienutzung durch Multiskalenmaterialien“, Auf- und Ausbau innovativer FuE-Netzwerke mit Partnern in Donauanrainerstaaten, Koordinator TU Ilmenau (M. Veselý)
- Participation in the preparation of the COST project proposal "Digital Signal Processing for Fiber Optic Communication Networks", submitted under the COST new Action, Project ref. No.: oc-2013-2-17342 (submitted by Instituto de Telecomunicacoes, Campus Universitario de Santiago Aveiro - PT), for the period (2014-2017), (P. Podhradský)
- Participation in the preparation of the FP7 project proposal “CANOE - Content Adaptation in NetwOrk Environments“ submitted under ICT Call 10 FP7-ICT-2013-10, Project ref. No.: Project ID: FP7-610141, (submitted by TNO), for the period (2013-2016), (E.Mikóczy, P. Podhradský)
- Participation in the preparation of the LdV project proposal "WIntEleCT", focused on preparation of training courses for vocational training, trainees - teachers of vocational/high schools and ICT staff of companies and institutions, for the period (2013-2015), (P. Podhradský)

V. COOPERATION

V.1 Cooperation in Slovakia

- Alcatel Lucent Slovakia
- ATOS IT Solutions
- IBM Slovakia
- Orange Slovakia
- Siemens PSE Slovakia
- Slovak Agricultural University in Nitra
- Slovak Association of Electrotechnical Companies
- Slovak Telekom
- Society of Lifelong Learning in Bratislava
- Technical University in Košice
- Telecommunication Users Group Slovakia
- University of Trnava
- University of Žilina
- Secondary school of electrical engineering K.Adlera, Bratislava
- Vocational and technical secondary school, Banská Bystrica
- Secondary school of electrical engineering J. Murgaša, Banská Bystrica

V.2 International Cooperation

- Croatian Academy of Engineering, Zagreb, HR
- ČVUT in Prague, CZ
- Kybertec, s.r.o., Prague, CZ
- Vyšší odborná škola a střední škola slaboproudé elektrotechniky, Prague, CZ
- Fredrika Bremer gymnasierna, Haninge, SE
- Deutsche Telecom Laboratories in Berlin, DE
- Deutsche Telecom University in Leipzig, DE
- ISEP Paris, FR
- King Abdulaziz University, Jeddah, Kingdom of Saudi Arabia
- Rundfunk Berlin-Brandenburg, Berlin, DE
- Institut fuer Rundfunktechnik, GMBH, Muenchen, DE
- Instituto de Telecomunicacoes, Campus Universitario de Santiago Aveiro, PT
- NEC Europe, LTD., London, UK
- TNO - Research Institute, Delft, NL
- Katholishe University in Leuven, BE
- Technische Hochschule Mittelhessen, Giessen, DE
- TARA Systems, Muenchen, DE
- San Pablo CEU University, Madrid, ES
- XPERTIA Soluciones Integrales, S.L., ES
- Consultoría de Innovación y Financiación, S.L., ES
- Dublin City University, UK
- National College of Ireland
- Brunel University, UK
- Vrije Universiteit Brussel, BE
- Hochschule Offenburg, DE
- Laboratori Guglielmo Marconi, S.P.A, IT
- Nexsoft, S.P.A, IT
- Università della Calabria, IT
- Polytechnic University of Timisoara, RO
- Brno University of Technology, CzR
- Technical University of Lodz, PL
- Norwegian Institute of Information Technology, Norway
- FRAUNHOFER Institute, DE
- White Loop, Ltd., UK
- Metodologie, Investimenti, Applicazioni, S.R.L, IT
- Linköping University, SW
- Jönköping International Business School, SW
- Politechnica Poznań, Poland
- Politecnico di Milano
- TU Ilmenau, DE
- TU Maribor, Slovenia
- TU Wien, Austria
- TU Zagreb, Croatia
- UPC Barcelona, Spain
- University of Carlos III (UC3M) Madrid, ES

- Q-Star test, BE
- Photeon Technologies, AT
- Bogdan & van Broeck architects, BE
- Urban Platform, BE
- MISS3 s.r.o., CZ
- Haindl + Kollegen, DE
- 3XN A/S, DK
- BUILD+D Architects, UK
- Architekturbüro Reinberg ZT GmbH, AT
- Daneshgar Architects, AT
- Berger + Parkkinen Architekten, AT
- bad architects, AT
- BUS architektur, AT
- ARRIOLA&FIOL, ES
- Federico Delrosso Architects, IT
- Fachhochschule Vorarlberg GmbH, AT
- OFIS arhitekti d.o.o., SI
- Placementmaker Limited, UK

VI. THESES

VI.1 Masters Theses

None

VI.2 PhD Theses

None

VII. OTHER ACTIVITIES

VII.1 Conferences, Seminars and Workshops Organized by the Department

- Seminar of COSTEL participants to exchange experience with perspective STELA participants
- School of Vacuum Technology SVT 2013 and parallel a Technical Training Course (TTC) in October 2013, organized by SVS with support of OEUP FEE&IT, hotel Trigan, Štrbské Pleso, International Conference.
- IVC19, International Vacuum Congress in Paris, September 2013, OEUP was supporting Slovak Vacuum Society as co-organizer
- Co-organizers of 19. International Conference „Analytical Methods and Human Health“, 24. – 27. June 2013 in Rajecké Teplice (A. Stanova)
- Participation in Organizing Committee of Joint Vacuum Conference JVC15 which will be held in the time period 15. – 20. 06. 2014 in Vienna.

