

•••• STU
•••• FEI

SLOVENSKÁ TECHNICKÁ
UNIVERZITA V BRATISLAVE
FAKULTA ELEKTROTECHNIKY
A INFORMATIKY

2011



ANNUAL REPORT

**SLOVAK UNIVERSITY OF TECHNOLOGY IN BRATISLAVA
FACULTY OF ELECTRICAL ENGINEERING AND INFORMATION TECHNOLOGY**

CONTENT

FACULTY OF ELECTRICAL ENGINEERING AND INFORMATION TECHNOLOGY	3
STUDY PROGRAMS AND FACULTY MANAGEMENT	5
INSTITUTE OF CONTROL AND INDUSTRIAL INFORMATICS	8
INSTITUTE OF TELECOMMUNICATIONS	33
INSTITUTE OF POWER AND APPLIED ELECTRICAL ENGINEERING	52
INSTITUTE OF COMPUTER SCIENCE AND MATHEMATICS	75
INSTITUTE OF ELECTRONICS AND PHOTONICS	88
INSTITUTE OF NUCLEAR AND PHYSICAL ENGINEERING	113
INSTITUTE OF ELECTRICAL ENGINEERING	130
DEPARTMENT OF LANGUAGES	142
DEPARTMENT OF PHYSICAL EDUCATION	146
OFFICE FOR EUROPEAN UNION PROGRAMS	151
SPECIALIZED CENTRES	156



SLOVENSKÁ TECHNICKÁ
UNIVERZITA V BRATISLAVE
FAKULTA ELEKTROTECHNIKY
A INFORMATIKY

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 the seven institutes and two departments:

- 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 (IPAAE) was established on May 1, 2011 and created from:



Extraordinary award presented on the occasion of the 70th anniversary of the education of electrical and informatics engineers.



Award for credit for the development of FEI STU

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.
- Department of Languages (DL) was established on April 1, 1991.
- Department of Physical Education (DPE) was established in year 1993.

The primary goal of Faculty institutes and departments 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 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 to 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 tech-

nologies 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.

The Faculty of Electrical Engineering and Information Technology this year celebrates the 70th Anniversary of Education in the field of Electrical Engineering and Computer Science.

STUDY PROGRAMS AND FACULTY MANAGEMENT

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



Bachelor (Bc.) programs:

Applied Informatics
Automotive Electronics
Electrical Engineering
Electronics
Industrial Informatics
Telecommunication

Master 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

Management of the Faculty



Dean:
doc. RNDr. Gabriel Juhás, PhD.



Vice-dean for Bc. Studies:
doc. Ing. Vladimír Jančárik, PhD.



Vice-dean for Research:
doc. Ing. Milan Žiška, PhD.



**Vice-dean for Foreign Contacts
and Development:**
prof. Ing. Peter Ballo, PhD.



Vice-dean for MSc. Studies:
doc. Dr. Ing. Miloš Oravec



**Vice-dean for Development
of Informatics and Public
Relations:**
Ing. Martin Foltin, PhD.



**Vice-dean for PhD. Study
and Human Resources:**
doc. Ing. Jarmila Pavlovičová, PhD.



Secretary:
Ing. Peter Telek

Scientific Council



Chairman:

doc. RNDr. Gabriel Juhás, PhD.



Vice-chairman:

doc. Ing. Milan Žiška, PhD.

prof. Ing. Peter Ballo, PhD.
prof. Ing. Ivan Baroňák, PhD.
prof. Ing. Július Círák, CSc.
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.
prof. RNDr. Ľudovít Molnár, DrSc.
doc. RNDr. Ľubomír Marko, PhD.
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. 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:

doc. Ing. Jaroslav LeLák, CSc.

Chairman of the Chamber of employees:

doc. Ing. Danica Rosinová, PhD.

Chairman of the Chamber of students:

Martin Horniak

Chamber of employees

PhDr. Jarmila Belasová
doc. Ing. Peter Bokes, PhD.
Ing. Peter Drahoš, PhD.
PaedDr. Aleš Dunajčík
doc. Ing. Žaneta Eleschová, PhD.
doc. Ing. Ján Hríbik, PhD.
prof. Ing. Peter Hubinský, PhD.
Ing. Matúš Jókay, PhD.
Ing. Ľudovít Jurčacko
doc. Ing. Karol Kováč, PhD.
doc. Ing. Vladimír Kutiš, PhD.

prof. Ing. Mária Pavlovič, PhD.
doc. Ing. Rastislav Róka, PhD.
prof. Ing. Viera Stopjaková, PhD.
prof. Ing. Alexander Šatka, PhD.
prof. Ing. František Uherek, PhD.
doc. Ing. Elemír Ušák, PhD.
Ing. Rastislav Vargic, PhD.
doc. RNDr. Peter Volauf, PhD.

Chamber of students

Martin Horniak
Ing. Tatiana Radičová
Bc. Tomáš Gabovic
Peter Beňo
Ing. Igor Kazlov
Bc. Martin Kulač
Bc. Lucia Masaryková
Bc. Viktor Pribila
Bc. Marek Rapčík
Ing. Ľubomír Sládek
Ing. Jakub Vonkomer

INSTITUTE OF CONTROL AND INDUSTRIAL INFORMATICS

INSTITUTE OF CONTROL AND INDUSTRIAL INFORMATICS

<http://www.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.
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 from the former Department of Automation and Control and the Department of Automatic Control Systems. At present, the institute is organized in 5 departments:

1. Department of Systems and Signals
2. Department of Automatic Control Methods
3. Department of Information and Communication Systems
4. Department of Robotics and Artificial Intelligence
5. Department of Applied Mechatronics.

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

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.).

SECTIONS OF THE INSTITUTION:

Departments of the Institution Control and Industrial Informatics

The institute has 5 departments and administrative-economic body.

Department of Systems and Signals

Head of department:

doc. Ing. Danica Rosinová, PhD.

Deputy-head:

doc. Ing. Eva Miklovičová, PhD.

Department of Automatic Control Methods

Head of department:

prof. Ing. Mikuláš Huba, PhD.

Deputy-head:

doc. Ing. Katarína Žáková, PhD.

Department of Information and Communication Systems

Head of department:

Ing. Martin Foltin, PhD.

Deputy-head: Ing. Ladislav Körösi, PhD.

Department of Robotics and Artificial Intelligence

Head of department:

prof. Ing. Ladislav Jurišica, PhD.

Deputy-head:

doc. Ing. Ivan Sekaj, PhD.

Department of Applied Mechatronics

Head of department:

prof. Ing. Štefan Kozák, PhD.

Deputy-head:

prof. Ing. Milan Žalman, PhD.

I. STAFF

Professors:

prof. Ing. Mikuláš Huba, PhD., prof. Ing. Peter Hubinský, PhD.,

prof. Ing. Ladislav Jurišica, PhD., prof. Ing. Štefan Kozák, PhD.,

prof. Ing. Ján Murgáš, PhD., prof. Ing. Vojtech Veselý, DrSc.,

prof. Ing. Milan Žalman, PhD.

Associate Professors:

doc. Ing. Igor Hantuch, PhD., doc. Ing. Alena Kozáková, PhD.,

doc. Ing. Zdenka Kráľová, PhD., doc. Ing. Eva Miklovičová, PhD.,

doc. Ing. Danica Rosinová, PhD., doc. Ing. Ivan Sekaj, PhD.,

doc. Ing. Ján Šturcel, PhD., doc. Ing. Anton Vitko PhD.,

doc. Ing. Katarína Žáková, PhD.

Assistant Professors:

Ing. Richard Balogh, Ing. Igor Béla, PhD., Ing. Pavol Bisták,

Ing. Michal Blaho, Ing. Jozef Dorner, Ing. Peter Drahoš, PhD.,

Ing. Mária Dúbravská, Ing. Jozef Dúbravský, Ing. Martin Foltin, PhD.,

Ing. Mária Hypiusová, PhD., Ing. Štefan Chamraz, PhD.,

Ing. Slavomír Kajan, PhD., Ing. Ján Kardoš, PhD., Ing. Ladislav Körösi, PhD.,

Ing. Marián Mrosko, PhD., Ing. Jana Paulusová, PhD.,

Ing. Peter Ľapák, PhD., Ing. Miroslav Toman, PhD.

Research Workers:

doc. Ing. František Duchoň, PhD., Ing. Peter Fodrek, PhD.,

doc. Ing. Miroslav Halás, PhD., Ing. Jaroslav Hanzel, PhD.,

Ing. Marián Klúčik, Ing. Leo Mraľko, PhD., Ing. Jakub Osuský, PhD.,

Ing. Danica Sovišová, Ing. Stanislav Števo, PhD., Ing. Jozef Vöröš, PhD.

Technical Staff:

Peter Detvaj, Ing. Radoslav Dibarbora, Mgr. Alena Foltinová,

Pavol Gašparovič, Katarína Horváthová, Katarína Macková (office),

Jozef Turčánik

PhD. Students:

Ing. Andrej Babinec, Ing. Pavol Bahník, Ing. Martin Dekan, Ing. Peter Didek,

Ing. Zuzana Dideková, Ing. Branislav Dvorčák, Ing. Pavol Folvarčík,

Ing. Martin Gažo, Ing. Matej Gimera, Ing. Peter Guzmický, Ing. Ivan Holíč,

Ing. Tomáš Huba, Ing. Ivan Hujsi, Ing. Ľuboš Chovanec, Ing. Zoltán Janík,

Ing. Andrej Kozák, Ing. Róbert Krasňanský, Ing. Marek Linder,

Ing. Tomáš Malatinec, Ing. Quang Nguyen, Ing. Lukáš Palkovič,

Ing. Peter Pásztó, Ing. Ondrej Pašúth, Ing. Tatiana Radičová,

Ing. Jozef Rodina, Ing. Jozef Škultéty, Ing. Alexandra Šlezárová

Ing. Juraj Švančara, Ing. Marián Tárník, Ing. Stanislav Triáška,

Ing. Michal Tölgyessy, Ing. Martin Urban, Ing. Peter Valach,

Ing. Eugen Viszus, Ing. Vladislav Vodička, Ing. Daniel Vozák,

Ing. Jakub Vonkomer

II. EQUIPMENT

II. 1 Teaching and Research Laboratories

- Adaptive Control Laboratory
- Optimization and Optimal Control Laboratory
- Multivariable Systems Laboratory
- Production Systems Modelling Laboratory
- Computational Intelligence Laboratory
- 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 Modelling 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 Servo Plant
- Digital Signal Processor Board for Real-Time Control
- Embedded MicroComputer Systems 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
- Programmable Controllers: MicroLogix, Honeywell, Modicon
- Distributed Control System Yokogawa Centum
- Programmable Controllers: Simatic S7-300, S7-200, UDC Honeywell, Modicon TSX Premium, Mocrologix 1000, Allen Bradley
- 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, SAP ERP
- HMI Software - WinCC, WinCC Flexible, Protool
- Programming Software Step7 Professional
- DC Servo Drive System
- Software Wonderware InTouch
- RsLogix5000, RsLogix500, SoftLogix
- ControlNet, DeviceNet, EtherNet
- Emulate500, Emulate5000, LogixArchitect, RsLinx
- RsSQL, RsTune, RSView Supervisory Edition
- 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

- Leica GPS1200
- Thermovision camera TIM160
- Laser scanner M2-iLAN-2-80/40
- iRobot Create robotic platforms

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
Computer Architecture	(2nd sem., 3-2h)	R. Ravas, Š. Chamraz
Modelling and Simulation	(2th sem., 2-3h)	M. Foltin
Unix/Linux – Real Time Systems	(3rd sem., 2-3h)	I. Sekaj, P. Fodrek
Automatic Control Theory 1	(3rd sem., 2-3h)	M. Huba
Cybernetics 1	(3rd sem., 2-2h)	D. Rosinová
Automatic Control Theory 2	(4th sem., 2-3h)	J. Murgaš
Design of Web Applications	(4th sem., 2-2h)	K. Žáková
Modelling and Simulation	(4th sem., 3 2-2h)	M. Foltin
Electronics for Control Systems	(4th sem., 2-2h)	J. Šturcel, M. Toman
Instrumentation of Control Systems	(4th sem., 3-2h)	J. Šturcel, M. Toman, Š. Chamraz
Java-graphical interface CS	(4th sem. 2-2h)	I. Sekaj, P. Fodrek
Internet and Intranet Applications	(5th sem., 2-2h)	K. Žáková
Actuators	(5th sem., 2-3h)	M. Žalman, J. Dúbravský
Software for Control Systems	(5th sem., 2-3h)	I. Hantuch, L. Kőrösi
Optimization	(5th sem., 2-2h)	D. Rosinová
Basic of Control Systems	(5th sem., 2-2h)	P. Hubinský
Sensor Systems for Cars	(5th sem., 2-2h)	V. Tvarožek, J. Šturcel
Automation 1	(5th sem., 3-2h)	J. Murgaš, M. Mrosko
Monolithic microcontrollers	(5th sem., 2-2h)	J. Šturcel, Š. Chamraz, R. Balogh
Cybernetics 2	(5th sem., 2-2h)	J. Murgaš
Applied Computational Intelligence	(5th sem., 2-2h)	I. Sekaj
Industrial Communication Bus	(6th sem., 2-2h)	J. Šturcel, P. Drahoš

Industrial Communication Systems
(6th sem., 3-2h) M. Žalman, I. Bélaï

Robotics
(6th sem., 3-2h) P. Hubinský

Continuous Processes
(6th sem., 3-2h) E. Miklovičová

Nonlinear Systems
(6th sem., 2-3h) M. Huba

Automation 2
(6th sem., 2-2h) M. Žalman, I. Bélaï, J. Dúbravský

Control systems
(6th sem., 2-2h) J. Murgaš, M. Mrosko

III. 2 Graduate Study (Ing.)

CAD of Software Systems
(1st sem., 3-2h) I. Hantuch

Multimedia in Control
(1st sem., 3-2h) M. Huba, P. Bisták

Optimal Control
(1st sem., 3-2h) A. Kozáková

Servosystems
(1st sem., 3-2h) M. Žalman, I. Bélaï

Theory of Automatic Control 3
(1st sem., 2-3h) M. Huba

Linear Systems Control
(1st sem., 2-3h) V. Veselý, M. Hypiúsová

Flexible Manufacturing Systems
(1st sem., 3-2h) L. Jurišica

Modelling and Simulation of Processes
(1st sem., 3-2h) E. Miklovičová

Artificial Neural Nets
(1st sem., 3-2h) I. Sekaj, S. Kajan

Internet and Intranet Applications
(1st sem., 2-3h) K. Žáková

Matlab in Power Systems
(1st sem., 2-3h) Š. Kozák

Applications of Embedded Systems
(1st sem., 2-2h) Š. Kozák

Digital Control Methods
(1st sem., 3-2h) Š. Kozák, A. Kozáková, D. Rosinová

Sensor microsystems
(1st sem., 2-3h) V. Tvarožek, P. Drahoš

Evolutionary Computing
(2nd sem., 2-3h) I. Sekaj

Databases of Control Systems
(2nd sem., 2-3h) Z. Králová

Adaptive Control
(2nd sem., 3-2h) J. Murgaš

Discrete Event Systems
(2nd sem., 3-2h) A. Vitko

Multivariable System Control
(2nd sem., 3-2h) V. Veselý

Advanced Control Theory 1
(2nd sem., 3-2h) V. Veselý

Sensor Systems in CIM
(2nd sem., 3-2h) J. Šturcel, M. Toman

Control Methods and Algorithms

(2nd sem., 3-2h) P. Hubinský, J. Kardoš

Multimedia
(2nd sem., 2-3h) M. Huba, P. Bisták

System Identification
(2nd sem., 2-3h) E. Miklovičová

Modelling and simulation of Mechatronic Systems
(2st sem., 2-3h) Š. Kozák

Software Development for Office Automation
(3rd sem., 3-2h) J. Murgaš, M. Kratmüller

Fuzzy and Neural Controllers
(3rd sem., 3-2h) I. Sekaj

Smart Sensors Systems
(3rd sem., 3-2h) J. Šturcel

Intelligent Systems
(3rd sem., 3-2h) I. Sekaj, S. Kajan

Production Systems Management and Control
(3rd sem., 2-3h) Z. Králová

Robots Modelling and Control
(3rd sem., 3-2h) A. Vitko

Network Technologies
(3rd sem., 2-3h) J. Murgaš, M. Foltin

Mobile Robotics Systems
(3rd sem., 3-2h) L. Jurišica, F. Duchoň

Mechatronics
(3rd sem., 3-2h) L. Jurišica

CAD of Control Systems
(3rd sem., 3-2h) J. Šturcel, P. Drahoš

Database and visualization systems
(3rd sem., 2-3h) Z. Králová, L. Kórósi

Distributed embedded computer systems
(3rd sem., 2-2h) J. Šturcel, Š. Chamraz, R. Balogh

Advanced methods of control of mechatron. systems
(3rd sem., 3-2h) Š. Kozák, D. Rosinová

Electrical drives of mechatronic systems
(3rd sem., 2-2h) L. Hüttner, I. Bélaï, M. Uhrík

Control of Complex Systems
(4th sem., 3-2h) D. Rosinová

Intelligent Servosystems
(4th sem., 3-2h) M. Žalman

Telematics and Control
(4th sem., 3-2h) M. Huba, P. Bisták

Control of Technological Processes
(4th sem., 2-2h) Š. Kozák

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

Algorithmisation and Programming
(1st sem.) I. Sekaj, P. Fodrek

Introduction into Engineering
(1st sem.) K. Žáková

Computer Architecture
(2nd sem.) Š. Chamraz

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
Control System Software	
(6th sem.)	I. Hantuch, L. Kórósi
Instrumentation of Control Systems	
(6th sem.)	J. Šturcel
Modelling and Simulation	
(6th sem.)	M. Foltin
Electronics for Control Systems	
(6th sem.)	J. Šturcel, M. Toman
Actuators	
(7th sem.)	M. Žalman, J. Dúbravský
Optimization	
(7th sem.)	D. Rosinová
Control System Software	
(7th sem.)	I. Hantuch, L. Kórósi
Industrial Communication Systems	
(8th sem.)	M. Žalman, I. Béla
Robotics	
(8th sem.)	P. Hubinský
Continuous Processes	
(8th sem.)	E. Miklovičová
Nonlinear Systems	
(8th sem.)	M. Huba, D. Savišová

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

CAE of Mechatronics Systems	
(1st sem.)	J. Murín, M. Klúčik, V. Goga
Flexible Manufacturing Systems	
(1st sem.)	L. Jurišica
Multimedia in Control	
(1st sem.)	M. Huba, P. Bisták
Servosystems	
(1st sem.)	M. Žalman, I. Béla
Event Systems	
(2nd sem.)	A. Vitko
Sensor Systems in CIM	
(2nd sem.)	J. Šturcel, M. Toman
Robots Modelling and Control	
(3rd sem.)	A. Vitko
Mechatronics	
(3rd sem.)	L. Jurišica
Telematics and Control	
(4th sem.)	M. Huba, P. Bisták

IV. RESEARCH PROJECTS

IV. 1 National Scientific Projects

- Algebraic Methods in Nonlinear Control Systems: Theory and Applications. VEGA1/0369/10 Duration: 2010 - 2011 (completed). (M. Halás)
- New technologies in the teaching of subjects in the management of electrical and mechatronic systems, KEGA 006-005TUKE-4/2010, Duration: 2010-2011,(completed), (I. Béla)
- Generalized Modular Industrial Computer, APVV project VMSP-P-0059-09, (Š. Kozák)
- Robust MPC for hybrid systems, VEGA 1/1105/11 Duration 2011-2013 (solved) (Š. Kozák)
- Research and development of new information technologies for prediction and solution of critical situations and safety peoples, OP VaV 26240220060 Duration 2011-2013 (solved) (Š. Kozák)
- Design of a Methodology of Exploitation the 3D-Modelling and Virtual Reality Means in Conditions of Teaching in Specialized Laboratories. KEGA 3/7307/09 Duration 2009-2011 (completed) (L. Jurišica)
- Building Virtual and Remote Experiments for a Network of Online Laboratories. KEGA 3/7245/09 Duration 2009-2011 (completed) (M. Huba)
- Advanced Control Methods for Industrial Processes. VEGA 1/0544/09 Duration 2009-2011 (completed) (V. Veselý)
- Advanced Decentralized Control Methods in Network Control Systems. APVV-0211-10. Duration: 2010-2014 (solved), (V. Veselý)
- Integration and Development of Nonlinear and Robust Control Methods and Their Integration to Control Flying Vehicles. VEGA 1/0656/09 Duration 2009-2012 (M. Huba)
- Hybrid Triangulation - Optical System for Working Quality Checking of Tire. APVV VMSP-P-0030-09 Duration 2009-2011 (completed) (P. Drahoš)
- Optimization of the Mechatronic Systems Control. VEGA 1/0690/09 Duration 2009-2012 (solved) (L. Jurišica)
- Intelligent Control of Service Robot APVV VMSP – P-0004-09 Duration 2009-2011 (completed) (L. Jurišica)
- Building Grant for the Centre of Excellence for Smart Technologies, Systems and Services (SMART 1), ASF EÚ MS SR, ITMS 26240120005, Duration: 2009-2011 (completed) (J. Murgaš)
- Building Grant for the Centre of Excellence for Smart Technologies, Systems and Services 2 (SMART 2), ASF EÚ MS SR, ITMS 26240120029, Duration: 2010-2012 (solved) (J. Murgaš)
- Advanced Methods for Network Control Systems. VEGA 1/0592/10 Duration: 2010-2011 (completed) (J. Murgaš)
- Competence Center for Intelligent Technologies to computerize and information systems and services ITMS: 26240220072 Duration: 2011-2014 (started) (J. Murgaš)
- Weldtech – stimuly – Mur – cooper. -. 4K38 Duration: 2011-2013 (started) (Murgaš)
- Research on high-tech welding technologies for industrial applications, Req-00048-0001 Duration: 2010-2013, (solved), (J. Murgaš)
- Laboratory for teaching and development of OpenSource projects, KEGA 032STU-04/2011 Duration: 2011-2013 (solved) (M. Žalman)
- Bioinspired multirobot coordination system APVV -0261-Hub-Sk5, Duration:2011-2014 (started) (P. Hubinský)
- Control of a service robot 7042 RSR Duration: 2011-2012 (started) (F. Duchoň)

- Advanced inertial measurement unit for mobile robots 7046 AIMU Duration: 2011-2012 (started) (J. Rodina)
- Intelligent navigation of a service robot 1/0177/11 Duration: 2011-2014 (solved) (A. Vitko)

IV. 2 International Scientific Projects

- Enhancing NO-SK Cooperation in Automatic Control NIL-I-007-d Duration: 2009-2011 (completed) (M. Huba, K. Žáková)
- Autoweldlink. EÚ European Regional Development Fund ITMS 26240220033 Duration 2010-2014 (solved) (L. Jurišica)
- Cybernetics and Modern Methods of Control. Ceepus CII-CZ-0404-01-1011. Duration: 2010-2011 (completed) (K. Žáková)
- Cybernetics and Modern Methods of Control. Ceepus CII-CZ-0404-02-1112. Duration: 2011-2012 (solved) (K. Žáková)
- The establishment of the Vienna - Bratislava international center of expertise in the field of robotics (CENTROBOT OPCS-SK - AT), Duration: 2009-2013 (solved) (P. Hubinský)

V. COOPERATION

V. 1 Cooperation in Slovakia

- ABB Bratislava, Ltd.
- ATEC Ltd., Bratislava
- AXESS Ltd., Bratislava
- Armed Forces Academy, Liptovský Mikuláš
- Business for Excellence Ltd., Bratislava
- ControlTech Industrial Automation Ltd., Trnava
- DATALAN Bratislava, Ltd.
- E-Academia Slovaca, n. o., Bratislava
- Eltis Ltd., Banská Bystrica
- Emerson Ltd., Bratislava
- Gratex International Ltd., Bratislava
- HMH Ltd., Bratislava
- Honeywell Ltd., Bratislava
- Institute of Informatics, Slovak Academy of Sciences, Bratislava
- Johnson Controls Ltd., Bratislava
- KFB Control Ltd., Bernolákovo
- Legrand Slovakia
- Meret Ltd., Bratislava
- MicroStep Ltd., Bratislava
- Microstep MIS Ltd., Bratislava
- NES Ltd., Nová Dubnica
- PosAm Ltd., Bratislava
- PPA Energo Ltd., Bratislava
- PROXY, Nové Mesto n/Váhom
- PZ Bratislava, Inc.
- Q – EX Trenčín, Inc.
- RELKO, spol. s r. o.
- RMC Nová Dubnica, Ltd.
- S&A Ltd., Banská Bystrica

- SAP Slovakia, Ltd.
- SE Inc., Bratislava
- Schneider Electric Slovakia, Ltd.
- Siemens Ltd., Bratislava
- Slovak Electricity Transmission System Ltd., Bratislava
- Slovakodata, Inc., Bratislava
- Slovnaft Bratislava, Inc.
- SPP – Slovtransgaz Inc., Nitra
- SWH – Siemens Business Service, Bratislava
- Technical University of Košice
- Telegyr Systems (Slovakia) Ltd., Bratislava
- UMB Banská Bystrica
- UNIT Ltd., Bratislava
- University of Agriculture, Nitra
- University of Economics, Bratislava
- University of Žilina
- Volkswagen Slovakia Inc., Bratislava
- Vonsch Brezno, Ltd.
- VUJE Inc., Trnava
- Robotika Sk, Bratislava
- ME inspection, Bratislava
- ZTS VVU Košice
- EVPU Nova Dubnica a. s.,
- Institut of Informatics, SAV, Bratislava
- Regotrans Rittmeyer, s. r. o., Bratislava
- Schneider Electric Slovakia, s. r. o., Bratislava
- Termoreg, s. r. o., Bratislava

V. 2 International Cooperation

- Norwegian University of Science and Technology, Trondheim, Norway
- Institute de Recherche en Communications et Cybernetique, C. N. R. S, Nantes, France
- Department of Mathematical Sciences, Chalmers University of Technology, Gothenburg, Sweden
- 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
- Faculty of Industrial Organisation and Management, Silesian Technical University, Gliwice, Poland
- Fern Universität - Hagen, Germany
- Heilbronn University, Germany
- Humusoft Ltd., Praha, Czech Republic
- Hungarian Fuzzy Association, Hungary
- IIASA Laxenburg, Austria
- InnoC. at, Austria (Austria Association for Innovative Computer Science)
- 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
- Key Lab of Mathematics Mechanization, AMSS,

- Chinese Academy of Sciences, Beijing, China
- MES – DEA, Ltd., Switzerland
- Moscow Power Institute, Moscow, Russia
- Profibus International, Germany
- Schneider Electric, Germany
- Strasbourg University, BETA, Strasbourg, France
- Technical University of Brno, Czech Republic
- Technical University of Liberec, Czech Republic
- Technical University of Ostrava, Czech Republic
- Technical University of Tomas Bata in Zlín, Czech Republic
- Technical University of Ancona, Italy
- Technical University of Graz, Austria
- Technical University of Vienna, Austria
- University of Maribor, Slovenia
- University of Bochum, Germany
- University of Defence, Czech Republic
- University of West Bohemia in Pilsen, Czech Republic
- University of Zagreb, Croatia
- Vytautas Magnus University, Kaunas, Lithuania
- FH Technikum, Vienna, Austria
- Technical University Riga
- Faculdade de Engenharia da Universidade do Porto, Portugal

V. 3 Contract-based Business Activities

VI. THESES

VI. 1 Master theses

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

Alumni Cybernetics, June 2011

- [1] Bobek B.: Control uncertainty systems with fuzzy and fuzzy type 2 (M. Foltin)
- [2] Dian M.: Network control design of laboratory machine (J. Murgaš)
- [3] Drapák V.: Predictive control of glucose (A. Kozáková)
- [4] Erneková A.: Matlab connection with Web (M. Foltin)
- [5] Ertel D.: Control of hoist (L. Körösi)
- [6] Ferenc J. Adaptive control of synchronous generator exciter (J. Murgaš)
- [7] Gabčo O.: Design of network control system for laboratory model (J. Murgaš)
- [8] Jesenko K.: Application of optimization methods in control (D. Rosinová)
- [9] Kmeť L.: Design of decentralized controller with certain performance (A. Kozáková)
- [10] Kollárik I.: Web application for synthesis PID controllers for SISO systems (M. Hypiusová)
- [11] Kratochvíl P.: Web archive of publications (M. Foltin)
- [12] Kravianský V.: Control of the hydraulic system (E. Miklovičová)

- [13] Mihálik M.: The Natural Gas flow measurement (J. Šturcel)
- [14] Onufer Š.: Automotive antiblocking system (ABS) (A. Vitko)
- [15] Pillár B.: Modern methods in building automation (P. Drahoš)
- [16] Pípa P.: Measurement And Control of humidity in a closed space (J. Šturcel)
- [17] Potfaj M.: Predictive control of real system (M. Mrosko)
- [18] Serbinová K.: Discrete decentralized controller design in the frequency domain (A. Kozáková)
- [19] Silanič M.: Control of heating system (E. Miklovičová)
- [20] Szimonisz M.: Measurement Station for air pressed piping (R. Balogh)
- [21] Šalátek L.: OPC as an integration of various controlling and data acquisition platforms (P. Drahoš)
- [22] Ščasný P.: Adaptive controller of biological system (J. Murgaš)
- [23] Šeliga R.: Predictive control of MIMO systems (V. Veselý)
- [24] Šipoš K.: Application of optimization methods in control (D. Rosinová)
- [25] Toldy O.: Proposal of conveyer band control (P. Hubinský)
- [26] Toma J.: The optimization of the portal for support of innovations for search engines (M. Zajko)
- [27] Vozák D.: Synthesis of two degree of freedom controller (Š. Chamraz)

Alumni Robotics, June 2011

- [1] Arbet M.: The control of robot virtual 3D model (J. Kardoš)
- [2] Bosák Š.: Optimization of mobile robot control system (M. Klůčik)
- [3] Čutříková M.: Controll of mobile robot (L. Jurišica)
- [4] Dvorščák B.: Management level (P. Drahoš)
- [5] Gehrer M.: Actuator with microprocessorom (J. Dúbravský)
- [6] Gimera M.: Controlling technological conveyor (J. Dúbravský)
- [7] Grus M.: Animation robot dynamic model in Matlab (J. Kardoš)
- [8] Hegeduš P.: Discrete control of the placing of poles for the thermal system with limited control Action (P. Ťapák)
- [9] Hladký J.: Diagnostics of the production line by PLC (L. Mraňko)
- [10] Hološ T.: Usage of Apple iPhone device for mobile robot controlling (A. Šlezárová)
- [11] Hudec P.: Speed measurement system (J. Dúbravský)
- [12] Ivanco I.: Controlling of reaction wheel pendulum (L. Palkovič)

- [13] Kičin P.: DC motor control system using PLC (J. Dúbravský)
- [14] Kocian M.: Analysis of Security of RFID – radio-frequency identification (M. Stenclák)
- [15] Kolarovič M.: Design and implementation of „ ball juggler“ motion system control (M. Žalman)
- [16] Kollár M.: Building automation system (J. Dúbravský)
- [17] Kompan P.: Actuator SMA from NiTi alloy (P. Drahoš)
- [18] Ligás M.: Information medicine – utilization informatics in bioresonance medicine (I. Hantuch)
- [19] Malatinec T.: Dosing system of medicament (R. Balogh)
- [20] Michlík M.: Damping vibration control of flexible arm traction drive (V. Goga)
- [21] Mikula R.: Servo with synchronous motor (J. Dúbravský)
- [22] Mikuláš M.: Positional system with radial magnetic bearings (M. Žalman)
- [23] Nízky M.: Control system APC 620 (I. Béla)
- [24] Petrovič J.: Control unit of a mobile robot for use in education (R. Balogh)
- [25] Pulen A.: Comparison of PID algorithms on Modicon PLC (L. Körösi)
- [26] Slodičák B.: Demonstration program for the management of intelligent buildings (P. Drahoš)
- [27] Sorokač A.: RFID technology for tracking the movement of material (B. Mišota)
- [28] Strigáč M.: Mobile robot remote control (J. Hanzel)
- [29] Šašura J.: Control model with stepper motors SIMOSTEP (L. Mrafko)
- [30] Tóth F.: Complex design and realization of mobile robotic system (B. R. Ilkiv)
- [31] Tóth J.: Inspection telerobot (L. Jurišica)
- [32] Valach P.: Process simulation in InTouch and MS Excel (J. Kardoš)
- [33] Vandžura D.: DC motor system control (J. Dúbravský)
- [34] Zachar P.: Examination of the impact of human factor to the security of operation intelligent houses using virtual reality (I. Hantuch)
- [35] Zubo I.: The analysis subsystem „ Acoustics “ design for intelligent buildings (I. Hantuch)

Alumni Robotics, June 2011 (Distance Learning Method)

- [1] Horečná E.: Smart house (P. Drahoš)
- [2] Huba T.: Control of simple flying vehicle – paracopter (I. Pestún)
- [3] Hunča T.: Mobile robot trajectory optimisation using evolutionary algorithms (M. Klúčik)
- [4] Kľučárová Ľ.: Robust control of multivariable system (D. Rosinová)
- [5] Kohút M.: Controlling and monitoring an existing system in the laboratory of automation technique of SIEMENS (I. Béla)
- [6] Kováčik M.: Haptic Control of Mobile Transport Robot (P. Hubinský)

- [7] Lepko E.: Design and realization of the power source monitored and controlled by microcomputer (Š. Chamraz)
- [8] Longauer M.: Predictive control of the excitation of a synchronous generator using neural nets (M. Ernek)
- [9] Novoveská J.: Dynamic Robot Model Control (J. Kardoš)
- [10] Ondriaš M.: Navigation of mobile robot (A. Vitko)
- [11] Štofanič A.: Design and Realization of Thermostat based on Thermoelectric Elements (V. Štofanič)

VI. 2 PhD. Theses

- [1] Bucz Š.: Engineering Methods of PID Controller Tuning for Specified Performance (V. Veselý)
- [2] Häuptle P.: Advanced Control of Servomechanism with Flexible Gear-box (P. Hubinský)
- [3] Cigánek J.: Contribution to the problem of robust control using stable polytope of reflection vectors (Š. Kozák)
- [4] Hricko J.: Analysis, modelling and optimization of compliant mechanisms design (A. Vitko)
- [5] Thurský B.: Robust variable structure control systems (VSCR) in robotics and mechatronics (P. Hubinský)

VII. OTHER ACTIVITIES

Conferences organized by the Institute:

- 13th Conference of Doctoral Students ELITECH'11 - (A. Kozáková - responsible for organization, editor of Conference Proceedings)
- Istrobot: Competition of Mobile Robots, Bratislava, SK, April 2011 (R. Balogh)
- Freescale Race Competition, FEI STU, Bratislava May2011 (R. Balogh)
- 2nd International Conference on Robotics in Education, Vienna, 2011, (R. Balogh, P. Hubinský)

Other events:

- Conferences Participation, Membership in Committees:
 - ELOSYS 2011, Trenčín. SK. October 2011, J. Murgaš, I. Sekaj, M. Foltin – PC members, Profibus exposition
 - Austria, Vienna: Robotchallenge Competition participation (R. Balogh)
 - AT&P Journal (L. Jurišica, J. Šturcel, M. Žalman, I. Hantuch, J. Murgaš, V. Veselý – Editorial Board members)
 - Selected Topics in Modelling and Control (V. Veselý - Editor, L. Jurišica, Editorial Board member)
 - Transactions of the Institute of Measurement and Control (A. Vitko – Associate editor)
- CLAWAR Conference Nagoya (A. Vitko - Member of International Program Committee)
 - Accreditations Board of SAS (L. Jurišica – member)
 - Profibus Slovakia Association (P. Drahoš – chairman)
 - Cooperation with Encyclopedic Institute of Slovak

- Academy of Sciences on the Slovak Encyclopedia (Lexical Group Cybernetics): L. Harsanyi, L. Jurišica, A. Kozáková, D. Rosinová, J. Šturcel, M. Žalman, K. Žáková
- Accreditation Board of the Government of Slovakia. (Working Group - L. Jurišica, J. Murgaš – member)
 - Local Centre of Distance Education (M. Huba - head, D. Sovišová - study coordinator, P. Bisták - equipment manager, K. Žáková - international cooperation)
 - Computer Viruses Analysis ESET Ltd. Bratislava (P. Hubinský)
 - Administration of Shareware Archive of Slovak Antivirus Centre (P. Hubinský)
 - Slovak Society of Cybernetics and Informatics (M. Huba – deputy head)
 - SSCI (Slovak Society for Cybernetics and Informatics): Chair of Main Committee - Š. Kozák, Vice-chairs: V. Veselý, M. Huba
 - Journal of Cybernetics and Informatics: Š. Kozák - Editor in Chief, D. Rosinová - Managing Editor
 - Journal of Electrical Engineering: V. Veselý - member of Editorial Board
 - Slovak Society for Operations Research: Z. Králová - council member
 - MacPlanet: M. Foltin – editor internet journal www.macplanet.sk
 - European Robotics Week-active-participation (R. Balogh)

Projects:

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

VIII. MEMBERSHIP IN INSTITUTIONS/ COMMITTEES

VIII. 1 Membership in National Institutions/ Committees

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

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, M. Huba, P. Hubinský)
- IFAC member of the Technical Committee on Nonlinear Control Systems (M. Huba)
- IFAC, member of the Technical Committee on Adaptive and Learning Systems (J. Murgaš)
- IFAC, member of the Technical Committee on Robust Control (V. Veselý, M. Huba)
- IFAC member of Technical Committes: TC 3. 1 Computers for Control (Š. Kozák)
- IFAC member of Technical Committes: TC 3. 2 Computational Intelligence in Control (Š. Kozák)
- IFAC member of the Technical Committee on Nonlinear Control Systems (M. Halás)
- IFAC member of the CC4-Mechatronics, Robotics and Components (P. Hubinský)
- Profibus International (P. Drahoš)
- CLAWAR Association, member of the Board of Trustees (A. Vitko)
- IMEKO, member of the Technical Committee on Measurement and Control in Robotic (A. Vitko)
- Slovak Society for Cybernetics and Informatics-SSCI (Š. Kozák, chairman, V. Veselý, (M. Huba)
- European Coordination Committee for Artificial Intelligence-ECCAI, member, (Š. Kozák)

IX. PUBLICATIONS

IX. 1 Journals

- [1] BACHRATÝ, M. - HUBINSKÝ, P.: Robotic Middleware Based on Protothreads. In: ATP Journal plus. - ISSN 1336-5010. - No. 1. Systems of Automatic Control (2011), p. 45-47. (in English)
- [2] BISTÁK, P. - FOLVARČÍK, P.: Remote Laboratory Java Server Based on JACOB Project. In: International Journal of Online Engineering. - ISSN 1861-2121. - Vol. 7, No. 1 (2011), p. 33-36. (in English)
- [3] BUCZ, Š. - MARIČ, L. - HARSÁNYI, L. - VESELÝ, V.: Easy Tuning of Robust PID Controllers Based on The Design-Oriented Sine Wave Type Identification. In: ICIC Express Letters. - ISSN 1881-803X. - Vol. 5, No. 3 (2011), p. 563-572. (in English)
- [4] BUCZ, Š. - HARSÁNYI, L. - VESELÝ, V.: Tuning Robust PID Controller. In: Elektrotechnický magazín. - ISSN 1210-5422. - Vol. 21, No. 3 (2011), p. 34-37. (in Czech)
- [5] DEKAN, M. - DUCHOŇ, F. - VITKO, A.: Global Metric Map for Mobile Robotics. In: ATP Journal plus. - ISSN 1336-5010. - No. 1. Systems of Automatic Control (2011), p. 65-68. (in English)
- [6] DEKAN, M. - DUCHOŇ, F. - JURIŠICA, L. - VITKO, A.: Probabilistic Model of Laser Rangefinder. In: AD ALTA: Journal of Interdisciplinary Research. - ISSN 1804-7890. - Vol. 1, Iss. 2 (2011), p. 151-155. (in English)
- [7] DORNER, J. - DÚBRAVSKÝ, J.: Control of Automatized Stacker Crane with PLC System for Warehouses. In: ATP Journal. - ISSN 1335-2237. - Vol. 18. No. 9 (2011), p. 46-49. (in Slovak)
- [8] DORNER, J.: Intelligent Control Systems - Introduction In: Posterus. - ISSN 1338-0087. - April (2011), <http://www.posterus.sk/?p=10361>. (in Slovak)
- [9] DRAHOŠ, P. - KUTIŠ, V. - DÚBRAVSKÝ, J. - SEDLÁR, T.: Design and Simulation of SMA Actuator. In: International Review of Automatic Control. - ISSN 1974-6059. - ISSN 1974-6067. - Vol. 4, No. 4 (2011), p. 588-593. (in English)
- [10] DRAHOŠ, P. - BÉLAI, I.: Diagnostic of Physical Layer Profibus DP. In: Automa. - ISSN 1210-9592. - Vol. 17, No. 4 (2011), p. 2-6. (in Slovak)
- [11] DÚBRAVSKÁ, M. - PAULUSOVÁ, J.: Designing and Implementation of Software Solution for Processing of Measurement Rates. In: ATP Journal plus. - ISSN 1336-5010. - No. 1. Systems of Automatic Control (2011), p. 31-33. (in English)
- [12] DUCHOŇ, F. - KLÚČIK, M. - JURIŠICA, L. - VITKO, A. - KAŠTAN, D.: Mobile Robots with Leica GPS1200. In: Reporter. - Iss. 65 (2011), p. 30-31. (in English)
- [13] DUCHOŇ, F. - KLÚČIK, M. - DEKAN, M.: Search and Rescue Robots. In: Posterus. - ISSN 1338-0087. - October (2011), <http://www.posterus.sk/?p=11934>. (in Slovak)
- [14] DUCHOŇ, F. - DEKAN, M. - KLÚČIK, M.: Service Robotics for Homes. In: Posterus. - ISSN 1338-0087. - November (2011), <http://www.posterus.sk/?p=12020>. (in Slovak)
- [15] DUCHOŇ, F. - JURIŠICA, L. - KLÚČIK, M. - VITKO, A.: Service Robots. In: ATP Journal plus. - ISSN 1336-5010. - No. 1. Systems of Automatic Control (2011), p. 53-56. (in English)
- [16] FU, G. - HALÁS, M. - KOTTA, Ü. - LI, Z.: Some Remarks on Kahler Differentials and Ordinary Differentials in Nonlinear Control Theory. In: Systems and Control Letters. - ISSN 0167-6911. - Vol. 60 (2011), p. 699-703. (in English)
- [17] HALÁS, M.: Discrete-Time Disturbance Decoupling of Coupled Tanks. In: ATP Journal plus. - ISSN 1336-5010. - No. 2: Process Control (2011), p. 40-44. (in English)
- [18] HANZEL, J. - JURIŠICA, L. - KLÚČIK, M. - DUCHOŇ, F.: Identification of the Experimental Ultrasonic System Parameters. In: AD ALTA: Journal of Interdisciplinary Research. - ISSN 1804-7890. - Vol. 1, Iss. 2 (2011), p. 138-141. (in English)
- [19] HANZEL, J. - JURIŠICA, L. - KLÚČIK, M. - VITKO, A.: Ultrasonic Mapping System. In: ATP Journal plus. - ISSN 1336-5010. - No. 1. Systems of Automatic Control (2011), p. 77-80. (in English)
- [20] HUBA, M. - ŤAPÁK, P.: Developing E-Course Robust Constrained PID Control. In: International Journal of Emerging Technologies in Learning. - ISSN 1863-0383. - Vol. 6, Special Issue 1 (2011), p. 27-30. (in English)
- [21] HUBINSKÝ, P. - CHOVANEC, Ľ.: The Position Prediction for Bridge Crane Using Input Shaping Methods. In: ATP Journal plus. - ISSN 1336-5010. - No. 1. Systems of Automatic Control (2011), p. 34-37. (in English)
- [22] HUBINSKÝ, P.: Use a Software for Advantageous Price 1. In: PC revue. - ISSN 1335-0226. - Vol. 19, No. 1 (2011), p. 82. (in Slovak)
- [23] HUBINSKÝ, P.: Use a Software for Advantageous Price 2. In: PC revue. - ISSN 1335-0226. - Vol. 19, No. 2 (2011), p. 102. (in Slovak)
- [24] HUBINSKÝ, P.: Use a Software for Advantageous Price 3. In: PC revue. - ISSN 1335-0226. - Vol. 19, No. 3 (2011), p. 106. (in Slovak)

- [25] HUBINSKÝ, P.: Use a Software for Advantageous Price 4. In: PC revue. - ISSN 1335-0226. - Vol. 19, No. 4 (2011), p. 108. (in Slovak)
- [26] HUBINSKÝ, P.: Use a Software for Advantageous Price 5. In: PC revue. - ISSN 1335-0226. - Vol. 19, No. 5 (2011), p. 93. (in Slovak)
- [27] HUBINSKÝ, P.: Use a Software for Advantageous Price 6. In: PC revue. - ISSN 1335-0226. - Vol. 19, No. 6 (2011), p. 95. (in Slovak)
- [28] HUBINSKÝ, P.: Use a Software for Advantageous Price 7. In: PC revue. - ISSN 1335-0226. - Vol. 19, No. 7 (2011), p. 95. (in Slovak)
- [29] HUBINSKÝ, P.: Use a Software for Advantageous Price 8. In: PC revue. - ISSN 1335-0226. - Vol. 19, No. 8 (2011), p. 90. (in Slovak)
- [30] HUBINSKÝ, P.: Use a Software for Advantageous Price 9. In: PC revue. - ISSN 1335-0226. - Vol. 19, No. 9 (2011). (in Slovak)
- [31] HUBINSKÝ, P.: Use a Software for Advantageous Price 10. In: PC revue. - ISSN 1335-0226. - Vol. 19, No. 10 (2011), p. 95. (in Slovak)
- [32] HUBINSKÝ, P.: Use a Software for Advantageous Price 11. In: PC revue. - ISSN 1335-0226. - Vol. 19, No. 11 (2011), p. 110. (in Slovak)
- [33] HUBINSKÝ, P.: Use a Software for Advantageous Price 12. In: PC revue. - ISSN 1335-0226. - Vol. 19, No. 12 (2011), p. 106. (in Slovak)
- [34] HYPIUSOVÁ, M. - KAJAN, S.: Robust Controller Design for the Laboratory Model of a DC Motor. In: ATP Journal plus. - ISSN 1336-5010. - No. 1. Systems of Automatic Control (2011), p. 13-17. (in English)
- [35] JANÍK, Z. - ŽÁKOVÁ, K.: Online Design of Matlab/Simulink Block Schemes. In: International Journal of Emerging Technologies in Learning. - ISSN 1863-0383. - Vol. 6, Special Issue 1 (2011), p. 11-13. (in English)
- [36] JÁNO, M. - ŽÁKOVÁ, K.: SciLab Based Remote Control of Thermo-Optical Plant. In: International Journal of Online Engineering. - ISSN 1861-2121. - Vol. 7, No. 4 (2011), p. 10-15. (in English)
- [37] JURÍŠICA, L. - DUCHOŇ, F. - DEKAN, M.: Dynamic Obstacle Avoidance in Mobile Robotics. In: ATP Journal plus. - ISSN 1336-5010. - No. 1. Systems of Automatic Control (2011), p. 69-73. (in English)
- [38] JURÍŠICA, L. - DUCHOŇ, F.: Global Navigation of Mobile Robots on Basis of Geometrical Map. In: ATP Journal. - ISSN 1335-2237. - Vol. 18, No. 2 (2011), on-line (http://www.atpjournalsk/buxus/docs/casopisy/atp_2011/atp_2_2011_Teoria2.pdf). (in Slovak)
- [39] JURÍŠICA, L. - DUCHOŇ, F. - BABINEC, A.: Modern Trends in Reactive Navigation of Mobile Robots. In: ATP Journal. - ISSN 1335-2237. - Vol. 18, No. 2 (2011), on-line (http://www.atpjournalsk/buxus/docs/casopisy/atp_2011/atp_2_2011_Teoria1.pdf). (in Slovak)
- [40] JURÍŠICA, L. - DUCHOŇ, F. - TÓTH, J.: Programming of Mobile Robot with RoboRealm. In: ATP Journal plus. - ISSN 1336-5010. - No. 1. Systems of Automatic Control (2011), p. 74-76. (in English)
- [41] JURÍŠICA, L. - VITKO, A. - DUCHOŇ, F. - KAŠTAN, D.: System GPS-Principle, Advantages and Shortages (part 2). In: Automa. - ISSN 1210-9592. - Vol. 17, No. 2 (2011), p. 38-40. (in Slovak)
- [42] JURÍŠICA, L. - VITKO, A. - DUCHOŇ, F. - KAŠTAN, D.: System GPS-Principle, Advantages and Shortages (part 1). In: Automa. - ISSN 1210-9592. - Vol. 17, No. 1 (2011), p. 50-53. (in Slovak)
- [43] KAJAN, S. - LAJTMAN, M. - DIDEKOVÁ, Z.: Cluster Analysis Using Self-Organizing Maps. In: ATP Journal plus. - ISSN 1336-5010. - No. 1. Systems of Automatic Control (2011), p. 22-25. (in English)
- [44] KAJAN, S. - HYPIUSOVÁ, M.: Robust Controller Design Using Genetic Algorithm. In: ATP Journal plus. - ISSN 1336-5010. - No. 1. Systems of Automatic Control (2011), p. 18-21. (in English)
- [45] KLÚČIK, M. - DUCHOŇ, F. - JURÍŠICA, L. - VITKO, A. - BABINEC, A.: The Welding Spot Detection in the Automated Welding of Large-Capacity Tanks and Pipes. In: Zvárač. - ISSN 1336-5045. - Vol. 8, No. 4 (2011), p. 12-15. (in Slovak)
- [46] KÖRÖSI, L.: Neural Network Modelling and Control Using Programmable Logic Controller. In: Posterus. - ISSN 1338-0087. - December (2011), <http://www.posterus.sk/?p=12304>. (in English)
- [47] KÖRÖSI, L. - MRAFKO, L. - MROSKO, M.: PLC and their Programming - 2. PLC, PAC, DCS - Who Whom? In: Posterus. - ISSN 1338-0087. - October (2011), <http://www.posterus.sk/?p=11925>. (in English)
- [48] KOZÁK, Š.: Modern and Practical Approaches of the PID Controllers Implementation (1). In: ATP Journal. - ISSN 1335-2237. - Vol. 18, No. 5 (2011), p. 52-54. (in Slovak)
- [49] KOZÁK, Š.: Modern and Practical Approaches of the PID Controllers Implementation (2). In: ATP Journal. - ISSN 1335-2237. - Vol. 18, No. 4 (2011), p. 30-31. (in Slovak)
- [50] KOZÁK, Š.: Modern and Practical Approaches of the PID Controllers Implementation (3). In: ATP Journal. - ISSN 1335-2237. - Vol. 18, No. 6 (2011), p. 53-54. (in Slovak)
- [51] KOZÁK, Š.: Modern and Practical Approaches of the PID Controllers Implementation (4). In: ATP Journal. - ISSN 1335-2237. - Vol. 18, No. 7 (2011), p. 57-59. (in Slovak)