VIII. MEMBERSHIP IN INSTITUTION/COMMITTEES

VIII.1 Membership in National Institution/Committees

- P. Podhradský: VEGA, projects reviewer
- P. Podhradský: APVV (Slovak Research and Development Agency), projects reviewer

VIII.2 Membership in International Institution/Committees

- P. Podhradský: Croatian Academy of Engineering, correspondent member
- P. Podhradský: International Journal of Signal and Systems Engineering, member of Editorial Board
- P. Podhradský: International Conference IWSSIP 2013, member of International Program and Reviewers Committees
- P. Podhradský: International Symposium ELMAR 2013, member of International Program and Reviewers Committees,
- E. Mikóczy: IEEE - Institute of Electrical and Electronics Engineers, IEEE Communications Society
- E. Mikóczy: ACM – Association for Computing Machinery, ACM Special Interest Group SIGCOM & SIGMM
- E. Mikóczy: ISCT - Institute for Computer Sciences, Social-Informatics and Telecommunications Engineering
- E. Mikóczy: ETSI - European Telecommunications Standards Institute – TISPAN (Telecommunications and Internet converged Services and Protocols for Advanced Networking) – Technical Member, Active Rapportuer , ETSI MCD (Media Content Distribution) - Technical Member, ETSI NTECH (Future Networking) – Technical member.
- E. Mikóczy: ITU-T - International Telecommunication Union – Telecommunication, Study Group 13 NGN, technical member
- E. Mikóczy: Reuters – Member of expert community
- E. Mikóczy: NGMAST 2013 - The 6th International Conference on Next Generation Mobile Applications, Services and Technologies (NGMAST2013), Prague, September 25-27, 2013, Member of International Technical Program Committee

IX. PUBLICATIONS

IX.1 Conference Proceedings

- [1] BLAHO, M. - MURGAŠ, T. - FODREK, P.: Networked Process Control. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 19, Special Issue : Conference ELOSYS, Trenčín, 15.-18.10.2013, p. 5-9. (in Slovak)
- [2] MATEJKA, J. - LÁBAJ, O. - ŠUPALA, D. - KOKOLEVSKÝ, T. - PODHRADSKÝ, P.: Security Aspects of Hybrid Broadband Broadcast Communication. In: Proceedings ELMAR-2013 : 55th International Symposium. Zadar, Croatia, 25-27 september 2013. - Zadar : Croatian Society Electronics in Marine, 2013. - ISBN 978-953-7044-14-5. - p. 223-226. (in English)
- [3] MURGAŠ, T. - FARKAS, L. - HNÁT, J. - ERNEK, M.: Networked Control System for a Rehabilitation Center. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 19, Special Issue : Conference ELOSYS, Trenčín, 15.-18.10.2013, p. 28-32. (in Slovak)
- [4] PODHRADSKÝ, P.: Evolution Trends in Hybrid Broadcast Broadband TV. In: Proceedings ELMAR-2013 : 55th International Symposium. Zadar, Croatia, 25-27 september 2013. - Zadar : Croatian Society Electronics in Marine,

2013. - ISBN 978-953-7044-14-5. - p. 7-10. (in English)

- [5] ZEMAN, T. - HRAD, J. - PODHRADSKÝ, P.: Increasing the Level of Vocational Education in European Scope. In: Proceedings ELMAR-2013 : 55th International Symposium. Zadar, Croatia, 25-27 september 2013. - Zadar : Croatian Society Electronics in Marine, 2013. - ISBN 978-953-7044-14-5. - p. 149-156. (in English)

IX.2 Textbook

- [1] PODHRADSKÝ, P. - DÚHA, J. - TRÚCHLY, P. - BLICHÁR, J.: NGN (Next Generation Networks) - Selected Topics. - Prague : Czech Technical University in Prague, [2013]. - 126 p. - ISBN 978-80-01-05294-5. (in English)
- [2] PODHRADSKÝ, P. - MIKÓCZY, E. - DÚHA, J. - TRÚCHLY, P. - BLICHÁR, J.: Next Generation Networks - Selected Topics. - Prague : Czech Technical University in Prague, [2013]. - 137 p. - ISBN 978-80-01-05295-2. (in Slovak, in Czech)

INSTITUTE OF COMMUNICATION AND APPLIED LINGUISTICS



Director of the Institute:

PhDr. Ľubica Rovánová, PhD.