- [52] KOZÁK, Š.: Modern and Practical Approaches of the PID Controllers Implementation (5). In: ATP Journal. - ISSN 1335-2237. - Vol. 18, No. 8 (2011), p. 57-58. (in Slovak)
- [53] KOZÁK, Š.: Modern and Practical Approaches of the PID Controllers Implementation (6). In: ATP Journal. - ISSN 1335-2237. - Vol. 18, No. 9 (2011), p. 57-58. (in Slovak)
- [54] KOZÁK, Š.: Modern and Practical Approaches of the PID Controllers Implementation (7). In: ATP Journal. - ISSN 1335-2237. - Vol. 18, No. 10 (2011), p. 53-54. (in Slovak)
- [55] MIKLOVIČOVÁ, E. - MROSKO, M.: Predictive-Based Excitation Control of Synchronous Generator. In: International Review of Automatic Control. - ISSN 1974-6059. - ISSN 1974-6067. - Vol. 4, No. 3 (2011), p. 448-454. (in English)
- [56] MIKLOVIČOVÁ, E. - MROSKO, M.: Simple Implementation of Predictive Controller for a Class of Industrial Processes. In: Journal of Electrical and Electronics Engineering (JEEE). - ISSN 1844-6035. - Vol. 4, No. 1 (2011), p. 113-118. (in English)
- [57] MURGAŠ, J. - FOLTIN, M. - BLAHO, M.: Excitation Systems of Power Plants on the Slovak Republic Territory. In: ATP Journal. - ISSN 1335-2237. - Vol. 18, No. 7 (2011), p. 52-53. (in Slovak)
- [58] NGUYEN, Q. T. - HOLIČ, I. - VESELÝ, V.: Robust Guaranteed Cost Controller Design for Networked Control Systems: Discretized Approach. In: International Journal of Innovative Computing, Information and Control. - ISSN 1349-4198. - Vol. 7, No. 6 (2011), p. 3533-3543. (in English)
- [59] OSUSKÝ, J. - VESELÝ, V.: Robust Decentralized Network Controller Design in Frequency Domain. In: International Review of Automatic Control. - ISSN 1974-6059. - ISSN 1974-6067. - Vol. 4, No. 3 (2011), p. 406-413. (in English)
- [60] PÁSZTÓ, P. - HUBINSKÝ, P.: Mobile Robot Controlled with Android Device. In: Posterus. - ISSN 1338-0087. - May (2011), <http://www.posterus.sk/?p=10719>. (in English)
- [61] PAULUSOVÁ, J. - DÚBRAVSKÁ, M.: Hybrid Predictive Controller for Nonlinear Process. In: ATP Journal plus. - ISSN 1336-5010. - No. 1. Systems of Automatic Control (2011), p. 26-30. (in English)
- [62] RADÍČOVÁ, T. - ŽALMAN, M.: Intelligent Position Control LMPM 1 - Theoretical Base. In: Posterus. - ISSN 1338-0087. - December (2011), <http://www.posterus.sk/?p=12340>. (in Slovak)
- [63] RADÍČOVÁ, T. - ŽALMAN, M.: Intelligent Position Control LMPM 2 - Position Servo-Drive Control. In: Posterus. - ISSN 1338-0087. - December (2011), <http://www.posterus.sk/?p=12382>. (in Slovak)
- [64] ŠKULTÉTY, J. - MIKLOVIČOVÁ, E. - MROSKO, M.: Input and Output Constraints in Model Predictive Control Design. In: ATP Journal plus. - ISSN 1336-5010. - No. 1. Systems of Automatic Control (2011), p. 6-12. (in English)
- [66] ŠKULTÉTY, J.: RobotChallenge 2010 - Winning Robot in Puck Collect Category. In: Posterus. - ISSN 1338-0087. - July (2011), <http://www.posterus.sk/?p=11133>. (in Slovak)
- [66] ŠLEZÁROVÁ, A.: World of Meccano. In: Posterus. - ISSN 1338-0087. - April (2011), <http://www.posterus.sk/?p=10257>. (in Slovak)
- [67] ŠTEVO, S. - VNUK, M.: Contactless Detection of the Disease Symptoms in Buildings. In: Posterus. - ISSN 1338-0087. - November (2011), <http://www.posterus.sk/?p=12097>. (in English)
- [68] ŠTEVO, S.: Energy Certification of Buildings. Myths and Mistakes. In: iDB Journal. - ISSN 1338-3337. - Vol. 1, No. 6 (2011), p. 22-23. (in Slovak)
- [69] ŠTEVO, S.: Intelligent Building-Architecture vs. Technology. In: iDB Journal. - ISSN 1338-3337. - Vol. 1, No. 3 (2011), p. 29-30. (in Slovak)
- [70] ŠTEVO, S.: Life Cycle Assessment of Buildings. In: iDB Journal. - ISSN 1338-3337. - Vol. 1, No. 5 (2011), p. 30-32. (in Slovak)
- [71] ŠTEVO, S.: Life Cycle Assessment. Part 1. In: Posterus. - ISSN 1338-0087. - June (2011), <http://www.posterus.sk/?p=10798>. (in Slovak)
- [72] ŠTEVO, S.: Life Cycle Assessment. Part 2. In: Posterus. - ISSN 1338-0087. - June (2011), <http://www.posterus.sk/?p=10877>. (in Slovak)
- [73] ŠTEVO, S.: Technologies Are Changing Architecture. In: iDB Journal. - ISSN 1338-3337. - Vol. 1, No. 4 (2011), p. 29-30. (in Slovak)
- [74] ŠTEVO, S.: Trends in Area of Intelligent Buildings. In: Eurostav. - ISSN 1335-1249. - Vol. 17, No. 3 (2011), p. 18-20. (in Slovak)
- [75] ŠTEVO, S.: Zero House. Reality or Fiction? In: Eurostav. - ISSN 1335-1249. - Vol. 17, No. 9 (2011), p. 25-29. (in Slovak)
- [76] TÁRNIK, M.: Direct Model Reference Adaptive Control of Small Laboratory DC Motor. In: Posterus. - ISSN 1338-0087. - January (2011), <http://www.posterus.sk/?p=9659>. (in English)
- [77] TÁRNIK, M. - MURGAŠ, J.: Model Reference Adaptive Control of Permanent Magnet Synchronous Motor. In: Journal of Electrical Engineering. - ISSN 1335-3632. - Vol. 62, No. 3 (2011), p. 117-125. (in English)

- [78] TÖLGYESSY, M.: Kinect - Sensor in Mobile Robot. In: Posterus. - ISSN 1338-0087. - May (2011), <http://www.posterus.sk/?p=10623>. (in Slovak)
- [79] TÖLGYESSY, M. - HUBINSKÝ, P.: Robot Control Using Hand Gesture Recognition Overview. In: ATP Journal plus. - ISSN 1336-5010. - No. 1. Systems of Automatic Control (2011), p. 40-44. (in English)
- [80] TRIAŠKA, S. - BÉLAI, I.: Monitoring of Juggler System Using Wireless IP Camera. In: Posterus. - ISSN 1338-0087. - October (2011), <http://www.posterus.sk/?p=11900>. (in English)
- [81] TRIAŠKA, S. - ŽALMAN, M.: Simple Juggler Manipulator. In: ATP Journal plus. - ISSN 1336-5010. - No. 1. Systems of Automatic Control (2011), p. 48-52. (in English)
- [82] URBAN, M.: Communication Networks - Part 1. In: Posterus. - ISSN 1338-0087. - March (2011), <http://www.posterus.sk/?p=10140>. (in Slovak)
- [83] URBAN, M.: Real-Time Operating Systems. In: Posterus. - ISSN 1338-0087. - February (2011), <http://www.posterus.sk/?p=10032>. (in Slovak)
- [84] VESELÝ, V. - NGUYEN, Q. T.: Robust Decentralized Controller Design for Large Scale Systems: Subsystems Approach. In: Acta Montanistica Slovaca. - ISSN 1335-1788. - Vol. 16, No. 1 (2011), p. 84-88. (in English)
- [85] VESELÝ, V. - NGUYEN, Q. T.: Robust Power System Stabilizer via Networked Control System. In: Journal of Electrical Engineering. - ISSN 1335-3632. - Vol. 62, No. 5 (2011), p. 386-291. (in English)
- [86] VESELÝ, V. - ROSINOVÁ, D. - KUČERA, V.: Robust Static Output Feedback Controller LMI Based Design via Elimination. In: Journal of the Franklin Institute. - ISSN 0016-0032. - Vol. 348 (2011), p. 2468-2479. (in English)
- [87] VESELÝ, V.: Stable Model Predictive Control Design: Sequential Approach. In: Journal of Electrical Engineering. - ISSN 1335-3632. - Vol. 62, No. 2 (2011), p. 99-103. (in English)
- [88] VITKO, A. - JURÍŠICA, L. - DUCHOŇ, F. - HANZEL, J. - KLÚČIK, M. - BABINEC, A. - DEKAN, M. - KAŠTAN, D.: Advanced Control of a Waking Platform. In: ATP Journal plus. - ISSN 1336-5010. - No. 1. Systems of Automatic Control (2011), p. 61-64. (in English)
- [89] VITKOVÁ, Z. - OREMUSOVÁ, E. - VITKO, A. - BEZÁKOVÁ, Ž.: Influence of Surfactants on Release of Chlorhexidine from Hydrogels. In: Tenside Surfactants Detergents. - ISSN 0932-3414. - Vol. 48, Iss. 1 (2011), p. 48-52. (in English)
- [90] VÖRÖS, J.: Identification of Nonlinear Cascade Systems with Time-Varying Backlash. In: Journal of Electrical Engineering. - ISSN 1335-3632. - Vol. 62, No. 2 (2011), p. 87-92. (in English)
- [91] ŽÁKOVÁ, K.: Maxima-An Open Alternative for Engineering Education. In: International Journal of Engineering Pedagogy. - Vol. 1, No. 1 (2011), p. 27-30. (in English)

IX. 2 Conference Proceedings

- [1] BABINEC, A. - VITKO, A. - DUCHOŇ, F. - DEKAN, M.: Reactive Navigation of Mobile Robot Using Vector Field Histogram+. In: Modelling of Mechanical and Mechatronic Systems. MMaMS 2011: Proceedings of the 4th International Conference. Herľany, Slovakia. 20-22 September 2011. - Košice: Technical University, 2011. - ISBN 978-80-553-0731-2. - CD-Rom. (in English)
- [2] BACHRATÝ, M. - HUBINSKÝ, P. - VITKO, A.: Hardware Independent Platform for Modular Robotics Based on Protothreads and Kontiki Loader. In: Field Robotics: 14th International Conference on Climbing and Walking Robots and the Support Technologies for Mobile Machines. Paris, France, 6-8 September 2011. - Singapore: World Scientific Publishing Co. Pte. Ltd, 2011. - ISBN 978-981-4374-27-9. - p. 437-444. (in English)
- [3] BAHNÍK, P. - PILKA, J.: Data Management Architecture for Tele-operated UAV System. In: Process Control 2011: Proceedings of the 18th International Conference. Tatranská Lomnica, Slovak Republic, 14. -17. 6. 2011. - Bratislava: Nakladateľstvo STU, 2011. - ISBN 978-80-227-3517-9. - p. 188-196. (in English)
- [4] BALOGH, R. - ŠKULTÉTY, J.: Robotic Team Projects at the FEI STU. In: Robotics in Education 2011: 2nd International Conference. Vienna, Austria, 15-16 August 2011. - Vienna: INNOC, 2011. - ISBN 978-3-200-02273-7. - p. 7-13. (in English)
- [5] BALOGH, R.: Robotics Course with Acrob Robot. In: Robotics in Education 2011: 2nd International Conference. Vienna, Austria, 15-16 August 2011. - Vienna: INNOC, 2011. - ISBN 978-3-200-02273-7. - p. 41-46. (in English)
- [6] BALOGH, R.: Using an Open Software for Electronics and Robotics. In: Open Software in Education, Research and IT Solutions: International Conference OSSConf 2011. Žilina, Slovak Republic, 6. -9. 7. 2011. - Bratislava: Spoločnosť pre otvorené informačné technológie, 2011. - ISBN 978-80-970457-1-5. - p. 39-48. (in English)
- [7] BÁTORA, V. - MURGAŠ, J.: Transport Delay Effect on Classical Control Structures. In: ŠVOČ 2011: Proceedings of Selected Works. Bratislava, Slovak Republic, 4. 5. 2011. - Bratislava: FEI STU, 2011. - ISBN 978-80-227-3508-7. - p. 388-393. (in Slovak)

- [8] BÉLAI, I. - DRAHOŠ, P.: Fault Diagnostic of Process Control Communication. In: PEIT,011. New Paradigms in Electronics & Information Technologies: 1st International Conference. Alexandria, Egypt, October 9-12, 2011. - Cairo: ERI, 2011. - CD-Rom. (in English)
- [9] BELIKOV, J. - HALÁS, M. - KOTTA, Ü. - MOOG, C. H.: Model Matching Problem for Discrete-Time Nonlinear Systems: Transfer Function Approach. In: 9th IEEE International Conference on Control and Automation: ICCA: Santiago, Chile, December 19-21, 2011. - Piscataway: IEEE, 2011. - ISBN 978-1-4577-1474-0. - p. 360-365. (in English)
- [10] BELLOVÁ, K. - GATIALOVÁ, K. - URBAN, M. - MIKO, M. - FOLTÁN, V. - BIELIK, J.: The Utilization of Antidepressants in Slovakia in Years 2005-2010. In: Folia Medica Cassovia. - ISSN 1337-7817. - Tomus 66, No. 1, Suppl. 1: 3rd International Student Medical Congress. Košice, June 21-24, 2011, p. 227-228. (in English)
- [11] BIRKUS, P. - DÚBRAVSKÁ, M.: Design of Control Loops by Means of Selected Methods and their Comparison. In: ŠVOČ 2011: Proceedings of Selected Works. Bratislava, Slovak Republic, 4. 5. 2011. - Bratislava: FEI STU, 2011. - ISBN 978-80-227-3508-7. - p. 373-381. (in Slovak)
- [12] BISTÁK, P.: Remote Laboratory Server Based on Java Matlab Interface. In: ICL 2011: 14th International Conference on Interactive Collaborative Learning and 11th International Conference Virtual University. Piešťany, Slovak Republic, September 21-23, 2011. - Piscataway: IEEE, 2011. - ISBN 978-1-4577-1746-8. - p. 344-347. (in English)
- [13] BISTÁK, P.: The Sub-Optimal Controller for Triple Integrator Applied to Three-Level Hydraulic System. In: Control and Applications: Proceedings of 13th IASTED Interantional Conference. Vancouver, Canada, June 1-3, 2011. - ACTA Press, 2011. - p. 28-35. (in English)
- [14] BISTÁK, P.: Time Sub-Optimal Control of Triple Integrator. In: Process Control 2011: 18th International Conference. Tatranská Lomnica, Slovak Republic, 14. -17. 6. 2011. - Bratislava: Nakladateľstvo STU, 2011. - ISBN 978-80-227-3517-9. - p. 312-318. (in English)
- [15] BLAHO, M. - MRAFKO, L. - URBAN, M. - MURGAŠ, J.: Networked Control Systems with PROFINET and IWLAN. In: Recent Advances in Manufacturing Engineering: 4th International Conference on Manufacturing Engineering, Quality and Production Systems. Barcelona, Spain, September 15-17, 2011. - WSEAS Press, 2011. - ISBN 978-1-61804-031-2. - p. 219-223. (in English)
- [16] BLAHO, M. - FOLTIN, M. - FODREK, P. - MURGAŠ, J.: Student's Diversity Problem in Programming Courses. In: Recent Researches in Educational Technologies: 8th WSEAS International Conference on Engineering Education (EDUCATION'11) and 2nd International Conference on Education and Educational Technologies (WORLD-EDU'11). Corfu Island, Greece, July 14-16, 2011. - WSEAS Press, 2011. - ISBN 978-1-61804-021-3. - p. 127-130. (in English)
- [17] BLAHO, M. - OZIMY, J. - ERNEK, M. - FOLTIN, M.: ZigBee Implementation in Railroad Model. In: Technical Computing Prague 2011: 19th Annual Conference Proceedings. Prague, Czech Republic, November 8, 2011. - Prague: Institute of Chemical Technology, 2011. - ISBN 978-80-7080-794-1. - CD-Rom. (in English)
- [18] CHAMRAZ, Š.: Direct Synthesis Method for Stable and Unstable Systems. In: PEIT,011. New Paradigms in Electronics & Information Technologies: 1st International Conference. Alexandria, Egypt, October 9-12, 2011. - Cairo: ERI, 2011. - CD-Rom. (in English)
- [19] CHAMRAZ, Š.: Design of Optimal Structure and Parameters for Complex Dynamic Systems - Direct Synthesis Method. In: Automated Control Systems for Industry 2011: Scientific Conference with International Participation. Krakovany, Slovak Republic, 24-25 November 2011. - Liptovský Mikuláš: Armed Forces Academy, 2011. - ISBN 978-80-8040-439-0. - p. 67-71. (in Slovak)
- [20] CIGÁNEK, J. - KOZÁK, Š.: Robust Pole Placement Controller Design. In: PEIT,011. New Paradigms in Electronics & Information Technologies: 1st International Conference. Alexandria, Egypt, October 9-12, 2011. - Cairo: ERI, 2011. - CD-Rom. (in English)
- [21] ČERMAN, J. - DUCHOŇ, F.: Proposal of Navigational Functions for Visual System of Mobile Robot. In: ŠVOČ 2011: Proceedings of Selected Works. Bratislava, Slovak Republic, 4. 5. 2011. - Bratislava: FEI STU, 2011. - ISBN 978-80-227-3508-7. - p. 362-366. (in Slovak)
- [22] DEKAN, M. - DUCHOŇ, F. - JURÍŠICA, L. - VITKO, A.: Platform iRobot Create for Educational Purposes. In: Modelling of Mechanical and Mechatronic Systems. MMaMS 2011: 4th International Conference. Herľany, Slovak Republic, 20-22 September 2011. - Košice: Technical University, 2011. - ISBN 978-80-553-0731-2. - CD-Rom. (in English)
- [23] DEKAN, M. - DUCHOŇ, F. - JURÍŠICA, L. - VITKO, A.: Probabilistic Model of Laser Rangefinder. In: Technology Europea 2011: International Scientific Conference. Hradec Králové, Czech Republic, 23. -28. 5. 2011. - Hradec Králové: Magnanimitas, 2011. - ISBN 978-80-904877-4-1. - p. 38-47. (in English)

- [24] DIDEKOVÁ, Z. - KAJAN, S.: Adaptive PID Controller Design Base on Genetic Algorithms and Neural Networks. In: ELITECH'11: 13th Conference of Doctoral Students Faculty of Electrical Engineering and Information Technology. Bratislava, Slovak Republic, 17 May, 2011. - Bratislava: Nakladateľstvo STU, 2011. - ISBN 978-80-227-3500-1. - p. 1-6. (in English)
- [25] DIDEKOVÁ, Z. - KOZÁK, Š.: Modelling and Control of Non-Linear Systems Using Fuzzy-Neuro Approaches. In: PEIT,011. New Paradigms in Electronics & Information Technologies: 1st International Conference. Alexandria, Egypt, October 9-12, 2011. - Cairo: ERI, 2011. - CD-Rom. (in English)
- [26] DORNER, J. - ŠTURCEL, J.: An Effective PLC Control Methods for Stacker Crane. In: PEIT,011. New Paradigms in Electronics & Information Technologies: 1st International Conference. Alexandria, Egypt, October 9-12, 2011. - Cairo: ERI, 2011. - CD-Rom. (in English)
- [27] DORNER, J. - BLAHO, M.: Design and Control of an Automated Stacker Crane for Warehouses. In: Recent Advances in Manufacturing Engineering: 4th International Conference on Manufacturing Engineering, Quality and Production Systems. Barcelona, Spain, September 15-17, 2011. - WSEAS Press, 2011. - ISBN 978-1-61804-031-2. - p. 208-213. (in English)
- [28] DRAHOŠ, P. - KUTIŠ, V. - KLÚČIK, M. - SEDLÁR, T.: Modelling and Simulation of SMA Actuator. In: Modelling of Mechanical and Mechatronic Systems. MMaMS 2011: 4th International Conference. Herľany, Slovak Republic. 20-22 September 2011. - Košice: Technical University, 2011. - ISBN 978-80-553-0731-2. - CD-Rom. (in English)
- [29] DRAHOŠ, P.: Thermal Analysis and Modelling of SMA Actuator. In: Automated Control Systems for Industry 2011: Scientific Conference with International Participation. Krakovany, Slovak Republic, 24-25 November 2011. - Liptovský Mikuláš: Armed Forces Academy, 2011. - ISBN 978-80-8040-439-0. - p. 33-41. (in Slovak)
- [30] DUCHOŇ, F. - BABINEC, A. - DEKAN, M. - VITKO, A. - JURÍŠICA, L.: Reactive Navigation as Instrument of Collision Free Behavior of Mobile Robot. In: ROBTEP 2011. Automation / Robotics in Theory and Practice: 11th International Conference. Košice, Slovak Republic, 16. 12. 2011. - Košice: Technical University, 2011. - ISBN 978-80-553-0846-3. - p. 59-66. (in Slovak)
- [31] DUCHOŇ, F. - JURÍŠICA, L.: Ultrasonic Hybrid Map for Navigation of Mobile Robot. In: Process Control 2011: 18th International Conference. Tatranská Lomnica, Slovak Republic, 14. -17. 6. 2011. - Bratislava: Nakladateľstvo STU, 2011. - ISBN 978-80-227-3517-9. - p. 168-173. (in English)
- [32] DVORŠČÁK, B. - KOZÁK, Š.: PLC Control Methods Realization of Hybrid Systems. In: Automated Control Systems for Industry 2011: Scientific Conference with International Participation. Krakovany, Slovak Republic, 24-25 November 2011. - Liptovský Mikuláš: Armed Forces Academy, 2011. - ISBN 978-80-8040-439-0. - p. 42-51. (in Slovak)
- [33] FARKAS, Ľ. - MURGAŠ, J.: Adaptive Control Algorithms Used in Networked Control Systems. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 17, Special Issue: ELOSYS, Trenčín, 11. -14. 10. 2011, p. 199-203. (in Slovak)
- [34] FARKAS, Ľ. - JANÍČEK, Ľ. - MURGAŠ, J. - HNÁT, J.: Interconnecting Matlab with TwinCAT. In: PEIT,011. New Paradigms in Electronics & Information Technologies: 1st International Conference. Alexandria, Egypt, October 9-12, 2011. - Cairo: ERI, 2011. - CD-Rom. (in English)
- [35] FICO, T. - DÚBRAVSKÝ, J.: Measurement of Skin Conductance in Acupuncture. In: ŠVOČ 2011: Proceedings of Selected Works. Bratislava, Slovak Republic, 4. 5. 2011. - Bratislava: FEI STU, 2011. - ISBN 978-80-227-3508-7. - p. 107-112. (in Slovak)
- [36] FODREK, P. - FARKAS, Ľ. - MURGAŠ, T.: Realtime Scheduling Using GPUs - Proof of Feasibility. In: Recent Researches in Circuits, Systems, Communications & Computers: ECS'11: 2nd European Conference of Systems; ECCTD'11: 2nd European Conference of Circuits Technology and Devices; ECCOM'11: 2nd European Conference of Communications; ECCS'11: 2nd European Conference of Computer Science. Puerto De La Cruz, Tenerife, Spain, 10-12 December 2011. - WSEAS Press, 2011. - ISBN 978-1-61804-056-5. - p. 285-289. (in English)
- [37] FOLTIN, M. - BLAHO, M. - FODREK, P.: Open Document Format for Productivity Suite's Text Processors. In: Open Software in Education, Research and IT Solutions: International Conference OSSConf 2011. Žilina, Slovak Republic, 6. -9. 7. 2011. - Bratislava: Spoločnosť pre otvorené informačné technológie, 2011. - ISBN 978-80-970457-1-5. - p. 239-248. (in Slovak)
- [38] FOLTIN, M. - FODREK, P. - BLAHO, M. - MURGAŠ, J.: Open Source Technologies in Education. In: Recent Researches in Educational Technologies: 8th WSEAS International Conference on Engineering Education (EDUCATION'11) and 2nd International Conference on Education and Educational Technologies (WORLD-EDU'11). Corfu Island, Greece, July 14-16,2011. - WSEAS Press, 2011. - ISBN 978-1-61804-021-3. - p. 131-135. (in English)

- [39] FOLVARČÍK, P.: Comparison of Supervisory and Networked Control in Remote Laboratories. In: Process Control 2011: 18th International Conference. Tatranská Lomnica, Slovak Republic, 14. -17. 6. 2011. - Bratislava: Nakladateľstvo STU, 2011. - ISBN 978-80-227-3517-9. - p. 593-597. (in English)
- [40] FOLVARČÍK, P.: Remote Control of Real System with Two Electric Motors. In: ICL 2011: 14th International Conference on Interactive Collaborative Learning and 11th International Conference Virtual University. Piešťany, Slovak Republic, September 21-23, 2011. - Piscataway: IEEE, 2011. - ISBN 978-1-4577-1746-8. - p. 348-351. (in English)
- [41] GAJDOŠÍK, D. - ŽÁKOVÁ, K.: Bode Plots in Maxima Computer Algebra System. In: Process Control 2011: 18th International Conference. Tatranská Lomnica, Slovak Republic, 14. -17. 6. 2011. - Bratislava: Nakladateľstvo STU, 2011. - ISBN 978-80-227-3517-9. - p. 352-355. (in English)
- [42] GATIALOVÁ, K. - BELLOVÁ, K. - URBAN, M. - MIKO, M. - FOLTÁN, V. - MAJTÁŠ, J.: The Impact of the Drug Categorization on the Prescription and Consumption of Nonsteroidal Antiflammatory Drugs (NSAID). In: Folia Medica Cassovia. - ISSN 1337-7817. - Tomus 66, No. 1, Suppl. 1: 3rd International Student Medical Congress. Košice, June 21-24, 2011, p. 223-224. (in English)
- [43] GAŽO, M. - ŽALMAN, M. - FOLTIN, M.: Control of Magnetic Bearings. In: Technical Computing Prague 2011: 19th Annual Conference Proceedings. Prague, Czech Republic, November 8, 2011. - Prague: Institute of Chemical Technology, 2011. - ISBN 978-80-7080-794-1. - CD-Rom. (in Slovak)
- [44] GOGA, V. - JEDINÝ, T. - KRÁLOVIČ, V. - KLÚČIK, M.: Mechatronic Model of Anti-Lock Braking System (ABS). In: Mechatronics: Recent Technological and Scientific Advances. - Berlin: Springer Verlag, 2011. - ISBN 978-3-642-23243-5. - p. 63-70. (in English)
- [45] HALÁS, M.: Discrete-Time Solution to the Disturbance Decoupling Problem of Coupled Tanks. In: Process Control 2011: 18th International Conference. Tatranská Lomnica, Slovak Republic, 14. -17. 6. 2011. - Bratislava: Nakladateľstvo STU, 2011. - ISBN 978-80-227-3517-9. - p. 163-167. (in English)
- [46] HALÁS, M. - ŽILKA, V.: Noninteracting Control of Coupled Tanks: from Theory to Practice. In: EUROCAST 2011: 13th International Conference on Computer Aided Systems Theory. Las Palmas de Gran Canaria, Spain, February 6-11, 2011. - Universidad de Las Palmas de Gran Canaria, 2011. - p. 27-28. (in English)
- [47] HANTUCH, I. - ŠLEZÁROVÁ, A. - ČAPUCHA, L. - ZACHAR, P.: Examination of the Impact of Human Factor to the Security of Operation Intelligent Houses Using Virtual Reality. In: Facility Management 2011: 9th Conference with International Participation. - Bratislava: Slovenská spoločnosť pre techniku prostredia ZSVTS, 2011. - ISBN 978-80-89216-41-3. - p. 137-140. (in Slovak)
- [48] HANZEL, J. - KLÚČIK, M. - JURIŠICA, L. - VITKO, A.: Identification Based Model of Ultrasonic Sensor. In: Research and Education in Robotics - EUROBOT 2011: Prague, Czech Republic, June 2011. - Heidelberg: Springer, 2011. - ISBN 978-3-642-21974-0. - p. 144-157. (in English)
- [49] HANZEL, J. - KLÚČIK, M. - JURIŠICA, L. - VITKO, A. - STRIGÁČ, M.: Experimental Mobile Robotic System. In: Modelling of Mechanical and Mechatronic Systems. MMaMS 2011: 4th International Conference. Herľany, Slovak Republic. 20-22 September 2011. - Košice: Technical University, 2011. - ISBN 978-80-553-0731-2. - p. 168-175. (in English)
- [50] HANZEL, J. - JURIŠICA, L. - KLÚČIK, M. - DUCHOŇ, F.: Identification of the Experimental Ultrasonic System Parameters. In: Technology Europea 2011: International Scientific Conference. Hradec Králové, Czech Republic, 23. -28. 5. 2011. - Hradec Králové: Magnanimitas, 2011. - ISBN 978-80-904877-4-1. - p. 71-79. (in English)
- [51] HANZEL, J. - JURIŠICA, L. - VITKO, A. - PLESNÍK, T.: Stability Investigation of a Mobile Robot Equipped with an Arm Using a Virtual Model. In: Modelling of Mechanical and Mechatronic Systems. MMaMS 2011: 4th International Conference. Herľany, Slovakia. 20-22 September 2011. - Košice: Technical University, 2011. - ISBN 978-80-553-0731-2. - p. 229-239. (in English)
- [52] HÄUPTLE, P. - HUBINSKÝ, P. - STANICKI, A.: Embedded Impedance- & Admittance Control. In: Electrodynamics and Mechatronic Systems: 3rd International Students Conference on Electrodynamics and Mechatronics (SCE III). Opole, Poland, October 6-8, 2011. - Piscataway: IEEE, 2011. - ISBN 978-1-4244-9693-8. - p. 37-40. (in English)
- [53] HÄUPTLE, P. - HUBINSKÝ, P.: Embedded Shaping Technique to Reduce Oscillations in Intelligent Drives. In: 6th Annual South-East European Doctoral Student Conference. - Thessaloniki: South-East European Research Centre, 2011. - ISBN 978-960-9416-04-7. - p. 367-374. (in English)
- [54] HÄUPTLE, P. - HUBINSKÝ, P. - GRUHLER, G.: Harmonic Modulated Feedback in Control to Lower Oscillations in Mechatronic Systems. In: 11th International Conference on Control, Automation and Systems (ICCAS2011). Kintex, Korea, 26-29 October 2011. - Piscataway: IEEE, 2011. - ISBN 978-89-93215-03-8. - p. 273-276. (in English)

- [55] HÄUPTLE, P. - HUBINSKÝ, P. - GRUHLER, G.: Harmonic Modulation in Control to Reduce Oscillations in Mechatronic Systems. In: INES 2011: 15th International Conference on Intelligent Engineering Systems. June 23-25, 2011, Poprad, Slovakia. - Piscataway: IEEE eXpress, 2011. - ISBN 978-1-4244-8955-8. - p. 303-308. (in English)
- [56] HÄUPTLE, P. - HUBINSKÝ, P. - GRUHLER, G.: Investigation in Online-Methods Estimating the Oscillation Frequency to Improve Control Adaptively. In: MMAR 2011. 16th International Conference on Methods & Models in Automation a Robotics: Miedzzydroje, Poland, 22-25 August, 2011. - Piscataway: IEEE, 2011. - ISBN 978-1-4577-0913-5. - p. 398-401. (in English)
- [57] HÄUPTLE, P. - HUBINSKÝ, P. - GRUHLER, G.: Investigation to Gear-Box Disturbances in Mechatronic Drives. In: IN-TECH 2011: International Conference on Innovative Technologies. Bratislava, Slovak Republic, 1. 9. -3. 9. 2011. - Jaroměř: Jan Kudláček, 2011. - ISBN 978-80-904502-6-4. - p. 432-435. (in English)
- [58] HÄUPTLE, P. - HUBINSKÝ, P. - RUDOLF, B. - GRUHLER, G.: Signal Types Investigation for Harmonic Modulation in Drives. In: WCECS 2011: World Congress on Engineering and Computer Science 2010. Volume I. San Francisco, USA, 19-21 October, 2011. - Hong Kong: International Association of Engineers, 2011. - ISBN 978-988-19251-7-6. - p. 951-955. (in English)
- [59] HÄUPTLE, P. - GRUHLER, G. - HUBINSKÝ, P.: Spatial Frequency Analysis of a Gear-Box as an Continuation for Modelling of a Harmonic Drive Gear-Box. In: CSIT 2011. 13th International Workshop on Computer Science and Information Technologies: Garmisch-Partenkirchen, Germany, September 27 - October 02, 2011. - Bashkortostan: Ufa State Aviation Technical University, 2011. - ISBN 978-5-4221-0207-5. - p. 36-40. (in English)
- [60] HOLIČ, I.: Robust Controller Design for Hydraulic Mimo System. In: ELITECH '11: 13th Conference of Doctoral Students Faculty of Electrical Engineering and Information Technology. Bratislava, Slovak Republic, 17 May, 2011. - Bratislava: Nakladateľstvo STU, 2011. - ISBN 978-80-227-3500-1. - p. 1-6. (in English)
- [61] HOLIČ, I. - VESELÝ, V.: Robust PID Controller Design for Coupled-Tank Process. In: Process Control 2011: 18th International Conference. Tatranská Lomnica, Slovak Republic, 14. -17. 6. 2011. - Bratislava: Nakladateľstvo STU, 2011. - ISBN 978-80-227-3517-9. - p. 506-512. (in English)
- [62] HUBA, M.: Computer Design of Robust I-Controller. In: Preprints of the 18th IFAC World Congress: Milano, Italy, August 28 - September 2, 2011. - IFAC, 2011. - p. 7468-7473. (in English)
- [63] HUBA, M. - ĽAPÁK, P.: Designing Robust Integrative Controllers for an Optical System by the Performance Portrait Method. In: EUROCAST 2011: 13th International Conference on Computer Aided Systems Theory. Las Palmas de Gran Canaria, Spain, February 6-11, 2011. - Universidad de Las Palmas de Gran Canaria, 2011. - p. 214-215. (in English)
- [64] HUBA, M. - ĽAPÁK, P.: Experimenting with the Modified Filtered Smith Predictors for FOPDT Plants. In: IFAC World Congress. 18th IFAC World Congress 2011. Milano, Italy, August 28 - September 2, 2011. - Oxford: IFAC, 2011. - ISSN 1474-6670 (<http://www.ifac-papersonline.net/#>), p. 2452-2457. (in English)
- [65] HUBA, M. - HALÁS, M.: Hydraulic Plants for Face to Face Training and Remote Experiments. In: ICETA 2011: 9th IEEE International Conference on Emerging eLearning Technologies and Applications. October 27-28, 2011. Stará Lesná, Slovak Republic. - Piscataway: IEEE, 2011. - ISBN 978-1-4577-0050-7. - p. 79-81. (in English)
- [66] HUBA, M. - BISTÁK, P.: Minimum Time PD-Controller Design for 2nd Order Plants. In: Selected Topics on Constrained and Nonlinear Control. Preprints. - Bratislava: STU in Bratislava, 2011. - ISBN 978-80-968627-2-6. - p. 227-234. (in English)
- [67] HUBA, M. - ĽAPÁK, P.: Relay Identification Analyzing Non-Symmetrical Oscillations for Optical Plant. In: Process Control 2011: 18th International Conference. Tatranská Lomnica, Slovak Republic, 14. -17. 6. 2011. - Bratislava: Nakladateľstvo STU, 2011. - ISBN 978-80-227-3517-9. - p. 452-456. (in English)
- [68] HUBA, M. - ĽAPÁK, P.: Relay Identification of IPDT Plant by Analyzing Nonsymmetrical Oscillations. In: EUROCAST 2011: 13th International Conference on Computer Aided Systems Theory. Las Palmas de Gran Canaria, Spain, February 6-11, 2011. - Universidad de Las Palmas de Gran Canaria, 2011. - p. 40-41. (in English)
- [69] HUBA, M.: Robust Tuning of PI Controller for IPDT Plant. In: Process Control 2011: 18th International Conference. Tatranská Lomnica, Slovak Republic, 14. -17. 6. 2011. - Bratislava: Nakladateľstvo STU, 2011. - ISBN 978-80-227-3517-9. - p. 513-523. (in English)
- [70] HUBA, T. - PEŠTŮN, I. - HUBA, M.: Learning by Pleasure - Powered Paraglider and Other UAVs Control. In: ICL 2011: 14th International Conference on Interactive Collaborative Learning and 11th International Conference Virtual University. Piešťany, Slovak Republic, September 21-23, 2011. - Piscataway: IEEE, 2011. - ISBN 978-1-4577-1746-8. - p. 548-552. (in English)

- [71] ILKA, A. - ERNEK, M.: Modelling of Wind Turbine Using Matlab/SimPowerSystems. In: ŠVOČ 2011: Proceedings of Selected Works. Bratislava, Slovak Republic, 4. 5. 2011. - Bratislava: FEI STU, 2011. - ISBN 978-80-227-3508-7. - p. 355-361. (in Slovak)
- [72] JANÍK, Z. - ŽÁKOVÁ, K.: Online Design of Matlab/Simulink and SciLab/Xcos Block Schemes. In: ICL 2011: 14th International Conference on Interactive Collaborative Learning and 11th International Conference Virtual University. Piešťany, Slovak Republic, September 21-23, 2011. - Piscataway: IEEE, 2011. - ISBN 978-1-4577-1746-8. - p. 241-247. (in English)
- [73] JANÍK, Z. - ŽÁKOVÁ, K.: Online Design of SciLab/Xcos Block Schemes. In: Process Control 2011: 18th International Conference. Tatranská Lomnica, Slovak Republic, 14. -17. 6. 2011. - Bratislava: Nakladateľstvo STU, 2011. - ISBN 978-80-227-3517-9. - p. 583-386. (in English)
- [74] JÁNO, M. - ŽÁKOVÁ, K.: SciLab Based Remote Control of Thermo-Optical Plant. In: REV 2011. Remote Engineering & Virtual Instrumentation: 8th International Conference. Brasov, Romania, June 28 - July 1, 2011. - Brasov: Transilvania University of Brasov, 2011. - ISBN 978-3-89958-555-1. - p. 51-56. (in English)
- [75] JUHÁS, G. - FOLTIN, M. - ŠEVČÍKOVÁ, Z. - JUHÁSOVÁ, A.: Could over. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 17, Special Issue: ELOSYS, Trenčín, 11. -14. 10. 2011, p. 204-207. (in Slovak)
- [76] KADLÍČ, B. - SEKAJ, I.: Controller Design Based on Cartesian Genetic Programming in MATLAB. In: Technical Computing Prague 2011: 19th Annual Conference Proceedings. Prague, Czech Republic, November 8, 2011. - Prague: Institute of Chemical Technology, 2011. - ISBN 978-80-7080-794-1. - CD-Rom. (in English)
- [77] KAJAN, S. - SEKAJ, I. - LAJTMAN, M.: Cluster Analysis Application in MATLAB Using Kohonen Network. In: Technical Computing Prague 2011: 19th Annual Conference Proceedings. Prague, Czech Republic, November 8, 2011. - Prague: Institute of Chemical Technology, 2011. - ISBN 978-80-7080-794-1. - CD-Rom. (in English)
- [78] Kardoš, J.: The Accuracy of Tracking in Variable Structure Motion Control System. In: IN-TECH 2011: International Conference on Innovative Technologies. Bratislava, Slovak Republic, 1. 9. -3. 9. 2011. - Jaroměř: Jan Kudláček, 2011. - ISBN 978-80-904502-6-4. - p. 273-276. (in English)
- [79] Kardoš, J.: The Robust Motion Control of a Robot Manipulator. In: Process Control 2011: 18th International Conference. Tatranská Lomnica, Slovak Republic, 14. -17. 6. 2011. - Bratislava: Nakladateľstvo STU, 2011. - ISBN 978-80-227-3517-9. - p. 571-576. (in English)
- [80] KLÚČIK, M. - DUCHOŇ, F. - JURIŠICA, L. - VITKO, A. - KAŠTAN, D.: Leica GPS1200 in Mobile Robotics. In: Modelling of Mechanical and Mechatronic Systems. MMaMS 2011: 4th International Conference. Herľany, Slovak Republic. 20. - 22. September 2011. - Košice: Technical University, 2011. - ISBN 978-80-553-0731-2. - CD-Rom. (in English)
- [81] KONDELOVÁ, A. - TÓTH, J. - GUZMICKÝ, P.: Simulation of Prosody Contours with Embedded Signal Generator. In: IWSSIP 2011: 18th International Conference on Systems, Signals & Image Processing. Sarajevo, Bosnia and Herzegovina, 16-18 June 2011. - IEEE eXpress, 2011. - ISBN 978-9958-9966-3-4. - CD-Rom. (in English)
- [82] KOTTA, Ü. - KOTTA, P. - TONSO, M. - HALÁS, M.: State-Space Realization of Nonlinear Input-Output Equations: Unification and Extension via Pseudo-Linear Algebra. In: 9th IEEE International Conference on Control and Automation: ICCA: Santiago, Chile, December 19-21, 2011. - Piscataway: IEEE, 2011. - ISBN 978-1-4577-1474-0. - p. 354-359. (in English)
- [83] KOZÁK, A. - HUJŠI, I. - RODINA, J.: GPU-Accelerated Parallel Genetic Algorithms. In: GCCP 2011: 7th International Workshop on Grid Computing for Complex Problems. Bratislava, Slovak Republic, October 24 - 26, 2011. - Bratislava: Slovak Academy of Sciences, 2011. - ISBN 978-80-970145-5-1. - p. 86-92. (in English)
- [84] KOZÁK, Š.: New Trends in Automatic Control System. In: Automated Control Systems for Industry 2011: Scientific Conference with International Participation. Krakovany, Slovak Republic, 24-25 November 2011. - Liptovský Mikuláš: Armed Forces Academy, 2011. - ISBN 978-80-8040-439-0. - p. 72-85. (in Slovak)
- [85] KOZÁK, Š. - ŠTEVEK, J.: Improved Piecewise Linear Approximation of Nonlinear Functions in Hybrid Control. In: IFAC World Congress. 18th IFAC World Congress 2011. Milano, Italy, August 28 - September 2, 2011. - Oxford: IFAC, 2011. - ISSN 1474-6670 (<http://www.ifac-papersonline.net/#>), p. 14982-14987. (in English)
- [86] KOZÁKOVÁ, A.: Decentralized Digital Controller Design by Equivalent Subsystems Method. In: PEIT,011. New Paradigms in Electronics & Information Technologies: 1st International Conference. Alexandria, Egypt, October 9-12, 2011. - Cairo: ERI, 2011. - CD-Rom. (in English)
- [87] KOZÁKOVÁ, A. - VESELÝ, V. - OSUSKÝ, J.: Direct Design of Robust Decentralized Controllers. In: IFAC World Congress. 18th IFAC World Congress 2011. Milano, Italy, August 28 - September 2, 2011. - Oxford: IFAC, 2011. - ISSN 1474-6670 (<http://www.ifac-papersonline.net/#>), p. 2535-2540. (in English)
- [88] KOZÁKOVÁ, A. - VESELÝ, V. - OSUSKÝ, J.: Robust Decentralized Controller Design for Performance. In: Process Control 2011: 18th International Conference. Tatranská Lomnica, Slovakia, 14. -17. 6. 2011. - Bratislava: Nakladateľstvo STU, 2011. - ISBN 978-80-227-3517-9. - p. 319-325. (in English)

- [89] KRÁLOVÁ, Z. - ŠVANČARA, J.: Extended Integrated Algorithm for Scheduling of HMLV Production Systems. In: WITNESS 2011: 14th International Conference. Mušov, Czech Republic, 2. -3. 6. 2011. - Brno: Technical University, 2011. - CD-Rom. (in Slovak)
- [90] KRASŇANSKÝ, R. - KOZÁKOVÁ, A.: Computer Aided Systems for State Space Controller Design. In: Automated Control Systems for Industry 2011: Scientific Conference with International Participation. Krakovany, Slovak Republic, 24-25 November 2011. - Liptovský Mikuláš: Armed Forces Academy, 2011. - ISBN 978-80-8040-439-0. - p. 86-95. (in Slovak)
- [91] LACKULIAK, L. - SPIELMANN, R. - BLAHO, M.: Robot Control over Mobile Phone. In: ŠVOČ 2011: Proceedings of Selected Works. Bratislava, Slovak Republic, 4. 5. 2011. - Bratislava: FEI STU, 2011. - ISBN 978-80-227-3508-7. - p. 367-372. (in Slovak)
- [92] LEHOČKI, F. - ORAVEC, M. - BALOGH, Š. - JUHÁSOVÁ, A.: Selected Models for Diagnostic Systems. In: SMART S2AI: Workshop of SMART Systems and Services in Applied Informatics. Bratislava, Slovak Republic, 18 April 2011. - Bratislava: STU in Bratislava FEI, 2011. - ISBN 978-80-227-3513-1. - p. 1-5. (in Slovak)
- [93] LINDER, M. - SEKAJ, I.: Parallel Genetic Algorithms. In: MENDEL 2011: 17th International Conference on Soft Computing. June 15-17, 2011, Brno, Czech Republic. - Brno: University of Technology, 2011. - ISBN 978-80-214-4302-0. (in English)
- [94] LINDER, M. - SEKAJ, I.: Parallel Genetic Algorithms. In: ELITECH'11: 13th Conference of Doctoral Students Faculty of Electrical Engineering and Information Technology. Bratislava, Slovak Republic, 17 May, 2011. - Bratislava: Nakladateľstvo STU, 2011. - ISBN 978-80-227-3500-1. - p. 1-4. (in English)
- [95] MAKÝŠ, M. - KOZÁK, Š.: Hybrid Methods for Traffic Lights Control. In: Process Control 2011: 18th International Conference. Tatranská Lomnica, Slovakia, 14. -17. 6. 2011. - Bratislava: Nakladateľstvo STU, 2011. - ISBN 978-80-227-3517-9. - p. 64-71. (in English)
- [96] MAKÝŠ, M. - KOZÁK, Š.: Modelling and Control Methods for Hybrid Systems. In: PEIT,011. New Paradigms in Electronics & Information Technologies: 1st International Conference. Alexandria, Egypt, October 9-12, 2011. - Cairo: ERI, 2011. - CD-Rom. (in English)
- [97] MAKÝŠ, M. - KOZÁK, Š.: Effective method for design of traffic lights control. In: IFAC World Congress. 18th IFAC World Congress 2011, Milano, Italy, August 28 - September 2, 2011. - Oxford: IFAC, 2011. - ISSN 1474-6670 (<http://www.ifac-papersonline.net/#>), p. 14934-14939. (in English)
- [98] MIKLOVIČOVÁ, E. - MROSKO, M.: Model Predictive Control over Unreliable Communication Links. In: Mathematical Methods and Techniques in Engineering and Environmental Science: 4th WSEAS International Conference on Visualization, Imaging and Simulation. Catania, Sicily, November 3-5, 2011. - WSEAS Press, 2011. - ISBN 978-1-61804-046-6. - p. 144-149. (in English)
- [99] MIKLOVIČOVÁ, E. - MROSKO, M.: PID Controller Design in Networked Control Systems. In: Recent Researches in Engineering and Automatic Control: ECC'11: 2nd European Conference of Control, ECME'11: 2nd European Conference of Mechanical Engineering, ECCIE'11: 2nd European Conference of Civil Engineering, ECCE'11: 2nd European Conference of Chemical Engineering; Puerto De La Cruz, Tenerife, Spain, 10. -12. December 2011. - WSEAS Press, 2011. - ISBN 978-1-61804-057-2. - p. 150-155. (in English)
- [100] MROSKO, M. - MIKLOVIČOVÁ, E.: PID Control Design for Industrial Controllers. In: PEIT,011. New Paradigms in Electronics & Information Technologies: 1st International Conference. Alexandria, Egypt, October 9-12, 2011. - Cairo: ERI, 2011. - CD-Rom. (in English)
- [101] MROSKO, M. - MIKLOVIČOVÁ, E.: Real-Time Model Predictive Control. In: Mathematical Methods and Techniques in Engineering and Environmental Science: 4th WSEAS International Conference on Visualization, Imaging and Simulation. Catania, Sicily, November 3-5, 2011. - WSEAS Press, 2011. - ISBN 978-1-61804-046-6. - p. 138-143. (in English)
- [102] MURGAŠ, J. - BÁTORA, V.: Impact of Transport Delays on Control Systems. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 17, Special Issue: ELOSYS, Trenčín, 11. -14. 10. 2011, p. 222-226. (in Slovak)
- [103] MURGAŠ, T. - FODREK, P. - FARKAS, L.: Networked Control System - Using Linux Real Time Application Interface. In: Recent Researches in Engineering and Automatic Control: ECC'11: 2nd European Conference of Control, ECME'11: 2nd European Conference of Mechanical Engineering, ECCIE'11: 2nd European Conference of Civil Engineering, ECCE'11: 2nd European Conference of Chemical Engineering; Puerto De La Cruz, Tenerife, Spain, 10-12 December 2011. WSEAS Press, 2011. - ISBN 978-1-61804-057-2. - p. 53-58. (in English)
- [104] NGUYEN, Q. T. - VESELÝ, V.: Robust Decentralized PID Controller Design for the 3D Crane Process. In: Process Control 2011: 18th International Conference. Tatranská Lomnica, Slovak Republic, 14. -17. 6. 2011. - Bratislava: Nakladateľstvo STU, 2011. - ISBN 978-80-227-3517-9. - p. 485-489. (in English)