Tel: +421-2-602 91 794

Fax: +421-2-654 20 415

e-mail: lubica.rovanova@stuba.sk

Deputy director: PhDr. Jarmila Belasová

Institute secretary: Mária Čederlová

Departments of the Institute:

Department of English and Communication

Department chair: PhDr. Ivan Podpera

Department of Germanic, Slavic, Romance Languages and Communication

Department chair: PhDr. Jarmila Belasová

General Information

The history of teaching foreign languages at FEI started on 1 April 1990 when the Department of Languages was established. This decision was made to link language education more closely with Faculty students' specific needs, while before this date foreign language teaching was provided by the all-university Department of Languages. On 1 December 2012 the Department was renamed to the Institute of Communication and Applied Linguistics.

The Institute has specified the aims of foreign language teaching on the basis of extensive needs analysis carried out amongst Faculty graduates. The aims include:

- oral communication in the form of monologue or dialogue in typical situations (discussion, presentation, telephoning).
- listening for general or specific information.
- reading specialist literature.
- written communication on the corresponding level in typical genres (report, instructions, c.v., official correspondence).
- development of communicative competence not only on bilingual, but also on monolingual level.

Institute teachers have long experience in different areas of education:

- teaching in courses of further education of university teachers of foreign languages for specific purposes in Slovakia and abroad in cooperation with the British Council, education of teacher trainers of English for specific purposes in the EU in cooperation with the British Council and the Ministry of Defence of the Slovak Republic.
- e-learning education (methodology of e-learning courses design and their teaching).
- design of interactive learning materials in Moodle for the needs of bachelor and PhD. students.
- authorship of learning materials for bachelor and PhD students, as well as for general public (e.g. English for Students of Electrical Engineering, Angličtina nielen pre samoukov, Angličtina pre kurzy a jazykové školy 1,2,3, English in Need).
- expertise in the area of languages for specific purposes.
- working in the committee of UNICert LUCE (Language Accreditation Unit for Universities of Central and Eastern Europe), accreditation of language programmes of Slovak and European universities in the accreditation system UNICert LUCE, membership in examination boards at individual universities.

No professional can make a successful career without having mastered at least one foreign language. Its knowledge is now considered a matter-of-course in most industrial and commercial companies. Due to regional and economic specifics of Slovakia, specialists must be able to communicate in at least one foreign language, preferably more. Their professional life requires competent written and oral communication for general and specific purposes.

It does not suffice to know only the grammar and vocabulary of the given language, but it is also necessary to understand the meaning of lingual and extralingual means of other cultures and subcultures. For this reason, it is important (in accordance with EU policy) to improve the education of students also in the area of intercultural communication.

I. STAFF

Senior Lecturers: PhDr. Jarmila Belasová, PhDr. Gabriela Fojtlová, PhDr. Mária Hujvanová, Mgr. Jana Matiašovská, Mgr. Daniela Ondroušková, Mgr. Jana Pätoprstá, PhD., PhDr. Ivan Podpera, PhDr. Ľubica Rovánová, PhD., Mgr. Ľudmila Solenská, PhD.

Technical Staff: Mária Čederlová (secretary)

II. EQUIPMENT

None

III. TEACHING

III.1 Undergraduate Study (Bc.)

Subject, semester, hours per week for lectures and for seminars or practical exercises, name of the lecturer.

| | | |
|--|---------------------------------|--|
| English | (1st, 2nd, 3rd, 4th sem., 0-2h) | G. Fojtlová, M. Hujvanová, J. Matiašovská, D. Ondroušková, J. Pätoprstá, I. Podpera, Ľ. Rovánová |
| Optional courses for beginners in English | (1st sem., 0-2h) | G. Fojtlová, M. Hujvanová, J. Matiašovská, D. Ondroušková |
| <i>Other optional courses: (2nd - 10th sem., 0-2h):</i> German (beginners, intermediate and advanced) | | J. Belasová, Ľ. Solenská |
| Russian (beginners, intermediate and advanced) | | J. Belasová |
| Management of Communication (2nd sem., 1-2h) | | Ľ. Rovánová, J. Belasová |

III.2 Graduate Study (Ing.)

Specific optional courses:

| | | |
|----------------------------------|------------------------------|-------------|
| German (beginners, intermediate) | (7th - 11th sem., 0-2h) | J. Belasová |
| German (advanced) | (7th - 11th sem., 0-2 or 4h) | Ľ. Solenská |
| Russian (all levels) | (7th - 11th sem., 0-2h) | J. Belasová |

III.3 Undergraduate and Graduate Study (Ing.) for Foreign Students in English

none

III.4 Distance Study

| | | |
|---------|--------|--|
| English | (0-2h) | G. Fojtlová, M. Hujvanová, J. Matiašovská, D. Ondroušková, J. Pätoprstá |
|---------|--------|--|

III.5 Doctoral Study (PhD.)

| | | |
|---------|--------|---------------------------------------|
| English | (0-2h) | M. Hujvanová, I. Podpera, Ľ. Rovánová |
| German | (0-2h) | J. Belasová, Ľ. Solenská |
| Russian | (0-2h) | J. Belasová |