- [105] NGUYEN, Q. T.: Robust Model Predictive Control Design. In: ELITECH'11: 13th Conference of Doctoral Students Faculty of Electrical Engineering and Information Technology. Bratislava, Slovak Republic, 17 May, 2011. - Bratislava: Nakladateľstvo STU, 2011. - ISBN 978-80-227-3500-1. - p. 1-8. (in English)
- [106] NGUYEN, Q. T. - VESELÝ, V. - ROSINOVÁ, D.: Robust Model Predictive Control Design. In: PEIT,011. New Paradigms in Electronics & Information Technologies: 1st International Conference. Alexandria, Egypt, October 9-12, 2011. - Cairo: ERI, 2011. - CD-Rom. (in English)
- [107] ONDERA, M. - HALÁS, M.: Computer Implementation of Some Recent Developments Related to Generalized Transfer Functions. In: IFAC World Congress. - 18th IFAC World Congress 2011, Milano, Italy, August 28 - September 2, 2011. - Oxford: IFAC, 2011. - ISSN 1474-6670 (<http://www.ifac-papersonline.net/#>), p. 11012-11017. (in English)
- [108] OSUSKÝ, J. - HOLIČ, I.: Robust Decentralized Controller Design with Specified Gain Margin. In: PEIT,011. New Paradigms in Electronics & Information Technologies: 1st International Conference. Alexandria, Egypt, October 9-12, 2011. - Cairo: ERI, 2011. - CD-Rom. (in English)
- [109] OSUSKÝ, J. - VESELÝ, V.: Robust Decentralized Controller Design with Specified Phase Margin. In: Process Control 2011: 18th International Conference. Tatranská Lomnica, Slovak Republic, 14. -17. 6. 2011. - Bratislava: Nakladateľstvo STU, 2011. - ISBN 978-80-227-3517-9. - p. 524-530. (in English)
- [110] PALKOVIČ, L. - RODINA, J. - HUBINSKÝ, P.: IMU Platform for Workshops. In: Robotics in Education 2011: 2nd International Conference. Vienna, Austria, 15-16 August 2011. - Vienna: INNOC, 2011. - ISBN 978-3-200-02273-7. - p. 129-133. (in English)
- [111] PESTÚN, I. - HALÁS, M. - KURČÍK, P.: Control of an RC Helicopter Model Through USB Interface. In: Process Control 2011: 18th International Conference. Tatranská Lomnica, Slovak Republic, 14. -17. 6. 2011. - Bratislava: Nakladateľstvo STU, 2011. - ISBN 978-80-227-3517-9. - p. 174-181. (in English)
- [112] PETRÍK, M. - KOZÁK, Š.: Prediction of Critical Processes in Nuclear Power Plant Using Genetically Trained Neural Networks. In: Process Control 2011: 18th International Conference. Tatranská Lomnica, Slovak Republic, 14. -17. 6. 2011. - Bratislava: Nakladateľstvo STU, 2011. - ISBN 978-80-227-3517-9. - p. 77-84. (in English)
- [113] PETROVIČ, P. - BALOGH, R.: Experiences from Deployment of Remote-Accessible Robotics Laboratory. In: exp. at,11: 1st Experiment Information Conference on Remote and Virtual Labs. Lisbon, Portugal, November 17-18, 2011. - Universidade do Porto, 2011. - USB Flash. (in English)
- [114] ROSINOVÁ, D.: Decentralized Control of Quadruple Tank Process: Stability and Performance. In: PEIT,011. New Paradigms in Electronics & Information Technologies: 1st International Conference. Alexandria, Egypt, October 9-12, 2011. - Cairo: ERI, 2011. - CD-Rom. (in English)
- [115] ROSINOVÁ, D. - VESELÝ, V.: Decentralized Controller Design: Subsystem Robust Stabilization Approach. In: IFAC World Congress. - 18th IFAC World Congress 2011, Milano, Italy, August 28 - September 2, 2011. - Oxford: IFAC, 2011. - ISSN 1474-6670 (<http://www.ifac-papersonline.net/#>), p. 2541-2545. (in English)
- [116] SCHOCHMANN, R. - PILKA, J. - SUCHÝ, M. - PESTÚN, I. - HUBA, M.: Experience in Designing Autonomous Airplane. In: Process Control 2011: 18th International Conference. Tatranská Lomnica, Slovak Republic, 14. -17. 6. 2011. - Bratislava: Nakladateľstvo STU, 2011. - ISBN 978-80-227-3517-9. - p. 205-210. (in English)
- [117] SEKAJ, I. - LINDER, M. - PERNECKÝ, D.: Experimental Comparison of Selected Types of Parallel Evolutionary Algorithms. In: ECTA 2011 and FCTA 2011: Proceedings of the International Conference on Evolutionary Computation Theory and Applications and International Conference on Fuzzy Computation Theory and Applications. Paris, France, 24-26 October, 2011. - Springer, 2011. - ISBN 978-989-8425-83-6. - p. 296-302. (in English)
- [118] SEKAJ, I. - BERNATOVÁ, I.: Modelling of Biological Systems - a Model of Blood Pressure Regulation. In: Nitric Oxide: From Basic Regulations to Lifestyle Related Diseases: 7th International Symposium. Makarska, Croatia, September 7-12, 2011. - Bratislava: Ústav normálnej a patologickej fyziológie SAV, 2011. (in English)
- [119] ŠEVČIKOVÁ, Z. - KAZLOV, I. - JUHÁSOVÁ, A.: Possibility of Using Analysis and Synthesis of Event Systems in Practice. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 17, Special Issue: ELOSYS, Trenčín, 11. -14. 10. 2011, p. 227-229. (in Slovak)
- [120] ŠIPOŠ, K. - ROSINOVÁ, D.: Predictive Control with State Feedback. In: ŠVOČ 2011: Proceedings of Selected Works. Bratislava, Slovak Republic, 4. 5. 2011. - Bratislava: FEI STU, 2011. - ISBN 978-80-227-3508-7. - p. 382-387. (in Slovak)
- [121] ŠKULTÉTY, J. - MIKLOVIČOVÁ, E.: Model Predictive Control Based on State Space Formulation. In: ELITECH'11: 13th Conference of Doctoral Students Faculty of Electrical Engineering and Information Technology. Bratislava, Slovak Republic, 17 May, 2011. - Bratislava: Nakladateľstvo STU, 2011. - ISBN 978-80-227-3500-1. - p. 1-5. (in English)

- [122] ŠLEZÁROVÁ, A. - ŠTEVO, S. - ČAPUCHA, L.: Intelligent Building Influence into Human Health. In: Facility Management 2011: 9th Conference with International Participation. - Bratislava: Slovenská spoločnosť pre techniku prostredia ZSVTS, 2011. - ISBN 978-80-89216-41-3. - p. 141-144. (in Slovak)
- [123] ŠLEZÁROVÁ, A. - HANTUCH, I.: The Procedure of Control Design Unmanned Vehicles. In: ELITECH'11: 13th Conference of Doctoral Students Faculty of Electrical Engineering and Information Technology. Bratislava, Slovak Republic, 17 May, 2011. - Bratislava: Nakladateľstvo STU, 2011. - ISBN 978-80-227-3500-1. - p. 1-4. (in English)
- [124] ŠTEVEK, J. - KOZÁK, Š.: Computer Aided Control System Design (CAPCS). In: PEIT,011. New Paradigms in Electronics & Information Technologies: 1st International Conference. Alexandria, Egypt, October 9-12, 2011. - Cairo: ERI, 2011. - CD-Rom. (in English)
- [125] ŠTEVEK, J. - KOZÁK, Š.: Matlab Toolbox for PWA Identification of Nonlinear Systems. In: Process Control 2011: 18th International Conference. Tatranská Lomnica, Slovak Republic, 14. -17. 6. 2011. - Bratislava: Nakladateľstvo STU, 2011. - ISBN 978-80-227-3517-9. - p. 111-118. (in English)
- [126] ŠTEVO, S. - HANTUCH, I. - TANCÍK, P.: Air Curtain Control. In: Technical Computing Prague 2011: 19th Annual Conference Proceedings. Prague, Czech Republic, November 8, 2011. - Prague: Institute of Chemical Technology, 2011. - ISBN 978-80-7080-794-1. - CD-Rom. (in English)
- [127] ŠTEVO, S. - HANTUCH, I. - TANCÍK, P.: Air Curtain Control Proposal. In: Facility Management 2011: 9th Conference with International Participation. - Bratislava: Slovenská spoločnosť pre techniku prostredia ZSVTS, 2011. - ISBN 978-80-89216-41-3. - p. 119-123. (in Slovak)
- [128] ŠTEVO, S. - DORNER, J.: Design and Optimization of Heating Process. In: Heating 2011: 19th International Conference. Ľubovnianske kúpele, Slovak Republic, 28. 2. -4. 3. 2011. - Bratislava: Slovenská spoločnosť pre techniku prostredia ZSVTS, 2011. - ISBN 978-80-89216-38-3. - p. 535-538. (in Slovak)
- [129] ŠTEVO, S. - STERMENSZKY, Z.: ESPr - Light Consumption Simulation. In: Technical Computing Prague 2011: 19th Annual Conference Proceedings. Prague, Czech Republic, November 8, 2011. - Prague: Institute of Chemical Technology, 2011. - ISBN 978-80-7080-794-1. - CD-Rom. (in English)
- [130] ŠTEVO, S. - STERMENSZKY, Z.: ESPr - Light Simulation. In: Facility Management 2011: 9th Conference with International Participation. - Bratislava: Slovenská spoločnosť pre techniku prostredia ZSVTS, 2011. - ISBN 978-80-89216-41-3. - p. 131-135. (in Slovak)
- [131] ŠTEVO, S.: Life Cycle Assessment of Buildings. In: Facility Management 2011: 9th Conference with International Participation. - Bratislava: Slovenská spoločnosť pre techniku prostredia ZSVTS, 2011. - ISBN 978-80-89216-41-3. - p. 125-129. (in Slovak)
- [132] ŠTEVO, S. - KRCHŇAVÝ, L.: Master-Slave Behavior of Robots (LEGO NXT). In: Technical Computing Prague 2011: 19th Annual Conference Proceedings. Prague, Czech Republic, November 8, 2011. - Prague: Institute of Chemical Technology, 2011. - ISBN 978-80-7080-794-1. - CD-Rom. (in English)
- [133] ŠTEVO, S. - REMŠÍK, J.: Optimization of Obstacle Wrapper Shape in a Pipe by Genetic Algorithm. In: Technical Computing Prague 2011: 19th Annual Conference Proceedings. Prague, Czech Republic, November 8, 2011. - Prague: Institute of Chemical Technology, 2011. - ISBN 978-80-7080-794-1. - CD-Rom. (in English)
- [134] ŠTURCEL, J.: Numerical Linearization of Sensor Characteristics Using Polynomial Approximation. In: Applied Natural Sciences 2011: Časť-Papierníčka, Slovak Republic, October 5-7, 2011. - Trnava: University of SS. Cyril and Methodius in Trnava, 2011. - ISBN 978-80-8105-266-8. - p. 150-155. (in English)
- [135] ŠVANČARA, J. - KRÁLOVÁ, Z. - ŠIMKOVIČ, A.: HMLV Manufacturing System Scheduling Using Extended Integrated Algorithm. In: PEIT,011. New Paradigms in Electronics & Information Technologies: 1st International Conference. Alexandria, Egypt, October 9-12, 2011. - Cairo: ERI, 2011. - CD-Rom. (in English)
- [136] ŠVANČARA, J.: HMLV Manufacturing Systems Simulation Analysis Using the Database Interface. In: Recent Advances in Manufacturing Engineering: 4th International Conference on Manufacturing Engineering, Quality and Production Systems. Barcelona, Spain, September 15-17, 2011. - WSEAS Press, 2011. - ISBN 978-1-61804-031-2. - p. 15-19. (in English)
- [137] ŠVANČARA, J. - KRÁLOVÁ, Z.: HMLV Systems Production Scheduling Using Permutation Algorithm and Simulation. In: PEIT,011. New Paradigms in Electronics & Information Technologies: 1st International Conference. Alexandria, Egypt, October 9-12, 2011. - Cairo: ERI, 2011. - CD-Rom. (in English)
- [138] ŠVANČARA, J. - KRÁLOVÁ, Z.: Permutation Algorithm for HMLV System Scheduling. In: WITNESS 2011: 14th International Conference. Mušov, Czech Republic, 2. -3. 6. 2011. - Brno: Technical University, 2011. - CD-Rom. (in Slovak)
- [139] ĽAPÁK, P.: Real Experiments Marking in Automatic Control Education. In: ICL 2011: 14th International Conference on Interactive Collaborative Learning and 11th International Conference Virtual University. Piešťany, Slovak Republic, September 21-23, 2011. - Piscataway: IEEE, 2011. - ISBN 978-1-4577-1746-8. - p. 281-284. (in English)

- [140] TÁRNÍK, M. - MURGAŠ, J.: Additional Adaptive Controller for Mutual Torque Ripple Minimization in PMSM Drive Systems. In: IFAC World Congress. 18th IFAC World Congress 2011. Milano, Italy, August 28 - September 2, 2011. - Oxford: IFAC, 2011. - ISSN 1474-6670 (<http://www.ifac-papersonline.net/#>), p. 4119-4124. (in English)
- [141] TÁRNÍK, M. - MURGAŠ, J.: Decentralized Adaptive Control and the Possibility of Utilization of Networked Control System. In: Recent Researches in Engineering and Automatic Control: ECC'11: 2nd European Conference of Control, ECME'11: 2nd European Conference of Mechanical Engineering, ECCIE'11: 2nd European Conference of Civil Engineering, ECCE'11: 2nd European Conference of Chemical Engineering; Puerto De La Cruz, Tenerife, Spain, 10-12 December 2011. WSEAS Press, 2011. - ISBN 978-1-61804-057-2. - p. 83-87. (in English)
- [142] TÖLGYESSY, M. - HUBINSKÝ, P.: The Kinect Sensor in Robotics Education. In: Robotics in Education 2011: 2nd International Conference. Vienna, Austria, 15-16 August 2011. - Vienna: INNOC, 2011. - ISBN 978-3-200-02273-7. - p. 143-146. (in English)
- [143] TÓTH, J. - KONDELOVÁ, A. - GUZMICKÝ, P.: Simulation of Prosody Contours with Embedded Signal Generator. In: Proceedings Redžúr 2011: 5th International Workshop on Multimedia and Signal Processing. May 12, 2011, Bratislava, Slovak Republic. - Bratislava: Nakladateľstvo STU, 2011. - ISBN 978-80-227-3506-3. - p. 93-96. (in English)
- [144] TRIAŠKA, S. - ŽALMAN, M.: Control of the Juggling system with 1 DOF. In: Proceedings of the 12th International Carpathian Control Conference: Velké Karlovice, Czech Republic, 25. -28. 5. 2011. - IEEE, 2011. - ISBN 978-1-61284-359-9. - p. 402-407. (in English)
- [145] TRIAŠKA, S. - ŽALMAN, M. - RADIČOVÁ, T.: External Monitoring of Juggler System. In: Technical Computing Prague 2011: 19th Annual Conference Proceedings. Prague, Czech Republic, November 8, 2011. - Prague: Institute of Chemical Technology, 2011. - ISBN 978-80-7080-794-1. - CD-Rom. (in English)
- [146] URBAN, M. - BLAHO, M. - MURGAŠ, J. - FOLTIN, M.: Simulation of Networked Control Systems via Truetime. In: Technical Computing Prague 2011: 19th Annual Conference Proceedings. Prague, Czech Republic, November 8, 2011. - Prague: Institute of Chemical Technology, 2011. - ISBN 978-80-7080-794-1. - CD-Rom. (in English)
- [147] URBAN, M. - MRAFKO, L.: Technical Resources for Network Control. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 17, Special Issue: ELOSYS, Trenčín, 11. -14. 10. 2011, p. 230-233. (in Slovak)
- [148] VESELÝ, V. - NGUYEN, Q. T.: Robust Decentralized Controller Design for Large Scale Systems. In: ICCS 2011: 12th International Carpathian Control Conference. Velké Kralovice, Czech Republic, 25-28 May 2011. - Piscataway: IEEE, 2011. - ISBN 978-1-61284-361-2. - p. 429-432. (in English)
- [149] VESELÝ, V. - ROSINOVÁ, D.: Robust Elimination Lemma: Sufficient Condition for Robust Output Feedback Controller Design. In: Process Control 2011: 18th International Conference. Tatranská Lomnica, Slovak Republic, 14. -17. 6. 2011. - Bratislava: Nakladateľstvo STU, 2011. - ISBN 978-80-227-3517-9. - p. 577-582. (in English)
- [150] VESELÝ, V. - ROSINOVÁ, D.: Robust PSD Controller Design. In: Process Control 2011: 18th International Conference. Tatranská Lomnica, Slovak Republic, 14. -17. 6. 2011. - Bratislava: Nakladateľstvo STU, 2011. - ISBN 978-80-227-3517-9. - p. 565-570. (in English)
- [151] VITKO, A. - JURÍŠICA, L. - DUCHOŇ, F. - KLÚČIK, M. - BABINEC, A. - DEKAN, M.: Neural Tuning of Fuzzy Rules (with Application to Robot Navigation). In: Modelling of Mechanical and Mechatronic Systems. MMaMS 2011: 4th International Conference. Herľany, Slovak Republic. 20-22 September 2011. - Košice: Technical University, 2011. - ISBN 978-80-553-0731-2. - CD-Rom. (in English)
- [152] VITKO, A. - JURÍŠICA, L. - DUCHOŇ, F. - BABINEC, A. - DEKAN, M. - KAŠTAN, D. - KLÚČIK, M. - BACHRATÝ, M.: Simultaneous Navigation and Fault Detection of Legged Robot. In: Robotics in Education 2011: 2nd International Conference. Vienna, Austria, 15-16 August 2011. - Vienna: INNOC, 2011. - ISBN 978-3-200-02273-7. - p. 91-94. (in English)
- [153] VONKOMER, J. - ŽALMAN, M.: Induction Motor Sensorless Vector Control for Very Wide Speed Range of Operation. In: 12th International Carpathian Control Conference: Velké Karlovice, Czech Republic, 25. -28. 5. 2011. - IEEE, 2011. - ISBN 978-1-61284-359-9. - p. 441-446. (in English)
- [154] VÖRÖS, J.: Identification of Nonlinear Systems with General Output Backlash. In: Process Control 2011: 18th International Conference. Tatranská Lomnica, Slovak Republic, 14. -17. 6. 2011. - Bratislava: Nakladateľstvo STU, 2011. - ISBN 978-80-227-3517-9. - p. 230-233. (in English)
- [155] VRANČIC, D. - HUBA, M.: Design of Feedback Control for Unstable Processes with Time Delay. In: Process Control 2011: 18th International Conference. Tatranská Lomnica, Slovak Republic, 14. -17. 6. 2011. - Bratislava: Nakladateľstvo STU, 2011. - ISBN 978-80-227-3517-9. - p. 100-105. (in English)

- [156] ŽÁKOVÁ, K.: Maxima - An Open Alternative for Engineering Education. In: 2011 IEEE Global Engineering Education Conference (EDUCON): Learning Environments and Ecosystems in Engineering Education. April 4 - 6, 2010, Amman, Jordan. - Piscataway: IEEE, 2011. - ISBN 978-1-61284-641-5. - p. 1022-1025. (in English)

IX. 3 Parts of Books

- [1] BISTÁK, P.: Remote Laboratory Software Module for Thermo Optical Plant. In: Selected Topics on Constrained and Nonlinear Control. Workbook. - Bratislava: STU in Bratislava, 2011. - ISBN 978-80-968627-3-3. - p. 275-290. (in English)
- [2] BISTÁK, P.: Time Sub-Optimal Control of Three-Level Hydraulic System. In: Selected Topics on Constrained and Nonlinear Control. Preprints. - Bratislava: STU in Bratislava, 2011. - ISBN 978-80-968627-2-6. - p. 175-183. (in English)
- [3] FLOCHOVÁ, J. - MUDRONČÍK, D. - MRAFKO, L.: on Industrial Techniques and Real-time Information Technology Teaching. In: Selected Topics in Modelling and Control. Vol. 7. - Bratislava: Slovak University of Technology, 2011. - ISBN 978-80-227-3597-1. - p. 100-105. (in English)
- [4] HUBA, M.: Analysing Constrained Controllers for SOPDT Plant and Complex Assigned Poles by the Performance Portrait Method. In: Selected Topics on Constrained and Nonlinear Control. Preprints. - Bratislava: STU in Bratislava, 2011. - ISBN 978-80-968627-2-6. - p. 215-225. (in English)
- [5] HUBA, M.: Basic Fundamental Controllers of DC 0. In: Selected Topics on Constrained and Nonlinear Control. Textbook. - Bratislava: STU in Bratislava, 2011. - ISBN 978-80-968627-4-0. - p. 139-185. (in English)
- [6] HUBA, M.: Basic Notions of Robust Constrained PID Control. In: Selected Topics on Constrained and Nonlinear Control. Textbook. - Bratislava: STU in Bratislava, 2011. - ISBN 978-80-968627-4-0. - p. 87-138. (in English)
- [7] HUBA, M. - ĽAPÁK, P.: Dead Time Compensators for FOPDT Plants. In: Selected Topics on Constrained and Nonlinear Control. Preprints. - Bratislava: STU in Bratislava, 2011. - ISBN 978-80-968627-2-6. - p. 237-247. (in English)
- [8] HUBA, M.: Filtered Smith Predictor Tuning by the Performance Portrait Method. In: Selected Topics on Constrained and Nonlinear Control. Preprints. - Bratislava: STU in Bratislava, 2011. - ISBN 978-80-968627-2-6. - p. 193-200. (in English)
- [9] HUBA, M.: Modified Filtered Smith Predictors for FOPDT Plants. In: Selected Topics on Constrained and Nonlinear Control. Preprints. - Bratislava: STU in Bratislava, 2011. - ISBN 978-80-968627-2-6. - p. 185-191. (in English)
- [10] HUBA, M.: Robust Controller Tuning for Constrained Double Integrator. In: Selected Topics on Constrained and Nonlinear Control. Preprints. - Bratislava: STU in Bratislava, 2011. - ISBN 978-80-968627-2-6. - p. 203-212. (in English)
- [11] HUBINSKÝ, P. - PÁSZTÓ, P.: Circle Sign Detecting Mobile Robot Navigation. In: Selected Topics in Modelling and Control. Vol. 7. - Bratislava: Slovak University of Technology, 2011. - ISBN 978-80-227-3597-1. - p. 95-99. (in English)
- [12] HUBINSKÝ, P. - RUDOLF, B. - HÄUPTLE, P.: Optimization of the Signal-Type Used in a Harmonic Modulator for Control. In: Selected Topics in Modelling and Control. Vol. 7. - Bratislava: Slovak University of Technology, 2011. - ISBN 978-80-227-3597-1. - p. 118-123. (in English)
- [13] KARDOŠ, J.: Robust Position Tracking via Sliding Mode Control. In: Selected Topics in Modelling and Control. Vol. 7. - Bratislava: Slovak University of Technology, 2011. - ISBN 978-80-227-3597-1. - p. 106-112. (in English)
- [14] NGUYEN, Q. T.: Robust Time Delay Controller Design Using Discretized Lyapunov Krasovskii Functionals. In: Selected Topics on Constrained and Nonlinear Control. Preprints. - Bratislava: STU in Bratislava, 2011. - ISBN 978-80-968627-2-6. - p. 257-263. (in English)
- [15] POLIAČIK, M. - MURGAŠ, J. - FARKAS, Ľ. - BLAHO, M.: a Robust MRAC with Decomposed Adaptation Error in the Presence of Uncertainties. In: Selected Topics in Modelling and Control. Vol. 7. - Bratislava: Slovak University of Technology, 2011. - ISBN 978-80-227-3597-1. - p. 73-78. (in English)
- [16] REBOUR, Y. - VIRK, S. - VITKO, A. - JURIŠICA, L. - KARDOŠ, J. - DUCHOŇ, F. - KLÚČIK, M. - BABINEC, A. - DEKAN, M.: Robot Navigation. In: Selected Topics in Modelling and Control. Vol. 7. - Bratislava: Slovak University of Technology, 2011. - ISBN 978-80-227-3597-1. - p. 79-86. (in English)
- [17] ROSINOVÁ, D. - VESELÝ, V.: Sufficient Robust Stability Condition for Output Feedback Controller Design: Elimination Approach. In: Selected Topics in Modelling and Control. Vol. 7. - Bratislava: Slovak University of Technology, 2011. - ISBN 978-80-227-3597-1. - p. 1-6. (in English)
- [18] SEKAJ, I.: Control Algorithm Design Based on Evolutionary Algorithms. In: Introduction to Modern Robotics. - Concept Press Ltd., 2011. - ISBN 978-0980733068. - <http://www.iconceptpress.com/01/site/publication/paperID=101128055428>. (in English)

- [19] SEKAJ, I. - ORAVEC, M.: Parallel Evolutionary Algorithms. In: Artificial Intelligence and Cognitive Science III. - Bratislava: Nakladateľstvo STU, 2011. - ISBN 978-80-227-3542-1. - p. 243-267. (in Slovak)
- [20] ŠTEVEK, J. - KOZÁK, Š.: PWA System Identification with Strong Nonlinearities. In: Selected Topics on Constrained and Nonlinear Control. Preprints. - Bratislava: STU in Bratislava, 2011. - ISBN 978-80-968627-2-6. - p. 249-263. (in English)
- [21] ŠVANČARA, J. - KRÁLOVÁ, Z.: Simulation Analysis of the Power Supply Production Line. In: Selected Topics in Modelling and Control. Vol. 7. - Bratislava: Slovak University of Technology, 2011. - ISBN 978-80-227-3597-1. - p. 113-117. (in English)
- [22] ĽAPÁK, P. - HUBA, M.: Constrained PID Control Tasks for Controlling the Thermo Optical Plant. In: Selected Topics on Constrained and Nonlinear Control. Workbook. - Bratislava: STU in Bratislava, 2011. - ISBN 978-80-968627-3-3. - p. 291-328. (in English)
- [23] TÁRNIK, M. - MURGAŠ, J.: Direct MRAC of Small Laboratory DC Motor in the Presence of Input Constraints. In: Selected Topics in Modelling and Control. Vol. 7. - Bratislava: Slovak University of Technology, 2011. - ISBN 978-80-227-3597-1. - p. 67-72. (in English)
- [24] VESELÝ, V. - ROSINOVÁ, D. - KOZÁKOVÁ, A.: Robust Controller Design: New Approaches in the Time and the Frequency Domains. In: Robust Control, Theory and Applications. - Rijeka: Intech, Croatia, 2011. - ISBN 978-953-307-229-6. - p. 217-242. (in English)
- [25] VESELÝ, V. - ROSINOVÁ, D.: Stabilizing Model Predictive Controller Design with Reduced On-line Computation. In: Selected Topics on Constrained and Nonlinear Control. Preprints. - Bratislava: STU in Bratislava, 2011. - ISBN 978-80-968627-2-6. - p. 265-296. (in English)
- [26] VIRK, S. - REBOUR, Y. - VITKO, A. - JURIŠICA, L. - KARDOŠ, J. - DUCHOŇ, F. - KLÚČIK, M. - BABINEC, A. - DEKAN, M.: Current Issues in Mobile Robotics. In: Selected Topics in Modelling and Control. Vol. 7. - Bratislava: Slovak University of Technology, 2011. - ISBN 978-80-227-3597-1. - p. 87-94. (in English)
- [27] VÖRÖS, J.: Parametric Identification of Nonlinear Systems with General Output Backlash. In: Selected Topics in Modelling and Control. Vol. 7. - Bratislava: Slovak University of Technology, 2011. - ISBN 978-80-227-3597-1. - p. 40-44. (in English)
- [28] ŽILKA, V. - HUBA, M.: Constrained PID Control Tasks for Coupled Tanks Control. In: Selected Topics on Constrained and Nonlinear Control. Workbook. - Bratislava: STU in Bratislava, 2011. - ISBN 978-80-968627-3-3. - p. 247-274. (in English)
- [29] ŽILKA, V. - HUBA, M.: Laboratory Model of Coupled Tanks. In: Selected Topics on Constrained and Nonlinear Control. Workbook. - Bratislava: STU in Bratislava, 2011. - ISBN 978-80-968627-3-3. - p. 229-246. (in English)

IX. 4 Books

- [1] VITKO, A.: Control of Mechatronic Systems with Low Damping. - Bratislava: STU in Bratislava, 2011. - 87 p. - ISBN 978-80-227-3492-9. (in Slovak)
- [2] ŽÁKOVÁ, K.: Design of Controllers for Time-Delayed Systems: Constrained Pole Assignment Control. - Saarbrücken: LAP LAMBERT Academic Publishing GmbH&Co. KG, 2011. - 180 p. - ISBN 978-3-8443-2392-4. (in English)

INSTITUTE OF TELECOMMUNIC- NICATIONS

INSTITUTE OF TELECOMMUNICATIONS

<http://www.ktl.elf.stuba.sk>



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: Mária Barbíriková
Administrative staff: Alexandra Šafariková (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 „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. 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., JUDr. Štefan Gyorgy, PhD.,
Ing. Michal Halás, PhD., Ing. Ján Hodál, Ing. Richard Chomist, PhD.,
Ing. Erik Chromý, PhD., Ing. Tomáš Janvars, Ing. Juraj Kačur, PhD.,
Ing. Matej Kavacký, PhD., Ing. Ján Körösi,
Ing. Kvetoslava Kotuliaková, PhD., Ing. Juraj Mačica, PhD.,
Ing. Tomáš Páleník, PhD., Ing. Michal Poľaško, PhD.,
Ing. Martin Rakús, PhD., Ing. Renáta Rybárová, PhD.,
Ing. Eva Samuhelová, Ing. Matúš Turcsány, PhD.,
Ing. Radoslav Vargic, PhD., Ing. Juraj Vojtko, PhD., Ing. Ján Vrabec

Research Workers:

Ing. Matúš Kováčik, Ing. Bakyt Kyrbashov, PhD., Ing. Miroslav Talanda,
Ing. Martin Turi Nagy, PhD.

Technical Staff:

Alexandra Šafariková (secretary), Mária Barbíriková, Michaela Bujková,
Mgr. Monika Csonková, Ing. Viktor Janata, Ing. Maroš Michalík

PhD. Students:

Ing. Daniel Adamko, Ing. Mahmoud Aldaour, Ing. Tomáš Balogh,
Ing. Jozef Ban, Ing. Marián Beniák, Ing. Ivan Bešťák,
Ing. Monika Dávideková, Ing. Jozef Kenyeres, Ing. Stanislav Klúčik,
Ing. Anna Kondelová, Ing. Adrián Kováč, Ing. Lenka Krulíkovská,
Ing. Peter Kubizniak, Ing. Ján Kulík, Ing. Juraj Londák,
Ing. Denisa Luknárová, Ing. Michal Mardiak, Ing. Ivan Minárik,
Ing. Tibor Mišuth, Ing. Angela Mordelová, Ing. Karol Nagy,
Ing. Andrej Nesterovskij, Ing. Sandra Ondrušová, Ing. Michal Osadský,
Ing. Juraj Pavlovič, Ing. Ján Poctavek, Ing. Renata Rybárová,
Ing. Juraj Taraba, Ing. Adam Tisovský, Ing. Róbert Tomek, Ing. Ján Tóth,
Ing. Marek Vančo, Ing. Mário Varga, Ing. Matúš Vasek, Ing. Ahmad Yassine

II. EQUIPMENT

II. 1 Teaching and Research Laboratories

- 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, ATM, RWS)
- NGN Lab
- Audioacoustical Laboratory

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 platforma 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 iX Cheriot
- 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 (10GIG)
- NGN platform for Testbeds and Interconnects (Fokus IMS including HSS, Sitronics HSS, Mobicents AS, PACTOLUS AS, ŽU Žilina, TU Košice)
- Telecommunications Videoconference Systems for ISDN (3 x PictureTel, 2 x I VIEW)
- Measuring set Wandel and Goltermann IBT 10 (for ISDN interface S0 and U)
- Siemens Node Integrator – Software for Simulation of TMN
- COSSAP (Software for simulation of telecommunication systems)
- Measuring set Siemens - Carrier Frequency Level Test (Set W2008-K/D2008-K)
- Logic Analyzer Philips PM 3570
- Cluster composed of 6 PC, aggregate 10,6 GHz
- Telecommunications Instructional Teaching Modelling System TIMS-301
- Spectral analyzer HP 3589A
- CAN analyzer CANLAB
- IQ Kiosk
- NVIDIA GTX480s

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) K. Kotuliaková
Communication Systems (for FIIT SUT) (5th sem., 3-2h) P. Farkaš

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
Communications Theory (for FIIT SUT)
(2nd sem., 2-1h) P. Farkaš
Architecture of Mobile and Satellite Systems
(for FIIT SUT)
(2nd sem., 2-1h) P. Farkaš
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

IV. RESEARCH PROJECTS

IV. 1 National Scientific Projects

- Operating program research and development. Center of excellence – SMART technologies, networks and Services I. (IMS Platform for NGN). OPVaV - 2008/4. 1/01–SORO. Duration: 2009–2011 (completed). (I. Baroňák)
- 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 (solved). (I. Baroňák)
- Modelling of traffic parameters in NGN telecommunication systems and networks. VEGA - 1/0565/09. Duration: 2009–2011 (completed). (I. Baroňák)
- Advancement of coding technologies. VEGA 1/0376/09. Duration: 2009-2012 (solved). (P. Farkaš)
- Video cut detection. STU grant. Duration: 2011-2012 (solved). (L. Krulikovská)
- Analysis of speech prosody in multimodal speech synthesizer. STU grant. Duration: 2011-2012 (solved). (A. Kondelová)
- Advanced Image Processing Algorithms for Effective Human Face Retrieval and Coding. VEGA 1/0961/11. Duration: 2011-2013 (solved). (J. Pavlovičová)
- The Optimization of Video Coding Efficiency for Transmission and Record. VEGA 1/0602/11. Duration: 2011-2013 (solved). (J. Polec)
- The Development of Digital Literacy in Primary and Secondary School. KEGA 119-005TVU-4/2010. Duration: 2010-2011 (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 (solved). (R. Róka)
- Algorithms and Methods of Multimedia Signal Processing for Human Machine Interface. VEGA 1/0718/09. Duration: 2009-2011 (completed). (G. Rozinaj)
- Multimedia Services and Applications in the Environment of New Generation Converged Network Infrastructure. VEGA 1/0720/09. Duration: 2009-2011 (completed). (R. Vargic)

IV. 2 International Scientific Project

Audio-speech interface for mobile devices, DAAD. Duration: 2010-2011 (completed). (G. Rozinaj)

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 Agriculture of Slovak Republic
- 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
- WiMAX Slovakia

V. 2 International Cooperation

- Aalborg University Center for Person Kommunikation, Denmark
- Alcatel Stuttgart, Germany
- ARC Seibersdorf research GmbH, Austria
- Budapest Polytechnic, Hungary
- 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
- Siemens Vienna, Austria
- 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
- University of Hradec Kralove, CzR
- UPC Barcelona, Spain
- VŠB TU in Ostrava, CzR
- VUT in Brno, CzR

VI. THESES

VI. 1 Master Theses

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

- [1] Ambruš, I.: Utilization of MPLS - TP technology in transport networks NGN (M. Medvecký)
- [2] Bačkády, L.: Compression of speech signals (J. Kačur)
- [3] Bako, P.: Measurement of the transmission parameters of fiber optic connectors for singlemode fiber (R. Róka)
- [4] Bakšová, I.: Designing and simulating a network architecture for a medium-sized company (R. Róka)
- [5] Baránek, P.: Conception of effective communication in ad-hoc network (J. Kenyeres)
- [6] Bartovič, K.: Utilization of modulation techniques in optical transmission media (R. Róka)
- [7] Belobrad, J.: New applications for IPTV (J. Londák)
- [8] Bešťák, I.: Communication security in power line distribution (M. Orgoň)
- [9] Bogdanov, P.: Modelling system for error analysis of the selected digital transmission system (M. Rakús)
- [10] Borík, L.: Approximation of language model based on detection of vowels (J. Körösi)
- [11] Bunčák, M.: Analysis of signal self-similarity (R. Vargic)
- [12] Dedíková, Z.: Slovak unit selection speech synthesis (J. Čepko)

- [13] Čirke, D.: Measurements on WSN platform crossbow (T. Páleník)
- [14] Dávideková, M.: Application of two-dimensional signatures in mobile wireless systems (P. Farkaš)
- [15] Dujšík, J.: VoIP in environment of private networks (M. Kavacký)
- [16] Fehér, Z.: Communication networks over power distribution lines (R. Róka)
- [17] Florek, I.: Central error management in non-homogeneous telecommunications networks (M. Medvecký)
- [18] Frlička, M.: Providing QoS in IMS (B. Kyrbashov)
- [19] Gavorník, M.: ICT management using SOA architecture (M. Medvecký)
- [20] Gramblička, P.: Tonal detection and identification in audio signals (R. Vargic)
- [21] Grenčík, J.: Program to learn encoding and decoding of linear block codes (E. Samuhelová)
- [22] Hangáč, V.: Creating a software environment for virtual learning Applications (M. Orgoň)
- [23] Horváth, F.: Proposal for metropolitan area network using ethernet technology (M. Medvecký)
- [24] Hucíková, M.: Ensuring the quality of connection over VoIP networks (M. Halás)
- [25] Hudec, M.: Evaluation of methods for texture synthesis using classification (J. Polec)
- [26] Jankovič, P.: Analysis of utilization xDSL technologies with taking account on comprehension to converged NGN network (J. Čuchran)
- [27] Juhos, L.: VoIP and its interworking with classical telecommunication networks (M. Halás)
- [28] Jurkovič, J.: Traffic protection using optical media for information transmission (R. Róka)
- [29] Kližan, P.: Cut detection in video-sequences (L. Krulíková)
- [30] Klúčovský, D.: Video streaming as a multimedia service in NGN (Next Generation Networks) (J. Londák)
- [31] Kmeť, J.: Calling through VoIP technologies (M. Talanda)
- [32] Kohautová, V.: Web applications for IPTV (J. Londák)
- [33] Korytiak, M.: The impact of IPsec on quality of VoIP call Ing (M. Halás)
- [34] Kováč, P.: Simulation of VoIP traffic in IP multimedia subsystem environment based on OpenIMSCore (B. Kyrbashov)
- [35] Král, M.: Design of access network given to operate services to households, small and medium-sized companies (M. Kavacký)
- [36] Krčmáriková, J.: E-learning course: satellite navigation system GALILEO (M. Rakús)
- [37] Kumorovitz, M.: The Slovak language statistical model (J. Kačur)
- [38] Lengyel, N.: Video Shot Cut Detection (J. Pavlovičová)
- [39] Lenický, P.: Draft of structured cabling in combination with PLC technology (R. Róka)
- [40] Lőrinc, J.: Factor-graph utilization (P. Farkaš)
- [41] Majerčák, M.: Possibility of usage interactive graphic webtechnologies (B. Mišota)
- [42] Makovínyi, P.: Speech synthesis in mobile phone using parametric database (R. Rybárová)
- [43] Malá, T.: Compression of audio signals (J. Kačur)
- [44] Masaryk, P.: Simulations of communication system in an OFDM mobile channel (T. Páleník)
- [45] Matula, M.: Design and implementation of personal and professional website of university teacher (P. Farkaš)
- [46] Mičuch, J.: Preventive mechanisms of the traffic management in the IP systems (I. Baroňák)
- [47] Minárik, I.: Coding of audio signals at low speed (M. Turi Nagy)
- [48] Mlynár, M.: Image coding using Gabor filters (M. Osadský)
- [49] Mokráň, M.: Quality maintenance of VoIP connection (M. Halás)
- [50] Moravec, R.: Vulnerability and security in network IP (K. Kotuliaková)
- [51] Moucha, V.: Applications at IP multimedia subsystem (R. Vargic)
- [52] Muráň, M.: VoIP Technologies and their application in the private networks (M. Talanda)
- [53] Nagy, K.: Analysis of turbo type decoding (P. Farkaš)
- [54] Nedeliak, P.: Analysis exploitation service xDSL in consideration of incorporation in converge networks NGN (J. Čuchran)
- [55] Obert, I.: The creation of the speech databases (G. Rozinaj)
- [56] Ondrejko, P.: Analysis IP protocols in mobile networks (K. Kotuliaková)
- [57] Ondruš, M.: Securing safety of corporate infrastructure (M. Orgoň)
- [58] Oravec, R.: Use of data transmission in mobile environments (R. Róka)
- [59] Páterek, J.: Date networks for the distribution of energy (R. Róka)
- [60] Písch, D.: Mobile communication security in Bluetooth network (D. Adamko)
- [61] Pjatrik, S.: Qualitative parameters of selected services IPTV from customer view (end-to-end) and their management in NGN environment (J. Londák)
- [62] Rozinaj, M.: Analyse of interference in wireless sensor networks (M. Rakús)
- [63] Ružička, R.: Measurement-based admission control (E. Chromý)
- [64] Sitek, A.: Carrier Ethernet technology in metropolitan area networks (R. Róka)
- [65] Slovák, M.: Utilization of Ethernet technology in optical access networks (R. Róka)
- [66] Sokírka, M.: Protocol TCP over wireless systems (R. Róka)
- [67] Straka, M.: Modelling of multimedia traffic in NGN (T. Balogh)
- [68] Száraz, G.: Implementation of VoIP technology (M. Talanda)

- [69] Szilvássy R.: The optimization of routing of the traffic of multipoint connections in telecommunication networks (L. Krulíková)
- [70] Ševcov, M.: Methods to ensure QoS in MPLS networks (M. Medvecký)
- [71] Ševčík, J.: Application, implementation and measurement of metallic homogenous symmetric line model function (J. Čuchran)
- [72] Škulavík, J.: Security analysis of Hitag2 cards (M. Orgoň)
- [73] Šroba, L.: Decoding of turbo codes by using iterative graph algorithms (T. Páleník)
- [74] Štajger, P.: Distributed algorithms for wireless sensor networks (P. Farkaš)
- [75] Štefančík, J.: Impact of synchronization errors on the transmission error rate in OFDM systems (T. Páleník)
- [76] Tichý, M.: Voice navigation in the library system (G. Rozinaj)
- [77] Turiak, F.: The possibility of realization rapid turbo decoder (P. Farkaš)
- [78] Vacho, M.: Interference between wireless sensor networks and other communication technologies (T. Páleník)
- [79] Vajíček, M.: Use of Ethernet technology in NGN transport networks (M. Medvecký)
- [80] Vančo, M.: Pronunciation of numerals in speech synthesis (G. Rozinaj)
- [81] Varga, M.: Parametrization of signals in automatic speech recognition process (J. Kačur)
- [82] Vasek, M.: Phonetic transcript of text for speech synthesis (G. Rozinaj)
- [83] Vašek, M.: Masking errors in photorealistic pictures (J. Polec)
- [84] Vincek, P.: Multiplexion technology WDM in optical transport networks (R. Róka)
- [85] Vozár, M.: VoIP technology and their applications in an environment of non-public networks (M. Talanda)
- [86] Weber, A.: Erlangs formulas and their utilization in asynchronous networks (E. Chromý)
- [87] Weber, M.: Admission control methods in NGN networks (E. Chromý)
- [88] Zámečnicková, M.: Educational model for ARQ methods (K. Kotuliaková)
- [89] Zeman, M.: Technologies in LTE and comparison of OFDM and SC-FDMA (T. Páleník)
- [5] Rybárová, R.: Learning Methods in Speech Synthesis (G. Rozinaj)
- [6] Vojtko, J.: Adaptation of acoustic model training practise for automatic speech recognition system for Slovak language (G. Rozinaj)
- [7] Treiber, A.: Design and Benchmarking of Acoustic Feedback in Human Machine Interface (G. Rozinaj)
- [8] Yassine, A.: One Hybrid ARQ for Broadcasting or Multicasting in Wireless Erasure Channel (P. Farkaš)

VII. OTHER ACTIVITIES

VII. 1 Conferences and Seminars Organized by the Department

- ELOSYS 2011, October 2011 Trenčín, Slovak Republic, (cooperation with FEI STU Bratislava)
- 13th Conference of Doctoral Students - ELITECH 2011, May 2011, Bratislava, Slovak Republic, (cooperation with FEI STU Bratislava)
- 5th International Workshop on Speech and Signal Processing Redžúr 2011, May 2011 Bratislava, Slovak Republic, (cooperation with FEI STU Bratislava)
- Conference: World Telecommunication and Information Society Day 2011 (WTISD), May 2011, Bratislava, Slovak Republic, (cooperation with SES)
- International Conference - RTT 2011 – Research Telecommunication Technology 2011, September 2011, Brno, Czech Republic, (cooperation with FEEC BUT Brno)
- 34th International Conference on Telecommunications and Signal Processing - TSP 2011, July 2011, Budapest, Hungary, (cooperation with FEEC BUT Brno)

VIII. MEMBERSHIP IN INSTITUTIONS/ COMMITTEES

VIII. 1 Membership in National Institutions/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 2011: member of Committee MDPT SR a SES, Selection Candidate of Award of J. Murgaš for Year 2011
- 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

VI. 2 PhD. Theses

- [1] Ondrušová, S.: Approximation and interpolation of object boundaries for transform coding (J. Polec)
- [2] Osadský, M.: Object oriented image coding (J. Polec)
- [3] Páleník, A.: Modelling and synthesis of Slovak prosody (G. Rozinaj)
- [4] Poctavek, J.: Error modelling of data channels (J. Polec)

- I. Baroňák: Scientific Board of the Faculty, University of Žilina, Faculty of Electrical Engineering
- 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. Pavlovičová: Scientific Board of the Faculty, Slovak University of Technology in Bratislava, Faculty of Electrical Engineering and Information Technology
- J. Pavlovičová: Head of review committee for ESKAS Scholarship (Switzerland), SAIA 2012
- J. Pavlovičová: KEGA, projects reviewer
- J. Polec: VEGA, projects reviewer
- J. Polec: KEGA, projects reviewer
- J. Polec: Foundation of SPP, projects reviewer
- R. Róka: KEGA, projects 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 2011, October 2011, Trenčín, Slovak Republic, member of Program committee,
- I. Baroňák: International Conference - RTT 2011 – Research Telecommunication Technology 2011, Brno, Czech Republic, September 2011, member of Program Committee
- I. Baroňák: 4th International Conference - NIMT 2011 – New Information and Multimedia Technologies, Brno University of Technology, September 2011, Brno, member of scientific Committee
- I. Baroňák: ICETA 2011 – International Conference on Emerging Telecommunications Technologies and Applications, Košice, Slovak Republic, November 2011, member of Program Committee
- I. Baroňák: Journal: Elektrotechnika, member of Editorial Board
- 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: 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 2011 (WTISD), May 2011, Bratislava, Slovak Republic, (cooperation with SES), chairman of Program committee
- M. Beniák: Workshop Redžúr 2011, reviewer
- P. Farkaš: IEEE Communications Letters and IEEE Transactions on Signal Processing, reviewer
- P. Farkaš: SDR 2011 – WinnComm, Software Defined Radio –Wireless Innovation Conference and Product Exposition 29. 11. – 2. 12. 2011, Washington, DC, USA, TPC member
- P. Farkaš: Teneth Annual Wireless Telecommunications Symposium, WTS 2011, April 13-15, 2011, New York City, New York, USA, TPC member
- P. Farkaš: European Wireless Conference, EW 2011, 27. 4. – 29. 4. 2011, Vienna, Austria, TPC member,
- P. Farkaš: 5th International Conference on Signal Processing and Communication Systems, ICSPCS 2011, 12. 12. -14. 12. 2011, Honolulu, Hawaii, USA, TPC member
- P. Farkaš: Twentieth International Electrotechnical and Computer Science Conference. Portorož, Slovenia, September 19-21, 2011, TPC member
- P. Farkaš: The 4th IET International Conference on Wireless, Mobile & Multimedia Networks, ICWMMN 2011, 27. - 30. 11. 2011 Beijing, China, TPC member
- P. Farkaš: Elsevier Journal: Computers & Electrical Engineering, reviewer
- P. Farkaš: Journal of Electrical Engineering, reviewer
- P. Farkaš: GAČR (Grant Agency of Czech Republic), project reviewer
- P. Farkaš: Radioengineering, reviewer
- P. Farkaš: Slaboproudý obzor, member of Editorial Board of the journal
- P. Farkaš: IEEE, IEEE Czechoslovakia Chapter- Executive Committee member
- P. Farkaš: URSI – Official Member in Scientific Commission C - Signals and Systems
- P. Farkaš: European Polytechnical University, Pernik, Bulgaria, Scientific Board member
- E. Chromý: Conference KTTO 2011, Szczyrk, Poland, member of Scientific and Programme Committee and reviewer
- E. Chromý: Conference TSP 2011, Budapest, Hungary, reviewer
- E. Chromý: Journal Advances in Electrical and Electronic Engineering, member of International Scientific Editorial Board and reviewer
- E. Chromý: Electrotechnics magazine - Elektrotechnika, reviewer
- E. Chromý: Conference: World Telecommunication and Information Society Day 2011 (WTISD), May 2011, Bratislava, Slovak Republic, (cooperation with SES), member of Program and Organizing Committee
- J. Kačur: EURASIP Journal on Advances in Signal Processing, reviewer
- J. Kačur: IJCNIS, reviewer
- J. Kačur: Workshop Redžúr 2011, member of Program and Reviewers Committees

- J. Kačur: Workshop Redžúr 2011, Session Chair
- M. Kavacký: Journal Advances in Electrical and Electronic Engineering, member of Scientific editorial board, reviewer
- A. Kondelová: Workshop Redžúr 2011, member of Organizing and Reviewers Committees
- K. Kotuliaková: Conference RTT2011, member of Program and Reviewers Committees
- K. Kotuliaková: Journal of Electrical Engineering, reviewer
- K. Kotuliaková: Conference TSP2011, reviewer
- J. Kőrösi: Workshop Redžúr 2011, reviewer
- P. Kubizniak: IEEE
- J. Londák: Workshop Redžúr 2011, member of Organizing and Reviewers Committees
- M. Medvecký: Journal - Advanced in Electrical and Electronic Engineering, reviewer
- M. Medvecký: Conference TSP2011, Budapest, Hungary, Scientific Programme Committee member
- M. Medvecký: Journal - Advanced in Electrical and Electronic Engineering, reviewer
- M. Medvecký: Conference TSP2011, Budapest, Hungary, Scientific Programme Committee member
- M. Medvecký: Conference TSP2011, Budapest, Hungary, reviewer
- M. Medvecký: Conference ELOSYS 2011, chairman of the section
- M. Medvecký: CTF in Slovak Republic
- M. Orgoň: Conference KTTO 2011, Ostrava, Czech Republic, reviewer
- M. Orgoň: Journal - Advances in Electrical and Electronic Engineering, 2011, Ostrava, Czech Republic, member of Editorial Board and reviewer
- M. Orgoň: Conference TSP, 2011, Vienna, Austria, reviewer
- M. Orgoň: Conference RTT, 2011, Ostrava, Czech Republic, reviewer
- M. Orgoň: Conference ELOSYS 2011, member of Program and Reviewers Committees
- M. Orgoň: Radioengineering, reviewer
- J. Pavlovičová: Journal of Electrical Engineering, reviewer
- J. Pavlovičová: ELITECH'11, member of Program and Review Committee
- J. Pavlovičová: Workshop Redžúr 2011, member of Program and Review Committee
- J. Pavlovičová: Workshop Redžúr 2011, Session Chair
- T. Páleník: IEEE
- T. Páleník: Conference TSP 2011, Budapest, Hungary, reviewer
- J. Polec: Radioengineering, member of Editorial Board and reviewer
- J. Polec: IEEE Transaction on Image Processing, reviewer
- J. Polec: GAČR (Grant Agency of Czech Republic), projects reviewer
- J. Polec: Acta Electrotechnica et Informatica, reviewer
- J. Polec: Workshop Redžúr 2011, reviewer
- M. Polaško: IEEE
- M. Rakús: IEEE
- 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 Research and Reviews in Computer Science, member of the Editorial Board and reviewer
- R. Róka: Advances in Electrical and Electronic Engineering Journal, reviewer
- R. Róka: Elektorevue Journal, reviewer
- R. Róka: Radioengineering Journal, reviewer
- R. Róka: Conference ELITECH 2011, member of the Programme and Review Committee, chairman of the session and reviewer
- R. Róka: CTF in Slovak Republic
- R. Róka: Conference ELOSYS 2011, chairman of the section
- R. Róka: Conference KTTO 2011, member of the Review Committee and reviewer
- R. Róka: Conference RTT 2011, member of the Programme Committee and reviewer
- R. Róka: Conference TSP 2011, member of the Scientific Programme Committee and reviewer
- G. Rozinaj: IET
- G. Rozinaj: Workshop Redžúr 2011, General Chair
- G. Rozinaj: Workshop Redžúr 2011, member of Program and Reviewers Committees
- G. Rozinaj: International Journal of Signal and Imaging Systems Engineering (JSISE) member of Editorial board
- G. Rozinaj: Conference IWSSIP 2011, 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 2011, member of Program and Reviewers Committees, invited lecturer, chairman of the session
- R. Rybárová: Workshop Redžúr 2011, reviewer
- J. Tóth: Workshop Redžúr 2011, member of Organizing and Reviewers Committees
- M. Turi Nagy: Workshop Redžúr 2011, member of Organizing, Program and Reviewers Committees
- R. Vargic: Workshop Redžúr 2011, reviewer
- R. Vargic: Radioengineering, reviewer
- R. Vargic: Elektorevue, reviewer
- R. Vargic: EURASIP Journal on Advances in Signal Processing, reviewer
- R. Vargic: Konferencia Radioelektronika 2011, Brno, reviewer
- R. Vargic: Konferencia TSP 2011, Budapest, reviewer
- J. Vojtko: Workshop Redžúr 2011, reviewer
- J. Vojtko: Workshop Redžúr 2011, Organizing Committee Chair

IX. PUBLICATIONS

IX. 1 Journals

- [1] BAN, J. - FÉDER, M. - ORAVEC, M. - PAVLOVIČOVÁ, J.: Non-Conventional Approaches to Feature Extraction for Face Recognition. In: Acta Polytechnica Hungarica. - ISSN 1785-8860. - Vol. 8, No. 4 (2011), p. 75-90. (in English)
- [2] BENIAK, M. - PAVLOVIČOVÁ, J. - ORAVEC, M.: 3D Chrominance Histogram Based Face Localisation. In: International Journal of Signal and Imaging Systems Engineering. - ISSN 1748-0701 (on-line). - ISSN 1748-0698 (print). - Vol. 4, Iss. 1 (2011), p. 3-12. (in English)
- [3] BEŠŤÁK, I. - ORGOŇ, M.: Accelerating the Construction of Wide Band Access Network in Slovakia. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 17, No. 6 (2011), 12-13, 33. (in Slovak)
- [4] CHOVAN, R. - BAROŇÁK, I.: Application IMS in Region. In: Posterus. - ISSN 1338-0087. - December (2011), <http://www.posterus.sk/?p=12264>. (in Slovak)
- [5] CHROMÝ, E. - MIŠUTH, T. - KAVACKÝ, M.: Erlang C Formula and Its Use in the Call Centers. In: Advances in Electrical and Electronic Engineering. - ISSN 1804-3119. - Vol. 9, No. 1 (2011), p. 7-13. (in English)
- [6] CHROMÝ, E. - DIEŽKA, J. - KAVACKÝ, M. - VOZŇÁK, M.: Markov Models and Their Use for Calculations of Important Traffic Parameters of Contact Center. In: WSEAS Transactions on Communications. - ISSN 1109-2742. - Vol. 10, Iss. 11 (2011), p. 341-350. (in English)
- [7] CHROMÝ, E. - ŠURÁŇ, J. - KOVÁČIK, M. - KAVACKÝ, M.: Usage of Erlang Formula in IP Networks. In: Communications and Network. - ISSN 1949-2421. - Vol. 3, No. 3 (2011), p. 161-167. (in English)
- [8] FARKAŠ, P. - PÁLENÍK, T.: Exploiting Cyclic Prefix Redundancy in OFDM to Improve Performance of Tanner: Graph Based Decoding. In: Analog Integrated Circuits and Signal Processing. - ISSN 0925-1030. - Vol. 69, Iss. 2-3 (2011), p. 143-152. (in English)
- [9] HERIBANOVÁ, P. - POLEC, J. - ONDRUŠOVÁ, S. - HOSŤOVECKÝ, M.: Intelligibility of Cued Speech on Video. In: World Academy of Science, Engineering and Technology. - ISSN 2010-376X. - Iss. 79 (2011), p. 492-496. (in English)
- [10] HERIBANOVÁ, P. - POLEC, J. - POCTAVEK, J. - MORDELOVÁ, A.: Intelligibility Threshold for Cued Speech in H.264 Video Conference. In: International Journal of Electronics and Telecommunications. - ISSN 0867-6747. - Vol. 57, Iss. 3 (2011), p. 383-387. (in English)
- [11] HIRNER, T. - FARKAŠ, P. - KRILE, S.: One Unequal Error Control Method for Telemetric Data Transmission. In: Journal of Electrical Engineering. - ISSN 1335-3632. - Vol. 62, No. 3 (2011), p. 158-163. (in English)
- [12] KEDRO, M. - CHROMÝ, E.: Markov Models in Contact Center Environment. In: Posterus. - ISSN 1338-0087. - November (2011), <http://www.posterus.sk/?p=11992>. (in Slovak)
- [13] KLÚČIK, S. - TARABA, J. - ORGOŇ, M.: IPTV In LAN Network Based on PLC Technology. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 17, No. 6 (2011), p. 14-15. (in Slovak)
- [14] KOVÁČ, A. - HALÁS, M. - ORGOŇ, M. - VOZŇÁK, M.: E-Model MOS Estimate Improvement through Jitter Buffer Packet Loss Modelling. In: Advances in Electrical and Electronic Engineering. - ISSN 1336-1376. - Vol. 9, No.5 (2011), p. 233-242. (in English)
- [15] KYRBASHOV, B. - BAROŇÁK, I. - KOVÁČIK, M. - JANATA, V.: Evaluation and Investigation of the Delay in VoIP Networks. In: Radioengineering. - ISSN 1210-2512. - Vol. 20, No. 2 (2011), p. 540-547. (in English)
- [16] MEDVECKÝ, M.: The Efficiency of Constraint Based Routing in MPLS Networks. In: Advances in Electrical and Electronic Engineering. - ISSN 1336-1376. - Vol. 9, No.5 (2011), p. 196-205. (in English)
- [17] MIŠUREC, J. - ORGOŇ, M.: Modeling of Power Line Transfer of Data for Computer Simulation. In: International Journal of Communication Networks and Information Security. - ISSN 2073-607X. - Vol. 3, No. 2 (2011), p. 104-111. (in English)
- [18] MLÝNEK, P. - MIŠUREC, J. - KOUTNÝ, M. - ORGOŇ, M.: Power Line Cable Transfer Function for Modelling of Power Line Communication System. In: Journal of Electrical Engineering. - ISSN 1335-3632. - Vol. 62, No. 2 (2011), p. 104-108. (in English)
- [19] ONDRUŠOVÁ, S. - POLEC, J. - OSADSKÝ, M. - POCTAVEK, J. - KOTULIAKOVÁ, K.: Hierarchical Transform Coding Based on Bézier Curves. In: Elektrovie. - ISSN 1213-1539. - Vol. 16, 1.4.2011 (2011), on-line. (in English)
- [20] ONDRUŠOVÁ, S. - POLEC, J.: Shape Error Concealment for Shape Independent Transform Coding. In: World Academy of Science, Engineering and Technology. - ISSN 2010-376X. - Iss. 79 (2011), p. 686-689. (in English)
- [21] ONDRUŠOVÁ, S. - POLEC, J.: Shape Independent Coding Using NURBS and Bézier Approximation and Interpolation Curves. In: International Journal of Electronics and Telecommunications. - ISSN 0867-6747. - Vol. 57, Iss. 4 (2011), p. 443-446. (in English)

- [22] ORGOŇ, M. - BEŠŤÁK, I.: Performance Measurement of Encryption Algorithms used in PLC Devices. In: International Journal of Research and Reviews in Computer Science. - ISSN 2079-2557. - Vol. 2, Iss. 5 (2011), p. 1218-1221. (in English)
- [23] POCTAVEK, J. - KOTULIAKOVÁ, K. - POLEC, J. - OSADSKÝ, M. - ONDRUŠOVÁ, S.: Throughput Parameter Optimization of Adaptive ARQ/HARQ Scheme. In: International Journal of Communication Networks and Information Security. - ISSN 2073-607X. - Vol. 3, No. 1 (2011), p. 89-95. (in English)
- [24] RÓKA, R.: Analysis of Modulation and Encoding Techniques Used in VDSL Technology. In: Slaboproudý obzor = Electronic horizont. - ISSN 0037-668X. - Vol. 67, No. 2 (2011), p. 12-15. (in Slovak)
- [25] RÓKA, R.: Mutual Coexistence of High-Speed Signals of the PLC/BPL Technology in the Access Network. In: Časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 17, No. 2 (2011), p. 31-33. (in Slovak)
- [26] RÓKA, R. - KHAN, S.: The Modeling of Hybrid Passive Optical Networks using the Network Configurator. In: International Journal of Research and Reviews in Computer Science. - ISSN 2079-2557. - Vol. 2, Special Issue (2011), p. 48-54. (in English)
- [27] SÚKENÍK, M. - BAROŇÁK, I.: Implementation Contact Center in SME. In: Posterus. - ISSN 1338-0087. - September (2011), <http://www.posterus.sk/?p=11537>. (in Slovak)
- [28] ŠUMNÝ, M. - TISOVSKÝ, A.: Security of IP Telephony. In: Posterus. - ISSN 1338-0087. - August (2011), <http://www.posterus.sk/?p=11322>. (in Slovak)
- [29] TREIBER, A. S. - GRUHLER, G. - ROZINAJ, G.: Improvement of Rotary Encoders in Human-Machine-Interfaces through Optimized Acoustic Feedback. In: Journal of the Acoustical Society of America. - ISSN 0001-4966. - Vol. 130, Iss. 2 (2011), EL57 - EL61. (in English)
- [30] WEBER, A. - CHROMÝ, E.: Erlang Formulas and their Use in Asynchronous Networks. In: Posterus. - ISSN 1338-0087. - October (2011), <http://www.posterus.sk/?p=11871>. (in Slovak)
- [31] ZBONČÁK, J. - KAVACKÝ, M.: Quality of Service and Quality of Experience. In: Posterus. - ISSN 1338-0087. - November (2011), <http://www.posterus.sk/?p=11948>. (in Slovak)
- [32] ZVADA, M. - BAROŇÁK, I.: Complex Networks. In: Posterus. - ISSN 1338-0087. - October (2011), <http://www.posterus.sk/?p=11759>. (in Slovak)

IX. 2 Conference Proceedings

- [1] BALOGH, T. - MEDVECKÝ, M.: Delay Analysis of PQ and WFQ Using Markovian Queuing Models. In: RTT 2011. Research in Telecommunication Technology: 13th International Conference. Techov, Czech Republic, September 7- 9, 2011. - Brno: University of Technology, 2011. - ISBN 978-80-214-4283-2. - p. 1-5. (in English)
- [2] BALOGH, T. - MEDVECKÝ, M.: Packet Prioritization in Qos Supporting. In: ELITECH'11: 13th Conference of Doctoral Students Faculty of Electrical Engineering and Information Technology. Bratislava, Slovak Republic, 17 May, 2011. - Bratislava: Nakladateľstvo STU, 2011. - ISBN 978-80-227-3500-1. - p. 1-5. (in English)
- [3] BALOGH, T. - MEDVECKÝ, M.: Performance Evaluation of WFQ, WF2Q+ And WRR Queue Scheduling Algorithms. In: Telecommunications and Signal Processing TSP-2011: 34th International Conference. Budapest, Hungary, 18.-20.8.2011. - Brno: VUT v Brně, 2011. - ISBN 978-1-14577-1409-2. - p. 136-140. (in English)
- [4] BAN, J. - FÉDER, M. - ORAVEC, M. - PAVLOVIČOVÁ, J.: Enhancement of One Sample per Person Face Recognition Accuracy by Training Sets Extension. In: Proceedings ELMAR-2011: 53rd International Symposium. 14-16 September 2011, Zadar, Croatia. - Zadar: Croatian Society Electronics in Marine, 2011. - ISBN 978-953-7044-12-1. - p. 25-28. (in English)
- [5] BAROŇÁK, I. - CHOVAN, R.: Application of the IMS Platform in Defined Region Infrastructure. In: New Information and Multimedia Technologies. NIMT - 2011: Brno, Czech Republic, 15.-16.9.2011. - Brno: Brno University of Technology, 2011. - ISBN 978-80-214-4241-2. - p. 52-59. (in English)
- [6] BAROŇÁK, I. - KAVACKÝ, M. - HALÁS, M. - CHROMÝ, E. - ORGOŇ, M. - KYRBASHOV, B.: Telecommunication IMS Platform. In: Association of Graduates and Friends of FEI STU - EF STU. Yearbook of the 2010. - Bratislava: STU in Bratislava, 2011. - p. 111-114. (in Slovak)
- [7] BEHÚL, T. - CHROMÝ, E.: Simulation of AC Methods. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 17, Special Issue: ELOSYS, Trenčín, 11.-14.10.2011, p. 34-37. (in Slovak)
- [8] BENIAK, M. - PAVLOVIČOVÁ, J.: Image Enhancement for Skin Color Detection in YCBCR Color Space. In: ELITECH'11: 13th Conference of Doctoral Students Faculty of Electrical Engineering and Information Technology. Bratislava, Slovak Republic, 17 May, 2011. - Bratislava: Nakladateľstvo STU, 2011. - ISBN 978-80-227-3500-1. - p. 1-4. (in English)

- [9] BENIAK, M. - PAVLOVIČOVÁ, J.: Luminance Component in Skin Color Detection. In: IWSSIP 2011: 18th International Conference on Systems, Signals & Image Processing. Sarajevo, Bosnia and Herzegovina, 16-18 June 2011. - IEEE eXpress, 2011. - ISBN 978-9958-9966-3-4. - CD-Rom. (in English)
- [10] BLAŠKO, R. - ORAVEC, M. - PAVLOVIČOVÁ, J. - HANÚSKOVÁ, V. - LEHOČKI, F.: Image Preprocessing for Diagnostics Support in Ophthalmology. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 17, Special Issue: ELOSYS, Trenčín, 11.-14.10.2011, p. 5-8. (in English)
- [11] BORIK, L. - KÖRÖSI, J.: Graphical User Interface of Speaker Dependent Detector for Slovak Phonemes. In: Proceedings Redžúr 2011: 5th International Workshop on Multimedia and Signal Processing. May 12, 2011, Bratislava, Slovak Republic. - Bratislava: Nakladateľstvo STU, 2011. - ISBN 978-80-227-3506-3. - p. 17-20. (in English)
- [12] BUNČÁK, M. - VARGIC, R.: Deterministic and Statistical Self-Similarity. In: Proceedings Redžúr 2011: 5th International Workshop on Multimedia and Signal Processing. May 12, 2011, Bratislava, Slovak Republic. - Bratislava: Nakladateľstvo STU, 2011. - ISBN 978-80-227-3506-3. - p. 65-69. (in English)
- [13] CHOVAN, R. - BAROŇÁK, I.: Application of the IMS Platform in Defined Region Infrastructure. In: ŠVOČ 2011: Proceedings of Selected Works. Bratislava, Slovak Republic, 4.5.2011. - Bratislava: FEI STU, 2011. - ISBN 978-80-227-3508-7. - p. 530-535. (in Slovak)
- [14] CHROMÝ, E. - WEBER, M. - KOVÁČIK, M.: Admission Control Methods in Next Generation Networks. In: RTT 2011. Research in Telecommunication Technology: 13th International Conference. Techov, Czech Republic, September 7- 9, 2011. - Brno: University of Technology, 2011. - ISBN 978-80-214-4283-2. - p. 135-138. (in English)
- [15] CHROMÝ, E. - KAVACKÝ, M. - DIEŽKA, J. - VOZŇÁK, M.: Markov Model M/M/m/oo in Contact Center Environment. In: Recent Researchers in Communications & IT. - WSEAS Press, 2011. - ISBN 978-1-61804-018-3. - p. 180-185. (in English)
- [16] CHROMÝ, E. - DIEŽKA, J. - KOVÁČIK, M. - KAVACKÝ, M.: Traffic Analysis in Contact Centers. In: Knowledge in Telecommunication Technologies and Optics 2011: Szczyrk, Poland, June 22-24, 2011. - Ostrava: Technical University of Ostrava, 2011. - ISBN 978-80-248-2399-7. - p. 19-24. (in English)
- [17] CIBULKOVÁ, L. - LEHOČKI, F. - HANÚSKOVÁ, V. - ORAVEC, M. - PAVLOVIČOVÁ, J.: Modelling of Clinical Processes in Health. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 17, Special Issue: ELOSYS, Trenčín, 11.-14.10.2011, p. 194-198. (in Slovak)
- [18] ČAMBAL, T. - KOTULIAKOVÁ, K.: Benefits of MIMO Systems in Wireless Communication. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 17, Special Issue: ELOSYS, Trenčín, 11.-14.10.2011, p. 38-41. (in Slovak)
- [19] ČERTÍK, F. - RÓKA, R.: Modulation Techniques in the Optical Transmission Media. In: ŠVOČ 2011: Proceedings of Selected Works. Bratislava, Slovak Republic, 4.5.2011. - Bratislava: FEI STU, 2011. - ISBN 978-80-227-3508-7. - p. 590-595. (in Slovak)
- [20] ČERTÍK, F. - RÓKA, R.: Modulation Techniques in the Optical Transmission Media. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 17, Special Issue: ELOSYS, Trenčín, 11.-14.10.2011, p. 42-45. (in Slovak)
- [21] ČUCHRAN, J. - RÓKA, R.: Negative Influences of Branch Lines on xDSL Technologies in the Access Networks. In: Knowledge in Telecommunication Technologies and Optics 2011: Szczyrk, Poland, June 22-24, 2011. - Ostrava: Technical University of Ostrava, 2011. - ISBN 978-80-248-2399-7. - p. 3-7. (in English)
- [22] DÁVIDEKOVÁ, M. - FARKAŠ, P.: Automatic System for Generation of One-Dimensional Orthogonal Complete Complementary Codes (OCCC). In: ŠVOČ 2011: Proceedings of Selected Works. Bratislava, Slovak Republic, 4.5.2011. - Bratislava: FEI STU, 2011. - ISBN 978-80-227-3508-7. - p. 596-599. (in Slovak)
- [23] DIEŽKA, J. - CHROMÝ, E.: Markov Model M/M/M/oo in Contact Center Environment. In: ŠVOČ 2011: Proceedings of Selected Works. Bratislava, Slovak Republic, 4.5.2011. - Bratislava: FEI STU, 2011. - ISBN 978-80-227-3508-7. - p. 684-689. (in Slovak)
- [24] DOBOŠ, J. - RAKÚS, M.: Search for Binary Error Control Block Codes Using Computer. In: ŠVOČ 2011: Proceedings of Selected Works. Bratislava, Slovak Republic, 4.5.2011. - Bratislava: FEI STU, 2011. - ISBN 978-80-227-3508-7. - p. 559-564. (in Slovak)
- [25] DROZD, M. - KYRBASHOV, B.: NGN Environment Creation for QoS Parameters Testing of Voice Communication. In: ŠVOČ 2011: Proceedings of Selected Works. Bratislava, Slovak Republic, 4.5.2011. - Bratislava: FEI STU, 2011. - ISBN 978-80-227-3508-7. - p. 659-664. (in Slovak)
- [26] DROZD, M. - KYRBASHOV, B. - KOVÁČIK, M. - HALÁS, M.: QoS Questions in the Open Source Communication Platform OpenIMSCore. In: RTT 2011. Research in Telecommunication Technology: 13th International Conference. Techov, Czech Republic, September 7- 9, 2011. - Brno: University of Technology, 2011. - ISBN 978-80-214-4283-2. - CD-Rom. (in English)

- [27] ĎURO, V. - BAROŇÁK, I.: Asterisk Utilization. In: New Information and Multimedia Technologies. NIMT - 2011: Brno, Czech Republic, 15.-16.9.2011. - Brno: Brno University of Technology, 2011. - ISBN 978-80-214-4241-2. - p. 41-47. (in English)
- [28] ĎURO, V. - BAROŇÁK, I.: Asterisk Utilization. In: ŠVOČ 2011: Proceedings of Selected Works. Bratislava, Slovak Republic, 4.5.2011. - Bratislava: FEI STU, 2011. - ISBN 978-80-227-3508-7. - p. 521-525. (in Slovak)
- [29] FAČKOVEC, Ľ. - ORGOŇ, M.: Security of Wireless Connection to the Corporate Network. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 17, Special Issue: ELOSYS, Trenčín, 11.-14.10.2011, p. 51-54. (in Slovak)
- [30] FEDOR, A. - MEDVECKÝ, M.: Evaluation of the CBQ Algorithm Considering QoS Support. In: ŠVOČ 2011: Proceedings of Selected Works. Bratislava, Slovak Republic, 4.5.2011. - Bratislava: FEI STU, 2011. - ISBN 978-80-227-3508-7. - p. 526-529. (in Slovak)
- [31] FRIESSE, L. - MEDVECKÝ, M.: Effect of Implicit and Explicit Routing on Network Performance in MPLS Networks. In: ELITECH'11: 13th Conference of Doctoral Students Faculty of Electrical Engineering and Information Technology. Bratislava, Slovak Republic, 17 May, 2011. - Bratislava: Nakladateľstvo STU, 2011. - ISBN 978-80-227-3500-1. - p. 1-6. (in English)
- [32] GRAMBLIČKA, P. - VARGIC, R.: Detection and Identification of Tones in Audio Signals Using „Double Spectrogram“ Method. In: ŠVOČ 2011: Proceedings of Selected Works. Bratislava, Slovak Republic, 4.5.2011. - Bratislava: FEI STU, 2011. - ISBN 978-80-227-3508-7. - p. 619-624. (in Slovak)
- [33] GRAMBLIČKA, P. - VARGIC, R.: Usage of Method „Double Spectrogram“ for Detection and Identification of Tones in Acoustic Signals. In: Proceedings Redžúr 2011: 5th International Workshop on Multimedia and Signal Processing. May 12, 2011, Bratislava, Slovak Republic. - Bratislava: Nakladateľstvo STU, 2011. - ISBN 978-80-227-3506-3. - p. 69-72. (in English)
- [34] GREŇČÍK, J. - SAMUHELOVÁ, E.: Program to Learn Encoding and Decoding of Linear Block Codes. In: ŠVOČ 2011: Proceedings of Selected Works. Bratislava, Slovak Republic, 4.5.2011. - Bratislava: FEI STU, 2011. - ISBN 978-80-227-3508-7. - p. 600-605. (in Slovak)
- [35] HERIBANOVÁ, P. - POLEC, J. - POCTAVEK, J. - MORDELOVÁ, A.: Intelligibility of Cued Speech in Videoconference. In: Innovations Process in e-Learning, Bratislava, 10. March 2011. - Bratislava: Ekonóm, 2011. - ISBN 978-80-225-3112-2. - CD-Rom. (in English)
- [36] HERIBANOVÁ, P. - POLEC, J.: Intelligibility of Finger Alphabet in Videoconference Based on Logatom Recognizability. In: ELITECH'11: 13th Conference of Doctoral Students Faculty of Electrical Engineering and Information Technology. Bratislava, Slovak Republic, 17 May, 2011. - Bratislava: Nakladateľstvo STU, 2011. - ISBN 978-80-227-3500-1. - p. 1-4. (in English)
- [37] HERIBANOVÁ, P. - POLEC, J. - MORDELOVÁ, A. - POCTAVEK, J.: Intelligibility of Single-Handed and Double-Handed Finger Alphabets. In: Proceedings Redžúr 2011: 5th International Workshop on Multimedia and Signal Processing. May 12, 2011, Bratislava, Slovak Republic. - Bratislava: Nakladateľstvo STU, 2011. - ISBN 978-80-227-3506-3. - p. 37-40. (in English)
- [38] HERIBANOVÁ, P. - POLEC, J. - POCTAVEK, J. - MORDELOVÁ, A.: Intelligibility Threshold for Cued Speech in H.264 Video. In: SPS 2011 Proceedings: Signal Processing Symposium. Jachranka Village, Poland, June 8-10, 2011. - Warsaw: Institute of Electronic Systems, 2011. - CD-Rom. (in English)
- [39] HERIBANOVÁ, P. - POLEC, J. - KRULIKOVSKÁ, L.: Logatom Intelligibility of Single-Handed Finger Alphabet. In: Proceedings ELMAR-2011: 53rd International Symposium ELMAR-2011, 14-16 September 2011, Zadar, Croatia. - Zadar: Croatian Society Electronics in Marine, 2011. - ISBN 978-953-7044-12-1. - p. 71-74. (in English)
- [40] HERIBANOVÁ, P. - POLEC, J.: Logatom Recognizability of Finger Alphabet in Video. In: ICVSS 2011. Registration, Recognition and Reconstruction in Image and Video: International Computer Vision Summer School 2011. Sicily, 11-16 July, 2011. - University of Catania, 2011. - p. 36. (in English)
- [41] HIRNER, T. - POLEC, J.: Unequal Error Control for Image with ROI. In: Proceedings Redžúr 2011: 5th International Workshop on Multimedia and Signal Processing. May 12, 2011, Bratislava, Slovak Republic. - Bratislava: Nakladateľstvo STU, 2011. - ISBN 978-80-227-3506-3. - p. 29-32. (in English)
- [42] HIRNER, T. - POLEC, J.: Unequal Image Coding by ROI. In: ELITECH'11: 13th Conference of Doctoral Students Faculty of Electrical Engineering and Information Technology. Bratislava, Slovak Republic, 17 May, 2011. - Bratislava: Nakladateľstvo STU, 2011. - ISBN 978-80-227-3500-1. - p. 1-6. (in English)
- [43] KAČUR, J. - VARGIC, R. - MULINKA, P.: Speaker Identification by k-Nearest Neighbors. In: Proceedings IWSSIP-2011: 18th International Conference on Systems, Signal and Image Processing, 16-18 June 2011, Sarajevo, Bosnia and Herzegovina. - ISBN 978-9958-9966-0-1. - p. 295-298. (in English)
- [44] KASNÁR, M. - ORGOŇ, M.: Analysis and Evaluation of Risks by ISMS. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 17, Special Issue: ELOSYS, Trenčín, 11.-14.10.2011, p. 65-68. (in Slovak)

- [45] KAVACKÝ, M. - CHROMÝ, E. - ŠURÁŇ, J.: Evaluation of Erlang Models in IP Network. In: ICETA 2011: 9th IEEE International Conference on Emerging eLearning Technologies and Applications. Stará Lesná, Slovakia, October 27-28, 2011. - Piscataway: IEEE, 2011. - ISBN 978-1-4577-0050-7. - p. 109-113. (in English)
- [46] KEDRO, M. - CHROMÝ, E.: Markov Models in Contact Center Environment. In: ŠVOČ 2011: Proceedings of Selected Works. Bratislava, Slovak Republic, 4.5.2011. - Bratislava: FEI STU, 2011. - ISBN 978-80-227-3508-7. - p. 536-539. (in Slovak)
- [47] KENYERES, J. - KENYERES, M. - RUPP, M.: Experimental Node Failure Analysis in WSNs. In: IWSSIP 2011: 18th International Conference on Systems, Signals & Image Processing. Sarajevo, Bosnia and Herzegovina, 16-18 June 2011. - IEEE eXpress, 2011. - ISBN 978-9958-9966-3-4. - CD-Rom. (in English)
- [48] KENYERES, J. - KENYERES, M. - RUPP, M. - FARKAŠ, P.: WSN Implementation of the Average Consensus Algorithm. In: European Wireless 2011: 17th European Wireless Conference. Vienna, Austria, April, 27-29, 2011. - Berlin: VDE Verlag, 2011. - ISBN 978-3-8007-3343-9. - p. 139-146. (in English)
- [49] KLIŽAN, P. - KRULIKOVSKÁ, L.: Novel Method for Video Cut Detection. In: ŠVOČ 2011: Proceedings of Selected Works. Bratislava, Slovak Republic, 4.5.2011. - Bratislava: FEI STU, 2011. - ISBN 978-80-227-3508-7. - p. 625-629. (in English)
- [50] KONDELOVÁ, A. - TÓTH, J. - DROZD, I. - HORVÁTH, T. - SEMBER, M. - SERAFÍN, M. - ŠOKA, M.: Modular Speech Synthesizer. In: Proceedings Redžúr 2011: 5th International Workshop on Multimedia and Signal Processing. May 12, 2011, Bratislava, Slovak Republic. - Bratislava: Nakladateľstvo STU, 2011. - ISBN 978-80-227-3506-3. - p. 97-100. (in English)
- [51] KONDELOVÁ, A. - TÓTH, J. - GUZMICKÝ, P.: Simulation of Prosody Contours with Embedded Signal Generator. In: IWSSIP 2011: 18th International Conference on Systems, Signals & Image Processing. Sarajevo, Bosnia and Herzegovina, 16-18 June 2011. - IEEE eXpress, 2011. - ISBN 978-9958-9966-3-4. - CD-Rom. (in English)
- [52] KOVÁČ, A. - HALÁS, M. - ORGOŇ, M.: Determining Buffer Behaviour under Different Traffic Conditions as MMPP/D/1/K System. In: RTT 2011. Research in Telecommunication Technology: 13th International Conference. Techov, Czech Republic, September 7- 9, 2011. - Brno: University of Technology, 2011. - ISBN 978-80-214-4283-2. - p. 143-147. (in English)
- [53] KOŽIČKA, R. - TRNOVSKÝ, T. - KAČUR, J.: Comparison of MFCC and PLP Feature Extraction for Speech Recognition Purpose. In: Proceedings Redžúr 2011: 5th International Workshop on Multimedia and Signal Processing. May 12, 2011, Bratislava, Slovak Republic. - Bratislava: Nakladateľstvo STU, 2011. - ISBN 978-80-227-3506-3. - p. 13-16. (in English)
- [54] KRULIKOVSKÁ, L. - POLEC, J.: A Novel Technique of Frames' Comparison for Video Cut Detection. In: Proceedings Redžúr 2011: 5th International Workshop on Multimedia and Signal Processing. May 12, 2011, Bratislava, Slovak Republic. - Bratislava: Nakladateľstvo STU, 2011. - ISBN 978-80-227-3506-3. - p. 21-24. (in English)
- [55] KRULIKOVSKÁ, L. - POLEC, J.: GOP Structure Adaptable to Position of Shot Cuts. In: SPS 2011 Proceedings: Signal Processing Symposium. Jachranka Village, Poland, June 8-10, 2011. - Warsaw: Institute of Electronic Systems, 2011. - CD-Rom. (in English)
- [56] KRULIKOVSKÁ, L. - POLEC, J.: Novel Method of Adaptive GOP Structure. In: ELITECH'11: 13th Conference of Doctoral Students Faculty of Electrical Engineering and Information Technology. Bratislava, Slovak Republic, 17 May, 2011. - Bratislava: Nakladateľstvo STU, 2011. - ISBN 978-80-227-3500-1. - p. 1-5. (in English)
- [57] KRULIKOVSKÁ, L.: Novel Method of Adaptive GOP Structure Based on the Positions of Video Cuts. In: Proceedings ELMAR-2011: 53rd International Symposium, 14-16 September 2011, Zadar, Croatia. - Zadar: Croatian Society Electronics in Marine, 2011. - ISBN 978-953-7044-12-1. - p. 67-70. (in English)
- [58] KUBIZNIAK, P.: Upgrading the Optical Access Network Architectures. In: Knowledge in Telecommunication Technologies and Optics 2011: Szczyrk, Poland, June 22-24, 2011. - Ostrava: Technical University of Ostrava, 2011. - ISBN 978-80-248-2399-7. - p. 90-94. (in English)
- [59] KULÍK, J.: Current and Future Trends in Cooperation in Cellular Networks. In: RTT 2011. Research in Telecommunication Technology: 13th International Conference. Techov, Czech Republic, September 7- 9, 2011. - Brno: University of Technology, 2011. - ISBN 978-80-214-4283-2. - p. II 18-22. (in English)
- [60] KURIMAI, M. - CHROMÝ, E.: Admission Control Methods in IP Networks. In: ŠVOČ 2011: Proceedings of Selected Works. Bratislava, Slovak Republic, 4.5.2011. - Bratislava: FEI STU, 2011. - ISBN 978-80-227-3508-7. - p. 690-694. (in Slovak)
- [61] KUŠNIERIK, M. - KOTULIAKOVÁ, K.: Throughput Analysis of HARQ Schemes Using Convolution Coding. In: ŠVOČ 2011: Proceedings of Selected Works. Bratislava, Slovak Republic, 4.5.2011. - Bratislava: FEI STU, 2011. - ISBN 978-80-227-3508-7. - p. 565-570. (in Slovak)

- [62] LONDÁK, J. - PODHRADSKÝ, P.: Selected Security Threats in VOIP Architecture. In: Proceedings Redžúr 2011: 5th International Workshop on Multimedia and Signal Processing. May 12, 2011, Bratislava, Slovak Republic. - Bratislava: Nakladateľstvo STU, 2011. - ISBN 978-80-227-3506-3. - p. 81-84. (in English)
- [63] LUKNÁROVÁ, D. - MEDVECKÝ, M. - BALOGH, T.: Efficiency of Neural Network Based QMM Algorithms. In: RTT 2011. Research in Telecommunication Technology: 13th International Conference. Techov, Czech Republic, September 7-9, 2011. - Brno: University of Technology, 2011. - ISBN 978-80-214-4283-2. - p. 148-151. (in English)
- [64] ĽUPTÁK, A. - ORGOŇ, M.: The Web Portal Implementation of the Slovak Language Department of Comenius University Bratislava. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 17, Special Issue: ELOSYS, Trenčín, 11.-14.10.2011, p. 69-73. (in Slovak)
- [65] MAKOVÍNYI, P. - RYBÁROVÁ, R.: Speech Synthesis in Mobile Phone Using Compressed Parametric Database. In: ŠVOČ 2011: Proceedings of Selected Works. Bratislava, Slovak Republic, 4.5.2011. - Bratislava: FEI STU, 2011. - ISBN 978-80-227-3508-7. - p. 630-634. (in Slovak)
- [66] MARDIAK, M. - POLEC, J.: Improving Video Quality Evaluation by Mutual Information. In: Proceedings Redžúr 2011: 5th International Workshop on Multimedia and Signal Processing. May 12, 2011, Bratislava, Slovak Republic. - Bratislava: Nakladateľstvo STU, 2011. - ISBN 978-80-227-3506-3. - p. 9-12. (in English)
- [67] MARDIAK, M. - POLEC, J.: Novel Approach in Objective Video Quality Measuring. In: ELITECH'11: 13th Conference of Doctoral Students Faculty of Electrical Engineering and Information Technology. Bratislava, Slovak Republic, 17 May, 2011. - Bratislava: Nakladateľstvo STU, 2011. - ISBN 978-80-227-3500-1. - p. 1-6. (in English)
- [68] MARDIAK, M. - POLEC, J.: Objective Video Quality Metric Based on Mutual Information and Human Visual System. In: SPS 2011 Proceedings: Signal Processing Symposium. Jachranka Village, Poland, June 8-10, 2011. - Warsaw: Institute of Electronic Systems, 2011. - CD-Rom. (in English)
- [69] MARTINOVIČ, M. - KOTULIAKOVÁ, K.: Simulation of Real Traffic in HSDPA Technology. In: ŠVOČ 2011: Proceedings of Selected Works. Bratislava, Slovak Republic, 4.5.2011. - Bratislava: FEI STU, 2011. - ISBN 978-80-227-3508-7. - p. 606-611. (in Slovak)
- [70] MÁTUŠ, T. - KRULIKOVSKÁ, L. - POLEC, J.: Shot Boundary Detection Based on H.264 Compressed Domain. In: Proceedings Redžúr 2011: 5th International Workshop on Multimedia and Signal Processing. May 12, 2011, Bratislava, Slovak Republic. - Bratislava: Nakladateľstvo STU, 2011. - ISBN 978-80-227-3506-3. - p. 53-56. (in English)
- [71] MÁTUŠ, T. - POLEC, J.: Video Abrupt Cut Detection in H.264 Compressed Domain. In: ŠVOČ 2011: Proceedings of Selected Works. Bratislava, Slovak Republic, 4.5.2011. - Bratislava: FEI STU, 2011. - ISBN 978-80-227-3508-7. - p. 571-574. (in English)
- [72] MELUCH, M. - ORGOŇ, M.: The Implementation of Information Security Management System SMIB. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 17, Special Issue: ELOSYS, Trenčín, 11.-14.10.2011, p. 74-77. (in Slovak)
- [73] MINÁRIK, I. - TURI NAGY, M.: Application of Psychoacoustic Principles on a Sinusoidal Model. In: Proceedings Redžúr 2011: 5th International Workshop on Multimedia and Signal Processing. May 12, 2011, Bratislava, Slovak Republic. - Bratislava: Nakladateľstvo STU, 2011. - ISBN 978-80-227-3506-3. - p. 57-60. (in English)
- [74] MIŠUREC, J. - MRÁKAVA, P. - ADAMKO, D.: Interference in Power Lines and its Impact on Narrow-Band Systems PLC. In: 6th International Conference on Teleinformatics - ICT 2011: Brno, Czech Republic, 2.-4. 2. 2011. - Brno: University of Technology, 2011. - ISBN 978-80-214-4231-3. - p. 89-92. (in English)
- [75] MIŠUREC, J. - ORGOŇ, M.: The Cascade Models for Simulation of PLC Communication. In: 6th International Conference on Teleinformatics - ICT 2011: Brno, Czech Republic, 2.-4. 2. 2011. - Brno: University of Technology, 2011. - ISBN 978-80-214-4231-3. - p. 53-56. (in English)
- [76] MIŠUTH, T. - BAROŇÁK, I.: Application of Erlang B Model in Modern VoIP Networks. In: Telecommunications and Signal Processing TSP-2011: 34th International Conference on Telecommunications and Signal Processing. Budapest, Hungary, 18.-20.8.2011. - Brno: VUT v Brně, 2011. - ISBN 978-1-14577-1409-2. - p. 235-239. (in English)
- [77] MIŠUTH, T. - BAROŇÁK, I.: Packet Loss Probability Estimation Using Erlang B Model in Modern VoIP Networks. In: ELECO 2011: 6th International Conference on Electrical and Electronics Engineering. Bursa, Turkey, 5.-8.11.2011. - Bursa: Chamber of Turkish Electrical Engineers, 2011. - ISBN 978-605-01-0204-8. - p. 239-243. (in English)
- [78] MLÝNEK, P. - KUBÍČEK, P. - RÓKA, R.: Secure Data Transmission from Short-Circuit Current Indicator. In: 6th International Conference on Teleinformatics - ICT 2011: Brno, Czech Republic, 2.-4. 2. 2011. - Brno: University of Technology, 2011. - ISBN 978-80-214-4231-3. - p. 8-11. (in English)

- [79] MOTAJ, M. - ORGOŇ, M.: The Use of Sensors for an Increasing Enterprise Security of Infrastructure. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 17, Special Issue: ELOSYS, Trenčín, 11.-14.10.2011, p. 78-81. (in Slovak)
- [80] MURÍN, J. - TARABA, J. - KOVÁČ, A. - ORGOŇ, M.: Data Connection Security in Mobile Environment. In: RTT 2011. Research in Telecommunication Technology: 13th International Conference. Techov, Czech Republic, September 7-9, 2011. - Brno: University of Technology, 2011. - ISBN 978-80-214-4283-2. - p. II-28-32. (in English)
- [81] OBERT, I. - ROZINAJ, G.: Development of Speech Databases. In: ŠVOČ 2011: Proceedings of Selected Works. Bratislava, Slovak Republic, 4.5.2011. - Bratislava: FEI STU, 2011. - ISBN 978-80-227-3508-7. - p. 635-640. (in Slovak)
- [82] OBERT, I. - ROZINAJ, G.: The Creation of a Speech Database for a Diphone Speech Synthesizer. In: Proceedings Redžúr 2011: 5th International Workshop on Multimedia and Signal Processing. May 12, 2011, Bratislava, Slovak Republic. - Bratislava: Nakladateľstvo STU, 2011. - ISBN 978-80-227-3506-3. - p. 73-76. (in English)
- [83] ONDRUŠOVÁ, S.: Error Concealment for Shape Transform Coding. In: Proceedings Redžúr 2011: 5th International Workshop on Multimedia and Signal Processing. May 12, 2011, Bratislava, Slovak Republic. - Bratislava: Nakladateľstvo STU, 2011. - ISBN 978-80-227-3506-3. - p. 33-36. (in English)
- [84] ONDRUŠOVÁ, S. - POLEC, J.: Shape Independent Coding Using NURBS and Bézier Approximation and Interpolation. In: SPS 2011: Signal Processing Symposium. Jachranka Village, Poland, June 8-10, 2011. - Warsaw: Institute of Electronic Systems, 2011. - CD-Rom. (in English)
- [85] ORAVKINOVÁ, M. - POLEC, J.: The Intelligibility of Finger Alphabet as the Criterion for Evaluation of Video Quality. In: ŠVOČ 2011: Proceedings of Selected Works. Bratislava, Slovak Republic, 4.5.2011. - Bratislava: FEI STU, 2011. - ISBN 978-80-227-3508-7. - p. 575-578. (in Slovak)
- [86] ORGOŇ, M. - BEŠŤÁK, I. - HALÁS, M. - KOVÁČ, A.: Finding the Best Encryption Algorithms for PLC Technology. In: Knowledge in Telecommunication Technologies and Optics 2011: Szczyrk, Poland, June 22-24, 2011. - Ostrava: Technical University of Ostrava, 2011. - ISBN 978-80-248-2399-7. - p. 152-156. (in English)
- [87] ORGOŇ, M. - ADAMKO, D. - TARABA, J.: Quality of Services in Videoconferencing by WI-FI. In: New Information and Multimedia Technologies. NIMT - 2011: Brno, Czech Republic, 15.-16.9.2011. - Brno: University of Technology, 2011. - ISBN 978-80-214-4241-2. - p. 27-30. (in English)
- [88] OSADSKÝ, M. - POLEC, J. - KOTULIAKOVÁ, K.: Shape Independent Transform Using Segmentation Based on Gabor Filters. In: RTT 2011. Research in Telecommunication Technology: 13th International Conference. Techov, Czech Republic, September 7-9, 2011. - Brno: University of Technology, 2011. - ISBN 978-80-214-4283-2. - p. 212-215. (in English)
- [89] PAVLOVIČ, J. - POLEC, J. - POCTAVEK, J. - KOTULIAKOVÁ, K.: Markov Chain Error Generator for Wireless Channel. In: Proceedings of SPIE. Vol. 8008: Photonics Applications in Astronomy, Communications, Industry, and High-Energy Physics Experiments 2011: Wilga, Poland, 23-29 May 2011. - Bellingham: SPIE, 2011. - ISBN 9780819485823. - Art. No 800814. (in English)
- [90] PAVLOVIČ, J. - POLEC, J. - POCTAVEK, J. - KOTULIAKOVÁ, K.: Markov Chain Error Generator for Wireless Channels. In: SPS 2011: Signal Processing Symposium. Jachranka Village, Poland, June 8-10, 2011. - Warsaw: Institute of Electronic Systems, 2011. - CD-Rom. (in English)
- [91] PETEJA, M. - KAČUR, J.: Speaker Identification. In: ŠVOČ 2011: Proceedings of Selected Works. Bratislava, Slovak Republic, 4.5.2011. - Bratislava: FEI STU, 2011. - ISBN 978-80-227-3508-7. - p. 641-645. (in Slovak)
- [92] PETEJA, M. - KAČUR, J.: Speaker Identification. In: Proceedings Redžúr 2011: 5th International Workshop on Multimedia and Signal Processing. May 12, 2011, Bratislava, Slovak Republic. - Bratislava: Nakladateľstvo STU, 2011. - ISBN 978-80-227-3506-3. - p. 5-8. (in English)
- [93] POCTAVEK, J. - POLEC, J. - KOTULIAKOVÁ, K.: Adaptive ARQ/HARQ for H.264 Video Streaming Over Wireless Channels with Variable Error Rate. In: Proceedings Redžúr 2011: 5th International Workshop on Multimedia and Signal Processing. May 12, 2011, Bratislava, Slovak Republic. - Bratislava: Nakladateľstvo STU, 2011. - ISBN 978-80-227-3506-3. - p. 45-48. (in English)
- [94] PODHRADSKÝ, P. - KADLIC, R. - LONDÁK, J. - LÁBAJ, O. - LEVICKÝ, D.: Enhanced ICT in Virtual Training and m-Learning. In: Proceedings ELMAR-2011: 53rd International Symposium. 14-16 September 2011, Zadar, Croatia. - Zadar: Croatian Society Electronics in Marine, 2011. - ISBN 978-953-7044-12-1. - p. 281-284. (in English)
- [95] POLEC, J. - ONDRUŠOVÁ, S. - KRULIKOVSKÁ, L.: Model-Based Face Image Coding Using Face Prototyping and H.264. In: Proceedings ELMAR-2011: 53rd International Symposium. 14-16 September 2011, Zadar, Croatia. - Zadar: Croatian Society Electronics in Marine, 2011. - ISBN 978-953-7044-12-1. - p. 33-36. (in English)