IV. RESEARCH PROJECTS

- Design and Realization of Education in Interdisciplinary Branches on International Level, KEGA 019STU-4/2012 (Translation, proofreading: G. Fojtlová, M. Hujvanová, J. Matiašovská, D. Ondroušková, J. Pätoprstá, I. Podpera, Ľ. Rovánová)
- Computer Aided Robust Nonlinear Control Design, APVV-0343-12. (Ľ. Rovánová)
- Development of Virtual University, OPV- 236110230029 (Ľ. Rovánová)

V. COOPERATION

V.1 Cooperation in Slovakia

- Goethe Institut, Bratislava
- Österreichisches Kulturinstitut Bratislava
- Verband der Deutschlehrer und Germanisten der Slowakei
- CercleS (European Confederation of Language Centres in Higher Education), Bratislava

V.2 International Cooperation

- Goethe Institut, Krakow, Poland
- Goethe Institut, Nancy, France

V.3 Membership in International Organizations and Societies

- Salzburg Seminar Alumna (USA) (Ľ. Rovánová)
- CASAJC, (The Czech and Slovak Association of Language Centres in Higher Education), member of CERCLES
- UNICert LUCE (Language Accreditation Unit for Universities in Central Europe)

VI. THESES

none

VII. OTHER ACTIVITIES

- Working on the new study material 'English for Students of Electrical Engineering' (I. Podpera)
- 'English for Students of Electrical Engineering' - an intermediate level electronic course in Moodle (I. Podpera)
- 'English for Students of D level' - an upper-intermediate level electronic course in Moodle (I. Podpera)
- Conference presentation: 'Distance Learning, Simulation and Communication 2013', Brno, 21-23 May 2013 (I. Podpera)
- Expert for lifelong learning programs assessment (Ľ. Rovánová)
- Member of UNICert LUCE committee: Working-out of expert opinions for the accreditation of German Language Courses at Slovak and Czech universities (Ľ. Solenská)
- The expert supervision of final examinations of UNICert at accredited Slovak and Czech universities (Ľ. Solenská)
- Working-out of materials for the first UNICert examinations at the department, testing, marking, diploma design and evaluation (Ľ. Solenská)

- Evaluation of Language programs of accredited universities (Ľ. Solenská)
- Testing and confirming of students' language competence for the purpose of exchange study stays and traineeships according to European language standards (Ľ. Solenská)

VIII. PUBLICATIONS

VIII.1 Journals

- [1] PÄTOPRSTÁ, J.: Why it is Important to Measure Work Results of Students. In: Fórum cudzích jazykov. - ISSN 1337-9321. - Vol. 5, No. 2 (2013), p. 53-64. (in Slovak)
- [2] PÄTOPRSTÁ, J.: Specific Language and Texts Techniques of Teaching. In: Fórum cudzích jazykov. - ISSN 1337-9321. - Vol. 5, No. 3 (2013), p. 45-49. (in Slovak)
- [3] SOLENSKÁ, Ľ.: Theoretical Basis for Strategies and Techniques in Reading. In: Fórum cudzích jazykov. - ISSN 1337-9321. - Vol. 5, No. 2 (2013), p. 73-84. (in Slovak)

VIII.2 Conference Proceedings

- [1] HUBA, M. - ROVANOVÁ, Ľ. - MARKO, Ľ.: From Automatic Feedback Systems to MOOCs. In: ICETA 2013 : 11th IEEE International Conference on Emerging eLearning Technologies and Applications. Stary Smokovec, Slovakia, October 24-25, 2013. - Piscataway : IEEE, 2013. - ISBN 978-1-4799-2161-4. - p. 151-158. (in English)
- [2] PODPERA, I. - ROVANOVÁ, Ľ.: Electronic Support of English Teaching at FEI STU. In: Distance Learning, Simulation and Communication 2013 : Brno, Czech Republic, May 21-23, 2013. - Brno : Armed Forces University, 2013. - ISBN 978-80-7231-919-0. - p. [1-6]. (in English)
- [3] PODPERA, I. - ROVANOVÁ, Ľ.: English for Students of Electrical Engineering - An Electronic Workbook. In: New Technologies in Education : 6th International Conference. Brno, Czech Republic, 15. 11. 2012. - Brno : Masaryk University, 2013. - ISBN 978-80-210-6402-7. - CD-ROM, [3] p. (in English)

VIII.3 Conference Proceedings

- [1] TANDLICOVÁ, E. - ROVANOVÁ, Ľ. - STRAKOVÁ, Z. - STEYNE, L.: English for Language Schools and Courses 3. - Prague : Ottovo nakladatelství, 2013. - 368 p. + CD-ROM. - ISBN 978-80-7451-043-4. (in Slovak)

TECHNOLOGICAL INSTITUTE OF SPORT

<http://www.elfsport.sk/>



Director of the Institute:

Mgr. Peter Miklovič, PhD.

Tel: +421-2-602 91 850

Fax: +421-2-654 20 415

e-mail: peter.miklovic@stuba.sk

Deputy director of STI

PaedDr. Aleš Dunajčík

Department chair of Physical education

Mgr. Alena Suttnerová

Department chair of Sport's diagnostic

prof. Mgr. Erika Zemková, PhD.

Secretary of STI

Mgr. Martin Májek

Administrative staff

Mária Dobrotová (secretary)

General Information

In 1993 KTV FEI STU was already situated in new premises that make it the best equipped departments in SR. The department has a small and a big gymnasium, a well equipped fitness centre a swimming pool and a bouldering wall. Nowadays, KTV FEI STU is divided into two sections: The section of physical education and the Section of physical education facilities administration. The priorities of the Department of physical education are:

- Instruction of physical education in daily bachelor and graduate studies, instruction of physical culture according to the faculty study programme as part of university studies,
- Representation of the school at university events,
- Cooperation in the development of sport movement at the faculty with the faculty management, academic bodies, faculty organisations and faculty sport clubs,
- Organisation of single sport events and competitions according to the schedule of sport events,
- Research activity (study of results of sport sciences, publishing, preparation of education materials and innovative elements in the field of physical education and sport, participation on research projects).

The section of physical education facilities administration is in charge of physical education facilities (regulation, maintenance and control) and of economic services (business activities, marketing).

The main activity of KTV FEI STU is the subject called Physical culture. Its aim is to obtain the optimal motion performance of the student, to make him/her understand the importance of the lifetime physical activity as one of the key factors of health, education and work performance.

During the first two terms, the subject Physical culture focuses on physical and ball games (basketball, volleyball- basic game activities of an individual, rules), and swimming (improving the individual swimming styles, training for non-swimmers). In the remaining four terms, the students can choose from collective games (basketball, floorball, football, volleyball - improving basic game activities of an individual, simple offensive and defensive combinations, simple game systems, realisation of offensive combinations, defensive combinations and game systems in a game), individual sports (badminton, swimming, table tennis, shooting, hiking, watermanship), or other activities (yoga, fitness, aerobic, self-defence). For students that are chronically ill, KTV FEI STU offers health physical education (special exercise for traumatogenic and surgical states of lower extremities, back pain; balance exercises; yoga exercises for disabled persons, diseases of spine and joints, some allergies, hypo-immunity; individual swimming and exercises in water according to the instructions of a doctor). By selection physical education, the department prepares the representation of the faculty in sport games and individual sports. In close cooperation with the subject Physical culture, tens of events are organised under the patronage of the Slovak Association of university sport, sport unions and associations in the Slovak Republic.

Physical education and sport are social and political necessities. It is a phenomenon that can move the whole world. The Department of Physical Education tries to mediate this phenomenon to students and employees of FEI STU and to enrich their private and professional life.

Based on the decision of the Dean of FEI STU with effect from 1st December, 2012 the name of KTV FEI STU has been transformed to Technological Institute of Sport (TIS FEISTU)

I. STAFF

| | |
|-------------------|---|
| Assistant | Mgr. Zlatica Dariusová, PaedDr. Aleš Dunajčík, |
| Professors | Mgr. Libor Jurkovič, PhD., Mgr. Barbora Kociánová, PhD., Mgr. Pavel Lackovič, PhD., PaedDr. Jana Lamošová, PhD., Mgr. Martin Májek, Mgr. Peter Miklovič, PhD., PaedDr. Vladimír Pajkoš, Mgr. Alena Suttnerová Mgr. Michal Jeleň |

II. EQUIPMENT

- Fitness Centre
- Gymnasium
- Small Gymnasium
- Swimming pool
- Climbing wall
- Martial-Arts Gym

III. TEACHING

III.1 Undergraduate Study (Bc.)

Subject, semester, hours per each semester, name of the lecturer:

| | | |
|--------------------|-------------------------------------|---------------|
| Aerobics | (1st-8th sem., 18 hours each sem.) | A. Suttnerová |
| Badminton | (1st-8th sem., 18hours each sem.) | V. Pajkoš |
| Basketball | (1st-8th sem., 18 hours each sem.) | J. Lamošová |
| Bouldering | (1st-8th sem., 18hours each sem.) | P. Miklovič |
| Bouldering | (1st-8th sem., 18hours each sem.) | B. Kociánová |
| Outdoor activities | (1st-8th sem., 18hours each sem.) | P. Lackovič |
| Fitness | (1st-8th sem., 18 hours each sem.) | P. Lackovič |
| Fitness | (1st-8th sem., 18 hours each sem.) | A. Suttnerová |
| Floorball | (1st-8th sem., 18 hours each sem.) | B. Kociánová |
| Football | (1st-8th sem., 18hours each sem.) | A. Dunajčík |
| Joga | (1st-8th sem., 18 hours each sem.) | A. Suttnerová |
| Self-defence | (1st -8th sem., 18 hours each sem.) | P. Miklovič |
| Skiing | (1st -8th sem., 18 hours each sem.) | P. Lackovič |
| Skiing | (1st -8th sem., 18 hours each sem.) | V. Pajkoš |
| Sports shooting | (1st-8th sem., 18 hours each sem.) | L. Jurkovič |
| Swimming | (1st-8th sem., 18 hours each sem.) | L. Jurkovič |
| Swimming | (1st-8th sem., 18 hours each sem.) | Z. Dariusová |
| Table Tennis | (1st-8th sem., 18 hours each sem.) | M. Májek |
| Tennis | (1st-8th sem., 18 hours each sem.) | A. Dunajčík |
| Volleyball | (1st-8th sem., 18 hours each sem.) | M. Májek |
| Volleyball | (1st-8th sem., 18 hours each sem.) | Z. Dariusová |

III.2 Graduate Study (Ing..)