- [96] POLINOVÁ, L. - BAROŇÁK, I.: Contemporary Contact Center. In: ŠVOČ 2011: Proceedings of Selected Works. Bratislava, Slovak Republic, 4.5.2011. - Bratislava: FEI STU, 2011. - ISBN 978-80-227-3508-7. - p. 695-700. (in Slovak)
- [97] POLINOVÁ, L. - BAROŇÁK, I.: The Present Contact Centers. In: New Information and Multimedia Technologies. NIMT - 2011: Brno, Czech Republic, 15.-16.9.2011. - Brno: University of Technology, 2011. - ISBN 978-80-214-4241-2. - p. 31-35. (in English)
- [98] POSOLDOVÁ, A. - BAROŇÁK, I.: Admission Control for WiMAX. In: ŠVOČ 2011: Proceedings of Selected Works. Bratislava, Slovak Republic, 4.5.2011. - Bratislava: FEI STU, 2011. - ISBN 978-80-227-3508-7. - p. 665-669. (in Slovak)
- [99] POSOLDOVÁ, A. - BAROŇÁK, I.: Admission Control for WiMAX Technology. In: New Information and Multimedia Technologies. NIMT - 2011: Brno, Czech Republic, 15.-16.9.2011. - Brno: University of Technology, 2011. - ISBN 978-80-214-4241-2. - p. 19-22. (in English)
- [100] RALBOVSKÝ, A. - VARGIC, R.: Application Geoalarm for Android. In: ŠVOČ 2011: Proceedings of Selected Works. Bratislava, Slovak Republic, 4.5.2011. - Bratislava: FEI STU, 2011. - ISBN 978-80-227-3508-7. - p. 579-582. (in Slovak)
- [101] RÓKA, R.: The Analysis of Modulation and Coding Techniques in the Closed Environment of the VDSL Technology. In: RTT 2011. Research in Telecommunication Technology: 13th International Conference. Techov, Czech Republic, September 7- 9, 2011. - Brno: University of Technology. - ISBN 978-80-214-4283-2. - p. II 44-47. (in English)
- [102] RÓKA, R.: The Effective Bandwidth Utilization in the Hybrid PON Networks. In: Knowledge in Telecommunication Technologies and Optics 2011: Szczyrk, Poland, June 22-24, 2011. - Ostrava: Technical University of Ostrava, 2011. - ISBN 978-80-248-2399-7. - p. 71-74. (in English)
- [103] RÓKA, R.: The Extension of the HPON Network Configurator at Designing of NG-PON Networks. In: Telecommunications and Signal Processing TSP-2011: 34th International Conference on Telecommunications and Signal Processing. Budapest, Hungary, 18.-20.8.2011. - Brno: VUT v Brně, 2011. - ISBN 978-1-14577-1409-2. - p. 79-84. (in English)
- [104] ROZINAJ, G. - RYBÁROVÁ, R.: Learning Methods for Speech Synthesizer. In: IWSSIP 2011: 18th International Conference on Systems, Signals & Image Processing. Sarajevo, Bosnia and Herzegovina, 16-18 June 2011. - IEEE eXpress, 2011. - ISBN 978-9958-9966-3-4. - p. 325-328. (in English)
- [105] ROZINAJ, G. - GRENČÍK, R. - HAJDU, L. - HLAVATÝ, M. - HLUZIN, M. - HOLLÝ, P.: SIP Protocol Based Intelligent Speech Communication Interface. In: Proceedings Redžúr 2011: 5th International Workshop on Multimedia and Signal Processing. May 12, 2011, Bratislava, Slovak Republic. - Bratislava: Nakladateľstvo STU, 2011. - ISBN 978-80-227-3506-3. - p. 61-64. (in English)
- [106] SCHREIBEROVÁ, E. - BAROŇÁK, I.: Delay in VoIP and QoS Tools. In: New Information and Multimedia Technologies. NIMT - 2011: Brno, Czech Republic, 15.-16.9.2011. - Brno: University of Technology, 2011. - ISBN 978-80-214-4241-2. - p. 23-26. (in English)
- [107] SCHREIBEROVÁ, E. - BAROŇÁK, I.: VOIP Delay in IPV4 and IPV6. In: ŠVOČ 2011: Proceedings of Selected Works. Bratislava, Slovak Republic, 4.5.2011. - Bratislava: FEI STU, 2011. - ISBN 978-80-227-3508-7. - p. 670-673. (in Slovak)
- [108] SPIŠÁK, M. - ORGOŇ, M.: A Proposal to Ensure Access for Wireless Network WiMAX. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 17, Special Issue: ELOSYS, Trenčín, 11.-14.10.2011, p. 82-86. (in Slovak)
- [109] STRAČÁR, P. - SLAMKA, M. - ORAVEC, M. - PAVLOVIČOVÁ, J.: Kernel and Linear Methods for Biometric Face Recognition. In: IN-TECH 2011: Proceedings of International Conference on Innovative Technologies. Bratislava, Slovak Republic, 1.9.-3.9.2011. - Jaroměř: Jan Kudláček, 2011. - ISBN 978-80-904502-6-4. - p. 524-527. (in English)
- [110] SÚKENÍK, M. - BAROŇÁK, I.: Implementation of Contact Center in SME. In: ŠVOČ 2011: Proceedings of Selected Works. Bratislava, Slovak Republic, 4.5.2011. - Bratislava: FEI STU, 2011. - ISBN 978-80-227-3508-7. - p. 701-706. (in Slovak)
- [111] ŠKORPIL, V. - ZEDNÍČEK, P. - CHROMÝ, E.: Design of Configuration Vector. In: 6th International Conference on Teleinformatics - ICT 2011: Brno, Czech Republic, 2.-4. 2. 2011. - Brno: University of Technology, 2011. - ISBN 978-80-214-4231-3. - p. 142-145. (in English)
- [112] ŠROBA, L. - PÁLENÍK, T.: Decoding of Turbo Codes by Using Iterative Graph Algorithms. In: ŠVOČ 2011: Proceedings of Selected Works. Bratislava, Slovak Republic, 4.5.2011. - Bratislava: FEI STU, 2011. - ISBN 978-80-227-3508-7. - p. 612-617. (in Slovak)
- [113] ŠUMNÝ, M. - TISOVSKÝ, A.: Security of IP Telephony. In: ŠVOČ 2011: Proceedings of Selected Works. Bratislava, Slovak Republic, 4.5.2011. - Bratislava: FEI STU, 2011. - ISBN 978-80-227-3508-7. - p. 540-545. (in Slovak)

- [114] TALANDA, M. - VOZÁR, M.: VOIP Technology and their Use in an Environment of Non-Public Telephone Networks. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 17, Special Issue: ELOSYS, Trenčín, 11.-14.10.2011, p. 90-91. (in Slovak)
- [115] TALANDA, M. - SZÁRAZ, G. - KMEŤ, J.: VOIP Technology and their Use in the EU. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 17, Special Issue: ELOSYS, Trenčín, 11.-14.10.2011, p. 87-89. (in Slovak)
- [116] TARABA, J. - KLÚČIK, S. - ORGOŇ, M. - ADAMKO, D.: Cooperation Between UMA and Flash-OFDM Technologies. In: New Information and Multimedia Technologies. NIMT - 2011: Brno, Czech Republic, 15.-16.9.2011. - Brno: University of Technology, 2011. - ISBN 978-80-214-4241-2. - p. 36-40. (in English)
- [117] TISOVSKÝ, A. - KOVÁČ, A. - BAROŇÁK, I.: IPsec Performance Dependency from the Ingress Flow Rate. In: RTT 2011. Research in Telecommunication Technology: 13th International Conference. Techov, Czech Republic, September 7- 9, 2011. - Brno: University of Technology, 2011. - ISBN 978-80-214-4283-2. - p. 157-161. (in English)
- [118] TÓTH, J. - KONDELOVÁ, A. - ROZINAJ, G.: Natural Language Processing of Abbreviations. In: Proceedings ELMAR-2011: 53rd International Symposium. 14-16 September 2011, Zadar, Croatia. - Zadar: Croatian Society Electronics in Marine, 2011. - ISBN 978-953-7044-12-1. - p. 225-228. (in English)
- [119] TÓTH, J. - KONDELOVÁ, A. - GUZMICKÝ, P.: Simulation of Prosody Contours with Embedded Signal Generator. In: Proceedings Redžúr 2011: 5th International Workshop on Multimedia and Signal Processing. May 12, 2011, Bratislava, Slovak Republic. - Bratislava: Nakladateľstvo STU, 2011. - ISBN 978-80-227-3506-3. - p. 93-96. (in English)
- [120] TREIBER, A. - GRUHLER, G. - ROZINAJ, G.: Simulator and Synthesizer for Feedback Sounds of Rotary Control Elements. In: Proceedings Redžúr 2011: 5th International Workshop on Multimedia and Signal Processing. May 12, 2011, Bratislava, Slovak Republic. - Bratislava: Nakladateľstvo STU, 2011. - ISBN 978-80-227-3506-3. - p. 77-80. (in English)
- [121] ULICKÝ, I. - HALÁS, M.: VoIP and Collaboration with Traditional Telephone Networks. In: ŠVOČ 2011: Proceedings of Selected Works. Bratislava, Slovak Republic, 4.5.2011. - Bratislava: FEI STU, 2011. - ISBN 978-80-227-3508-7. - p. 546-551. (in Slovak)
- [122] VALKOVIČ, Š. - KOTULIAKOVÁ, K.: H-ARQ Methods in LTE Technology. In: ŠVOČ 2011: Proceedings of Selected Works. Bratislava, Slovak Republic, 4.5.2011. - Bratislava: FEI STU, 2011. - ISBN 978-80-227-3508-7. - p. 583-588. (in Slovak)
- [123] VANČO, M. - ROZINAJ, G.: Pronunciation of Numerals in Speech Synthesis. In: Proceedings Redžúr 2011: 5th International Workshop on Multimedia and Signal Processing. May 12, 2011, Bratislava, Slovak Republic. - Bratislava: Nakladateľstvo STU, 2011. - ISBN 978-80-227-3506-3. - p. 89-92. (in English)
- [124] VANČO, M. - ROZINAJ, G.: Pronunciation of Numerals for Speech Synthesis. In: ŠVOČ 2011: Proceedings of Selected Works. Bratislava, Slovak Republic, 4.5.2011. - Bratislava: FEI STU, 2011. - ISBN 978-80-227-3508-7. - p. 646-651. (in Slovak)
- [125] VARGIC, R. - BUNČÁK, M. - KAČUR, J.: On Self-Similarity in Service Triggering in NGN Networks Using Satellite Based Tolling Systems. In: Proceedings ELMAR-2011: 53rd International Symposium. 14-16 September 2011, Zadar, Croatia. - Zadar: Croatian Society Electronics in Marine, 2011. - ISBN 978-953-7044-12-1. - p. 183-186. (in English)
- [126] VASEK, M. - ROZINAJ, G.: Complex System for Text Phonetic Transcription. In: ŠVOČ 2011: Proceedings of Selected Works. Bratislava, Slovak Republic, 4.5.2011. - Bratislava: FEI STU, 2011. - ISBN 978-80-227-3508-7. - p. 652-657. (in Slovak)
- [127] VASEK, M. - ROZINAJ, G.: LTS Letter-Specific Tree Rules. In: Proceedings Redžúr 2011: 5th International Workshop on Multimedia and Signal Processing. May 12, 2011, Bratislava, Slovak Republic. - Bratislava: Nakladateľstvo STU, 2011. - ISBN 978-80-227-3506-3. - p. 85-88. (in English)
- [128] VASEK, M. - ROZINAJ, G. - RYBÁROVÁ, R.: Training Database Preparation for LTS Rules Training Process with Wagon. In: Proceedings ELMAR-2011: 53rd International Symposium. 14-16 September 2011, Zadar, Croatia. - Zadar: Croatian Society Electronics in Marine, 2011. - ISBN 978-953-7044-12-1. - p. 221-224. (in English)
- [129] VOJTKO, J. - PIDA, P.: Concept Design of Configurable GUI for Speaker Verification Software VeriSp. In: Proceedings Redžúr 2011: 5th International Workshop on Multimedia and Signal Processing. May 12, 2011, Bratislava, Slovak Republic. - Bratislava: Nakladateľstvo STU, 2011. - ISBN 978-80-227-3506-3. - p. 105-108. (in English)
- [130] VOTRUBA, A. - MEDVECKÝ, M.: Evaluation of the Effectiveness of QoS Provisioning in Ethernet Networks. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 17, Special Issue: ELOSYS, Trenčín, 11.-14.10.2011, p. 92-96. (in Slovak)

- [131] WEBER, A. - CHROMÝ, E.: Admission Control Methods in NGN Networks. In: ŠVOČ 2011: Proceedings of Selected Works. Bratislava, Slovak Republic, 4.5.2011. - Bratislava: FEI STU, 2011. - ISBN 978-80-227-3508-7. - p. 707-711. (in Slovak)
- [132] WEBER, M. - CHROMÝ, E.: Erlang Formulas and Their Use in Asynchronous Networks. In: ŠVOČ 2011: Proceedings of Selected Works. Bratislava, Slovak Republic, 4.5.2011. - Bratislava: FEI STU, 2011. - ISBN 978-80-227-3508-7. - p. 677-682. (in Slovak)
- [133] ZBONČÁK, J. - KAVACKÝ, M.: Quality of Service and Quality of Experience. In: ŠVOČ 2011: Proceedings of Selected Works. Bratislava, Slovak Republic, 4.5.2011. - Bratislava: FEI STU, 2011. - ISBN 978-80-227-3508-7. - p. 552-557. (in Slovak)
- [134] ZVADA, M. - BAROŇÁK, I.: Complex Networks (Introduction to the Topic). In: New Information and Multimedia Technologies. NIMT - 2011: Brno, Czech Republic, 15.-16.9.2011. - Brno: University of Technology, 2011. - ISBN 978-80-214-4241-2. - p. 60-63. (in English)
- [135] ZVADA, M. - BAROŇÁK, I.: Network Theory (Introduction to the Topic). In: ŠVOČ 2011: Proceedings of Selected Works. Bratislava, Slovak Republic, 4.5.2011. - Bratislava: FEI STU, 2011. - ISBN 978-80-227-3508-7. - p. 674-676. (in Slovak)

IX. 3 Books

- [1] RAKÚS, M. - RADZYNER, R.: Signals & Systems. Experiments with Emona TIMS: Vol. S1 - Fundamentals of Signals & Systems. - Emona Instruments Pty Ltd, 2011. - ISBN 978-1-921903-02-1. (in English)

IX. 4 Parts of Books

- [1] JÁNOŠ, P. - BAROŇÁK, I.: NGN-Alcatel Lucent. In: Ročenka 2010. Fórum pre komunikačné technológie. - Banská Bystrica: DALI-BB, s.r.o., 2011. - ISBN 978-80-89090-83-9. - p. 55-64. (in Slovak)
- [2] ONDREJKOVIČ, M. - BAROŇÁK, I.: Dejitter Buffer for VoIP. In: Ročenka 2010. Fórum pre komunikačné technológie. - Banská Bystrica: DALI-BB, s.r.o., 2011. - ISBN 978-80-89090-83-9. - p. 42-55. (in Slovak)
- [3] ORAVEC, M. - PAVLOVIČOVÁ, J. - MAZANEC, J. - OMELINA, Ľ. - FÉDER, M. - BAN, J.: Efficiency of Recognition Methods for Single Sample per Person Based Face Recognition. In: Reviews, Refinements and New Ideas in Face Recognition. - Rijeka: InTech, 2011. - ISBN 978-953-307-368-2. - p. 181-206. (in English)

IX. 5 Textbooks

- [1] ČUCHRAN, J. - RÓKA, R.: Telecommunication Transmission Lines. - Bratislava: STU in Bratislava, 2011. - 261 p. - ISBN 978-80-227-3482-0. (in Slovak)
- [2] KOTULIAKOVÁ, K. - MARTINOVIČ, M. - IGLARČÍK, M. - ČAMBAL, T. - JAVORČEK, Ľ. - MATUŠKA, P.: Modeling Methods for Communication Functions I. Error Control. - Bratislava: Vydavateľstvo STU, 2011. - CD-Rom [66 p.]. - ISBN 978-80-227-3507-0. (in Slovak)
- [3] KOTULIAKOVÁ, K. - TRNOVSKÝ, T. - KOŽIČKA, R. - ČÍŽ, P. - DODEK, D. - ČERTÍK, F. - DVORSKÝ, P.: Modeling Methods for Communication Functions II. Flow Control. - Bratislava: Vydavateľstvo STU, 2011. - CD-Rom [61 p.]. - ISBN 978-80-227-3521-6. (in Slovak)

**INSTITUTE
OF POWER
AND APPLIED
ELECTRICAL
ENGINEERING**

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.
Tel./Fax: +421-2-654 27 192 / E-mail: justin.murin@stuba.sk
Institute Secretary: Mgr. Miriam Szabová / Tel: +421-2-602 91 831
Fax: +421-2-654 25 826 / E-mail: miriam.szabova@stuba.sk

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.

Department of Electrical Power Engineering

Department chair: doc. Ing. Anton Beláň, PhD.
Tel.: +421-2-602 91 306 (249), E-mail: anton.belan@stuba.sk
Fax: +421-2-654 25 826

Department of Materials and Technologies

Department chair: doc. Ing. Jaroslav Lelák, PhD.
Tel./Fax: +421-2-654 25 822, E-mail: jaroslav.lelak@stuba.sk

Department of Applied Mechanics and Mechatronics

Department chair: prof. Ing. Justín Murín, DrSc.
Tel./Fax: +421-2-654 27 192, E-mail: justin.murin@stuba.sk

Department of Heavy Current Engineering

Department chair: doc. Ing. Ľudovít Hüttner, PhD.
Tel.: +421-2-602 91 471, E-mail: ludovit.huttner@stuba.sk
Fax: +421-2-654 20 415

I. STAFF

Professors:

prof. Ing. Justín Murín, DrSc., prof. Ing. Viktor Ferencey, CSc., prof. Ing. Ľudovít Klug, PhD., prof. Ing. František Janiček, PhD., prof. Ing. Alfonz Smola, PhD.

Associate Professors:

doc. Ing. Vladimír Kutíš, PhD., doc. Ing. Ľudovít Hüttner, PhD., doc. Ing. Ferdinand Valent, PhD., doc. Ing. Anna Grusková, PhD., doc. Ing. Jaroslav Leľák, PhD., doc. Ing. Vladimír Šály, PhD., doc. Ing. Miroslav Kopča, PhD., doc. Ing. Anton Beláň, PhD., doc. Ing. Ivan Darula, 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. Juraj Hrabovský, Ing. Tomáš Jediný

Technical Staff:

Katarína Beringerová, Katarína Kermietová, František Erdödy, Jana Jusková, Jozef Hubač, Anna Ferenčíková, Marián Kamendy, Ing. Miroslava Hošťáková, Katarína Knežiková, Mgr. Marta Liptáková, Eva Molotová, Zuzana Študentová PhD. Students Ing. Rastislav Belák, Ing. Viktor Kráľovič, 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 Ø 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
- Utilization 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
(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, L. 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) L. Hüttner

Electric Apparatus and Distribution Stations
(6th sem., 3-2h) L. Hüttner, F. Janíček

Electric Drives and Power Electronics
(1st year) L. Borba

Utilization of Electrical Energy
(2nd year) L. 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, L. 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

Diagnosics 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, L. Hüttner
Nonconventional Energy Sources (3rd sem., 2-2h)	I. Daruľa
Protections and Automatics (3rd sem., 2-2h)	F. Janiček
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

- 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. Janiček)
- 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. Janiček).
- Integration of Renewable Energy Laboratory into Pedagogical Process Using Multimedia Interactive Web Interface. KEGA 3/7248/09 Duration: 2009-2011 (completed). (F. Janiček).
- Centre of Competence in New Materials, Advanced Technologies and Power Engineering. Duration: 2011-2014 (started) ITMS 26240220073. (F. Janiček).
- National Centre for Research and Applications of Renewable Energy Sources. Duration: 2009-2011 (completed) ITMS 26240120016. (F. Janiček).
- Finalizing of the National Centre for Research and Applications of Renewable Energy Sources. Duration: 2010-2012 (solved) ITMS 26240120028. (F. Janiček).
- 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. Janiček).
- 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. Janiček).
- Applied research of optimization and control of power systems with smart grids (cooperation with Microstep-HDO). Duration: 2011-2014 (started) ITMS 26240220069. (F. Janiček).
- Transformers for the power stations based on renewable energy sources (cooperation with BEZ Transformátory, a. s.). Duration: 2011-2014 (started) ITMS 26240220066. (F. Janiček).
- Wind and solar power accumulation system with vanadium batteries (cooperation with Hydrogen Slovakia). Duration: 2011-2014 (started) ITMS 26220220133. (F. Janiček).
- Research and Technology Transfer Support of Decentralised Energy Sources at STU Using

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 OVČ/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

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
- Elkond 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 Čab, 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
- 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 Promt 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. Janiček 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 Master theses

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

- [1] Mojto, E.: Modelling 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 (L. 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

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.

- 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] Kulka, 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. 2 PhD. Theses

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

VII. OTHER ACTIVITIES

- Participation with the Stuba Green Team in 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 Rouse (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. Janiček)

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. Kutíš)
- 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 (L. 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 (L. Klug, L. Hüttner, F. Valent)
- Member of Common departmental committee of scientific department 5. 2. 11 Electromechanical Energy Conversion at University of Žilina (L. Hüttner)
- Member of IEE (L. 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. Janiček)
- Member of Academic Board of FEI STU in Bratislava (F. Janiček, V. Kutiš, J. Lelák)
- Member of Academic Board of STU in Bratislava (F. Janiček, J. Lelák)
- Member of Academic Board of Faculty of Mechatronics Trenčín University (F. Janiček)
- Member of Minister Economy Collegium (F. Janiček)
- Chairman of Council for State Programs of Ministry of Education SR and Ministry of Economy SR (F. Janiček)
- Member of Academic Board of Academy of the Armed Forces of General Milan Rastislav Štefánik in Liptovský Mikuláš (F. Janiček)
- Chairman of Expert Committee for Electrical Engineering, Information Technology, Automation and Control of Science and Technology Assistance Agency (F. Janiček)
- Member of Slovak Nuclear Forum (F. Janiček)
- Board of Trustees Chairman of Konfucius Institute at STU in Bratislava (F. Janiček)
- Chairman of Administer Group of SE-ENEL – STU (F. Janiček)
- Chairman of Slovak Committee of World Energy Council (F. Janiček)
- Director of Forensic Institute of Electrical and Computer Technology (A. Smola)
- Vice-president 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. Janiček)
- 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. Janiček, A. Smola)
- Member of Editorial Board of the Journal EE - Elektrotechnika a energetika (Journal of Electrical and Power Engineering), Bratislava (F. Janiček)
- Member of Editorial Board of the Journal of Electrical Engineering, Bratislava (F. Janiček)
- 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. Janiček, 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. Veruš)
- 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 (L. 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 Strany, 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] BUGÁR, M. - STAŇÁK, V. - FERENČEY, V.: Hybrid Powertrain Conceptual Design for Unmanned Ground Vehicle. In: Science & Military. - ISSN 1336-8885. - Vol. 6, No. 1 (2011), p. 13-19. (in English)
- [2] CHUDIVÁNI, J.: Brushless Motors. In: Posterus. - ISSN 1338-0087. - December (2011), <http://www.posterus.sk/?p=12326>. (in Slovak)
- [3] DRAHOŠ, P. - KUTIŠ, V. - DÚBRAVSKÝ, J. - SEDLÁR, T.: Design and Simulation of SMA Actuator. In: International Review of Automatic Control. - ISSN 1974-6059. - ISSN 1974-6067. - Vol. 4, No. 4 (2011), p. 588-593. (in English)
- [4] DUČ-ANCI, M.: Contribution to the Circuits of a Bridge Inverter and a Voltage Filter. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 17, No. 6 (2011), 24-25, 34. (in Slovak)
- [5] ĎURMAN, V. - LELÁK, J.: Radiation of Ageing of Flame Retardant XLPE Cables. In: ElectroScope. - ISSN 1802-4564. - No. 5: Diagnostika (2011), on-line. (in English)
- [6] FERENČEY, V. - STAŇÁK, V. - BUGÁR, M.: Failure Modes and Effect Analysis which is Applied to the Electric Powertrain System of Unmanned Ground Vehicle. In: Posterus. - ISSN 1338-0087. - July (2011), <http://www.posterus.sk/?p=10964>. (in English)
- [7] GAŠPAROVSKÝ, D. - MÁCHA, M.: Impact of Dirt on Optical Parts of Luminaires to the Change of their Photometric Parameters. In: Světlo. - ISSN 1212-0812. - Vol. 14, No. 2 (2011), p. 54-56. (in Slovak)
- [8] GLASA, M.: Computer Models of MOV Varistor Used in Overvoltage Protection. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 17, No. 5 (2011), p. 27-29. (in Slovak)
- [9] GLASA, M.: Protection Level Decrease of Degradated Varistors. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 17, No. 5 (2011), p. 30-35. (in Slovak)
- [10] GLASA, M.: The Credibility of Overvoltage Protection Computer Models. In: Posterus. - ISSN 1338-0087. - September (2011), <http://www.posterus.sk/?p=11578>. (in Slovak)
- [11] GLASA, M.: Varistor - Principle, Technology, Application. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 17, No. 6 (2011), p. 30-31. (in Slovak)
- [12] GOGA, V. - JEDINÝ, T. - KRÁLOVIČ, V. - MATEJ, J.: Virtual Mechatronic Model of Electronic Differential System - EDS. In: Strojnícky časopis = Journal of Mechanical Engineering. - ISSN 0039-2472. - Vol. 62, No. 3 (2011), p. 159-169. (in English)
- [13] JAKUBEC, J. - KUTIŠ, V.: Flow Simulations in Fuel Rod Bundle. In: Posterus. - ISSN 1338-0087. - December (2011), <http://www.posterus.sk/?p=12239>. (in English)
- [14] JANÍČEK, F. - DARUĽA, I. - KOVAL, P. - LIŠKA, M. - JANIGA, P.: The Influence of Wind Power Plants upon the Size of the Regulation Margin. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 17, No. 2 (2011), p. 4-5. (in Slovak)

- [15] KERTÉSZ, I.: Issues of Lightning Arresters Protection. In: Posterus. - ISSN 1338-0087. - October (2011), <http://www.posterus.sk/?p=11824>. (in Slovak)
- [16] KERTÉSZ, I.: Protection of Lighting Arresters by Circuits Breakers. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 17, No. 6 (2011), p. 32-33. (in Slovak)
- [17] KOPČA, M. - VÁRY, M.: Diagnostics of Dielectric and Insulation System and their Lifetime Forecast. In: Elektrotechnický magazín. - ISSN 1210-5422. - Vol. 21, No. 11-12 (2011), p. 58-60. (in Slovak)
- [18] KOPČA, M. - VÁRY, M. - DOSOUDIL, R. - ĎURMAN, V. - LELÁK, J.: Long-Term Stability of Plastic-Ferrite Composites Using Accelerated Thermal Ageing Method. In: Electrotehnica, Electronica, Automatica. - ISSN 1582-5175. - Vol. 59, No. 3 (2011), p. 7-10. (in English)
- [19] KRASŇAN, F. - JANÍK, M.: Emergency Lighting Measurement. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 17, No. 5 (2011), Suppl. Volt, p. 12-14. (in Slovak)
- [20] KRASŇAN, F.: Glare Calculation for LED Luminaires. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 17, No. 5 (2011), p. 14-15. (in Slovak)
- [21] KRASŇAN, F.: Luminaire Measurement in Accredited Testing Laboratory. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 17, No. 4 (2011), p. 28-31. (in Slovak)
- [22] KUSKO, M. - PERNÝ, M. - ŠÁLY, V.: Dark and under Illumination Electric PV Parameters of Modified Solar Cells. In: Elektroenergetika. - ISSN 1337-6756. - Vol. 4, No. 2 (2011), p. 5-7. (in English)
- [23] KUTIŠ, V. - MURÍN, J. - BELÁK, R. - PAULECH, J.: Beam Element with Spatial Variation of Material Properties for Multiphysics Analysis of Functionally Graded Materials. In: Computers and Structures. - ISSN 0045-7949. - Vol. 89 (2011), p. 1192-1205. (in English)
- [24] LALINSKÝ, T. - VANKO, G. - VALLO, M. - DRŽÍK, M. - BRUNCKO, J. - JAKOVENKO, J. - KUTIŠ, V. - RÝGER, I. - HAŠČÍK, Š. - HUSÁK, M.: Impact of ZnO Gate Interfacial Layer on Piezoelectric Response of AlGaIn/GaN C-HEMT Based Ring Gate Capacitor. In: Sensors and Actuators A. Physical Sensors. - ISSN 0924-4247. - Vol. 172 (2011), p. 386-391. (in English)
- [25] LALINSKÝ, T. - DRŽÍK, M. - VANKO, G. - VALLO, M. - KUTIŠ, V. - BRUNCKO, J. - HAŠČÍK, Š. - JAKOVENKO, J. - HUSÁK, M.: Piezoelectric Response of AlGaIn/GaN-Based Circular-HEMT Structures. In: Microelectronic Engineering. - ISSN 0167-9317. - Vol. 88 (2011), p. 2424-2426. (in English)
- [26] LIŠKA, M. - ELESCHOVÁ, Ž. - KOVAL, P. - JANIGA, P. - JANÍČEK, F.: NOZE Operation within the Balancing Group of the Distribution Network Operation. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 17, No. 2 (2011), p. 6-7. (in Slovak)
- [27] MATEJ, J.: Perspektíve Alternative Drivetrains of Vehicles Perspective Alternative Drivetrains of Vehicles. In: Posterus. - ISSN 1338-0087. - August (2011), <http://www.posterus.sk/?p=11179>. (in Slovak)
- [28] MURÍN, J. - KUTIŠ, V.: An Effective Thermo-Elastic Composite (FGMs) Multilayered Beam Finite Element. In: Strojnícky časopis = Journal of Mechanical Engineering. - ISSN 0039-2472. - Vol. 62, No. 1 (2011), p. 33-59. (in English)
- [29] MURÍN, J. - KUTIŠ, V. - PAULECH, J. - HRABOVSKÝ, J.: Electric-Thermal Link Finite Element Made of a FGM with Spatial Variation of Material Properties. In: Composites Part B: Engineering. - ISSN 1359-8368. - Vol. 42 (2011), p. 1966-1979. (in English)
- [30] PAULECH, J. - LAGO, J. - KUTIŠ, V. - STANČÍK, S. - FRIC, R. - MURÍN, J.: CFD Simulation of Air flow Around. In: Energetika. - ISSN 0375-8842. - Vol. 61, No. 3 (2011), p. 145-150. (in Slovak)
- [31] PERNÝ, M. - ŠÁLY, V. - KUSKO, M.: Application of Impedance Spectroscopy in the Investigation of Photovoltaic Cells. In: Energie 21. - ISSN 1803-0394. - Vol. 4, No. 6 (2011), p. 30-33. (in Slovak)
- [32] PERNÝ, M. - ŠÁLY, V. - VÁRY, M. - HURAN, J.: Electrical and Structural Properties of Amorphous Silicon Carbide and Its Application for Photovoltaic Heterostructures. In: Elektroenergetika. - ISSN 1337-6756. - Vol. 4, No. 3 (2011), p. 17-19. (in English)
- [33] REKŠÁK, V. - FRIC, R. - KROPÁČ, M.: Virtual Prototyping of the Automotive Light In: Posterus. - ISSN 1338-0087. - October (2011), <http://www.posterus.sk/?p=11797>. (in English)
- [34] RICCARDI, J. - MASSIMO, S. - FASTELLI, I. - SMITKOVÁ, M.: Modelling of Westinghouse and Sulphur-Iodine Water Splitting Cycles for Hydrogen Production. In: International Journal of Energy and Environmental Engineering (IJEEE). - ISSN 2008-9163. - Vol. 2, Iss. 3 (2011), p. 49-62. (in English)
- [35] RUŽINSKÝ, M.: New Records on F1 Solar Cars. In: Stop. - ISSN 1335-0730. - Vol. 41, No. 18 (2011), p. 30-31. (in Slovak)
- [36] RUŽINSKÝ, M.: Solar Decathlon of Intelligent Buildings. In: TZB Haustechnik. - ISSN 1210-356X. - Vol. 19, No. 1 (2011), p. 16-18. (in Slovak)
- [37] SLÁMA, J. - ŠOKA, M. - GRUSKOVÁ, A. - GONZÁLEZ-ANGELES, A. - JANČÁRIK, V.: Hopkinson Effect Study in Spinel and Hexagonal Ferrites. In: Journal of Electrical Engineering. - ISSN 1335-3632. - Vol. 62, No. 4 (2011), p. 239-243. (in English)
- [38] SMITKOVÁ, M. - JANÍČEK, F.: Global Power Engineering-Presents and Trends. In: Energie 21. - ISSN 1803-0394. - Vol. 4, No. 1 (2011), p. 6-8. (in Slovak)

- [39] SMITKOVÁ, M. - JANÍČEK, F. - RICCARDI, J.: Life Cycle Analysis of Processes for Hydrogen Production. In: International Journal of Hydrogen Energy. - ISSN 0360-3199. - Vol. 36 (2011), p. 7844-7851. (in English)
- [40] SMITKOVÁ, M. - ELESCHOVÁ, Ž. - HAJDUČEK, P. - JANÍČEK, F. - MINOVSKI, D. - SARAC, V.: National Centre for Research and Application of Renewable Energy Sources. In: Elektroenergetika. - ISSN 1337-6756. - Vol. 4, No. 2 (2011), p. 17-19. (in English)
- [41] SMOLA, A. - KASENČÁK, L.: Illumination of the Kežmarok Castle. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 17, No. 4 (2011), p. 32-33. (in Slovak)
- [42] SMOLA, A. - KORČOK, J.: Project of Illumination of St. Trinity Square in Krupina. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 17, No. 5 (2011), p. 8-10. (in Slovak)
- [43] SMOLA, A. - BÍLEK, M. - GAŠPAROVSKÝ, D.: Research Center of Lighting Technology. In: TZB Haustechnik. - ISSN 1210-356X. - Vol. 19, No. 4 (2011), p. 52-54. (in Slovak)
- [44] SOKOLSKÝ, M. - KUSKO, M. - KAISER, M. - CIRÁK, J.: Fabrication and Characterization of Dye-Sensitized Solar Cells Based on Natural Organic Dyes. In: Elektroenergetika. - ISSN 1337-6756. - Vol. 4, No. 2 (2011), p. 26-29. (in English)
- [45] STANČÍK, S. - MURÍN, J. - KUTIŠ, V. - PAULECH, J. - FRIC, R. - CIRÁK, J.: Computer Modelling in the National Center for Research and Application for Renewable Energy Sources. In: Elektroenergetika. - ISSN 1337-6756. - Vol. 4, No. 2 (2011), p. 20-22. (in English)
- [46] ŠÁLY, V. - PACKA, J. - PERNÝ, M.: High Efficiency Photovoltaics. In: Elektroenergetika. - ISSN 1337-6756. - Vol. 4, No. 3 (2011), p. 20-22. (in English)
- [47] ŠÁLY, V. - PACKA, J.: Photovoltaic Systems. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 17, No. 4 (2011), Suppl. Volt, p. 2-8. (in Slovak)
- [48] ŠÁLY, V. - PACKA, J. - UHRÍK, M.: Tests of Materials of Solar Cells. In: Energetika. - ISSN 0375-8842. - Vol. 61, No. 1 (2011), p. 40-43. (in Slovak)
- [49] UHRÍK, M. - DUČ-ANCI, M.: Brushless Trends in Modern Electric Machines. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 17, No. 1 (2011), Suppl. Volt, s. 6-9. (in Slovak)
- [50] VANKO, G. - DRŽÍK, M. - VALLO, M. - LALINSKÝ, T. - KUTIŠ, V. - STANČÍK, S. - RÝGER, I. - BENČUROVÁ, A.: AlGaIn/GaN C-HEMT Structures for Dynamic Stress Detection. In: Sensors and Actuators A. Physical Sensors. - ISSN 0924-4247. - Vol. 172 (2011), p. 98-102. (in English)
- [51] VÁRY, M. - PERNÝ, M. - FIRICKÝ, E.: Monitoring of Photovoltaic Systems Performance. In: Elektroenergetika. - ISSN 1337-6756. - Vol. 4, No. 3 (2011), p. 11-13. (in English)
- [52] VÁRY, M. - PERNÝ, M. - KUSKO, M. - FIRICKÝ, E.: Organic Semiconductors for Solar Cells - an Overview. In: Elektroenergetika. - ISSN 1337-6756. - Vol. 4, No. 3 (2011), p. 14-16. (in English)

IX. 2 Conference Proceedings

- [1] ALBERGARIA, J. T. - SOUSA, S. R. - DELERUE-MATOS, C. - SMITKOVÁ, M. - MARTINS, F.: Life Cycle Assessment of Renewable Energy Sources: Status and Challenges. In: Power Engineering 2011. Renewable Energy Sources 2011: Tatranské Matliare, Slovak Republic, June 7-9, 2011. - Bratislava: Slovak University of Technology in Bratislava, 2011. - ISBN 978-80-89402-38-0. - USB flash. (in English)
- [2] ARNOLD, P.: Physical Models of Discharge Activity. In: ELITECH'11: 13th Conference of Doctoral Students Faculty of Electrical Engineering and Information Technology. Bratislava, Slovak Republic, 17 May, 2011. - Bratislava: Nakladateľstvo STU, 2011. - ISBN 978-80-227-3500-1. - p. 1-4. (in English)
- [3] BALAŠ, Z. - KRASŇAN, F. - RUSNÁK, A.: Colorimetric Parameters of LED Strings. In: SLOVALUX 2011: Smrdáky, Slovak Republic, June 8-10, 2011. - Bratislava: Slovenská svetelnotechnická spoločnosť, 2011. - ISBN 978-80-89275-28-1. - p. 132-137. (in Slovak)
- [4] BALAŠ, Z.: Dimming Street Lighting in Relation to the Categorization of Local Roads. In: Light 2011. Ecology - Economy - Efficiency: 19th International Conference. Prague, Czech Republic, 21. -23. 9. 2011. - Ostrava: VŠB - TU Ostrava, 2011. - ISBN 978-80-248-2480-2. - p. 16-18. (in Slovak)
- [5] BALAŠ, Z. - SMOLA, A.: Influence of Intelligent Control Systems on Parameters of Public Lighting. In: Lux Junior 2011: 10th International Conference. Dörfeld bei Ilmenau, Germany, 23. -25. 9. 2011. - Ilmenau: TU, 2011. - CD-Rom. (in English)
- [6] BALAŠ, Z.: LED Light's in the Near Future. In: ELITECH'11: 13th Conference of Doctoral Students Faculty of Electrical Engineering and Information Technology. Bratislava, Slovak Republic, 17 May, 2011. - Bratislava: Nakladateľstvo STU, 2011. - ISBN 978-80-227-3500-1. - p. 1-3. (in English)
- [7] BALAŠ, Z. - KRASŇAN, F. - RUSNÁK, A.: Lighting Properties of LED Strings. In: SLOVALUX 2011: Smrdáky, Slovak Republic, June 8-10, 2011. - Bratislava: Slovenská svetelnotechnická spoločnosť, 2011. - ISBN 978-80-89275-28-1. - p. 138-142. (in Slovak)

- [8] BALAŠ, Z.: What Management and Control System to Vote for the Proposal of Public Lighting. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 17, Special Issue: ELOSYS, Trenčín, 11. -14. 10. 2011, p. 97-99. (in Slovak)
- [9] BERČÁK, A. - MATEJ, J.: Electronic Options for Preparing a Mixture of Gasoline Engines. In: ŠVOČ 2011: Proceedings of Selected Works. Bratislava, Slovak Republic, 4. 5. 2011. - Bratislava: FEI STU, 2011. - ISBN 978-80-227-3508-7. - p. 79-84. (in English)
- [10] BUGÁR, M. - FERENCEY, V. - STAŇÁK, V.: Powerflows Management in Hybrid Fuelcell Electric Vehicle. In: Power Engineering 2011. Renewable Energy Sources 2011: Tatranské Matliare, Slovak Republic, June 7-9, 2011. - Bratislava: Slovak University of Technology in Bratislava, 2011. - ISBN 978-80-89402-38-0. - USB flash. (in English)
- [11] BUGÁR, M. - STAŇÁK, V. - FERENCEY, V. - DANKO, J.: Variable Performance of PEM Fuel Cell During Vehicle Motion. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 17, Special Issue: ELOSYS, Trenčín, 11. -14. 10. 2011, p. 100-102. (in English)
- [12] BULEJKO, A. - KUTIŠ, V.: Modelling of Electro-Thermal MEMS Actuators by Program ANSYS. In: ŠVOČ 2011: Proceedings of Selected Works. Bratislava, Slovak Republic, 4. 5. 2011. - Bratislava: FEI STU, 2011. - ISBN 978-80-227-3508-7. - p. 55-58. (in English)
- [13] CÍMER, A. - ARNOLD, P.: Design of the Flexible Bus-Bars in Substations of Distribution and Transmission Network. In: ŠVOČ 2011: Proceedings of Selected Works. Bratislava, Slovak Republic, 4. 5. 2011. - Bratislava: FEI STU, 2011. - ISBN 978-80-227-3508-7. - p. 259-262. (in Slovak)
- [14] CINTULA, B. - ELESCHOVÁ, Ž. - BELÁŇ, A.: Analysis of Dynamic Stability of Synchronous Generator. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 17, Special Issue: ELOSYS, Trenčín, 11. -14. 10. 2011, p. 103-107. (in Slovak)
- [15] CINTULA, B. - ELESCHOVÁ, Ž.: Analysis of Synchronous Generator Transient Stability. In: ŠVOČ 2011: Proceedings of Selected Works. Bratislava, Slovak Republic, 4. 5. 2011. - Bratislava: FEI STU, 2011. - ISBN 978-80-227-3508-7. - p. 253-258. (in Slovak)
- [16] DOSOUDIL, R. - FRANEK, J. - SLÁMA, J. - UŠÁKOVÁ, M. - GRUSKOVÁ, A.: Electromagnetic Wave Absorption Performances of Metal Alloy/Spinel Ferrite/Polymer Composites. In: SMM 2011: 20th International Conference on Soft Magnetic Materials. Athens, Greece, 19. -22. 9. 2011. - Arhens: X mpenou Publ. House, 2011. - ISBN 978-960-9534-14-7. - p. 259. (in English)
- [17] DRAHOŠ, P. - KUTIŠ, V. - KLÚČIK, M. - SEDLÁR, T.: Modelling and Simulation of SMA Actuator. In: Modelling of Mechanical and Mechatronic Systems. MMaMS 2011: 4th International Conference. Herľany, Slovak Republic. 20. - 22. September 2011. - Košice: Technical University, 2011. - ISBN 978-80-553-0731-2. - CD-Rom. (in English)
- [18] DUČ-ANCI, M. - UHRÍK, M.: Spectral Harmonic Analysis of Output Voltage of Single Phase Bridge Inverter Using Matlab. In: XXXII. National Conference on Electrical Drives: Pilsen, Czech Republic, 14. -16. 6. 2011. - Pilsen: ÚOS Elektrické pohony, 2011. (in Slovak)
- [19] ĎURMAN, V. - LELÁK, J. - PACKA, J. - VÁRY, M.: Assessment of High Voltage Aged Cables by Dielectric Spectroscopy. In: Elektroenergetika 2011: 6th International Scientific Symposium on Electrical Power Engineering. Stará Lesná, Slovak Republic, September 21-23, 2011. - Košice: Technical University of Košice, 2011. - ISBN 978-80-553-0724-4. - p. 189-191. (in English)
- [20] ĎURMAN, V. - LELÁK, J.: Dielectric Properties of Composite Insulations at Low Frequencies. In: Elektroenergetika 2011: 6th International Scientific Symposium on Electrical Power Engineering. September 21-23, 2011, Stará Lesná, Slovak Republic. - Košice: Technical University of Košice, 2011. - ISBN 978-80-553-0724-4. - p. 192-194. (in English)
- [21] ĎURMAN, V. - LELÁK, J. - PACKA, J. - VÁRY, M.: on the Possibilities of Using Dielectric Spectroscopy for Identification of High Voltage Cables Ageing. In: Power Engineering 2011. Energy - Ecology - Economy 2011: Tatranské Matliare, Slovak Republic, June 7-9, 2011. - Bratislava: Slovak University of Technology in Bratislava, 2011. - ISBN 978-80-89402-40-3. - USB flash. (in English)
- [22] ĎURMAN, V. - LELÁK, J.: Radiation Ageing of Flame Retardant XLPE Cables. In: Diagnostics,09. An International Conference: Kašperské Hory, Czech Republic, 6. -8. 9. 2011. - Pilsen: University of West Bohemia, 2011. - ISBN 978-80-261-0020-1. - p. 105-108. (in English)
- [23] ĎURMAN, V. - LELÁK, J.: Resonant Processes in Dielectric Structures. In: Elektroenergetika 2011: 6th International Scientific Symposium on Electrical Power Engineering. Stará Lesná, Slovak Republic, September 21-23, 2011. - Košice: Technical University of Košice, 2011. - ISBN 978-80-553-0724-4. - p. 211-213. (in English)
- [24] DZUBA, J. - KUTIŠ, V.: Modelling and Simulation of Residual Stresses in a Piezoelectric MEMS Pressure Sensor Structure after Manufacturing Process. In: ŠVOČ 2011: Proceedings of Selected Works. Bratislava, Slovak Republic, 4. 5. 2011. - Bratislava: FEI STU, 2011. - ISBN 978-80-227-3508-7. - p. 45-49. (in English)

- [25] ELESCHOVÁ, Ž. - BELÁŇ, A. - SMITKOVÁ, M.: Ferroresonance Overvoltages in Auxiliaries System of Power Plant. In: Power Engineering 2011. Energy - Ecology - Economy 2011: Tatranské Matliare, Slovak Republic, June 7-9, 2011. - Bratislava: Slovak University of Technology in Bratislava, 2011. - ISBN 978-80-89402-40-3. - USB flash. (in English)
- [26] ELESCHOVÁ, Ž. - BELÁŇ, A. - SMITKOVÁ, M. - GRAMBLIČKA, M. - KÓSA, K.: Steady-State Stability Analysis of Power System of the Slovak Republic. In: Power Engineering 2011. Energy - Ecology - Economy 2011: Tatranské Matliare, Slovak Republic, June 7-9, 2011. - Bratislava: Slovak University of Technology in Bratislava, 2011. - ISBN 978-80-89402-40-3. - USB flash. (in English)
- [27] ELESCHOVÁ, Ž. - BELÁŇ, A. - SMITKOVÁ, M. - GRAMBLIČKA, M. - KÓSA, K.: Steady-State Stability of Power System of the Slovak Republic - Results and Analysis. In: Elektroenergetika 2011: 6th International Scientific Symposium on Electrical Power Engineering. Stará Lesná, Slovak Republic, September 21-23, 2011. - Košice: Technical University of Košice, 2011. - ISBN 978-80-553-0724-4. - p. 65-67. (in English)
- [28] FERENČEY, V. - BUGÁR, M. - STAŇÁK, V.: Advanced Hybrid Energy Source for Dynamic Modes of Vehicle Motion. In: IN-TECH 2011: International Conference on Innovative Technologies. Bratislava, Slovak Republic, 1. 9. -3. 9. 2011. - Jaroměř: Jan Kudláček, 2011. - ISBN 978-80-904502-6-4. - p. 557-560. (in English)
- [29] FERENČEY, V. - STAŇÁK, V. - BUGÁR, M.: FMEA Analysis of UGV (Unmanned Ground Vehicle) Electric Powertrain System. In: 10th International Technical Systems Degradation Conference: Liptovský Mikuláš, Slovak Republic, 27. -30. 4. 2011. - Warszawa: Polskie Naukowo-Techniczne Towarzystwo Eksploatacyjne, 2011. - ISBN 978-83-930944-2-4. - p. 50-53. (in English)
- [30] FERENČEY, V. - STAŇÁK, V. - BUGÁR, M. - KOVÁČOVÁ, M.: FMEA Analysis of UGV (Unmanned Ground Vehicle) Electric Powertrain System. In: Proceedings of the Institute of Vehicles. - ISSN 1642-347X. - 2 (83) / 2011. - p. 17-20. (in English) [sig. 993/15/2011 - C1] [vnútrofakult. kateg.: F]
- [31] FERENČEY, V. - BUGÁR, M. - STAŇÁK, V. - MADARÁS, J. - DANKO, J.: Hybrid - Electric Power Sources Energy Management During Dynamic Loads in Military Vehicle. In: Armament and Technics of Land Forces 2011: 17th International Conference. Liptovský Mikuláš, Slovak Republic, 9. -10. 11. 2011. - Liptovský Mikuláš: Armed Forces Academy of General Milan Rastislav Štefánik, 2011. - ISBN 978-80-8040-431-4. - p. 36. (in English)
- [32] FERENČEY, V. - BUGÁR, M. - STAŇÁK, V.: Potential Usage of Hydrogen Fuel Cells for Applications in Transport Technology. In: Power Engineering 2011. Renewable Energy Sources 2011: Tatranské Matliare, Slovak Republic, June 7-9, 2011. - Bratislava: Slovak University of Technology in Bratislava, 2011. - ISBN 978-80-89402-38-0. - USB flash. (in English)
- [33] FERENČEY, V. - MADARÁS, J. - BUGÁR, M. - STAŇÁK, V.: Torque Flow Transformation in Hybrid Powertrain for Heavy Vehicle. In: Armament and Technics of Land Forces 2011: 17th International Conference. Liptovský Mikuláš, Slovak Republic, 9. -10. 11. 2011. - Liptovský Mikuláš: Armed Forces Academy of General Milan Rastislav Štefánik, 2011. - ISBN 978-80-8040-431-4. - p. 37-44. (in English)
- [34] GAŠPAROVSKÝ, D. - ERKIN, E. - ONAYGIL, S. - SMOLA, A.: a Critical Analysis of the Methodology for Calculation of the Lighting Energy Numerical Indicator (LENI). In: Light in Engineering, Architecture and the Environment: 1st International Conference. Poznan, Poland, 17-19 May 2011. - Southampton: WIT Press, 2011. - ISBN 978-1-84564-550-2. - p. 173-184. (in English)
- [35] GAŠPAROVSKÝ, D. - SCHWARCZ, P. - JANIGA, P.: Assessment and Measurement of Energy Demand and Efficiency in Public Lighting Networks. In: Light in Engineering, Architecture and the Environment: 1st International Conference. Poznan, Poland, 17-19 May 2011. - Southampton: WIT Press, 2011. - ISBN 978-1-84564-550-2. - p. 133-145. (in English)
- [36] GAŠPAROVSKÝ, D. - SMOLA, A. - JANIGA, P.: Calculation of Anti-Glare Shields between Collateral Communications. In: Proceedings of the 27th Session of the CIE. South Africa 2011: Sun City, South Africa, 10 - 15 July 2011. - Vienna: CIE, 2011. - ISBN 978-3-901906-99-2. - Vol. 1, Part 1, p. 1208-1217. (in English)
- [37] GAŠPAROVSKÝ, D. - PAZDERA, M.: Comparison of Calculated and Measured Values of the Illuminance in Interiors. In: SLOVALUX 2011: Smrdáky, Slovak Republic, June 8-10, 2011. - Bratislava: Slovenská svetelnotechnická spoločnosť, 2011. - ISBN 978-80-89275-28-1. - p. 71-80. (in Slovak)
- [38] GAŠPAROVSKÝ, D. - JANIGA, P.: Electrical Installations in Medical Facilities, Cinemas and Theatres. In: 34th Conference of Slovak Electrical Engineers: Bratislava, Slovak Republic, 23. -24. 3. 2011. - Bratislava: Slovenský elektrotechnický zväz, 2011. - p. 100-121. (in Slovak)
- [39] GAŠPAROVSKÝ, D. - MÁCHA, M.: Lumen Losses and LIDC Distortion Due to Deposition of Dust and Dirt Particles on High-Reflectance Parts of Luminaires. In: Light 2011. Ecology - Economy - Efficiency: 19th International Conference. Prague, Czech Republic, 21. -23. 9. 2011. - Ostrava: VŠB - TU Ostrava, 2011. - ISBN 978-80-248-2480-2. - p. 168-172. (in English)