Optional Physical Education for the students in Graduate Study the same as in Undergraduate Study.

IV. RESEARCH PROJECTS

IV.1 National Scientific Projects

- External on FTVŠ UK in Bratislava. Task-oriented balance tests in functional assessment of athletes and individuals with motor control disorders. No VEGA1/0070/11(2011-13) P. Miklovič
- Assessment of reaction time and movement velocity (agility) parameters by processing electromyographic signals, No. VEGA 1/1177/12 (2012-2014), coordinator: P. Miklovič.

V. COOPERATION

V.1 Cooperation in Slovakia

- Slovak Union of Physical Culture, Bratislava
- Faculty of Physical Education, Comenius University, Bratislava
- School of Physical Education and Training, Bratislava
- Slovak Association of Academic Sports, Bratislava
- Slovak Volleyball Federation, Bratislava
- Slovak Basketball Association, Bratislava
- Slovak Olympic Committee, Bratislava
- Slovak Gojuryu Karatedo Gojukai Association, Bratislava
- Slovak Floorball Association, Bratislava

V.2 International Cooperation

- Technical University Delft, The Netherlands
- Technical University Zagreb, Croatia
- Technical University of Budapest, Hungary
- Bournemouth University, UK
- Associazione Sportiva Dilettantistica EuroSportEvents, Milano, Italy

VI. THESES

VI.1 Masters Theses

Masters theses supervised at the Department of Physical Education. The names of supervisors are in brackets.

None

VI.2 PhD Theses

Lackovič, P.: Efficiency of rowing stroke during the one year training cycle (Dissertation). Comenius University in Bratislava, Faculty of Physical Education and Sport, Department of Sport Kinantropology (Dušan Hamar)

VII. OTHER ACTIVITIES

- Basketball College league
- Volleyball College league
- Floorball College league
- Swimming College league
- Futsal College league
- Winter camp in France, Risoul 4.1.-12.1.13
- Winter ski course, Skalka 10.2.-15.2.2013
- FEI STU Climbing Championship - 21.3.13
- Spring hiking tour – 24.3.13
- Joga – the way to the health of body and mind (lecture) - 3.4.13
- FEI STU Table tennis Championship - 8.4.13
- FEI STU Badminton Championship - 9.4.13
- FEI STU Floorball Championship - 10.4.13
- STU Table tennis Championship (students) – 16. 4. 13
- STU Basketball Championship (students) – 17.4.13
- STU Swimming Championship (students) – 17. 4. 13
- MIX Volleyball tournament - 22.4.13
- STU Basketball Championship (employees) – 23.4.13
- STU Hockey tournament (students) – 26.4.13
- Badminton Summer tournament of employees FEI STU – 30.4.13
- Self-defence prevention (lecture) – 3.5.13
- Bouldering tournament – 13. - 15.5.13
- Children's Day at FEI STU – 6.6.13
- Rafting on the river Vltava - 11.7.13
- Sports Games FEI STU (autumn) – 17.-19. .9.13
- Badminton Tournament (students vs. employees) – Students' Day - 15.11.13
- Volleyball Tournament (students vs. employees)– Students' Day - 15.11.13
- Floorball Tournament (students vs. employees)– Students' Day - 15.11.13
- Basketball Tournament (students vs. employees) – Students' Day - 21.11.13
- STU Strongman Championship - 21.11.13
- FEI STU Shooting Championship - 5.12. 13
- Basketball Tournament of employees FEI STU the Dean's cup - 11.12.13
- Bouldering tournament – 9.-13.13
- Christmas carp - 6.12.13
- Christmas Badminton Tournament of employees FEI STU - 18.12.13

VIII. MEMBERSHIP IN INSTITUTIONS/COMMITTEES

VIII.1 Membership in National Institutions/Committees

- Coach of Slovak Rowing Federation (P. Lackovič)
- Personal coach of best Slovak golf junior player (P. Lackovič)
- Chairman of the Supervisory Board of Slovak University Sports Association (P. Miklovič)
- General secretary of committee Slovak Gojuryu Karatedo Gojukai Association (P. Miklovič)
- Member of floorball club FTVŠ Bratislava (B. Kociánová)
- Member of the Yoga Society (A. Suttnerová)
- Member of Slovak Equestrian Federation (J. Lamošová)

- Member of Equestrian club Over Žilina (J. Lamošová)
- Members of Coaches Association Slovak Basket Association (J. Lamošová)
- Coach of the volleyball club VKP Myjava (M. Májek)
- Members of University sport club VŠK FEI STU, (P. Miklovič, P. Lackovič, B. Kociánová, A. Dunajčík, A. Suttnerová, J. Lamošová, M. Dobrotová (secretary))

VIII.2 Membership in International Institutions/Committees

- Member of Japan Karatedo Federation (P. Miklovič)

IX. PUBLICATIONS

IX.1 Journals

- [1] LACKOVIČ, P.: Changes in Selected Physical Parameters in Rowers in Training on the Water. In: Telesná výchova a šport. - ISSN 1335-2245. - Vol. 23, No. 1 (2013), p. 38-40. (in Slovak)

IX.2 Conference Proceedings

- [1] DAŘÍČEK, M. - JELEŇ, M. - DONOVAL, M. - VAVRINSKÝ, E. - ŠATKA, A. - DONOVAL, D.: Biophysical Diagnostics in Medical Prevention. In: ADEPT 2013 : 1st International Conference on Advances in Electronic and Photonic Technologies. Nový Smokovec, Slovakia, June 2-5, 2013. - Žilina : University of Žilina, 2013. - ISBN 978-80-554-0689-3. - p. 215-218. (in English)
- [2] HANIC, M. - JELEŇ, M. - NOVÁČEK, M. - WEIS, M. - DONOVAL, M. - HORÍNEK, F. - DAŘÍČEK, M. - DONOVAL, D.: Sensing Biosignal of Electrodes Based on Modern Flexible Materials. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 19, Special Issue : Conference ELOSYS, Trenčín, 15.-18.10.2013 (2013), p. 37-39. (in Slovak)
- [3] JAGELKA, M. - HORÍNEK, F. - SLÁDEK, Ľ. - VAVRINSKÝ, E. - NOVÁČEK, M. - MIKLOVIČ, P. - JELEŇ, M. - DONOVAL, D.: Heart Monitoring with Quad Pulse Oximetry and its Future Use. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 19, Special Issue : Conference ELOSYS, Trenčín, 15.-18.10.2013 (2013), p. 44-46. (in Slovak)
- [4] JAGELKA, M. - JELEŇ, M. - VAVRINSKÝ, E. - DAŘÍČEK, M. - DONOVAL, M.: Implementation of Pulse Oximetry Measurement to Wireless Biosignals Probe. In: Trends in Biomedical Engineering 2013 : Podbanské, Slovak Republic, 3.-5.7.2013. - Košice : Technical University, 2013. - ISBN 978-80-8086-208-4. - p. 57-59. (in English)
- [5] JAGELKA, M. - HORÍNEK, F. - JELEŇ, M. - SLÁDEK, Ľ. - DONOVAL, M.: Smart Electronic System for Measurement of Reaction Times in Sport Science and Physiotherapy. In: ADEPT 2013 : 1st International Conference on Advances in Electronic and Photonic Technologies. Nový Smokovec, Slovakia, June 2-5, 2013. - Žilina : University of Žilina, 2013. - ISBN 978-80-554-0689-3. - p. 181-184. (in English)
- [6] LACKOVIČ, P. - SCHICKHOFER, P.: Rowing Economy of Club and Elite Athletes. In: From Research to Practice : 18th International Conference in Sports. Bratislava, Slovak Republic, 5.-6.12. 2013. - Bratislava : STU, 2013. - ISBN 978-80-227-4086-9. - p. 142-151. (in Slovak)
- [7] SLÁDEK, Ľ. - DAŘÍČEK, M. - JAGELKA, M. - ŠATKA, A. - MIKLOVIČ, P.: Tensometric Sensor System for Human Motion Characterization. In: ADEPT 2013 : 1st International Conference on Advances in Electronic and Photonic Technologies. Nový Smokovec, Slovakia, June 2-5, 2013. - Žilina : University of Žilina, 2013. - ISBN 978-80-554-0689-3. - p. 193-196. (in English)

SPECIALIZED CENTRES

National Center of Telemedical Services

Head: Ing. Fedor Lehocki, PhD.

National Center of Telemedical Services is focused on research and development in the area of innovative telemedical services, supporting the vision of a modern health service in the Slovak Republic. The center cooperates with national and international medical and technological partners from academic, state and commercial areas. It transfers the achievements in research and development in telemedical services into medical treatment, health service management, collecting and analysis of medical data and their application in clinical practice. Research achievements are tested in pilot solutions and successful projects are applied in practice. The possibilities of the use of telemedical services include a variety of solutions reaching from medical video consultations, electronic doctor-patient communication to monitoring patients' vital functions at their homes. The strategic partner of the center is IBM Slovakia

Center of New Educational Technologies

Head: prof. Ing. Mikuláš Huba, PhD.

In March 2011 the Center completed the project Leonardo Revive focused on the improvement of a distance course of secondary school mathematics. The Center also completed a KEGA project – “Building of Virtual and Distant Experiments for Online Laboratories Network” in December 2011. The Center cooperated with the European Association of Distance Teaching Universities and the European Association of Institutions in Higher Education on completing an LLL Promoters project application aimed at enhancing lifelong education at universities. The Center cooperated on the admission of the IN-STU-d-ING project as part of the operating program to build up the study program Applied Mechatronics in English language. The Center cooperated on formulation of the research project within the 7th framework program MetaLab focused on supporting distant laboratories. (not approved).

Publication of textbooks for distance study belongs to regular activities of the Center.