- [40] GAŠPAROVSKÝ, D. - MÁCHA, M.: Maintenance Factor and Operational Characteristics of Luminaires. In: SLOVALUX 2011: Smrdáky, Slovak Republic, June 8 - 10, 2011. - Bratislava: Slovenská svetelnotechnická spoločnosť, 2011. - ISBN 978-80-89275-28-1. - p. 39-49. (in Slovak)
- [41] GAŠPAROVSKÝ, D. - JANIGA, P.: Measurements of Energy and Efficiency Related Parameters in Public Lighting Networks. In: Light 2011. Ecology - Economy - Efficiency: 19th International Conference. Prague, Czech Republic, 21. -23. 9. 2011. - Ostrava: VŠB - TU Ostrava, 2011. - ISBN 978-80-248-2480-2. - p. 163-167. (in English)
- [42] GAŠPAROVSKÝ, D. - SMOLA, A. - MÁCHA, M. - JANIGA, P.: New Approach to Determination of Luminaire Maintenance Factor Curves for Various Conditions. In: Proceedings of the 27th Session of the CIE. South Africa 2011: Sun City, South Africa, 10-15 July 2011. - Vienna: CIE, 2011. - ISBN 978-3-901906-99-2. - Vol. 1, Part 1, p. 633-642. (in English)
- [43] GLASA, M.: Comparison of Spark Gap and Varistor Surge Arresters. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 17, Special Issue: ELOSYS, Trenčín, 11. -14. 10. 2011, p. 115-117. (in Slovak)
- [44] GLASA, M.: Credibility of Simulation Models of MOV Varistor. In: ELITECH'11: 13th Conference of Doctoral Students Faculty of Electrical Engineering and Information Technology. Bratislava, Slovak Republic, 17 May, 2011. - Bratislava: Nakladateľstvo STU, 2011. - ISBN 978-80-227-3500-1. - p. 1-4. (in English)
- [45] GLASA, M.: Degradation of Surge Arrester of MOV Varistor Type during Multiply Operations. In: Power Engineering 2011. Energy - Ecology - Economy 2011: Tatranské Matliare, Slovak Republic, June 7-9, 2011. - Bratislava: Slovak University of Technology in Bratislava, 2011. - ISBN 978-80-89402-40-3. - USB Flash. (in English)
- [46] GLASA, M.: Simulation Models of MOV Variations Used in Overvoltage Protection. In: Power Engineering 2011. Energy - Ecology - Economy 2011: Tatranské Matliare, Slovak Republic, June 7-9, 2011. - Bratislava: Slovak University of Technology in Bratislava, 2011. - ISBN 978-80-89402-40-3. - USB flash. (in English)
- [47] GOGA, V. - JEDINÝ, T. - KRÁLOVIČ, V. - KLÚČIK, M.: Mechatronic Model of Anti-Lock Braking System (ABS). In: Mechatronics: Recent Technological and Scientific Advances. - Berlin: Springer Verlag, 2011. - ISBN 978-3-642-23243-5. - p. 63-70. (in English)
- [48] GOGA, V. - JEDINÝ, T.: Virtual Modelling of the Electronic Differential System. In: ELITECH'11: 13th Conference of Doctoral Students Faculty of Electrical Engineering and Information Technology. Bratislava, Slovak Republic, 17 May, 2011. - Bratislava: Nakladateľstvo STU, 2011. - ISBN 978-80-227-3500-1. - p. 1-6. (in English)
- [49] HAJDUČEK, P.: Biomass to Liquid Technology. In: ELITECH'11: 13th Conference of Doctoral Students Faculty of Electrical Engineering and Information Technology. Bratislava, Slovak Republic, 17 May, 2011. - Bratislava: Nakladateľstvo STU, 2011. - ISBN 978-80-227-3500-1. - p. 1-5. (in English)
- [50] HAJDUČEK, P.: Comparison of the Production Technologies for Second Generation Bio Fuels. In: Power Engineering 2011. Renewable Energy Sources 2011: Tatranské Matliare, Slovak Republic, June 7-9, 2011. - Bratislava: Slovak University of Technology in Bratislava, 2011. - ISBN 978-80-89402-38-0. - USB Flash. (in English)
- [51] HAJDUČEK, P.: Radiolysis of Biomass. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 17, Special Issue: ELOSYS, Trenčín, 11. -14. 10. 2011, p. 118-121. (in Slovak)
- [52] HARMATA, J. - MATEJ, J.: Comparison of Dynamic Characteristics of Vehicles. In: ŠVOČ 2011: Proceedings of Selected Works. Bratislava, Slovak Republic, 4. 5. 2011. - Bratislava: FEI STU, 2011. - ISBN 978-80-227-3508-7. - p. 85-88. (in English)
- [53] HERETÍK, P. - MURÍN, J.: Thermal Simulation of Fuel Rod in Nuclear Reactor. In: ŠVOČ 2011: Proceedings of Selected Works. Bratislava, Slovak Republic, 4. 5. 2011. - Bratislava: FEI STU, 2011. - ISBN 978-80-227-3508-7. - p. 63-66. (in Slovak)
- [54] HLAVÁČ, P. - KOVÁCS, Z. - KOVÁČOVÁ, R. - JANÍČEK, F.: Full Scope Risk Monitor for the Transmission Grid. In: Power Engineering 2011. Energy - Ecology - Economy 2011: Tatranské Matliare, Slovak Republic, June 7-9, 2011. - Bratislava: Slovak University of Technology in Bratislava, 2011. - ISBN 978-80-89402-40-3. - USB flash. (in English)
- [55] HÜTTNER, L. - JURČACKO, L. - VALENT, F. - EHRHARDT, A. - SCHREITER, S. - ROCK, M.: Fundamental Analysis of Encapsulation of a Low-Voltage Spark Gap with Deion Chamber. In: 19th Symposium on Physics of Switching Arc. Invited Lectures and Contributed Papers: Brno, Czech Republic 5. -9. 9. 2011. - Brno: University of Technology, 2011. - ISBN 978-80-214-4293-1. - p. 229-234. (in English)
- [56] HÜTTNER, L. - KLUG, L.: New Types of Drive Motors in Household Appliances. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 17, Special Issue: ELOSYS, Trenčín, 11. -14. 10. 2011, p. 130-133. (in Slovak)

- [57] JAKUBEC, J. - KUTIŠ, V.: Flow Simulations in Fuel Rod Bundle. In: ŠVOČ 2011: Proceedings of Selected Works. Bratislava, Slovak Republic, 4. 5. 2011. - Bratislava: FEI STU, 2011. - ISBN 978-80-227-3508-7. - p. 59-62. (in English)
- [58] JANÍČEK, F. - ŠEDIVÝ, J. - ŠULC, I.: Development of Electricity Price and Price of Primary Energy Sources on the European Energy Market. In: Power Engineering 2011. Energy - Ecology - Economy 2011: Tatranské Matliare, Slovak Republic, June 7-9, 2011. - Bratislava: Slovak University of Technology in Bratislava, 2011. - ISBN 978-80-89402-40-3. - USB flash. (in English)
[sig. 315/06/2011 - C1] [vnútrofakult. kateg.: F]
- [59] JANÍČEK, F. - ŠEDIVÝ, J. - ŠULC, I.: Electricity Market Operators in Europe. In: Power Engineering 2011. Energy - Ecology - Economy 2011: Tatranské Matliare, Slovak Republic, June 7-9, 2011. - Bratislava: Slovak University of Technology in Bratislava, 2011. - ISBN 978-80-89402-40-3. - USB flash. (in English)
- [60] JANÍČEK, F. - ŠEDIVÝ, J. - ŠULC, I.: Electricity Price and Price of Primary Energy Sources on the European Energy Market. In: Power Engineering 2011. Energy - Ecology - Economy 2011: Tatranské Matliare, Slovak Republic, June 7-9, 2011. - Bratislava: Slovak University of Technology in Bratislava, 2011. - ISBN 978-80-89402-40-3. - USB flash. (in English)
- [61] JANÍČEK, F. - ŠEDIVÝ, J. - ŠULC, I.: The Impact of Liberalization on the Electricity Market - Operator Measured Electricity Consumption Data. In: Power Engineering 2011. Energy - Ecology - Economy 2011: Tatranské Matliare, Slovak Republic, June 7-9, 2011. - Bratislava: Slovak University of Technology in Bratislava, 2011. - ISBN 978-80-89402-40-3. - USB flash. (in English)
- [62] JANÍČEK, F. - ŠEDIVÝ, J.: Traditional or Alternative Electricity Supplier for Your Home? In: Power Engineering 2011. Energy - Ecology - Economy 2011: Tatranské Matliare, Slovak Republic, June 7-9, 2011. - Bratislava: Slovak University of Technology in Bratislava, 2011. - ISBN 978-80-89402-40-3. - USB flash. (in English)
- [63] JANIGA, P.: Reducing Consumption in Public Lighting Instalation Using Voltage Regulators. In: Power Engineering 2011. Energy - Ecology - Economy 2011: Tatranské Matliare, Slovak Republic, June 7-9, 2011. - Bratislava: Slovak University of Technology in Bratislava, 2011. - ISBN 978-80-89402-40-3. - USB flash. (in English)
- [64] JANIGA, P. - GAŠPAROVSKÝ, D.: Voltage Regulation in Public Lighting Networks. In: Light 2011. Ecology - Economy - Efficiency: 19th International Conference. Prague, Czech Republic, 21. -23. 9. 2011. - Ostrava: VŠB - TU Ostrava, 2011. - ISBN 978-80-248-2480-2. - p. 4-6. (in English)
- [65] JANÍK, M.: Assessment of Disability Glare in Traffic. In: Light 2011. Ecology - Economy - Efficiency: 19th International Conference. Prague, Czech Republic, 21. -23. 9. 2011. - Ostrava: VŠB - TU Ostrava, 2011. - ISBN 978-80-248-2480-2. - p. 99-102. (in English)
- [66] JANÍK, M. - KRASŇAN, F. - FILÍPEK, P.: Measurement of Luminance Using a Digital Camera. In: SLOVALUX 2011: Smrdáky, Slovak Republic, June 8-10, 2011. - Bratislava: Slovenská svetelnotechnická spoločnosť, 2011. - ISBN 978-80-89275-28-1. - p. 155-158. (in Slovak)
- [67] JANÍK, M. - RUSNÁK, A.: Normative Requirements and Proposal of Emergency Lighting. In: SLOVALUX 2011: Smrdáky, Slovak Republic, June 8-10, 2011. - Bratislava: Slovenská svetelnotechnická spoločnosť, 2011. - ISBN 978-80-89275-28-1. - p. 143-148. (in Slovak)
- [68] JANÍK, M. - GAŠPAROVSKÝ, D.: Study of Glare Evaluation Methods for Application in Traffic. In: Lux Junior 2011: 10th International Conference. Dörfel bei Ilmenau, Germany, 23. -25. 9. 2011. - Ilmenau: TU, 2011. - CD-Rom. (in English)
- [69] JANÍK, M.: Suitability for Use de Boer Glare Rating Method in Traffic. In: ELITECH'11: 13th Conference of Doctoral Students Faculty of Electrical Engineering and Information Technology. Bratislava, Slovak Republic, 17 May, 2011. - Bratislava: Nakladateľstvo STU, 2011. - ISBN 978-80-227-3500-1. - p. 1-4. (in English)
- [70] JANÍK, M. - KRASŇAN, F.: The Use of Fluorescent Lamps in Emergency Lighting. In: SLOVALUX 2011: Smrdáky, Slovak Republic, June 8-10, 2011. - Bratislava: Slovenská svetelnotechnická spoločnosť, 2011. - ISBN 978-80-89275-28-1. - p. 149-154. (in Slovak)
- [71] KALOČAY, R. - TOMIŠ, I.: Photovoltaic Power Generation for Off-Grid Family House in Slovakia. In: Power Engineering 2011. Renewable Energy Sources 2011: Tatranské Matliare, Slovak Republic, June 7-9, 2011. - Bratislava: Slovak University of Technology in Bratislava, 2011. - ISBN 978-80-89402-38-0. - USB Flash. (in English)
- [72] KANDL, M. - FERENČEY, V. - BUGÁR, M. - STAŇÁK, V.: Energy Storage Systems for Electric Vehicles. In: Power Engineering 2011. Renewable Energy Sources 2011: Tatranské Matliare, Slovak Republic, June 7-9, 2011. - Bratislava: Slovak University of Technology in Bratislava, 2011. - ISBN 978-80-89402-38-0. - USB flash. (in English)
- [73] KERTÉSZ, I.: Fuse Devices for Protection Against Overvoltage. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 17, Special Issue: ELOSYS, Trenčín, 11. -14. 10. 2011, p. 138-140. (in Slovak)

- [74] KERTÉSZ, I.: Protection Against Surges and Coordination of SPDs (Surge Protection Devices). In: ELITECH'11: 13th Conference of Doctoral Students Faculty of Electrical Engineering and Information Technology. Bratislava, Slovak Republic, 17 May, 2011. - Bratislava: Nakladateľstvo STU, 2011. - ISBN 978-80-227-3500-1. - p. 1-4. (in English)
- [75] KMENT, A. - PÍPA, M.: Automatized Workplace for Current Measuring System Testing. In: Power Engineering 2011. Energy - Ecology - Economy 2011: Tatranské Matliare, Slovak Republic, June 7-9, 2011. - Bratislava: Slovak University of Technology in Bratislava, 2011. - ISBN 978-80-89402-40-3. - USB flash. (in English)
- [76] KMENT, A. - PÍPA, M.: Comparative Measurements of Diagnostic Systems. In: Power Engineering 2011. Energy - Ecology - Economy 2011: Tatranské Matliare, Slovak Republic, June 7-9, 2011. - Bratislava: Slovak University of Technology in Bratislava, 2011. - ISBN 978-80-89402-40-3. - USB flash. (in English)
- [77] KODRÍK, M. - KMENT, A.: Diagnostics of Medium and High Voltage Devices Insulation Systems. In: ŠVOČ 2011: Proceedings of Selected Works. Bratislava, Slovak Republic, 4. 5. 2011. - Bratislava: FEI STU, 2011. - ISBN 978-80-227-3508-7. - p. 237-242. (in Slovak)
- [78] KÓMAR, L. - DARULA, S. - RUSNÁK, A.: Contribution to the Spectral Measurements of Daylight. In: Solaris 2011: 5th International Conference on Solar Radiation and Daylighting. Brno, Czech Republic, 10 -11 August 2011. - Brno: University of Technology, 2011. - ISBN 978-80-214-4306-8. - p. 143-148. (in English)
- [79] KONEČNÝ, M. - JANIGA, P.: Power Quality in Public Lightning Systems. In: ŠVOČ 2011: Proceedings of Selected Works. Bratislava, Slovak Republic, 4. 5. 2011. - Bratislava: FEI STU, 2011. - ISBN 978-80-227-3508-7. - p. 248-252. (in Slovak)
- [80] KOPČA, M. - VÁRY, M.: Diagnostics of Electrical Equipment as a Tool Risk Management Measures. In: Diagnostics,09. An International Conference: Kašperské Hory, Czech Republic, 6. -8. 9. 2011. - Pilsen: University of West Bohemia, 2011. - ISBN 978-80-261-0020-1. - p. 164-166. (in English)
- [81] KOPČA, M. - VÁRY, M.: Current and Power Load Characteristics of LV and MV Cables and Conductors According to STN 33 2000-5-52 and Related Regulations. In: 13th National Conference of Electricians with International Participation Trenčín, Slovak Republic, October 2011. - Žilina: MARKAB, 2011. - ISBN 978-80-89072-58-3. - p. 21-29. (in Slovak)
- [82] KOPČA, M.: Influence of the Inspections the Electrical Heavy-Current Equipments on the Operation Risk. In: 1st National Meeting Inspectors of Electrical Installation, Workers in Electrical Industry and the Maintenance Engineers with Technical Inspection Staff: Štrbské Pleso, Slovak Republic, 6. -9. 6. 2011. - Nitra: Pavel Hála Elektro Management, 2011. - CD-Rom. (in Slovak)
- [83] KOPČA, M. - VÁRY, M.: Effect of Temperature on the Durability of Cables and Wires in Electrical Installations. In: Designers 2011: 1st National Conference of Desiners and Builders in Electrical Engineering. Piešťany, Slovak Republic, 25. -27. 10. 2011. - Nitra: Pavel Hála Elektro Management, 2011. - CD-Rom. (in Slovak)
- [84] KOVÁCS, Z. - HLAVÁČ, P. - JANIČEK, F.: Full Scope PSA for the Transmission Grid. In: Power Engineering 2011. Energy - Ecology - Economy 2011: Tatranské Matliare, Slovak Republic, June 7-9, 2011. - Bratislava: Slovak University of Technology in Bratislava, 2011. - ISBN 978-80-89402-40-3. - USB Flash. (in English)
- [85] KOVAL, P. - DARULA, I. - JANIČEK, F.: Possibilities of Accumulation of Electrical Energy Produced by Wind Power Plant. In: Power Engineering 2011. Renewable Energy Sources 2011: Tatranské Matliare, Slovak Republic, June 7-9, 2011. - Bratislava: Slovak University of Technology in Bratislava, 2011. - ISBN 978-80-89402-38-0. - USB flash. (in English)
- [86] KOVAL, P. - LIŠKA, M.: Smart Metering. In: Power Engineering 2011. Energy - Ecology - Economy 2011: Tatranské Matliare, Slovak Republic, June 7-9, 2011. - Bratislava: Slovak University of Technology in Bratislava, 2011. - ISBN 978-80-89402-40-3. - USB flash. (in English)
- [87] KRASŇAN, F. - VARGA, L. - RUSNÁK, A. - BALAŠ, Z.: Dependence of Luminous Flux of Sources on the Temperature. In: Light 2011. Ecology - Economy - Efficiency: 19th International Conference. Prague, Czech Republic, 21. -23. 9. 2011. - Ostrava: VŠB - TU Ostrava, 2011. - ISBN 978-80-248-2480-2. - p. 121-124. (in Slovak)
- [88] KRASŇAN, F. - KISS, P. - SMOLA, A.: Floodlighting of Banská Štiavnica Calvary. In: Light 2011. Ecology - Economy - Efficiency: 19th International Conference. Prague, Czech Republic, 21. -23. 9. 2011. - Ostrava: VŠB - TU Ostrava, 2011. - ISBN 978-80-248-2480-2. - p. 224-226. (in Slovak)
- [89] KRASŇAN, F. - RUSNÁK, A.: Large LED Screens and Safety on the Road. In: Light 2011. Ecology - Economy - Efficiency: 19th International Conference. Prague, Czech Republic, 21. -23. 9. 2011. - Ostrava: VŠB - TU Ostrava, 2011. - ISBN 978-80-248-2480-2. - p. 227-230. (in Slovak)
- [90] KRASŇAN, F. - JANÍK, M.: Methodology for Measuring Emergency Lighting. In: Light 2011. Ecology - Economy - Efficiency: 19th International Conference. Prague, Czech Republic, 21. -23. 9. 2011. - Ostrava: VŠB - TU Ostrava, 2011. - ISBN 978-80-248-2480-2. - p. 79-81. (in Slovak)

- [91] KRASŇAN, F.: UGR Calculation for LED Luminaires. In: Light 2011. Ecology - Economy - Efficiency: 19th International Conference. Prague, Czech Republic, 21. -23. 9. 2011. - Ostrava: VŠB - TU Ostrava, 2011. - ISBN 978-80-248-2480-2. - p. 237-239. (in Slovak)
- [92] KUSKO, M. - ŠÁLY, V. - VÁRY, M.: Electric Behaviour of Silicon Solar Cells with Metal Fingers on Grain Boundaries. In: Power Engineering 2011. Renewable Energy Sources 2011: Tatranské Matliare, Slovak Republic, June 7-9, 2011. - Bratislava: Slovak University of Technology in Bratislava, 2011. - ISBN 978-80-89402-38-0. - USB flash. (in English)
- [93] KUSKO, M. - ŠÁLY, V.: Investigation of Electronic Properties of Crystalline Silicon Solar Cells. In: ISSE 2011. 34th International Spring Seminar on Electronics Technology: Tatranská Lomnica, Slovak Republic, 11-15 May 2011. - Piscataway: IEEE, 2011. - ISBN 978-1-4577-2111-3. - p. 202-205. (in English)
- [94] KUSKO, M. - ŠÁLY, V.: Investigation of Electronic Properties of Crystalline Silicon Solar Cells. In: Abstracts Proceedings, „New Trends in Micro/Nanotechnology“: 34th International Spring Seminar on Electronics Technology, High Tatras, Slovak Republic, May 11-15, 2011. - Košice: TU Košice, 2011. - ISBN 978-80-553-0646-9. - p. 250. (in English)
- [95] KUTIŠ, V. - MOJTO, E. - PAULECH, J.: Modelling the Mixing of Coolant in Reactor VVER-440. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 17, Special Issue: ELOSYS, Trenčín, 11. -14. 10. 2011, p. 141-145. (in Slovak)
- [96] KUTIŠ, V. - STANČÍK, S. - MURÍN, J. - LALINSKÝ, T. - VANKO, G. - VALLO, M.: Modelling and Simulation of Piezoelectric MEMS Pressure Sensor. In: Modelling of Mechanical and Mechatronic Systems. MMaMS 2011: 4th International Conference. Herľany, Slovak Republic, 20. - 22. Sept. 2011. - Košice: Technical University, 2011. - ISBN 978-80-553-0731-2. - CD-Rom. (in English)
- [97] LACZKÓ, A. - MATEJ, J.: Diagnosis of Motor Vehicles - Measurement of Fuel Consumption. In: ŠVOČ 2011: Proceedings of Selected Works. Bratislava, Slovak Republic, 4. 5. 2011. - Bratislava: FEI STU, 2011. - ISBN 978-80-227-3508-7. - p. 93-96. (in English)
- [98] LELÁK, J. - ĎURMAN, V. - PACKA, J. - VÁRY, M.: Degradation and Diagnostics of MV Cables - Experiment and Experience. In: Elektroenergetika 2011: 6th International Scientific Symposium on Electrical Power Engineering. September 21-23, 2011, Stará Lesná, Slovak Republic. - Košice: Technical University, 2011. - ISBN 978-80-553-0724-4. - p. 177-179. (in English)
- [99] LELÁK, J. - ĎURMAN, V. - PACKA, J. - VÁRY, M.: Long Term Operation, Degradation and Diagnostics of Medium Voltage Cables. In: Power Engineering 2011. Energy - Ecology - Economy 2011: Tatranské Matliare, Slovak Republic, June 7-9, 2011. - Bratislava: Slovak University of Technology in Bratislava, 2011. - ISBN 978-80-89402-40-3. - USB flash. (in English)
- [100] LIŠKA, M. - KOVAL, P.: Modelling of Nonlinear V-A Characteristic with the Active Upper Harmonics Filter. In: ELITECH'11: 13th Conference of Doctoral Students Faculty of Electrical Engineering and Information Technology. Bratislava, Slovak Republic, 17 May, 2011. - Bratislava: Nakladateľstvo STU, 2011. - ISBN 978-80-227-3500-1. - p. 1-4. (in English)
- [101] LIŠKA, M. - KOVAL, P.: Replacement Non-Linear Elements in the Electrical Networks Using the Model of VA-Characteristic. In: Power Engineering 2011. Energy - Ecology - Economy 2011: Tatranské Matliare, Slovak Republic, June 7-9, 2011. - Bratislava: Slovak University of Technology in Bratislava, 2011. - ISBN 978-80-89402-40-3. - USC flash. (in English)
- [102] LIŠKA, M. - TROŠČÁK, O.: Short-circuit Calculation in HS Źeliezovce. In: Elektroenergetika 2011: 6th International Scientific Symposium on Electrical Power Engineering. September 21-23, 2011, Stará Lesná, Slovak Republic. - Košice: Technical University, 2011. - ISBN 978-80-553-0724-4. - p. 89-91. (in Slovak)
- [103] MATEJ, J. - GOGA, V. - KRIVOSUDSKÝ, P. - PAGÁČ, M.: Simulation and Design of a Series Hybrid Drivetrain. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 17, Special Issue: ELOSYS, Trenčín, 11. -14. 10. 2011, p. 146-150. (in English)
- [104] MOJTO, E. - KUTIŠ, V. - FARKAŠ, G.: Flow Simulation in Nuclear Reactor WWER 440. In: ŠVOČ 2011: Proceedings of Selected Works. Bratislava, Slovak Republic, 4. 5. 2011. - Bratislava: FEI STU, 2011. - ISBN 978-80-227-3508-7. - p. 35-39. (in Slovak)
- [105] MURÍN, J. - PAULECH, J. - HRABOVSKÝ, J. - KUTIŠ, V.: Electric - Thermal Analysis of the FGM Conductors and Actuators. In: Modelling of Mechanical and Mechatronic Systems. MMaMS 2011: 4th International Conference. Herľany, Slovak Republic. 20- 22 September 2011. - Košice: Technical University, 2011. - ISBN 978-80-553-0731-2. - CD-Rom. (in English)
- [106] MURÍN, J. - SEDLÁR, T. - KRÁLOVIČ, V. - KALAŠ, A. - AMINBAGHAI, M. - GOGA, V.: Measurement and Solution of Torsion with Warping of Open Thin Walled Cross-Sections. In: New Trends in Statics and Dynamics of Buildings: 9th International Conference. Bratislava, Slovak Republic, 20. -21. 10. 2011. - Bratislava: STU, 2011. - ISBN 978-80-227-3572-8. (in English)

- [107] MURÍN, J. - AMINBAGHAI, M. - KUTIŠ, V.: Modal Analysis of the FGM Beams with Spatial Variation of Material Properties under Longitudinal Variable Elastic Winkler Foundation. In: COMPDYN 2011. 3rd ECCOMAS Thematic Conference on Computational Methods in Structural Dynamics and Earthquake Engineering: Corfu, Greece, 25. -28. 5. 2011. - Athens: National Technical University, 2011. - ISBN 978-960-99994-0-3. - CD-Rom. (in English)
- [108] MURÍN, P. - MURÍN, J. - MURÍN, A.: Electric-Thermal Analysis of the Screwless Contact in the PIN PLUG. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 17, Special Issue: ELOSYS, Trenčín, 11. -14. 10. 2011. - p. 151-155. (in English)
- [109] MURÍN, P. - MURÍN, J.: Modelling and Simulation od Screwless Joints. In: ŠVOČ 2011: Proceedings of Selected Works. Bratislava, Slovak Republic, 4. 5. 2011. - Bratislava: FEI STU, 2011. - ISBN 978-80-227-3508-7. - p. 50-54. (in Slovak)
- [110] PAZDERA, M. - GAŠPAROVSKÝ, D.: Verification of the Lighting Design and Analysis of Deviations. In: ŠVOČ 2011: Proceedings of Selected Works. Bratislava, Slovak Republic, 4. 5. 2011. - Bratislava: FEI STU, 2011. - ISBN 978-80-227-3508-7. - p. 243-247. (in Slovak)
- [111] PERNÝ, M. - ŠÁLY, V. - HURAN, J.: Electric and Dielectric Properties of Amorphous Silicon Carbide Thin Films Produced at High Temperature. In: 26th European Photovoltaic Solar Energy Conference: Hamburg, Germany, 5-9 September 2011. - Munich: WIP-Renewable Energies, 2011. - ISBN 3-936338-27-2. - p. 317-320. (in English)
- [112] PERNÝ, M. - ŠÁLY, V. - VÁRY, M. - HURAN, J.: Electrical Properties of Amorphous Nitride-Doped Silicone Carbide and Its Application for Photovoltaics. In: Power Engineering 2011. Renewable Energy Sources 2011: Tatranské Matliare, Slovakia, June 7-9, 2011. - Bratislava: Slovak University of Technology in Bratislava, 2011. - ISBN 978-80-89402-38-0. - USB flash. (in English)
- [113] PERNÝ, M. - ŠÁLY, V. - MIKOLÁŠEK, M. - HURAN, J. - ORSZÁGH, J.: Electronic and Structural Properties of Amorphous N-Doped Silicone Carbide. In: ISSE 2011. 34th International Spring Seminar on Electronics Technology: Tatranská Lomnica, Slovak Republic, 11-15 May 2011. - Piscataway: IEEE, 2011. - ISBN 978-1-4577-2111-3. - p. 212-215. (in English)
- [114] PERNÝ, M. - ŠÁLY, V. - HURAN, J.: Structural and Electrical Characterisations of Amorphous Silicon Carbide Films Prepared at Different Temperatures. In: New Trends in Micro/Nanotechnology: 34th International Spring Seminar on Electronics Technology. High Tatras, Slovakia, May 11-15, 2011. - Košice: TU Košice, 2011. - ISBN 978-80-553-0646-9. - p. 252. (in English)
- [115] PETREK, D. - PÍPA, M.: Project of Heat Pumps for Family House. In: ŠVOČ 2011: Proceedings of Selected Works. Bratislava, Slovak Republic, 4. 5. 2011. - Bratislava: FEI STU, 2011. - ISBN 978-80-227-3508-7. - p. 214-218. (in Slovak)
- [116] PÍPA, M. - KMENT, A. - JANIČEK, F.: Cogeneration Units of Laboratory of Renewable Energy Sources. In: Power Engineering 2011. Renewable Energy Sources 2011: Tatranské Matliare, Slovak Republic, June 7-9, 2011. - Bratislava: Slovak University of Technology in Bratislava, 2011. - ISBN 978-80-89402-38-0. - USB flash. (in English)
- [117] PÍPA, M. - KMENT, A.: Heat Pumps of Laboratory of Renewable Energy Sources. In: Power Engineering 2011. Renewable Energy Sources 2011: Tatranské Matliare, Slovak Republic, June 7-9, 2011. - Bratislava: Slovak University of Technology in Bratislava, 2011. - ISBN 978-80-89402-38-0. - USB flash. (in English)
- [118] PÍPA, M. - KUBICA, J. - JANIČEK, F.: Project of Experimental ORC Unit for Use of Excess Heat from the Cogeneration Unit. In: Power Engineering 2011. Renewable Energy Sources 2011: Tatranské Matliare, Slovak Republic, June 7-9, 2011. - Bratislava: Slovak University of Technology in Bratislava, 2011. - ISBN 978-80-89402-38-0. - USB flash. (in English)
- [119] PÍPA, M. - JANIČEK, F.: Thermo-Solar Powerplant of Laboratory of Renewable Energy Sources. In: Power Engineering 2011. Renewable Energy Sources 2011: Tatranské Matliare, Slovak Republic, June 7-9, 2011. - Bratislava: Slovak University of Technology in Bratislava, 2011. - ISBN 978-80-89402-38-0. - USB flash. (in English)
- [120] POLJOVKA, P.: Model CAF in High School. In: Elektrotechnologie 2011: Conference with International Participation. Brno, Czech Republic, 14. -16. 9. 2011. - Brno: VUT in Brno, 2011. - p. 108-113. (in Slovak)
- [121] POLJOVKA, P.: Quality of Management Systems. In: Economics and Management of Companies 2011: International Scientific Conference. Zvolen, Slovak Republic, 4. - 5. 10. 2011. - Zvolen: Technical University. - ISBN 978-80-228-2284-8. - p. 159-161. (in Slovak)
- [122] POŠIK, J. - VYSKOČ, M. - PÍPA, M.: Wind Power Plants. In: ŠVOČ 2011: Proceedings of Selected Works. Bratislava, Slovak Republic, 4. 5. 2011. - Bratislava: FEI STU, 2011. - ISBN 978-80-227-3508-7. - p. 230-236. (in Slovak)

- [123] RADITSCHOVÁ, J. - JANIGA, P.: Energy Performance of Building-Practical Experience of Certification of Lighting. In: SLOVALUX 2011: Smrdáky, Slovak Republic, June 8-10, 2011. - Bratislava: Slovenská svetelnotechnická spoločnosť, 2011. - ISBN 978-80-89275-28-1. - p. 90-96. (in Slovak)
- [124] RUSNÁK, A. - KRASNAN, F. - SMOLA, A.: Daylight Spectrum in Interiors. In: Light 2011. Ecology - Economy - Efficiency: 19th International Conference. Prague, Czech Republic, 21. -23. 9. 2011. - Ostrava: VŠB - TU Ostrava, 2011. - ISBN 978-80-248-2480-2. - p. 12-15. (in English)
- [125] RUSNÁK, A.: Exterior Characteristics of Daylight. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 17, Special Issue: ELOSYS, Trenčín, 11. -14. 10. 2011, p. 161-165. (in Slovak)
- [126] RUSNÁK, A.: Modelling of Spectral Characteristics of Daylight. In: ELITECH'11: 13th Conference of Doctoral Students Faculty of Electrical Engineering and Information Technology. Bratislava, Slovak Republic, 17 May, 2011. - Bratislava: Nakladateľstvo STU, 2011. - ISBN 978-80-227-3500-1. - p. 1-6. (in English)
- [127] RUSNÁK, A. - JANÍK, M.: Lightning Systems with Daylight Use. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 17, Special Issue: ELOSYS, Trenčín, 11. -14. 10. 2011, p. 156-160. (in Slovak)
- [128] RUSNÁK, A. - SMOLA, A.: Spectrum of Daylight and Sky Type. In: Lux Junior 2011: 10th International Conference. Dörfeld bei Ilmenau, Germany, 23. -25. 9. 2011. - Ilmenau: TU, 2011. - CD-Rom. (in English)
- [129] SLÁMA, J. - GRUSKOVÁ, A. - ŠOKA, M. - UŠÁKOVÁ, M. - UŠÁK, E.: Effect of Iron Deficiency on Magnetic Properties of NiZn Ferrite. In: SMM 2011: 20th International Conference on Soft Magnetic Materials. Athens, Greece, 19. -22. 9. 2011. - Arhens: X Mpenou Publ. House, 2011. - ISBN 978-960-9534-14-7. - p. 291. (in English)
- [130] SLÁMA, J. - ŠOKA, M. - GRUSKOVÁ, A. - DOSOUDIL, R. - JANČÁRIK, V.: Magnetic Properties of Selected Substituted Spinel Ferrites. In: SMM 2011: 20th International Conference on Soft Magnetic Materials. Athens, Greece, 19. -22. 9. 2011. - Arhens: X Mpenou Publ. House, 2011. - ISBN 978-960-9534-14-7. - p. 280. (in English)
- [131] SLUŠNÝ, M. - PÍPA, M.: Heat Pump. In: ŠVOČ 2011: Proceedings of Selected Works. Bratislava, Slovak Republic, 4. 5. 2011. - Bratislava: FEI STU, 2011. - ISBN 978-80-227-3508-7. - p. 223-229. (in Slovak)
- [132] SMITKOVÁ, M. - ELESCHOVÁ, Ž. - JANÍČEK, F.: Activities for Students in the Field of Power Engineering. In: Power Engineering 2011. Renewable Energy Sources 2011: Tatranské Matliare, Slovak Republic, June 7-9, 2011. - Bratislava: Slovak University of Technology in Bratislava, 2011. - ISBN 978-80-89402-38-0. - USB flash. (in English)
- [133] SMITKOVÁ, M. - JANÍČEK, F. - ELESCHOVÁ, Ž.: Electricity Mix in Slovakia and its Impact to the Selected Indicators. In: Elektroenergetika 2011: 6th International Scientific Symposium on Electrical Power Engineering. September 21-23, 2011, Stará Lesná, Slovak Republic. - Košice: Technical University of Košice, 2011. - ISBN 978-80-553-0724-4. - p. 278-281. (in English)
- [134] SMITKOVÁ, M. - JANÍČEK, F. - ELESCHOVÁ, Ž.: Energy Sector in European Union and its Impact to the Environment. In: Recent Advances in Applied & Biomedical Informatics and Computational Engineering in Systems Applications: International Conference on Environment, Economics, Energy, Devices, Systems Communications, Computers, Pure and Applied Mathematics. Florence, Italy, August 23-25. 2011. - WSEAS Press, 2011. - ISBN 978-1-61804-028-2. - p. 263-267. (in English)
- [135] SMITKOVÁ, M. - ELESCHOVÁ, Ž. - JANÍČEK, F.: Power Engineering at the Primary and Secondary Schools. In: Quo Vadis Education towards Science and Technology at Secondary Schools. 4th Scientific Conference. Bratislava, Slovak Republic, 7. -9. 11. 2011. - Bratislava: Mladí vedci Slovenska, o. z., 2011. - ISBN 978-80-970496-6-9. - p. 113-116. (in Slovak)
- [136] SMITKOVÁ, M. - ELESCHOVÁ, Ž. - JANÍČEK, F. - MINOVSKI, D. - SARAC, V.: Introduction of the National Centre for Research and Application of Renewable Energy Sources. In: Power Engineering 2011. Renewable Energy Sources 2011: Tatranské Matliare, Slovak Republic, June 7-9, 2011. - Bratislava: Slovak University of Technology in Bratislava, 2011. - ISBN 978-80-89402-38-0. - USB flash. (in English)
- [137] SMITKOVÁ, M. - MARTINS, F.: Introduction to the LCA. In: Power Engineering 2011. Renewable Energy Sources 2011: Tatranské Matliare, Slovak Republic, June 7-9, 2011. - Bratislava: Slovak University of Technology in Bratislava, 2011. - ISBN 978-80-89402-38-0. - USB flash. (in English)
- [138] SMITKOVÁ, M. - ELESCHOVÁ, Ž. - JANÍČEK, F.: National Centre for Research and Application of Renewable Energy Sources. In: Recent Researches in Energy, Environment, Devices, Systems, Communications and Computers: Venice, Italy, March 8-10, 2011. - Venice: WSEAS Press, 2011. - ISBN 978-960-474-284-4. - p. 143-145. (in English)
- [139] SMITKOVÁ, M. - ELESCHOVÁ, Ž. - JANÍČEK, F.: Potential of Hydrogen in the Future Energy Accumulation. In: 12th International Scientific Conference, Electric Power Engineering 2011': Ostrava, Czech Republic, May 10, 2011. - Ostrava: VŠB - Technical University of Ostrava, 2011. - ISBN 978-80-248-2393-5. - p. 164-170. (in English)

- [140] SMOLA, A.: Current Status of Standardization Activities Lighting Technology in Slovakia and in the World. In: SLOVALUX 2011: Smrdáky, Slovak Republic, June 8 - 10, 2011. - Bratislava: Slovenská svetelnotechnická spoločnosť, 2011. - ISBN 978-80-89275-28-1. - p. 81-89. (in Slovak)
- [141] SMOLA, A. - BÍLEK, M. - GAŠPAROVSKÝ, D.: Research Center of Lighting Technology. In: SLOVALUX 2011: Smrdáky, Slovak Republic, June 8 - 10, 2011. - Bratislava: Slovenská svetelnotechnická spoločnosť, 2011. - ISBN 978-80-89275-28-1. - p. 121-125. (in Slovak)
- [142] SOKOLSKÝ, M. - KAISER, M. - KUSKO, M. - CIRÁK, J.: Anthocyanines as Light Harvesters in the Dye-Sensitized TiO₂ Solar Cell. In: APCOM 2011. Applied Physics of Condensed Matter: 17th International Conference. Nový Smokovec, Slovak Republic, June 22-24, 2011. - Žilina: University of Žilina, 2011. - ISBN 978-80-554-0386-1. - p. 276-279. (in English)
- [143] SOKOLSKÝ, M. - KAISER, M. - CIRÁK, J. - KUSKO, M.: Construction and Characterization of DSSC Based on Blackberry Dye. In: Power Engineering 2011. Renewable Energy Sources 2011: Tatranské Matliare, Slovak Republic, June 7-9, 2011. - Bratislava: Slovak University of Technology in Bratislava, 2011. - ISBN 978-80-89402-38-0. - USB flash. (in English)
- [144] STAŇÁK, V. - BUGÁR, M. - FERENČEY, V. - MADARÁS, J.: Hydrogen Fuel Cells as Alternative Energy Source. In: Transfer 2011: Exploitation of New Knowledge in Engineering Practice. 12th International Conference. Trenčín, Slovak Republic, 23.-24. 11. 2011. - Trenčín: Alexander Dubcek University of Trenčín, 2011. - ISBN 978-80-8075-505-8. - CD-Rom. (in English)
- [145] STAŇÁK, V. - BUGÁR, M. - FERENČEY, V. - MADARÁS, J.: Operation Analysis of Hydrogen Fuel Cell. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 17, Special Issue: ELOSYS, Trenčín, 11.-14. 10. 2011, p. 171-174. (in English)
- [146] STANČÍK, S. - JELENÍK, O. - FRIC, R. - PAULECH, J. - KUTIŠ, V. - MURÍN, J.: Elastostatic Analysis of the Plastic Cistern of Pumping Hydro Power Plant. In: Power Engineering 2011. Renewable Energy Sources 2011: Tatranské Matliare, Slovak Republic, June 7-9, 2011. - Bratislava: Slovak University of Technology in Bratislava, 2011. - ISBN 978-80-89402-38-0. - USB flash. (in English)
- [147] STANČÍK, S. - DZUBA, J.: Modelling of Stress in Thin Films of Micro-Electromechanical Systems (MEMS). In: ELITECH'11: 13th Conference of Doctoral Students Faculty of Electrical Engineering and Information Technology. Bratislava, Slovak Republic, 17 May, 2011. - Bratislava: Nakladateľstvo STU, 2011. - ISBN 978-80-227-3500-1. - p. 1-4. (in English)
- [148] ŠÁLY, V. - PACKA, J.: High Efficiency Solar Cells. In: Power Engineering 2011. Renewable Energy Sources 2011: Tatranské Matliare, Slovak Republic, June 7-9, 2011. - Bratislava: Slovak University of Technology in Bratislava, 2011. - ISBN 978-80-89402-38-0. - USB flash. (in English)
- [149] ŠÁLY, V. - PACKA, J. - VÁRY, M. - LELÁK, J. - PERNÝ, M.: Photovoltaic Energy Sources. In: Elektroenergetika 2011: 6th International Scientific Symposium on Electrical Power Engineering. September 21-23, 2011, Stará Lesná, Slovak Republic. - Košice: Technical University of Košice, 2011. - ISBN 978-80-553-0724-4. - p. 139-141. (in English)
- [150] ŠÁLY, V. - PACKA, J. - ĎURMAN, V. - VÁRY, M. - KUSKO, M. - PERNÝ, M.: Photovoltaic Research within Centre of Excellence Activities at STU Bratislava. In: 26th European Photovoltaic Solar Energy Conference: Hamburg, Germany, 5-9 September 2011. - Munich: WIP-Renewable Energies, 2011. - ISBN 3-936338-27-2. - p. 4668-4671. (in English)
- [151] ŠEDIVÝ, J. - ŠULC, I.: Operator Measured Electricity Consumption Data. In: ELITECH'11: 13th Conference of Doctoral Students Faculty of Electrical Engineering and Information Technology. Bratislava, Slovak Republic, 17 May, 2011. - Bratislava: Nakladateľstvo STU, 2011. - ISBN 978-80-227-3500-1. - p. 1-5. (in English)
- [152] ŠOKA, M. - SLÁMA, J. - GRUSKOVÁ, A. - DOSOUDIL, R. - JANČÁRIK, V. - FRANEK, J.: NiZn Ferrite Properties Change by Substitution of Zn with Cu and Co Ions. In: SMM 2011: 20th International Conference on Soft Magnetic Materials. Athens, Greece, 19.-22. 9. 2011. - Arhens: X mpenou Publ. House, 2011. - ISBN 978-960-9534-14-7. - p. 293. (in English)
- [153] TOMIŠ, I. - JANÍČEK, F.: Application of Photovoltaic Pannels for Domestic Water Heating. In: Power Engineering 2011. Renewable Energy Sources 2011: Tatranské Matliare, Slovak Republic, June 7-9, 2011. - Bratislava: Slovak University of Technology in Bratislava, 2011. - ISBN 978-80-89402-38-0. - USB Flash. (in English)
- [154] TOMIŠ, I. - JANÍČEK, F.: Thermophotovoltaic Application to Cogenerative Production of Energy. In: Power Engineering 2011. Renewable Energy Sources 2011: Tatranské Matliare, Slovak Republic, June 7-9, 2011. - Bratislava: Slovak University of Technology in Bratislava, 2011. - ISBN 978-80-89402-38-0. - USB flash. (in English)
- [155] UHRÍK, M.: Radial Magnetic Fluxes in Disc-Type Motors. In: ELITECH'11: 13th Conference of Doctoral Students Faculty of Electrical Engineering and Information Technology. Bratislava, Slovak Republic, 17 May, 2011. - Bratislava: Nakladateľstvo STU, 2011. - ISBN 978-80-227-3500-1. - p. 1-4. (in English)

- [156] UHRÍK, M.: Reduction of Cogging Torque in Axial Flux Permanent Magnet Machines. In: ISEM 2011. The International Symposium on Electric Machinery in Prague: Prague, Czech Republic, 7. -8. 9. 2011. - Prague: CTU, 2011. - ISBN 978-80-01-04890-0. - p. 105-112. (in English)
- [157] UHRÍK, M.: The Influence of Non-Harmonic Power Supply on Losses and Load Characteristics of Disc Motors with Permanent Magnets. In: 32nd National Conference on Electrical Drives: Pilsen, 14. -16. 6. 2011. - Pilsen: ÚOS Elektrické pohony, 2011. (in Slovak)
- [158] UHRÍK, M.: The Possibilities of Vibrodiagnostic Analysis in Electrical Machinery. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 17, Special Issue: ELOSYS, Trenčín, 11. -14. 10. 2011, p. 181-184. (in English)
- [159] UHRÍK, M. - HÜTTNER, L. - DUČ-ANCI, M.: Upper Harmonics in Output Voltage of Inverters. In: ISEM 2011. The International Symposium on Electric Machinery in Prague: Prague, Czech Republic, 7. -8. 9. 2011. - Prague: CTU, 2011. - ISBN 978-80-01-04890-0. - p. 113-118. (in English)
- [160] VÁRY, M. - PERNÝ, M. - FIRICKÝ, E.: Realtime Photovoltaic Systems Monitoring. In: Power Engineering 2011. Renewable Energy Sources 2011: Tatranské Matliare, Slovak Republic, June 7-9, 2011. - Bratislava: Slovak University of Technology in Bratislava, 2011. - ISBN 978-80-89402-38-0. - USB flash. (in English)

IX. 3 Books

- [1] DUŠIČKA, P. - HUTŇAN, M. - JELEMENSKÝ, L. - KOLLÁTH, L. - PACKA, J. - ŠÁLY, V. - ŠULEK, P.: Renewable Energy Sources. Biomass - Sun – Water. Pezinok: Renesans, s. r. o., 2011. - 304 p. - ISBN 978-80-89402-37-3. (in Slovak)

IX. 4 Parts of books

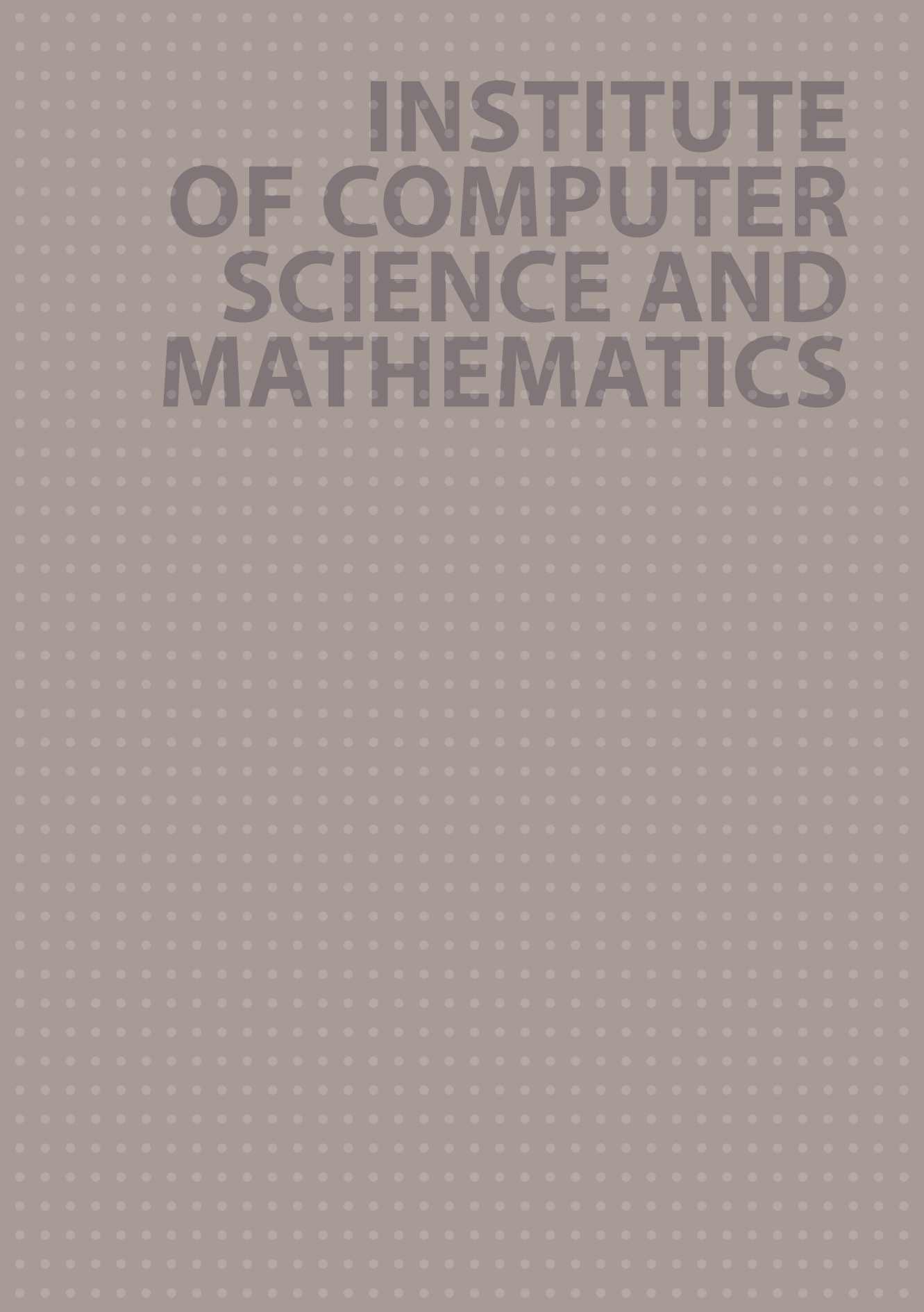
- [1] GOGA, V.: New Phenomenological Model for Solid Foams. In: Computational Modelling and Advanced Simulations. - Dordrecht: Springer Science+Business Media B. V., 2011. - ISBN 978-94-007-0316-2. - p. 67-82. (in English)
- [2] JANIGA, P. - GAŠPAROVSKÝ, D.: Power Quality in Public Lighting Installations. In: Power Quality. - Rijeka: Intech, Croatia, 2011. - ISBN 978-953-307-180-0. - p. 45-66. (in English)
- [3] KUGLER, S. - FOTIU, P. A. - MURÍN, J.: Advances in Quadrilateral Shell Elements with Drilling Degrees of Freedom. In: Shell-Like Structures: Non-Classical Theories and Applications. - Berlin: Springer Verlag, 2011. - ISBN 978-3-642-21854-5. - p. 307-328. (in English)
- [4] KUGLER, S. - FOTIU, P. A. - MURÍN, J.: on Drilling Degrees of Freedom. In: Computational Modelling and Advanced Simulations. - Dordrecht: Springer Science+Business Media B. V., 2011. - ISBN 978-94-007-0316-2. - p. 277-302. (in English)
- [5] MURÍN, J. - AMINBAGHAI, M. - KUTIŠ, V.: Exact Solution of Bending Free Vibration Problem of the FGM Beams with Effect of Axial Force. In: Computational Modelling and Advanced Simulations. - Dordrecht: Springer Science+Business Media B. V., 2011. - ISBN 978-94-007-0316-2. - p. 135-154. (in English)

IX. 5 Textbooks

- [1] GAŠPAROVSKÝ, D.: ABC for Specialisation in Electrical Engineering. - Bratislava: Slovenský elektrotechnický zväz, 2011. - 420 p. (in Slovak)
- [2] KOPČA, M. - BOJNA, I. - PACKA, J. - VÁRY, M.: Safety of Electrical Appliances. - Bratislava: FEI STU, 2011. - 215 p. - ISBN 978-80-227-3461-5. (in Slovak)
- [3] KOPČA, M. - VÁRY, M.: Safety of Electrical Appliances-Instructions for Exercises. - Bratislava: FEI STU, 2011. - 63 p. - ISBN 978-80-227-3462-2. (in Slovak)

IX. 6 Patents and Standards

- [1] FRIC, R.: Device for Measurement of Temperature Profiles of Light Sources: Patent No. 82-2010. Mediation date: 4. 10. 2011. - 4 p. (in Slovak)
- [2] KALAŠ, A.: Remote Car-Clutch-System Locking Device: Patent No. 5770. Mediation date: 2. 5. 2011. - 5 p. (in Slovak)



**INSTITUTE
OF COMPUTER
SCIENCE AND
MATHEMATICS**

INSTITUTE OF COMPUTER SCIENCE AND MATHEMATICS

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



Director of the Institute:
prof. RNDr. 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.