Center of Nuclear Technologies (CNT)

Head: prof. Ing. Vladimír Nečas, PhD.

The CNT offers own capacity and equipment for material physics, analyses of various materials used in practice: a) analysis of standard and special materials using nuclear physics methods (Mössbauer Spectroscopy, Positron Annihilation Spectroscopy, Gamma Spectroscopy) from the point of view of knowledge, not only properties (structural, magnetic, radiation, etc.) but also the processes running inside; b) the ion beam modification of materials using particles accelerator for microelectronics, optoelectronics, nanotechnology and nuclear energy; c) the X ray digital imaging of different subjects by means of innovative semiconductor detectors in various areas of medicine, industry and safety. CNT offers participation also in the projects of the safe use of nuclear energy, in research and development of novel nuclear technologies (reactors of 4th generation, thermonuclear reactor), computer modeling and simulation of neutron-physical

characteristics of VVER-440 reactors, nuclear fuel cycles, optimization of blocs operations and their nuclear safety. We offer analyses of radiation environmental influences, including problems connected with decommissioning of nuclear power plants.

Institute of Electrical Engineering and Informatics Expertise of FEI STU in Bratislava

Director: prof. Ing. Alfonz Smola, PhD.

The objectives of the Institute are:

- to provide expertise in given technical specializations in accordance with Law No 382/2004 Coll on experts and interpreters and with Decree No 492/2004 Z. of. for state authorities, as well as for other legal and individual entities,
- to prepare specialists from professional practice for expertise in technical and economic specializations in the form of specialized training in accordance with Law No 382/2004 Coll,
- to do research into expert report methodology, including related economic, technical and legal areas,
- to organize symposia, seminars and conferences focused on expertise,
- to publish textbooks, proceedings of events organized by the Institute and non-periodical publications from the area of forensic expertise,
- to organize counseling for legal and individual entities,
- to organize specialized assistance for central state authorities in harmonization of our legislation with EU regulations.

The Institute has been authorized by the Ministry of Justice of the Slovak Republic to test experts on electrical engineering, informatics and power engineering in the form of a special examination.

Mutual Workplace for Special Measurements and Electromagnetic Compatibility (in cooperation with the Institute of Electrical Engineering and Projects, sNová Dubnica)

Head: doc. Ing. Karol Kováč, PhD.

The HiTech Center for Electromagnetic Compatibility has been established as part of the state science and research program "Complex Solution of Support and Effective Use of Research and Development Infrastructure" called "Support of Research and Development from the Viewpoint of Electromagnetic Compatibility" that was completed by final opponency in October 2011. The Center is located at FEI STU. Its workplaces are the EMC laboratory of the Institute of Electrical Engineering and the Mutual Workplace for Special Measurements and Electromagnetic Compatibility in the Institute of Electrical Engineering and Projects in Nová Dubnica. The faculty counseling workplace of the Center is aimed at supporting research and development in the EMC area. The scope of its activities reaches from specialist counseling, computer modeling of EMC phenomena, subsystems and systems to verification of EMC features of prototypes of electronic systems. For all of these activities it is equipped with technical and programming facilities on top European level. Every year, the Center provides support to 45 projects of scientific and research organizations in Slovakia.

FEI STU Test Laboratory

Head: doc. Ing. Karol Kováč, PhD.

FEI STU Test Laboratory is a certified test workplace (SNAS Certificate No. S-066) that is authorized to test electrical, protective and work equipment for electrical engineering, electrical products, light sources, lamps and optical materials as well as measurements of physical values in environment in general and in working environment– lighting measurements.

It is authorized to test high voltage technology, electromagnetic compatibility and lighting technology.

National Center of Knowledge Data Structures - Archetypes

Head: Ing. Martin Foltin, PhD.

The main task of the Center is to bring, naturalize and further develop standards of health informatics in the field of structured records of providing health care in cooperation with the National Health Information Center. Since it was established, the Center has provided a set of applications and tools for development, location and management of open data standards – archetypes as well as interconnection of the Center with international structures run by a worldwide foundation OpenEHR. More than 70 countries and thousands of specialists – doctors and information science specialists cooperate with the OpenEHR foundation on the creation of archetypes and their implementation in information systems of health care institutions.

The Center has established a board of experts on health service standards. It will gradually engage professional medical workplaces in its activities and will launch activities aimed at the preparation of first archetypes, localized for the needs of the National Health Information System in accordance with eHealth projects in Slovakia. At the same time, the Center expects intensive cooperation with manufacturers of information systems in the solution of tasks linked with the implementation of electronics and IT support of health service. Standards and archetypes developed by the Center will be submitted to the Center for Medical Terminology and Standards of the National Health Information Center. After being approved of, they will be subsequently submitted to the Board of the Minister of Health for Medical Terminology and Standards and used for eHealth SR.

**FACULTY
OF ELECTRICAL
ENGINEERING
AND INFORMATION
TECHNOLOGY,
SLOVAK UNIVERSITY
OF TECHNOLOGY,**

BRATISLAVA 2013

**Authorized contributions from Institutes
and Departments**

Edited by: M. Žiška, A. Holič, J. Braunová