Tel.: +421-2-654 27 351, e-mail: lubomir.marko@stuba.sk, Fax: +421-2-654 20 415

Institute Secretary: RNDr. Elena Pastuchová, PhD.

Tel.: + 421-2-602 91 303, E-mail: elena.pastuchova@stuba.sk
Fax: + 421-2-654 20 415

Head of Administration Office: Zuzana Šabíková

Tel.: +421-2-602 91 266, E-mail: zuzana.sabikova@stuba.sk
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 has finished 459 Bachelors, 191 Masters (Engineers) and 6 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.

Tel.: +421-2-602 91 181, E-mail: pavol.zajac@stuba.sk
Fax: +421-2-654 20 415

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

Tel.: +421 -2-602 91 135, E-mail: gabriel.juhas@stuba.sk
Fax: +421-2-602 91 415

Department of Mathematics

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

Tel.: +421-2-654 27 351, E-mail: lubomir.marko@stuba.sk
Fax: +421-2-654 20 415

I. STAFF

Professors:

prof. RNDr. Otokar Grošek, PhD., prof. RNDr. Igor Bock, PhD.
prof. RNDr. Zdenka Riečanová, PhD.
Associate Professors doc. RNDr. Jaroslav Fogel, PhD., doc. RNDr. Gabriel Juhás, PhD., doc. RNDr. Karol Nemoga, PhD., doc. Dr. Ing. Miloš Oravec, doc. Ing. Pavol Zajac, PhD., doc. RNDr. Lubomír Marko, PhD., doc. RNDr. Vladimír Olejček, PhD., doc. RNDr. Boris Rudolf, PhD., doc. RNDr. Ladislav Satko, PhD., doc. RNDr. Peter Volauf, PhD., doc. RNDr. Michal Zajac, PhD.

Assistant Professors:

Ing. Štefan Balogh, Ing. Alexander Hambalík, PhD.,
Ing. Matúš Jókay, PhD., RNDr. Igor Kossaczky, CSc.,
RNDr. Eva Kostrecová, PhD., Ing. Fedor Lehocki, PhD.,
Mgr. Marek Sýs, PhD., Mgr. Zuzana Ševčíková,
Ing. Milan Vojvoda, PhD., RNDr. Igor Brilla, PhD.,
RNDr. Karla Čípková, PhD., RNDr. Mária Kečkemétyová,
PhD., RNDr. Hana Lichardová, PhD., RNDr. Ivica Marínová,
PhD., Mgr. Dávid Pancza, PhD., RNDr. Elena Pastuchová,
PhD., Mgr. Marcel Polakovič, PhD., Mgr. Michal Zákopčan, PhD.

Research Workers:

Ing. Ondrej Gallo, Ing. Stanislav Marček

Technical Staff:

Zuzana Šabíková (Head)
Brigita Timková, Gabriela Grúňová (secretary)

PhD. Students:

Ing. Eugen Antal, Ing. Michal Braško, Ing. Lucia Cibulková,
Ing. Matej Féder, Ing. Jaroslav Hamráček,
Ing. Viliam Hromada, Ing. Igor Kazlov, Ing. Ján Mazanec,
Mgr. Michal Mikuš, Ing. Ľuboš Omelina,
Ing. Filip Pilka, Ing. Marek Repka,
Ing. Martin Riesz, Ing. Andrej Savka, Ing. Juraj Varga,
Ing. Milan Zelina, Mgr. Viktória Rozborová, Mgr. Tomáš
Žilka, Mgr. Andrea Tinajová

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

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
Algorithms and Programming (1st sem., 3-2 h)	M. Sýs
Algorithms and Programming (1st sem., 3-2 h)	I. Kossaczky
Analysis and Complexity of Algorithms 5th sem., 3-1 h)	M. Vojvoda
Classical Ciphers (4th sem., 2-2 h)	O. Grošek
Database Systems (3rd sem., 3-2 h)	M. Vojvoda
Operating Systems (3rd sem., 3-2 h)	M. Jókay
Programming Techniques (2nd sem., 3-2 h)	I. Kossaczky
Designing of Database Systems (4th sem., 3-1 h)	G. Juhás
Information Security (5th sem., 2-2 h)	E. Kostrecová
Computer Crimes (6th sem., 2-2 h)	E. Kostrecová
Modelling in Softwar Engineering (5th sem., 2-2 h)	J. Hanák
Introduction to Cryptography (5th sem., 2-2 h)	O. Grošek
Fast Algorithms (6th sem., 2-2 h)	K. Nemoga
Introduction to Computer Science (4th sem., 3-2 h)	O. Grošek
Communication Networks 1 (4th sem., 3-1 h)	M. Oravec
Software Application Development 1 (3rd sem., 2-2 h)	M. Šrámka
Software Architecture (5th sem., 2-2 h)	G. Juhás
Management of IT Projects (6th sem., 2-2 h)	F. Lehocki
Workflow Management Systems (6th sem., 2-2 h)	F. Lehocki
Communication Networks 2 (6th sem., 4-1 h)	A. Hambalík/M. Oravec
Calculus I (1st sem., 4-2h)	M. Kečkemétyová, B. Rudolf, L. Satko
Logic Systems (1st sem., 4-1h)	V. Čerňanová, V. Olejček,

M. Polakovič	
Calculus II	
(2nd sem., 4-2h)	I. Brilla
B. Rudolf, L. Satko	
Linear Algebra I	
(1st sem., 2-2h)	M. Zajac
Calculus III	
(3rd sem., 3-2h)	Ľ. Marko
Ordinary Differential Equations	
(3rd sem., 2-2h)	Ľ. Marko
Discrete Mathematics and Logic	
(3rd sem., 3-2h)	I. Marinová
Numerical and Statistical Computation	
(3rd sem., 3-2h)	P. Volauf
Numerical and Statistical Computations	
(4th sem., 3-2h)	V. Olejček
Statistical Methods in Informatics	
(4th sem., 2-2h)	E. Pastuchová
Probability and Statistics	
(4th sem., 2-2h)	P. Volauf
Linear Algebra and Linear Programming	
(6th sem., 2-2h)	M. Zajac

III.2 Graduate Study (Ing.)

Computer Graphics	
(1st sem., 3-2 h)	M. Sýs
Object-Oriented Programming	
(3rd sem., 3-2 h)	V. Novák
Ciphers in Communication Networks	
(1st sem., 3-2 h)	K. Nemoga
Modelling and Simulations of Event Systems	
(1st sem., 3-2 h)	G. Juhás
Practice of Security of Information	
Systems	
(1st +3rd sem., 3-2 h)	M. Zanechal
Formal Methods	
(1st sem., 3-2 h)	J. Fogel
Cryptanalysis	
(3rd sem., 3-2 h)	M. Vojvoda, M.Sýs, P.Zajac
Analysis and Synthesis of Event Systems	
(2nd sem., 3-2 h)	G. Juhás
Biometrics	
(2nd sem., 3-2 h)	M. Oravec
System Programming	
(2nd, 4th sem., 3-2h)	J. Fogel
Design of Ciphers	
(3rd sem., 3-2 h)	P. Zajac
Machine Learning and Neural Networks	
(1st sem., 3-2h)	M. Oravec
Workflow Management Systems, Processes and Web Services	
(2nd sem., 3-2 h)	F. Lehocki
Coding Theory	
(1st sem., 3-1h)	K. Čipková
Partial Differential Equations	
(1st sem., 3-2h)	I. Bock
Partial Differential Equations Numerical Methods	

(1st sem., 2-2h)	I. Bock
Functional Analysis I	
(1st sem., 2-2h)	M. Zajac
Differential and Difference Systems	
(1st sem., 2-2h)	B. Rudolf
Numerical Solutions of Differential Equations	
(1st sem., 2-0h)	I. Bock
Stochastic Models	
(2nd sem., 2-2h)	V. Olejček
Mathematics	
(1st sem., 3-2h)	I. Bock
Difference and Differential Equations	
(1st sem., 2-2h)	B. Rudolf
Theory of Fuzzy Systems	
(1st sem., 3-2h)	P. Volauf

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

Algorithms and Programming	
(1st sem., 12 h consul.)	J. Varga
Programming Techniques	
(2nd sem., 12 h consul.)	M. Sýs
Databases Systems	
(1st sem., 12 h consul.)	Ľ. Omelina
Computer Architecture	
(2nd sem., 12 h consul.)	M. Jókay
Business Management	
(2nd sem., 12 h consul.)	F. Lehocki
Classical Ciphers	
(4th sem., 12 h consul.)	O. Grošek

III.4 Distance Study

Algorithms and Programming	
(1st sem., 6x2 h consul.)	A. Hambalík

III.5 Undergraduate Study (Bc. Distance Education Method)

Mathematics I	
(1st year)	Ľ. Marko
Logic Systems	
(1st year)	D. Pancza
Mathematics II	
(1st year)	I. Brilla
Mathematics III	
(2nd year)	Ľ. Marko, P. Volauf
Mathematics IV	
(2nd year)	V. Olejček

III.6 Graduate Study (Ing. Distance Education Method)

Mathematics	
(1st year)	I. Bock

III.7 Postgraduate Study

Numerical Solutions of Differential Equations	
(1st sem., 2-0h)	I. Bock

IV. RESEARCH PROJECTS

IV.1 National Scientific Projects

- Solution of Current Problems in Cryptology, VEGA 1/0244/09. Duration: 1.1.2009-31.12.2011 (completed) (O. Grošek)
- Modernization of Education Process in Basic and Grammar Schools., ITMS: 26110130083, 26140130013 and ITMS: 26110130084, 26140130084, certified lector in the project, Duration: 2008 – 2013 (solved). (A.Hambalík)
- Proposal of Methods of Analysis and Classification for Biometric Recognition of Human Faces and Traffic in Communication Networks, VEGA 1/0214/10. Duration: 01.01.2010- 31.12.2011 (completed). (M. Oravec)
- Centre of Excellence of SMART Technologies, Systems and Services ITMS: 26240120005 Duration: 01.05.2009 – 30.04.2011 (completed) (G. Juhás)
- Centre of Excellence of SMART Technologies, Systems and Services II ITMS: 26240120029 Duration: 01.01.2010 – 31.12.2012 (solved). (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 (started). (F. Lehocki)
- The analysis of quasistatic dynamic contact problems of mechanics. VEGA 1/0021/10. Duration: 01.01.2010 – 31.12.2011 (completed). (I. Bock)
- 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 (started). (Z. Riečanová)

IV.2 International Scientific Projects

- ERASMUS Educational Project, Bilateral Agreement, University of La Laguna, Spain
Duration: 09.10.2006 – 30.06.2012 (solved). (O. Grošek)
- Cryptographic Algorithms and Primitives with Increased Resistance Against Side
- Channel Attacks, Project SK-FR-0011-09. Duration: 25.02.2010 – 20.12.2011 (completed). (O. Grošek)

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
- 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

V.3 CONTRACTS

none

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] E. Antal: Selected Problems in Cryptanalysis of Fialka M-125 cipher (O. Grošek)
- [2] T. Zátka: Qualified electronic signature in the Slovak Republic and European Union (O. Grošek)
- [3] M. Dubovský: Protection of laser show (M.Sýs)
- [4] B. Šulej: Methods for direct computer memory Access (Š. Balogh)
- [5] T. Marko: Palmprint feature extraction (L. Adamko)
- [6] T. Straka: Cryptography strong random numbers generators (L.Adamko)
- [7] M. Bella: The attack against hash function MD4 (M.Vojvoda)
- [8] J. Hribík: Verifiable Secret Sharing Schemes (K. Nemoga)
- [9] J. Varga: Linear Recurring Sequences over Z_m (K. Nemoga)
- [10] J. Štefanička: Tools misused at cracking (E. Kostrecová)
- [11] L. Pír: Intelligent Camera Systems in Objects Security (M. Kemprný)
- [12] M. Paulínyi: Protection against spamming (E.Kostrecová)
- [13] V. Hromada – Fault Analysis of Stream Ciphers (M.Vojvoda)
- [14] R. Blaško: Use of artificial intelligence in medical diagnosis of the patient (M.Oravec)
- [15] J. Režnák,J: Face recognition in biometrics using kernel methods KPCS and GDA (M.Oravec)
- [16] J.Baroš: Degree of video damage after insertion to public repository for anonymous sharing of multimedia content (M. Jókay)
- [17] R. Čagala.: Algebraic cryptanalysis of the GOST cipher (P. Zajac)
- [18] M.Plančík: Algebraic cryptanalysis of Serpent (P. Zajac)
- [19] M. Páleníková: Cube attack (P. Zajac)
- [20] M. Hrušovský: Security Prevention for Customers against Internet Banking Crime (Z. Ševčíková)
- [21] M. Kováč: Deadlock states analysis in Petri Net (Z. Ševčíková)
- [22] M. Mádel: Transformation of workflow processes in to Petri nets (Z. Ševčíková)
- [23] R. Jadrončík: Identification of programs from nonsequential behavior (G. Juhás)
- [24] S. Lucký: Dynamical soundness analysis of Petri nets (G. Juhás)
- [25] S. Madaras: Opportunities for transformation Workflow models into Petri Nets (G. Juhás)
- [26] L. Oles: Petri net synthesis (G. Juhás)
- [27] M. Rástocký: Analysis of Processes with Dynamic Resource Allocation (G. Juhás)
- [28] M. Marko: Web portal for e-learning CMS Joomla (M. Foltin)
- [29] M. Súlovec: Creation of framework for network client-server communication model (L. Stuchlíková)
- [30] T. Búgel: Automated recognition system for authenticity of digital images (A. Hambalík)
- [31] M. Meszáros: Verification of concurrent programs written in C language (J. Fogel)
- [32] J. Plevko: Constructing Büchi Automatas from LTL formulas (J.Fogel)
- [33] M. Veselý: Universal software tester of active components of local area networks (A. Hambalík)

- [34] R. Lipovský: Virtualization against malware (Š. Balogh)
- [35] M. Hocheľ: Proposal for a server – client application and the communication interface for an automatic warehouse management (J. Dörner)
- [36] M. Gašparík: Capturing objects by camera and recognizing them (J. Dörner)
- [37] F. Drugda: Information system for electronic prescription drug from doctor view (Š. Balogh)
- [38] M. Dzurík: Implementation of National Health Portal (Š. Balogh)
- [39] B. Botto: System for creating the interactive courses which fulfills the needs of Slovak health (F. Lehocki)
- [40] E. Buček: Creation of library package for development of 3D graphics applications (L. Stuchlíková)
- [41] A. Cvečko: Architecture of EHR (F. Lehocki)
- [42] M. Kováč: Telemedicine applications in healthcare (F. Lehocki)
- [43] L. Kuba: Models of diagnostic systems (F. Lehocki)
- [44] D. Tekeljak: Remote administrator access to the managed server secured by biometrics (A. Hambalík)
- [45] M. Hatala: Utilizing modern ICT in rehabilitation of patients (F. Lehocki)
- [46] M. Hurňák: Transformation from VHDL Model into Petri Nets (O. Gallo)
- [47] M. Kaša: Transformation of time behavior of logic circuit in Petri nets (O. Gallo)
- [48] L. Cibulková: Modelling of Workflow Processes (O. Gallo)
- [49] Ľ. Belicová: Modelling and analysis of Workflow Processes (O. Gallo)
- [50] J. Vlk: Academic information system based on platform J2EE (V. Novák)
- [51] T. Gallovič: Logistics system for android platform (V. Novák)

VI.2 PhD. Theses

- [1] M. Jókay: Steganography in the Images and Video, (O. Grošek)
- [2] F. Lehocki: Models of Diagnostic Systems, (G. Juhás)

VI.3 Habilitation Theses

- [1] P. Zajac: Contribution to the design and cryptanalysis of ciphers, STU 2011.

VII. OTHER ACTIVITIES

- Seminar Crypto (O. Grošek)
- Reviewer of ZentralblattMath (K. Nemoga, O. Grošek)
- Seminar: Machine Learning (M. Oravec)
- Seminar: Topologies and states on quantum

- structures (Z. Riečanová).
- Seminar: Variational inequalities and optimal control on mechanics (I. Bock)
- Seminar: Ordinary differential equations (B. Rudolf)
- Seminar: Numerical methods of solutions of differential equations - seminar for postgraduate students (I. Bock)
- Organising of 8th Workshop on Functional Analysis and its Applications in Mathematical Physics and Optimal control in Nemecká, 5 -10 september 2011 (I. Bock, B. Rudolf, M. Zajac)

VIII. MEMBERSHIP IN INSTITUTIONS/ COMMITTEES

VIII.1 Membership in National Institution/Committees

- JSMF = Union of Slovak Mathematicians and Physicists
- Member of – SSKI – Slovak Society for Cybernetics and Informatics,
- JSMF- Union of Slovak Mathematicians and Physicists (J. Fogel)
- Member of – JSMF (O. Grošek)
- Member of – JSMF (K. Nemoga)
- 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 (I. Bock, M. Kečkemetyová, I. Marinová, V. Olejček, P. Volauf)
- E. Pastuchová, B. Rudolf, M. Polakovič, Z. Riečanová, L. Satko, M. Zajac,
- 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.1 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, L. Satko)
- Member of IEEE-(Institute of Electrical and Electronics Engineers) Computer Society (J. Fogel)
- 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 (Institute of Electrical and Electronics Engineers) Engineering in Medicine and Biology Society (F. Lehocki)
- Member of – ETIS European Transport policy Information System (E. Kostrecová)
- 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, G. Jenča)
- Member of Bernoulli Society (Z. Riečanová, V. Olejček)
- Member of IACM - International Association for Computational Mechanics (I. Brilla, L. Marko)
- Member of - Emmy Noether Society (Z. Riečanová, I. Marínová, E. Pastuchová, G. Jenča)
- 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)
- Member of - Tatra Mountains Mathematical Publications, publisher: Mathematical Institut of SAS, (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. - JÓKAY, M.: Rotor Cipher Machine Fialka M-125: Implementation and Utilization. In: Crypto-World. - ISSN 1801-2140. - Vol. 13, No. 9 (2011), p. 9-15. (in Slovak)
- [2] ANTAL, E. - JÓKAY, M.: Rotor Cipher Machine Fialka M-125: The Selected Characteristics of the Cipher. In: Crypto-World. - ISSN 1801-2140. - Vol. 13, No. 6 (2011), p. 23-32. (in Slovak)
- [3] ANTAL, E. - JÓKAY, M.: Rotor Cipher Machine Fialka M-125. Machine Design. In: Crypto-World. - ISSN 1801-2140. - Vol. 13, No. 4 (2011), p. 18-27. (in Slovak)
- [4] ANTAL, E. - JÓKAY, M.: Rotor Cipher Machine Fialka M-125: The Comparison with Other Cipher Machines. In: Crypto-World. - ISSN 1801-2140. - Vol. 13, No. 5 (2011), p. 15-23. (in Slovak)
- [5] ANTAL, E. - JÓKAY, M.: Rotor Cipher Machine Fialka M-125. Tutorial. In: Crypto-World. - ISSN 1801-2140. - Vol. 13, No. 4 (2011), p. 17. (in Slovak)
- [6] BAN, J. - FÉDER, M. - ORAVEC, M. - PAVLOVIČOVÁ, J.: Non-Conventional Approaches to Feature Extraction for Face Recognition. In: Acta Polytechnica Hungarica. - ISSN 1785-8860. - Vol. 8, No. 4 (2011), p. 75-90. (in English)
- [7] BENIAK, M. - PAVLOVIČOVÁ, J. - ORAVEC, M.: 3D Chrominance Histogram Based Face Localisation. In: International Journal of Signal and Imaging Systems Engineering. - ISSN 1748-0701 (on-line). - ISSN 1748-0698 (PRINT). - Vol. 4, Iss. 1 (2011), p. 3-12. (in English)
- [8] BESSONOV, RV. - BRAČIČ, J. - ZAJAC, M.: Non-Hyperreflexive Reflexive Spaces of Operators. In: Studia Mathematica. - ISSN 0039-3223. - Vol. 202, Issue 1 (2011), p. 65-80. (in English)
- [9] BOCK, I. - KEČKEMÉTYOVÁ, M.: An Optimal Design with Respect to a Variable Thickness of a Viscoelastic Beam in a Dynamic Boundary Contact. In: Tatra Mountains Mathematical Publications. - ISSN 1210-3195. - Vol. 48 (2011), p. 15-24. (in English)
- [10] BOCK, I. - JARUŠEK, J.: Unilateral Dynamic Contact Problem for Viscoelastic Reissner-Mindlin Plates. In: Nonlinear analysis: Theory, Methods and Applications. - ISSN 0362-546X. - Vol. 74 (2011), p. 4192-4202. (in English)
- [11] KALINA, M. - OLEJČEK, V. - PASEKA, J. - RIEČANOVÁ, Z.: Sharply Dominating MV-Effect Algebras. In: International Journal of Theoretical Physics. - ISSN 0020-7748. - Vol. 50 (2011), p. 1152-1159. (in English)

- [12] KOSTRECOVÁ, E.: Initiatives of International Cooperation between States and International Institutions for the Protection of Electronic Space. In: Policajná teória a prax. - ISSN 1335-1370. - Vol. 19, No. 2 (2011), p. 134-138. (in Slovak)
- [13] PASEKA, J. - RIEČANOVÁ, Z.: Considerable Sets of Linear Operators in Hilbert Spaces as Operator Generalized Effect Algebras. In: Foundations of Physics. - ISSN 0015-9018. - Vol. 41 (2011), p. 1634-1647. (in English)
- [14] PASEKA, J. - RIEČANOVÁ, Z.: The Inheritance of BDE-Property in Sharply Dominating Lattice Effect Algebras and (o)-Continuous States. In: Soft Computing. - ISSN 1432-7643. - Vol. 15, No. 3 (2011), p. 543-555. (in English)
- [15] PASTUCHOVÁ, E. - SABO, M. - KOHNOVÁ, S.: Comparison of Clustering Methods Applied to Hydrological Data. In: Forum Statisticum Slovacum. - ISSN 1336-7420. - Vol. 7, No. 7 (2011), p. 168-175. (in English)
- [16] PILKA, F. - ORAVEC, M.: a NARX Neural Network Algorithm for Video Traffic Prediction. In: Journal of Electrical and Electronics Engineering (JEEE). - ISSN 1844-6035. - Vol. 4, No. 1 (2011), p. 179-184. (in English)
- [17] PILKA, F. - ORAVEC, M.: Prediction Methods for MPEG-4 and H. 264 Video Transmission. In: Journal of Electrical Engineering. - ISSN 1335-3632. - Vol. 62, No. 2 (2011), p. 57-64. (in English)
- [18] POLAKOVIČ, M.: Generalized Effect Algebras of Bounded Positive Operators Defined on Hilbert Spaces. In: Reports on Mathematical Physics. - ISSN 0034-4877. - Vol. 68, No. 2 (2011), p. 241-250. (in English)
- [19] POLAKOVIČ, M. - RIEČANOVÁ, Z.: Generalized Effect Algebras of Positive Operators Densely Defined on Hilbert Spaces. In: International Journal of Theoretical Physics. - ISSN 0020-7748. - Vol. 50 (2011), p. 1167-1174. (in English)
- [20] RACKO, J. - MIKOLÁŠEK, M. - BENKO, P. - HARMATHA, L. - GALLO, O. - GRANZNER, R. - SCHWIERZ, F.: Coupled Defect Level Recombination in the P-N Junction. In: Journal of Electrical Engineering. - ISSN 1335-3632. - Vol. 62, No. 6 (2011), p. 355-358. (in English)
- [21] RIEČANOVÁ, Z. - ZAJAC, M. - PULMANNOVÁ, S.: Effect Algebras of Positive Linear Operators Densely Defined on Hilbert Spaces. In: Reports on Mathematical Physics. - ISSN 0034-4877. - Vol. 68, No. 3 (2011), p. 261-270. (in English)
- [22] RIEČANOVÁ, Z.: Effect Algebras of Positive Self-Adjoint Operators Densely Defined on Hilbert Spaces. In: Acta Polytechnica. - ISSN 1210-2709. - Vol. 51, No. 4 (2011), p. 78-81. (in English)
- [23] RIEČANOVÁ, Z. - ZAJAC, M.: Extensions of Effect Algebra Operations. In: Acta Polytechnica. - ISSN 1210-2709. - Vol. 51, No. 4 (2011), p. 73-77. (in English)
- [24] RIEČANOVÁ, Z.: Lattice Effect Algebras Densely Embeddable into Complete Ones. In: Kybernetika. - ISSN 0023-5954. - Vol. 47, No. 1 (2011), p. 100-109. (in English)
- [25] RIEČANOVÁ, Z. - PASEKA, J.: State Smearing Theorems and the Existence of States on Some Atomic Lattice Effect Algebras. In: Journal of Logic and Computation. - ISSN 0955-792X. - Vol. 21, No. 6 (2011), p. 863-882. (in English)
- [26] RUDOLF, B.: on a Boundary Value Problem for Differential Equation with P-Laplacian. In: Tatra Mountains Mathematical Publications. - ISSN 1210-3195. - Vol. 48 (2011), p. 189-195. (in English)
- [27] ZELINA, M. - ORAVEC, M.: Feature Selection for Application Recognition in Communication Networks. In: AD ALTA: Journal of Interdisciplinary Research. - ISSN 1804-7890. - Vol. 1, Iss. 1 (2011), p. 115-117. (in English)

IX. 2 Conference Proceedings

- [1] BALOGH, Š. - PONDELÍK, M.: Capturing Encryption Keys for Digital Analysis. In: IDAACS 2011: 6th International Conference on Intelligent Data Acquisition and Advanced Computing Systems: Technology and Applications. Prague, Czech Republic, 15 - 17 September 2011. - Piscataway: IEEE, 2011. - ISBN 978-1-4577-1425-2. - p. 759-763. (in English)
- [2] BALOGH, Š. - LEHOCKI, F. - JUHÁS, G.: EHealth in Slovakia and its Implementation. In: SMART S2AI: Workshop of SMART Systems and Services in Applied Informatics. Bratislava, Slovak Republic, 18 April 2011. - Bratislava: FEI STU, 2011. - ISBN 978-80-227-3513-1. - p. 11-13. (in Slovak)
- [3] BALOGH, Š. - CHOVANČÁK, D.: Using Data Mining Techniques for Detection Malware and Network Attacks. In: Knowledge 2011: 10th Conference. Stará Lesná, Slovak Republic, 31. 1. - 2. 2. 2011. - Ostrava: Technical University of Ostrava, 2011. - ISBN 978-80-248-2369-0. - p. 255-258. (in Slovak)
- [4] BAN, J. - FÉDER, M. - ORAVEC, M. - PAVLOVIČOVÁ, J.: Enhancement of One Sample per Person Face Recognition Accuracy by Training Sets Extension. In: Proceedings ELMAR-2011: 53rd International Symposium. 14-16 September 2011, Zadar, Croatia. - Zadar: Croatian Society Electronics in Marine, 2011. - ISBN 978-953-7044-12-1. - p. 25-28. (in English)
- [5] BLAŠKO, R. - ORAVEC, M. - PAVLOVIČOVÁ, J. - HANÚSKOVÁ, V. - LEHOCKI, F.: Image Preprocessing for Diagnostics Support in Ophthalmology. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 17, Special Issue: ELOSYS, Trenčín, 11. -14. 10. 2011, p. 5-8. (in English)

- [6] BOCK, I.: Dynamic Contact Problems for Shells with Moderately Large Deflections. In: IUTAM Symposium on Dynamics Modelling and Interaction Control in Virtual and Real Environments. - Dordrecht: Springer, 2011. - ISBN 978-94-007-1642-1. - p. 293-300. (in English)
- [7] BOCK, I. - JARUŠEK, J.: on a Dynamic Contact Problem for a Geometrically Nonlinear Viscoelastic Shell. In: 8th Workshop on Functional Analysis and its Applications in Mathematical Physics and Optimal Control: Nemecká, Slovak Republic, September 5-10, 2011. - Bratislava: STU, 2011. - p. 3-7. (in English)
- [8] BOCK, I. - LOVIŠEK, J.: on Optimal Design of Plates in a Dynamic Contact with a Winkler Foundation. In: New Trends in Statics and Dynamics of Buildings: 9th International Conference. Bratislava, Slovak Republic, 20. -21. 10. 2011. - Bratislava: STU, 2011. - ISBN 978-80-227-3572-8. - p. 15-16. (in English)
- [9] BRAŠKO, M.: on Comparison of Stream Ciphers Proposals in eStream Project. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 17, Special Issue: ELOSYS, Trenčín, 11. -14. 10. 2011, p. 189-193. (in English)
- [10] BRILLA, I.: Numerical Analysis of Boundary Inverse Problems for Two Dimensional (2D) Orthotropic Solids. In: XXXII CILAMCE: Congresso Ibero Latino Americano de Métodos Computacionais em Engenharia. Ouro Preto, Brazil, 13 - 16 November 2011. - Sao Paulo, 2011. - CD-Rom. (in English)
- [11] CIBULKOVÁ, L. - LEHOČKI, F.: Modelling of Workflow Processes. In: ŠVOČ 2011: Proceedings of Selected Works. Bratislava, Slovak Republic, 4. 5. 2011. - Bratislava: FEI STU, 2011. - ISBN 978-80-227-3508-7. - p. 30-33. (in Slovak)
- [12] CIBULKOVÁ, L. - LEHOČKI, F. - HANÚSKOVÁ, V. - ORAVEC, M. - PAVLOVIČOVÁ, J.: Clinical Workflow Modelling in Healthcare. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 17, Special Issue: ELOSYS, Trenčín, 11. -14. 10. 2011, p. 194-198. (in Slovak)
- [13] ČERNANOVÁ, V.: Card Game "Happy Families". In: Two Days with Didactics of Mathematics 2011: Prague, Czech Republic, 17. -18. 2. 2011. - Prague: JČMF, 2011. - ISBN 978-80-86843-32-2. - p. 29-32. (in Slovak)
- [14] ČERNANOVÁ, V.: The Use of the Scalar Product of the Vectors on the Shaping and Strengthening of the Argumentative Skills of Pupils. In: Acta Mathematica 14. Nitra, Slovak Republic, 22. -23. September 2011. - Nitra: Constantine the Philosopher University in Nitra, 2011. - ISBN 978-80-8094-958-7. - p. 71-75. (in Slovak)
- [15] GALLO, O. - NEČAS, T. - JUHÁS, G.: Synthesis of Asynchronous Digital Circuits with Using Petri Nets. In: SMART S2AI: Workshop of SMART Systems and Services in Applied Informatics. Bratislava, Slovak Republic, 18 April 2011. - Bratislava: FEI STU, 2011. - ISBN 978-80-227-3513-1. - p. 6-8. (in Slovak)
- [16] HAMBALÍK, A.: Communication Networks and Communication Protocols. In: Trends in Education: Olomouc, Czech Republic, 23 -24 June 2011. - Olomouc: Gevak Ltd., 2011. - ISBN 978-80-86768-34-2. - p. 280-283. (in Slovak)
- [17] HAMBALÍK, A.: The Examination of the Authenticity of Digital Pictures. In: Agria Media 2011: International Conference on Information. October 11 - 12, 2011. - Eger: Eszterházy Károly Főiskola, 2011. - p. 32. (in Hungarian)
- [18] HÄUPTLE, P. - HUBINSKÝ, P. - RUDOLF, B. - GRUHLER, G.: Signal Types Investigation for Harmonic Modulation in Drives. In: WCECS 2011: Proceedings of the World Congress on Engineering and Computer Science 2010. Volume I. San Francisco, USA, 19-21 October, 2011. - Hong Kong: International Association of Engineers, 2011. - ISBN 978-988-19251-7-6. - p. 951-955. (in English)
- [19] HRMADA, V. - VOJVODA, M.: Fault Analysis of Stream Ciphers. In: Santa's Crypto Get-Together 2011: Prague, Czech Republic, 1-2 December 2011. - Prague: Trusted Network Solutions, 2011. - p. 69-70. (in English)
- [20] HRMADA, V. - VOJVODA, M.: Fault Analysis of Stream Ciphers. In: ŠVOČ 2011: Proceedings of Selected Works. Bratislava, Slovak Republic, 4. 5. 2011. - Bratislava: FEI STU, 2011. - ISBN 978-80-227-3508-7. - p. 25-29. (in Slovak)
- [21] JÓKAY, M. - ZAJAC, P.: Analysis of Data Structures in MP4 Files Usable for Steganography. In: ISCAMI 2011: Book of Abstracts. Malenovice, Czech Republic, 6. -8. 5. 2011. - Ostrava: University of Ostrava, 2011. - p. 34. (in English)
- [22] JÓKAY, M. - PLANČÍK, M. - ZAJAC, P.: Remarks on GPU Usage in Cryptanalysis. In: GCCP 2011 Proceedings: 7th International Workshop on Grid Computing for Complex Problems. Bratislava, Slovak Republic, October 24 - 26, 2011. - Bratislava: Slovak Academy of Sciences, 2011. - ISBN 978-80-970145-5-1. - p. 78-85. (in English)
- [23] JÓKAY, M.: The Design of a Steganographic System Based on the GOP Structure in the Video Standard MPEG-4. In: Recent Researches in Computers and Computing: International Conference on Computers and Computing (ICCC'11). Lanzarote, Spain, 27. -29. 5. 2011. - WSEAS Press, 2011. - ISBN 978-1-61804-000-8. - p. 95-99. (in English)
- [24] JUHÁS, G. - FOLTIN, M. - ŠEVČÍKOVÁ, Z. - JUHÁSOVÁ, A.: Could over. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 17, Special Issue: ELOSYS, Trenčín, 11. -14. 10. 2011, p. 204-207. (in Slovak)
- [25] KAZLOV, I. - JUHÁS, G.: Introduction to Resource Constrained Workflow Nets. In: SMART S2AI: Workshop of SMART Systems and Services in Applied Informatics. Bratislava, Slovak Republic, 18 April 2011. - Bratislava: FEI STU, 2011. - ISBN 978-80-227-3513-1. - p. 14-16. (in Slovak)

- [26] KEČKEMÉTYOVÁ, M. - BOCK, I.: An Optimal Control Problem for an Elastic Beam in a Dynamic Contact with a Rigid Obstacle. In: 8th Workshop on Functional Analysis and its Applications in Mathematical Physics and Optimal Control: Nemecká, Slovak Republic, September 5-10, 2011. - Bratislava: FEI STU, 2011. - p. 20-25. (in English)
- [27] KEČKEMÉTYOVÁ, M. - ROZBOROVÁ, V.: on an Optimal Design Problem for a Mindlin-Timoshenko Beam on a Unilateral Elastic Foundation. In: New Trends in Statics and Dynamics of Buildings: 9th International Conference. Bratislava, Slovak Republic, 20. -21. 10. 2011. - Bratislava: STU, 2011. - ISBN 978-80-227-3572-8. - p. 213-216. (in English)
- [28] KOVÁČ, M. - LEHOČKI, F.: Mobile Solution for Chronic Disease Management. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 17, Special Issue: ELOSYS, Trenčín, 11. -14. 10. 2011, p. 208-210. (in Slovak)
- [29] LEHOČKI, F. - ORAVEC, M. - BALOGH, Š. - JUHÁSOVÁ, A.: Selected Models for Diagnostic Systems. In: SMART S2AI: Workshop of SMART Systems and Services in Applied Informatics. Bratislava, Slovak Republic, 18 April 2011. - Bratislava: FEI STU, 2011. - ISBN 978-80-227-3513-1. - p. 1-5. (in Slovak)
- [30] LODERER, M. - REPKA, M.: Cache Collision Time Attack Against AES Using Final Round. In: ŠVOČ 2011: Proceedings of Selected Works. Bratislava, Slovak Republic, 4. 5. 2011. - Bratislava: FEI STU, 2011. - ISBN 978-80-227-3508-7. - p. 20-24. (in Slovak)
- [31] MARČEK, S. - DROZDA, M. - JUHÁS, G.: Introduction to Intrusion Detection System for High Dimensional Space for WSN. In: SMART S2AI: Workshop of SMART Systems and Services in Applied Informatics. Bratislava, Slovak Republic, 18 April 2011. - Bratislava: FEI STU, 2011. - ISBN 978-80-227-3513-1. - p. 17-18. (in English)
- [32] MARKO, L.: Bifurcation Problem for Elastic Circular Plate. In: New Trends in Statics and Dynamics of Buildings: 9th International Conference. Bratislava, Slovak Republic, 20. -21. 10. 2011. - Bratislava: STU, 2011. - ISBN 978-80-227-3572-8. - p. 91-92. (in English)
- [33] MARKO, T. - ADAMKO, L.: Extraction of Delta Points from Palmprints. In: ŠVOČ 2011: Proceedings of Selected Works. Bratislava, Slovak Republic, 4. 5. 2011. - Bratislava: FEI STU, 2011. - ISBN 978-80-227-3508-7. - p. 15-19. (in Slovak)
- [34] MAZANEC, J.: Designing a Complex Face Recognition System. In: ELITECH'11: 13th Conference of Doctoral Students, Faculty of Electrical Engineering and Information Technology. Bratislava, Slovak Republic, 17 May, 2011. - Bratislava: Nakladateľstvo STU, 2011. - ISBN 978-80-227-3500-1. - p. 1-5. (in English)
- [35] MAZANEC, J. - ORAVEC, M.: Face Recognition System Based on LBP. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 17, Special Issue: ELOSYS, Trenčín, 11. -14. 10. 2011, p. 217-221. (in Slovak)
- [36] NÁNÁSIOVÁ, O. - PASTUCHOVÁ, E. - VÁCLAVÍKOVÁ, Š. - SABO, M.: Classification of Association Coefficients and its Application in Cluster Analysis. In: ODAM 2011: Olomoucian Days of Applied Mathematics. Book of Abstracts. Olomouc, Czech Republic, January 26-28, 2011. - Olomouc: Palacký University, 2011. - ISBN 978-80-244-2684-6. - p. 47. (in English)
- [37] OMELINA, L. - ORAVEC, M.: Efficient Face Expression Generation for Face Recognition. In: Proceedings ELMAR-2011: 53rd International Symposium. 14-16 September 2011, Zadar, Croatia. - Zadar: Croatian Society Electronics in Marine, 2011. - ISBN 978-953-7044-12-1. - p. 29-32. (in English)
- [38] OMELINA, L.: Face Recognition from Single Sample. In: ICVSS 2011. Registration, Recognition and Reconstruction in Image and Video: International Computer Vision Summer School 2011. Sicily, 11-16 July, 2011. - University of Catania, 2011. - p. 56. (in English)
- [39] OMELINA, L. - ORAVEC, M.: Universal Biometric Evaluation System. In: IWSSIP 2011: 18th International Conference on Systems, Signals & Image Processing. Sarajevo, Bosnia and Herzegovina, 16-18 June 2011. - IEEE eXpress, 2011. - ISBN 978-9958-9966-3-4. - p. 307-310. (in English)
- [40] PILKA, F. - ORAVEC, M.: Multi-Step Ahead Prediction Using Neural Networks. In: Proceedings ELMAR-2011: 53rd International Symposium. 14-16 September 2011, Zadar, Croatia. - Zadar: Croatian Society Electronics in Marine, 2011. - ISBN 978-953-7044-12-1. - p. 269-272. (in English)
- [41] POLAKOVIČ, M.: Some Remarks on Operator Generalized Effect Algebras. In: 8th Workshop on Functional Analysis and its Applications in Mathematical Physics and Optimal Control: Nemecká, Slovak Republic, September 5-10, 2011. - Bratislava: STU, 2011. - p. 41-43. (in English)
- [42] RACKO, J. - MIKOLÁŠEK, M. - GRMANOVÁ, A. - BREZA, J. - BENKO, P. - GALLO, O. - HARMATHA, L.: a New Model of Multiphon Excitation Trap-Assisted Band-to-Band Tunneling. In: EDS'11. Electronic Devices and Systems IMAPS CS International Conference 2011: Brno, Czech Republic, June 22-23, 2011. - Brno: VUT, 2011. - ISBN 978-80-214-4303-7. - p. 168-174. (in English)

- [43] REPKA, M.: DPA of an Aes Implementation. In: ELITECH'11: 13th Conference of Doctoral Students Faculty of Electrical Engineering and Information Technology. Bratislava, Slovak Republic, 17 May, 2011. - Bratislava: Nakladateľstvo STU, 2011. - ISBN 978-80-227-3500-1. - p. 1-6. (in English)
- [44] RUDOLF, B.: on Multiple Solutions of Generalized Second Order Boundary Value Problem with ϕ -Laplacian. In: 8th Workshop on Functional Analysis and its Applications in Mathematical Physics and Optimal Control: Nemecká, Slovak Republic, September 5-10, 2011. - Bratislava: STU, 2011. - p. 45-49. (in English)
- [45] SABO, M. - NÁNÁŠIOVÁ, O. - PASTUCHOVÁ, E. - VÁCLAVÍKOVÁ, Š.: Comparing Similarities in Cluster Analysis. In: ISCAMI 2011: Book of Abstracts. Malenovice, Czech Republic, 6. -8. 5. 2011. - Ostrava: University of Ostrava, 2011. - p. 60. (in English)
- [46] STRAČÁR, P. - SLAMKA, M. - ORAVEC, M. - PAVLOVIČOVÁ, J.: Kernel and Linear Methods for Biometric Face Recognition. In: IN-TECH 2011: Proceedings of International Conference on Innovative Technologies. Bratislava, Slovak Republic, 1. 9. -3. 9. 2011. - Jaroměř: Jan Kudláček, 2011. - ISBN 978-80-904502-6-4. - p. 524-527. (in English)
- [47] ŠEVČIKOVÁ, Z. - JUHÁS, G.: Application of Petri Nets in Smart Systems. In: SMART S2AI: Workshop of SMART Systems and Services in Applied Informatics. Bratislava, Slovak Republic, 18 April 2011. - Bratislava: FEI STU, 2011. - ISBN 978-80-227-3513-1. - p. 9-10. (in Slovak)
- [48] ŠEVČIKOVÁ, Z. - KAZLOV, I. - JUHÁSOVÁ, A.: Possibility of Using Analysis and Synthesis of Event Systems in Practice. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 17, Special Issue: ELOSYS, Trenčín, 11. -14. 10. 2011, p. 227-229. (in Slovak)
- [49] VÁLKY, G. - LEHOCKI, F. - KOVÁČ, M.: Wireless System for Online Acquisition of ECG Waveforms of Human Heart. In: AMA-IEEE Medical Technology Conference: Healthcare IT: 2nd AMA-IEEE Medical Technology Conference on Delivering on the Promise of Cost Effective Quality Healthcare. Boston, Massachusetts, 16-18 October 2011. - Piscataway: IEEE, 2011. - CD-Rom. (in English)
- [50] ZAJAC, M.: Examples of Non-Hyperreflexive Reflexive Spaces of Operators. In: 8th Workshop on Functional Analysis and its Applications in Mathematical Physics and Optimal Control: Nemecká, Slovak Republic, September 5-10, 2011. - Bratislava: FEI STU, 2011. - p. 56-59. (in English)
- [51] ZAJAC, M.: Unbounded Linear Operator in Effect Algebras. In: Quantum Structures 2011: 3rd International Conference. Kočovce, Slovak Republic, 16. -20. 5. 2011. - Bratislava: STU, 2011. - ISBN 978-80-227-3515-5. (in English)
- [52] ZAJAC, P. - ČAGALA, R.: Algebraic Cryptanalysis of the Block Cipher Gost. In: 11th Central European Conference on Cryptology: Debrecen, Hungary, 30 June - 2 July, 2011. - Debrecen: University of Debrecen, 2011. - p. 1. (in English)
- [53] ZÁKOPČAN, M.: a Note on One-Dimensional Macroelectronic Model in Problem of Linear-Quadratic Approximation in RBC Models. In: Acta Mathematica 14: Nitra, Slovak Republic, 22. -23. September 2011. - Nitra: Constantine the Philosopher University in Nitra, 2011. - ISBN 978-80-8094-958-7. - p. 253-258. (in Slovak)
- [54] ZELINA, M. - ORAVEC, M.: Decision Trees for Recognition of Internet Applications. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 17, Special Issue: ELOSYS, Trenčín, 11. -14. 10. 2011, p. 234-237. (in English)
- [55] ZELINA, M. - ORAVEC, M.: Early Detection of Internet Applications. In: Proceedings of 9th International Conference VSACKÝ CÁB 2011. - Brno University of Technology, 2011. - ISBN 978-80-214-4319-8. - p. 157-160. (in English)
- [56] ZELINA, M. - ORAVEC, M.: Early Detection of Network Applications Using Neural Networks. In: Proceedings ELMAR-2011: 53rd International Symposium. 14-16 September 2011, Zadar, Croatia. - Zadar: Croatian Society Electronics in Marine, 2011. - ISBN 978-953-7044-12-1. - p. 161-164. (in English)
- [57] ŽILKA, T. - PANCZA, D.: a Viscoelastic Membrane in a Dynamic Contact with a Rigid Obstacle. In: New Trends in Statics and Dynamics of Buildings: 9th International Conference. Bratislava, Slovak Republic, 20. -21. 10. 2011. - Bratislava: STU, 2011. - ISBN 978-80-227-3572-8. - p. 217-220. (in English)

IX. 3 Books

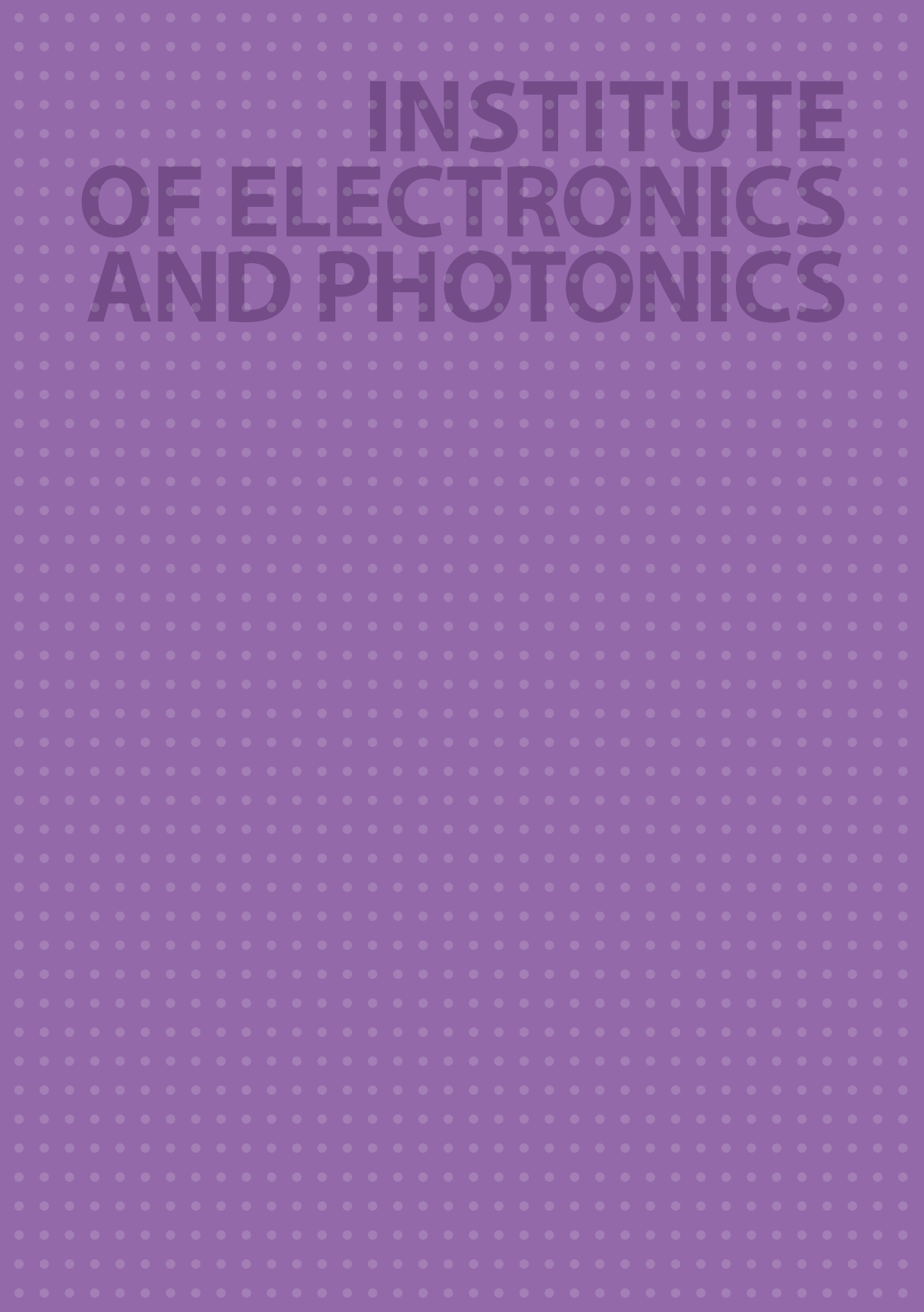
- [1] JUHÁS, G.: Algebraically Generalised Petri Nets. - Bratislava: RT Systems, 2011. - 185 p. - ISBN 978-80-970519-3-8. (in English)
- [2] JUHÁS, G.: Are These Events Independent? It Depends!. - Bratislava: RT Systems, 2011. - 145 p. - ISBN 978-80-970519-2-1. (in English)
- [3] JUHÁS, G.: Modelling Formalisms of Event Systems. - Bratislava: RT Systems, 2011. - 112 p. - ISBN 978-80970519-1-4. (in Slovak)

IX. 4 Parts of Books

- [1] BRILLA, I.: Numerical Solution of Boundary Inverse Problem for Anisotropic Solids. In: Solid Mechanics in Brazil 2011. - Rio de Janeiro: Brazilian Society of Mechanical Sciences and Engineering, 2011. - ISBN 978-85-85769-46-8. - p. 77-88. (in English)
- [2] HUBINSKÝ, P. - RUDOLF, B. - HÄUPTLE, P.: Optimization of the Signal-Type Used in a Harmonic Modulator for Control. In: Selected Topics in Modelling and Control. Vol. 7. - Bratislava: Slovak University of Technology, 2011. - ISBN 978-80-227-3597-1. - p. 118-123. (in English)
- [3] MARKO, Ľ.: Calculus on-line. In: Theoretical and Educational Transformation of Mathematical Education 2011: Proceedings of Scientific Papers. - Nitra: Slovak University of Agriculture in Nitra, 2011. - ISBN 978-80-552-0604-2. - p. 93-98. (in Slovak)
- [4] ORAVEC, M. - PAVLOVIČOVÁ, J. - MAZANEC, J. - OMELINA, Ľ. - FÉDER, M. - BAN, J.: Efficiency of Recognition Methods for Single Sample per Person Based Face Recognition. In: Reviews, Refinements and New Ideas in Face Recognition. - Rijeka: InTech, 2011. - ISBN 978-953-307-368-2. - p. 181-206. (in English)

IX. 5 Textbooks

- [1] KOSTRECOVÁ, E. - JÓKAY, M. - KOSTREC, M.: Computer Crime. - Bratislava: STU in Bratislava, 2011. - 109 p. - ISBN 978-80-227-3410-3. (in Slovak)



INSTITUTE OF ELECTRONICS AND PHOTONICS

INSTITUTE OF ELECTRONICS AND PHOTONICS

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



Director of the Institute: **prof. Ing. Daniel Donoval, DrSc.**

Tel.: +421-2-654 23 486 / Fax: +421-2-654 23 480
E-mail: daniel.donoval@stuba.sk / Mobile: +421-918640428

Deputy director: prof. Ing. František Uherek, PhD.
Tel.: +421-2-602 91 369, E-mail: frantisek.uherek@stuba.sk,
Fax: +421-2-654 23 480, Mobile: +421-905630144

Deputy director: doc. Ing. Oldřich Ondráček, PhD.
Tel.: +421-2-602 91 492, E-mail: oldrich.ondracek@stuba.sk
Fax: +421-2-654 29 683, Mobile: +421-918563581

Deputy director: prof. Ing. Viera Stopjaková, PhD.
Tel.: +421-2-602 91 149, E-mail: viera.stopjakova@stuba.sk
Fax: +421-2-654 23 480

Institute secretary: RNDr. Alena Grmanová, Tel.: +421-2-602 91 325
E-mail: alena.grmanova@stuba.sk, Fax: +421-2-654 23 480

Administrative staff: Mgr. Michaela Balážová, Tel.: +421-2-602 91 372
E-mail: michaela.balazova@stuba.sk, Fax: +421-2-654 23 480
Bc. Ivana Prokopová, Tel.: +421-2-602 91 727
E-mail: ivana.prokopova@stuba.sk, Fax: +421-2-654 29 683

Departments of Institute of Electronics and Photonics

Electronic Devices

Department chair: doc. Ing. Ladislav Harmatha, PhD.

Electronic Systems

Department chair: prof. Ing. Alexander Šatka, PhD.

Integrated Circuit Design and Test

Department chair: prof. Ing. Viera Stopjaková, PhD.

Optoelectronics and Laser Technique

Department chair: prof. Ing. Jaroslav Kováč, PhD.

Sensors and Microsystem Technique

Department chair: prof. Ing. Ivan Hotový, DrSc.

Surface, Interface and Nanostructure Analysis

Department chair: doc. Ing. Jozef Liday, PhD.

Wireless Communication and Multimedia Technique

Department chair: Ing. Vladimír Štofanič, PhD.

I. STAFF

Professors:

prof. Ing. Igor Baláž, DrSc. (Professor emeritus), prof. Ing. Juraj Breza, PhD., prof.
Ing. Otto Csabay, DrSc. (Professor emeritus), prof. Ing. Daniel Donoval, DrSc.,
prof. Ing. Daniela Ďuračková, PhD., prof. Ing. Ivan Hotový, DrSc., Prof. Ing. Jaroslav

Kováč, PhD., prof. Ing. Florián Makáň, PhD. (Professor emeritus), prof. Ing. Robert Redhammer, PhD., prof. Ing. Alexander Satka, PhD., prof. Ing. Viera Stopjaková, PhD., prof. RNDr. Vladimír Tvarožek, PhD., prof. Ing. František Uherek, PhD.

Associate Professors:

doc. Ing. Peter Hajach, PhD., doc. Ing. Ladislav Harmatha, PhD., doc. Ing. Ján Hribik, PhD., doc. Ing. Ján Janík, PhD., doc. Ing. Ján Jakobovič, PhD., doc. Ing. Peter Kordoš, DrSc., doc. Ing. Vladimír Kudják, PhD., doc. Ing. Peter Kulla, PhD., doc. Ing. Jozef Liday, PhD., doc. Ing. Oldřich Ondráček, PhD., doc. Ing. Peter Podhoranský, PhD., doc. Ing. Rudolf Srnánek, PhD., doc. Ing. Ľubica Stuchlíková, PhD., doc. Ing. Martin Tomáška, PhD., doc. Ing. Marian Veselý, PhD., doc. Ing. Milan Žiška, PhD.

Assistant Professors:

Ing. Zdenko Brezovič, PhD., Ing. Elena Cocherová, PhD., Ing. Martin Daříček, PhD., Ing. Miroslav Hagara, Ing. Zuzana Krajičusková, PhD., Ing. Peter Kubinec, PhD., Ing. Marek Kukučka, PhD., Ing. Branislav Lojko, PhD., Ing. Fedor Mika, PhD., Ing. Marián Minárik, PhD., Ing. Jozef Petrek, PhD., Ing. Anna Pribilová, PhD., Ing. Jozef Púčík, PhD., Ing. Vladimír Štofanič, PhD., Ing. Erik Vavrinský, PhD.

Senior Scientists:

Ing. Dalibor Búč, doc. Ing. Peter Fuchs, PhD., PhD., Ing. Magdaléna Kadlečíková, PhD., Ing. Juraj Racko, PhD., Ing. Jaroslava Škriniarová, PhD., doc. Ing. Bedřich Weber, PhD.

Scientific Workers:

Ing. Peter Benko, PhD., Ing. Aleš Chvála, PhD., Ing. Soňa Flickyngerová, PhD., Ing. Martin Florovič, PhD., Ing. Lenka Gajdošová, PhD., Ing. Jaroslav Kováč, jr., PhD., Ing. Alexander Kromka, PhD., Ing. Libor Majer, PhD., Ing. Juraj Marek, PhD., Ing. Marián Marton, PhD., Ing. Ivan Novotný, PhD., RNDr. Vlastimil Řeháček, PhD., Ing. Marian Vojts, PhD.

Research Workers:

Ing. Juraj Brenkuš, RNDr. Alena Grmanová, Ing. Milan Kempný, Ing. Jozef Mihálov, Ing. Miroslav Micoláček, Ing. Peter Vogrinčíč

Technical Staff:

Mgr. Michaela Balážová, Bohumil Frey, Jozef Ivan, Jozef Král, Bc. Ivana Prokopová, Gabriela Vránová

PhD. Students:

Ing. Daniel Arbet, Ing. Jana Benkovská, Ing. Michal Blaho, Ing. Martin Boriš, Ing. Tomáš Brath, Ing. Marek Černý, Ing. Jaroslav Dzuba, Ing. Pavol Gašpierič, Ing. Gábor Gyepes, Ing. František Horínek, Ing. Juraj Hotový, Ing. Peter Horňák, Ing. Pavol Hronec, Ing. Ondrej Kádár, Ing. Peter Kalianko, Ing. Ivan Košč, Ing. Mário Kotlár, Ing. Mário Krajmer, Ing. Peter Kupec, Ing. Radovan Kurinec, Ing. Anton Kuzma, Ing. Filip Lazištan, Ing. Pavol Michniak, Ing. Martin Mišun, Ing. Marián Molnár, Ing. Lukáš Nagy, Ing. Michal Nemeč, Ing. Peter Olšovský, Ing. Miroslav Petrák, Ing. Miroslav Petrus, Ing. Tibor Plecho, Ing. Martin Predanocý, Ing. Patrik Príbytný, Ing. Juraj Priesol, Ing. Karol Rendek, Ing. Jakub Rybár, Ing. Ivan Rýger, Ing. Ján Šebok, Ing. Vladimír Sedlák, Ing. Eduard Šipoš, Ing. Ľubomír Sládek, Ing. Roman Šramatý, Ing. Abdullah Sultan, Ing. Ľuboš Staňák, Ing. Peter Telek, Ing. Ľubomír Vančo, Ing. Marián Varga, Ing. Roman Záluský

General Information

The Institute of Electronics and Photonics of Slovak University of Technology in Bratislava is active in fields

of microelectronics, wireless communications, IC and system design, wireless processing, optoelectronics, photonics, sensors and multimedia techniques. Its membership in EUROPRACTICE project provides access to advanced TCAD modelling and simulation as well as IC and systems design tools (Synopsys, Cadence). Structure and device characterization and failure analysis either by electrical (I-V, C-V, DLTS measurements in a wide temperature range with optional magnetic field, microwave characterization) or analytical tools (SEM, EBIC, CL, AES, AFM, SIMS, micro-Raman spectroscopy) is another strong field of institute activities. The comparison and good correlation of experimental and simulated results is used for physical models calibration, physical interpretation of obtained experimental results and prediction of the properties of new semiconductor devices and IC's. The solved projects comprise the thin film sensors and subsequent signal processing for biomedical applications, healthcare and environmental applications, analog and mixed-signal design, smart power MOS device design and characterization, GaN based devices, organic semiconductor transistors and LED's, diamond layers and carbon nanotubes growth. The well equipped laboratories, expertise and enthusiasms of the institute staff ensure the successful solution of scientific and applied research projects.

II. EQUIPMENT

II. 1 Teaching and Research Laboratories

- Cleanrooms for Advanced Thin Film Technology (photolithography, plasma etching and deposition)
- Laboratory of Diagnostics of Compound and Organic Semiconductor Structures
- Diamond Thin Laboratory
- Carbon Nanostructure Laboratory
- Laboratory of Integrated Circuits and System-on-chip Design and Test
- Laboratory of Raman Spectroscopy
- Laboratory in Medical Engineering
- Laboratory of Audio and Video Technologies
- Laboratory of Electronic Power Measurement
- 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 Compound and Organic Semiconductor Structures I
- Technology of Compound and Organic Semiconductor Structures II
- 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
- LED Lab
- 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)
- Measurement of Electronic Structures and Device Animation (education)
- Optoelectronic Lab (education)
- Six-Port Reflectometers and Automatic Impedance Matching System for High-Power Industrial Applications
- European Customer Training Centre – Texas Instruments (DSP TMS320C2xx, TMS370, TMS320C5x, TMS320C6xxx, MSP430)
- Precise Registration / Calibration Electricity Meter
- Precise Digital Network Analyzer and Standard Meter PEM 6711
- DL8000 Digital Deep Level Transient Spectrometer, BIO-RAD system
- Microwave Network Analyzer HP 8408 S + HP83421A Lightwave Source (20 GHz)
- Microwave Network Analyzer (40 GHz) Agilent E8363 B (temperature range: RT – 400K) - RFLOW 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
- SUSS Manual Prober PM5, SUSS 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
- Suss 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

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. s. r. o.
- Photovoltaic Cell Testing Light Source Model 165-002 300 W, Solar Light Company, Inc.

- 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-TS2015 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

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
- 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 (Bc.)

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

- Logic Systems (two weeks 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
(4th sem., 2-2h) Ľ. Stuchlíková
- Quality Management
(4th sem., 2-1h) M. Žiška

- Systems for Objects Security and Safety
(4th sem., 3-2h) V. Tvarožek, I. Hotový
- Signals and Systems
(4th sem., 3-2h) O. Ondráček
- Digital Techniques
(4th sem., 2-2h) J. Hribik
- 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
- Electronic Circuits
(5th sem., 3-2h) F. Mika
- Electronic Devices and Circuits
(5th sem., 3-2h) R. Redhammer
- Quality Management
(5th sem., 2-1h) M. Žiška
- Analog Circuits
(5th sem., 3-2h) V. Štofanič, M. Minárik
- Microwave Engineering
(5th sem., 3-2h) V. Štofanič, M. Minárik
- Radiocommunications Techniques
(5th sem., 2-2h) P. Podhoranský
- Electronic Circuits
(5th sem., 3-2h) J. Hribik, M. Daříček
- Systems of Digital Signal Processing
(5th sem., 2-2h) O. Ondráček, A. Šatka
- 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) F. Mika
- Sensorics
(6th sem., 2-2h) V. Tvarožek
- Audio and Video Technology
(6th sem., 2-2h) A. Přibilová, P. Podhoranský
- Microwave Engineering and Radio Communications
(6th sem., 3-2h) P. Podhoranský
- Microprocessor Techniques
(6th sem., 2-2h) B. Lojko
- Bachelor Project 2
(6th sem., 0-8h) F. Uherek, O. Ondráček

III. 2 Graduate Study (Ing.)

Study Program "Microelectronics"

- Team Project
(1st sem., 0-6h) F. Uherek, Ľ. 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 Electronics and Technique
(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 Electronics"

Digital Signal Processing
(1st sem., 3-2h) O. Ondráček

Microcontrollers
(1st sem., 2-2h) P. Fuchs

Communication Electronics
(1st sem., 3-2 h) V. Kudják

Design and Engineering of Electronic Systems
(1st sem., 3-2 h) B. Lojko, Z. Brezovič

Recording Techniques
(2nd sem., 3-2h) P. Podhoranský

Radiocommunication
(2nd sem., 3-2h) J. Petrek

Signal Processors
(2nd sem., 3-2h) P. Fuchs

Antennas and Radiocommunication
(2nd sem., 3-2h) V. Štofank

Applied Electroacoustics
(2nd sem., 3-2h) A. Přibilová

Telemedical Technology
(2nd sem., 3-2h) M. Kukučka, Z. Krajčušková

Diploma Project I
(2nd sem., 0-6h) O. Ondráček

Biosignals and Biosystems Analysis
(2nd sem., 3-2h) J. Púčik

Diploma Project II
(3rd sem., 0-6h) O. Ondráček

Diagnostic Methods and Systems in Medicine
(3rd sem., 3-2h) M. Kukučka, J. Púčik

Sound Technology
(3rd sem., 3-2h) A. Přibilová

Influence of Electromagnetic Radiation on Biological Objects
(3rd sem., 3-2h) E. Cocherová

Radiocommunication Technologies and Networks
(3rd sem., 3-2h) J. Petrek

Digital Television
(3rd sem., 3-2h) P. Podhoranský

Team Project
(3rd sem., 0-8h) O. Ondráček

Diploma Project III
(4th sem., 0-8h) O. Ondráček

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

Telemedical Technology
Z. Krajčušková

Signal Processors
B. Lojko

Electronic Measurement, Instruments and Systems
J. Hribik

Radiocommunication Technologies and Networks
J. Petrek

Power Radioelectronics
J. Hribik

Diagnostic Methods and Systems in Medicine
M. Kukučka

Digital Television
M. Hagara

Diploma Project 1, II
O. Ondráček, J. Hribik, Z. Krajčušková

III. 4 Distance Study

Electronics
(3rd sem., 3-2h) L. Stuchlíková

Electronic Devices and Circuits
(3rd 5th sem., 1-0h) V. Kudják

IV. RESEARCH PROJECTS

IV. 1 National Projects

National Competence Centre

– **INTELINSYS** – Competence Centre for Smart Technologies towards Electronization and Informatization of Systems and Services, OPVaV, ITMS 26240220072 (2011-2014), coordinator: R. Redhammer

National Centres of Excellence

– **SMART 2** – Support of Centre of Excellence for Smart Technologies, Systems and Services II, AŠF EÚ MŠ SR, ITMS 26240120029 (2010-2012), coordinator: R. Redhammer, D. Donoval

– **NanoNet** – Centre of Excellence for Design, Preparation and Diagnostics of Nanostructures for Electronics and Photonics, AŠF EÚ MŠ SR, ITMS 26240120010 (2009-2011), coordinator: F. Uherek

– **NanoNet 2** – Centre of Excellence for Design, Preparation and Diagnostics of Nanostructures for Electronics and Photonics 2, AŠF EÚ MŠ SR, ITMS: 26240120018 (2010-2012), coordinator: F. Uherek

National R&D and Educational Projects within Ministry of Education (MŠ SR – VEGA, KEGA) and Development and Research Agency (APVV) Actions

– Organic semiconductor devices characterization and technology development, 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, VEGA 1/0866/11, (2011-2014), coordinator: D. Donoval

– Research of superhard nanocomposite films for stressed joints under increased temperature in biomedicine, VEGA 1/0264/11, (2011-2014), coordinator: M. Vojs

– Advanced Parametric Test Methods for the Reliability Enhancement of Mixed-signal Integrated Circuits and Systems, No. VEGA 1/0285/09 (2009-2012), coordinator: V. Stopjaková

– Development of Special Methods of Characterization and Diagnostics of Advanced Semiconductor Micro-/nano-structures and Devices, No. VEGA 1/0716/09 (2009-2012), coordinator: A. Šatka

– Electro-physical Properties and Technological Issues of Si, GaN and ZnO Semiconductor Materials and Structures for a New Generation of Electronic Devices and Circuits, No. VEGA 1/0507/09 (2009-2012), coordinator: L. Harmatha

– Development and Characterization of Advanced Nano-dimensional Structures Based on Compound and Organic Semiconductors for Applications in Microelectronics and Photonics, No. VEGA 1/0689/09 (2009-2012), coordinator: J. Kováč

– Nanostructured Thin Film Systems for MEMS Sensor Applications, No. VEGA 1/0553/09 (2009-2011), coordinator: I. Hotový

– Thin Films of Transparent Conductive Oxides for Photovoltaic Solar Cells, No. VEGA 1/0220/09 (2009-2011), coordinator: V. Tvarožek

– Nanotechnologies - Synthesis of Carbon Nanotubes and Nanocomposites on Natural Catalysts, No. VEGA 1/0746/09 (2009-2011), coordinator: M. Kadlečíková

– Modelling and Simulation of Electrical Properties of Structures Based on Wide Band Gap semiconductors, No. VEGA 1/0601/10 (2010-2011), coordinator: J. Racko

– Optimized Ohmic Contacts to p-GaN, Contribution to Quantitative Auger Analysis of Group III Nitrides, No. VEGA 1/0779/10 (2010-2011), coordinator: J. Liday

– 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

– Investigation of high-stability oscillators with piezoelectric resonators under simultaneous excitation of multiple modes of vibrations, No. VEGA 1/0055/10, (2010-2011), coordinator: V. Štofanič

– Combined Scanning Transient Microscope, No. VEGA 2/0063/11, (2011-2013), coordinator: J. Hribik

– Educational and Training Support of Soft Skills for Undergraduate Students of FEI and FIIT STU, No. KEGA 3/7413/09 (2009-2011), coordinator: M. Žiška

– Design and preparation of a new course "Circuits and systems of precise time and frequency" and innovation of the course "Radionavigation systems", No. KEGA 3/7411/09, (2009-2011), coordinator: V. Štofanič

– Center of Excellence of NANO-/Micro-electronic, Optoelectronic and Sensoric Technologies (CENAMOST), VVCE 0049-07, coordinator: D. Donoval

– Growth of Nanowires for Photovoltaic Application, APVV-0301-10 (2011-2014), coordinator: J. Kováč

– Advanced materials, process and structures of organic electronics, APVV-0262-10 (2011-2014), coordinator: D. Donoval

– Metal-oxide-metal structures for resistive based nanoscale memory cells, APVV-0509-10 (2011-2014), coordinator: L. Harmatha

– Multifunctional detector arrays based on micromechanical structures, APVV-0190-10 (2011-2014), coordinator: I. Hotový

– Nanostructures and devices for integrated photonics, APVV-0424-10 (2011-2014), coordinator: J. Jakabovič

– Towards next generation of III-N High-Electron Mobility Transistors, 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
- Study of Diamond and Diamond-like Carbon Properties for Electrochemical and Bio-sensoric Applications, No. APVV LPP-0094-09 (2009-2012), coordinator: V. Tvarožek
- Biocompatible Thin Films for Medical Application, No. APVV LPP-0149-09 (2009-2012), coordinator: M. Veselý
- Characterization of Electrical Properties of HEMT and MOSFET Transistors on AlGaN(InAlN)/GaN Heterostructures Supported by 2/3-D Modelling and Simulation, No. APVV LPP-0195-09 (2009-2012), coordinator: D. Donoval
- Design, Research and Preparation of Advanced Electronic Systems to Be Used to Improve Quality of Life, No. APVV VMSP-P-0127-09 (2009-2011), coordinator: D. Donoval
- Advanced MEMS Chemical Sensors for Extreme Conditions, No. APVV-0655-07 (2008 – 2011), coordinator: T. Lalinský, IEE SAS, local coordinator: I. Hotový
- Metal oxide nanostructured arrays for gas sensing, DAAD (2011-2012), coordinator: I. Hotový
- Nanostructured Materials for Advanced Technological Applications, DAAD (2011-2012), coordinator: M. Veselý
- Modern Methods of Digital Signal Processing in Radio Electronics, Biomedicine, Electronic Measurement, Multimedia and Vehicular Technology, No. AV-4/0012/07, (2007-2012), coordinator: P. Fuchs.
- Portable AC Current and Voltage Source for Electronic Electricity Meters Testing, No. AV-4/0012/07, (2007-2012), coordinator: J. Hribík.
- Applied research of plasmathermic processes. Operational programme of EU, Geothermal Anywhere Ltd. and STU in Bratislava, IMTS 26240220070, (2011-2013), coordinator: P. Podhoranský.
- 2012). Coordinator: Dr. Bart De Mey, IMEC, Leuven, Belgium. Local coordinator: V. Stopjaková
- **EURO-DOTS** - "European Doctoral Training Support in Micro/Nano-electronics", FP7-ICT-2009-5 No. 257051, (2010-2012). Coordinator: H. E. Maes, IMEC, Leuven, Belgium. Local coordinator: D. Donoval
- **MORGaN** - "Materials for Robust Gallium Nitride", FP7-NMP-2007-LARGE-1 No. 214610 (2008-2011). Coordinator: Dr. S. Delage, Alcatel Thales, France. Local coordinator: J. Kováč
- **SMAC** - „SMArt systems Co-design“, FP7-ICT-2011-7, No. 288827 (2011-2014). Coordinator: Dr. Salvatore Rinaudo, ST Microelectronics, Italy. Local coordinator: D. Donoval
- **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
- 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 (V. Tvarožek)

Bilateral projects

Projects within the bilateral co-operation

Slovakia – Czech Republic

- METACARBON - Investigation of Electrical and Optical Properties of Nanodiamond and Diamond-like Carbon Thin Films, APVV CK-CZ-0139-09 (2010-2011). Cooperating institution: Institute of Physics, CAS Prague. Coordinators: Z. Remeš (IP CAS), M. Veselý
- Materials and Components for Protection of Environment, ZČU-OZP (2006-2011). Cooperating institution: West Bohemian University, Pilsen. Coordinators: P. Šutta (WBU), V. Tvarožek

Projects within the bilateral co-operation

Slovakia – Italy

- NANOMIXSENS - Nanostructured Mixing Metal Oxides for MEMS Gas Sensors, APVV SK-IT-0030-08 (2009-2011). Cooperating institution: Italian National Council of Research, Institute for Microelectronics and Microsystems. Coordinators: S. Capone (INCR), I. Hotový

Projects within the bilateral co-operation

Slovakia – Poland

- MICROHET - Technology and Characterization of Advanced Semiconductor Heterostructures for Micro and Optoelectronic Devices, APVV SK-PL-0017-09 (2010-2011). Cooperating institution: Wrocław University of Technology. Coordinators: M. Tlaczala (PWR-TUW), J. Kováč
- Estimation of the finger positions in a virtual keyboard space and detection of clicking events, the contract for the realization of the project for

IV. 2 International Projects

Projects within the 7th EC Framework Program and ENIAC JU

- **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
- **IDESA-2** - "Implementation of widespread IC design skills in advanced deep submicron technologies at European Academia", FP7-ICT-CSA No. 246906, (2009-

Samsung Electronics Polska Sp. z o. o., Poland, (2011), coordinator: M. Hagara

Projects within the bilateral co-operation Slovakia – Serbia

- DOSUZOFI - Doping and Surface Modification of Zinc-oxide Thin Films, APVV SK-SRB-0012-09 (2010-2011). Cooperating institution: VINCA Institute of Nuclear Sciences, Laboratory for Atomic Physics, Belgrade. Coordinators: M. Milosavljević, (VINCA), V. Tvarožek

Projects within the bilateral co-operation Slovakia – China

- Fabrication of Infrared Sensitive Organic Field Effect Transistors, (2010-2011). Cooperating institution: Lanzhou University. Coordinators: Yingquan Peng, (LU), J. Jakabovič

Project within the bilateral co-operation Slovakia – Austria

- Characterization of Advanced Materials for Novel Technologies, No. 2010-05-15-0001 Austrian and Slovak Scientific and Educational Cooperation (2010-2011). Cooperating institution: JKU Linz. Coordinators: C. Simbrunner (JKU), J. Breza

V. COOPERATION

V. 1 Cooperation in Slovakia

- International Laser Centre, Bratislava
- Institute of Electrical Engineering, Slovak Academy of Sciences, Bratislava
- Institute of Physics, Slovak Academy of Sciences, Bratislava
- Institute of Informatics, Slovak Academy of Sciences, Bratislava
- Department of Psychology, Comenius University, Bratislava
- Semikron, Vrbové
- Applied Precision, Bratislava
- LOX Technologies, Piešťany
- University of Žilina, Žilina
- Danubia NanoTech, Bratislava
- Bratislava Development Center (BDC), on Semiconductor, Bratislava
- Analog Devices, Bratislava
- Logomotion, s. r. o., Piešťany
- eLce, s. r. o, Bratislava
- Nanodesign, s. r. o, Bratislava
- R-DAS, s. r. o, Žilina
- POWERTEC, s. r. o. Bratislava
- ARETA PRO s. r. o., Bratislava
- E. T. K. M., s. r. o., Bratislava
- Sylex s. r. o., Bratislava
- OMS s. r. o.
- PHILIPS, Bratislava
- Special Software and Systems, Bratislava
- AOS, Liptovský Mikuláš

- Intenzíva, Education and training centre, Bratislava
- Applied Meters, Inc., Prešov
- Geothermal Anywhere, a. s., Bratislava
- HIS SENZOR Ltd., Prešov
- Institute of Metrology Bratislava
- MIRONIX Bratislava
- University of Technology, Košice
- Krížik GBI jsc, Prešov
- Institute of Measurement Science, Slovak Academy of Sciences, Bratislava
- University Hospital, Bratislava - Prof. Dérer Hospital, Bratislava, Ružinov Hospital, Bratislava
- Office for Public Procurement (ÚVO), Bratislava
- Institute of Molecular Physiology and Genetics, Slovak Academy of Sciences, Bratislava
- Slovak Institute of Technical Normalization, Bratislava
- Faculty of Medicine, Comenius University, Bratislava
- Faculty of Pharmacy, Comenius University, Bratislava

V. 2 International Cooperation

- Czech Technical University, Prague, Czech Republic
- Technical University of Brno, Department of Microelectronics, Czech Republic
- West Bohemian University, New Technology Center, Pilsen, Czech Republic
- IMEC Leuven, Belgium
- STMicroelectronics Italy.
- Infineon Technologies, Germany
- Johannes Kepler Universität Linz, Linz, Austria
- Technical University Ilmenau, Germany
- Hungarian Academy of Sciences Budapest, Hungary
- Universität Leipzig, Fakultät für Physik und Geowissenschaften, Fakultät für Chemie und Mineralogie, Leipzig, Germany
- Technical University Vienna, Austria
- Technical University Munich, Germany
- Institute of Scientific Instruments, Czech Academy of Sciences, Brno, Czech Republic
- University of Athens, Department of Physics, Greece
- Regensburg University, Germany
- Institut für Schicht- und Ionen Technik Jülich, Germany
- Faculty of Microsystem Electronics and Photonics, Wrocław University of Technology, Poland
- Institute of Solid State Physics, Technical University Graz, Graz, Austria
- Physikalisches Institut, Universität Würzburg, Germany
- Imperial College, Department of Materials, London, UK
- Istituto per la Microelettronica ed i Microsistemi CNR, Lecce, Italy
- Umweltsensortechnik GmbH, Geschwenda, Germany
- City University of Hong Kong, Hong Kong, China
- Technische Universität, Bergakademie Freiberg, Institut für Theoretische Physik, Freiberg, Germany
- National Hellenic Research Foundation, Theoretical and Physical Chemistry Institute, Athens, Greece

- Photeon Technologies GmbH, Bregenz, Austria
- Eberhard Karls Universität, Institut für Angewandte Physik, Tübingen, Germany
- Institute of Physics, Czech Academy of Sciences, Prague, Czech Republic
- Institute of Nuclear Sciences, Laboratory for Atomic Physics, Belgrade, Serbia
- Lanzhou University, Lanzhou, China
- ÚO FVT, Brno, Czech Republic
- VŠB Ostrava, Czech Republic
- TU Pardubice, Czech Republic
- Agilent Technologies, Inc., Santa Clara, CA, USA
- Texas Instruments, Inc, USA
- URE AV CzR, CzR
- URSI Prague, CzR
- TEXAS INSTRUMENTS Deutschland GmbH, Freising, Germany
- SAMSUNG Electronics, Poland
- European Organization for Nuclear Research (CERN), Beams Department, RF Group, Feedback and Beam Control Section
- Ilmenau University of Technology, Germany
- Institute of Photonics and Electronics of the ASCR, Czech Republic
- Microwave Laboratory, UCL, Louvain-la-Neuve, Belgium
- III – V lab, Alcatel –Thales, Paris, France

V. 3 Collaboration with industry and other institutions:

- Development of digital calibration / registration electricity meter in cooperation with Křížik GBI Inc., Prešov, (2007-2012) coordinator: P. Fuchs.
- Development of electronic calibration station EKS-03 in cooperation with Applied Meters Inc., Prešov, (2005-2011), coordinator: P. Fuchs. – Development of portable AC current and voltage source for electronic electricity meters testing in cooperation with Applied Meters Inc., Prešov, (2008-2012), coordinator: J. Hribik.
- Development of combined scanning transient microscope in cooperation with Institute of Physics, Slovak Academy of Sciences, Bratislava, (2011-2013), coordinator: J. Hribik.
- 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.
- Software development for analyses of influence of cognitive dysfunction on postural instability in cooperation with University Hospital Bratislava under the grant MZ 2007/67-FNsPBA-05, (2007-2012), coordinator: J. Púčik.

VI. THESES

VI. 1 Master theses

Master theses supervised at the Department of Microelectronics. The names of supervisors are in brackets.

- [1] Blaho M.: Electrical characterization MOS-HFET transistors based on GaN (J. Kováč)
- [2] Bindics, B.: Uncertainty sources analysis of measurement results at calibration of quartz resonator oscillators (M. Minárik)
- [3] Csókás P.: CMOS as part of e-learning (L. Stuchlíková)
- [4] Čižnár Pavol.: Creating robust test limits when measuring trailing current of semiconductor diodes (M. Žiška)
- [5] Dzuba J.: Dynamic simulation of MEMS piezoelectric pressure sensor (V. Kutiš)
- [6] Firment V.: Measurement and testing of selected parameters of DAB module (M. Žiška)
- [7] Fogas, M.: Modelling of biological effects of RF radiation (E. Cocherová)
- [8] Gučmann F.: Utilization of electron beam lithography in micrometer and sub-micrometer scaled Hall probes preparation (J. Kováč)
- [9] Guldan Š.: Preparation and characterization of electrical properties of the organic FETs based on the pentacene (J. Jakabovič)
- [10] Horínek F.: Design of modern electronic modular medical system based on sensing of electrical signals (M. Daříček)
- [11] Hranai M.: Resistive Switching in Metal-Insulator-Metal Structures Using TiO₂ as an Insulator (L. Harmatha)
- [12] Hronec P.: Measurement and analysis of electrical properties of HEMT transistors (J. Kováč)
- [13] Húbek, P.: Camera remote control using RF modules based on Bluetooth and Zigbee (V. Štofanič)
- [14] Choroš R.: Integrated microelectrode system (E. Vavrinský)
- [15] Imro I.: Modelling and simulation of electrical properties and energetical ruggedness of trench MOS transistor (J. Marek)
- [16] Koblíška, J.: Interface for wireless data transfer in band 2,4 GHz with using the communication module DCBT-24N (V. Štofanič)
- [17] Kovalčík D.: Carbon thin films for biomedical applications (M. Marton)
- [18] Kozár M.: Reproduction and characteristics of thin film structures based on A-Si:H/C-Ci for use in solar cells (L. Harmatha)
- [19] Kuzma A.: Design and simulation of VCSE lasers properties with nanostructure (F. Uherek)
- [20] Mamojka, J.: Burn-in of electronic devices (Z. Krajčušková)
- [21] Masaryková L.: Activation of thin film surfaces

- for bioapplications (M. Vojs)
- [22] Mészáros B.: Computer simulation power MOSFET transistor with "DeepTrench" technology (J. Marek)
 - [23] Michniak P.: Analysis of diamond structures prepared on different substrates (F. Uherek)
 - [24] Motyčák Š.: Numerical simulation of superconductor quantum interference devices (P. Valko)
 - [25] Neupauer M.: Characterization of ZrO₂ layers for GaN MOSHFET transistor (L. Harmatha)
 - [26] Nováček M.: Modelling the electrical activity of Excitable cells (E. Cocherová)
 - [27] Petrák M.: CAD of analog IC's parametrized cells (M. Tomáška)
 - [28] Petrus M.: Analysis of deep energy level in semiconductor structures and devices based on GaN (L. Stuchlíková)
 - [29] Pira V.: The properties of 2D photonic optoelectronic devices with structure incorporated in their surface (J. Škriniarová)
 - [30] Piták T.: Audio Power Amplifier for Battery Operating Devices (V. Stopjaková)
 - [31] Plecho T.: The utilization of passive infrared sensors in safeguarding buildings (M. Kempný)
 - [32] Precner M.: The study of properties micro size magnetic objects (R. Srnánek)
 - [33] Raffaj M.: Preparation and properties of dye sensitized solar cells (L. Harmatha)
 - [34] Ruzsák J.: Characterization of electrical and optical properties of perspective LEDs (J. Kováč)
 - [35] Rýger I.: MEMS gas sensors based on saw-HEMT structures (M. Tomáška)
 - [36] Schmidt L.: Measuring the optical properties of biological tissues (F. Uherek)
 - [37] Stohl K.: Circuit implementation in FPGA for real-time video processing (D. Ďuračková)
 - [38] Szádocki, S.: Controlled power suppliesources for Class E power amplifiers (J. Hribík)
 - [39] Šipoš E.: Diamond and diamond like carbon thin films for electrochemical applications (M. Vojs)
 - [40] Valenta D.: Measurement and processing of biosignals (M. Vojs)
 - [41] Vančo L.: Application of raman spectroscopy in examining the material basis of historical works of art (M. Kadlečíková)
 - [42] Vaškovič L.: Signal processing in frequency range of human speech (D. Ďuračková)
 - [43] Víglaská D.: Sputtered transparent conductive oxides of Zn doped by Ga (S. Flickyngerová)
 - [44] Žila K.: The design and application of microelectrodes in biosensorics (E. Vavrinský)

VI. 2 Doctoral Theses

The names of supervisors are in brackets.

- [1] Daříček M.: Characterization and integration of selected MagFET devices (A. Šatka)

- [2] Donoval M.: Design and verification of IC current test method using MAGFETstructures (V. Stopjaková)
- [3] Gajdošová L.: Applicability of diamond and diamond-like carbon thin films as biomaterials (M. Veselý)
- [4] Marek J.: Electro-physical Analysis of Electrical Properties and Energetic Ruggedness of Modern Power Transistors (D. Donoval)
- [5] Sultan Abdullah Mohammad Seddiq: Digital Signal Detection Methods for ECG Signals Oscillations (O. Ondráček)
- [6] Vinduška P.: Cold Electron Emitters Based on Materials Containing the Carbon and Other Materials (J. Janík)

VII. OTHER ACTIVITIES

Conferences organised/co-organised by the Institute

- **PAD 2011** – 9th Czech and Slovak PhD. conference on Computer Architectures and Diagnostics, Stará Lesná, Slovakia, September 12-14, 2011. Organizing committee co-chair: V. Stopjaková
- Workshop "Contribution of Micro/Nano-electronics and Photonics to Development of Information Society and Quality of Life Enhancement", Hotel Bôrik, Bratislava, Slovakia, November 9, 2011. Organizing chair: D. Donoval

VIII. MEMBERSHIP IN INSTITUTIONS AND COMMITTEES

VIII. 1. Membership in National Institutions/Committees

- 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) Boards for FP7 and International R&D Cooperation (M. Veselý)
- Head of Office for European Union Programs at Faculty of EE&IT (M. Veselý)
- National Expert for CEEPUS Program (M. Veselý)
- SBIMI, Slovak Society for Biomedical Engineering and Medical Informatics (O. Ondráček)
- 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)
- Scientific Committee Communication and Information Technologies, Member (P. Fuchs)
- 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)
- Association of Alumni and Friends, Faculty of Electrical Engineering and Information Technology in Bratislava, member of Bureau (Z. Krajčušková)
- SBIMI, Society for Biomedical Engineering and Medical Informatics, Member of Committee (E. Cocherová)
- SKBS, Slovak Biophysical Society, Member (E. Cocherová)
- IEEE, The Institute of Electrical and Electronics Engineers, Member (E. Cocherová)
- IFMBE, the International Federation for Medical and Biological Engineering (E. Cocherová)
- Czech and Slovak Radioengineering Society, Member (E. Cocherová)
- URSI, Union Radio-Scientifique Internationale, Member (V. Štofanič)
- IEEE, The Institute of Electrical and Electronic Engineers, Member (V. Štofanič)
- IEEE Ultrasonics, Ferroelectrics, and Frequency Control Society, Member (V. Štofanič)
- IEEE Communications Society, Member (V. Štofanič)
- IEEE, The Institute of Electrical and Electronic Engineers, Member (F. Uhrek)
- IEEE, The Institute of Electrical and Electronic Engineers, Member (D. Donoval)
- CSSF, Czech and Slovak Photonic Society, Member of Executive Board (F. Uhrek)

VIII. 2. Membership in International Institutions/Committees

- Member of Education and Training Coordination Board and Scientific Community Council of ENIAC JU, (D. Donoval)
- Member of Steering Committee of European Workshop in Microelectronics Education EWME (D. Donoval)
- Member of European Technology Platform PHOTONICS21, Education Working Group WG7 (F. Uhrek)
- Member of ISEG (Independent Scientific Evaluation Group) NATO, Brussels (D. Ďuračková)
- Alternate Councillor of IUVESTA (M. Veselý)
- Member of the Steering Committee of IEEE Symposium on Design and Diagnostic of Electronics Circuits and Systems, DDECS (V. Stopjaková)
- EURO PRACTICE membership of the University is managed by the Institute (responsible: M. Veselý)
- IFMBE, The International Federation for Medical and Biological Engineering (O. Ondráček, M. Kukučka, Z. Krajčušková)
- European University Program TEXAS INSTRUMENTS, Member, Lecturer (P. Fuchs)
- International Scientific Committee New Trends in Signal Processing, Member (P. Fuchs)
- Audio Engineering Society (AES), Member, Contact Person of the AES Slovak Section (A. Přibilová)
- URSI, Scientific Secretary, National Committee in Slovak Republic (Z. Krajčušková)
- Czech and Slovak Radioengineering Society, Member (Z. Krajčušková)
- Radioengineering, Proceedings of Czech and Slovak Technical Universities and URSI Committees, Member of Editorial Board (Z. Krajčušková)

IX. PUBLICATIONS

IX. 1 Journals

- [1] ACHIMOVIČOVÁ, M. M. - BALÁŽ, P. - ĎURIŠIN, J. - DANEU, N. - KOVÁČ, J. - ŠATKA, A. - FELDHOF, A. - GOCK, E.: Mechanochemical Synthesis of Nanocrystalline Lead Selenide: Industrial Approach. In: International Journal of Materials Research. - ISSN 1862-5282. - Vol. 102, No. 4 (2011), p. 441-445. (in English)
- [2] BALÁŽ, P. - POURGHAHRAMANI, P. - ACHIMOVIČOVÁ, M. M. - DUTKOVÁ, E. - KOVÁČ, J. - ŠATKA, A. - JIANG, J.: Mechanochemical Synthesis and Reactivity of PbS Nanocrystals. In: Journal of Crystal Growth. - ISSN 0022-0248. - Vol. 332 (2011), p. 1-6. (in English)
- [3] BALÁŽ, P. - DUTKOVÁ, E. - ŠATKA, A. - KOVÁČ, J.: Particle Properties and their Modification in Mechanically Activated Reaglar As₄S₄. In: Acta Montanistica Slovaca. - ISSN 1335-1788. - Vol. 16, No. 2 (2011), p. 149-153. (in English)
- [4] BEHMENBURG, H. - GIESEN, C. - SRNÁNEK, R. - KOVÁČ, J. - KALISCH, H. - HEUKEN, M. - JANSEN, RH.: Investigation of AlN Buffer Layers on 6H-SiC for AlInN HEMTs Grown by MOVPE. In: Journal of Crystal Growth. - ISSN 0022-0248. - Vol. 316, No. 42-45 (2011), p. 42-45. (in English)
- [5] BERNÁT, M. - ŠATKA, A.: Time Domain Reflectometry. In: Posterus. - ISSN 1338-0087. - August (2011), <http://www.posterus.sk/?p=11213>. (in Slovak)
- [6] CEHLÁR, M. - HAXHIU, L. - KELEMEN, M. - KOŠČ, I. - HREHOVÁ, D.: Economy Analysis Methodology of Investments for Opening of New Lignite Mining Field. In: Journal on Law, Economy&Management. - ISSN 2048-4186. - Vol. 1, Iss. 1 (2011), p. 3-15. (in English)
- [7] CHOVAN, J. - UHEREK, F. - KURINEK, R. - ŠATKA, A. - PAVLOV, J. - SEYRINGER, D.: Temperature Characterization of Passive Optical Components for WDM-PON DTTx. In: Advances in Electrical and Electronic Engineering. - ISSN 1336-1376. - Vol. 9, No. 3 (2011), p. 143-149. (in English)
- [8] COCHEROVÁ, E. - KUPEC, P. - ŠTOFANIK, V.: Resonance Properties of the Biological Objects in the RF Field. In: Journal of Physics: Conference Series. - ISSN 1742-6588. - Vol. 329 (2011), Art. No. 012033. (in English)
- [9] DONOVAL, D. - CHVÁLA, A. - ŠRAMATÝ, R. - KOVÁČ, J. - MORVAN, E. - DUA, Ch. - DIFORTE-POISSON, MA. - KORDOŠ, P.: Transport Properties and Barrier Height Evaluation in Ni/InAlN/GaN. In: Journal of Applied Physics. - ISSN 0021-8979. - Vol. 109, Iss. 5 (2011), Art. No. 063711. (in English)
- [10] EICKELKAMP, M. - WEINGARTEN, M. - RAHIMZADEH KHOSHROO, I. - KETTENISS, N. - BEHMENBURG, H. - HEUKEN, M. - DONOVAL, D. - CHVÁLA, A. - KORDOŠ, P. - KALISCH, H. - VESCAN, A.: Electrical Properties of Thermally Oxidized AlInN/AlN/GaN-Based Metal Oxide Semiconductor Hetero Field Effect Transistors. In: Journal of Applied Physics. - ISSN 0021-8979. - Vol. 110 (2011), Art. No. 084501. (in English)
- [11] FLICKYNGEROVÁ, S. - NETRVALOVÁ, M. - ŠUTTA, P. - NOVOTNÝ, I. - TVAROŽEK, V. - GAŠPIERIK, P. - BRUNCKO, J.: Effects of Sputtering Power and Pressure on Properties of ZnO: Ga Thin Films Prepared by Oblique-Angle Deposition. In: Thin Solid Films. - ISSN 0040-6090. - Vol. 520 (2011), p. 1233-1237. (in English)
- [12] GAŠPIERIK, P. - MIKOLÁŠEK, M. - TVAROŽEK, V.: Computer Simulations of Advanced Photovoltaic Solar Cells. In: Energie 21. - ISSN 1803-0394. - Vol. 4, No. 5 (2011), p. 30-32. (in Slovak)
- [13] HAGARA, M. - KULLA, P.: Edge Detection with Sub-Pixel Accuracy Based on Approximation of Edge with Erf Function. In: Radioengineering. - ISSN 1210-2512. - Vol. 20, No. 2 (2011), p. 516-524. (in English)
- [14] HASENÖHRL, S. - NOVÁK, J. - VÁVRA, I. - ŠOLTÝS, J. - KUČERA, M. - ŠATKA, A.: Epitaxial Growth of GaP/InxGa1-xP (xln>0. 27) Virtual Substrate for Optoelectronic Applications. In: Journal of Electrical Engineering. - ISSN 1335-3632. - Vol. 62, No. 2 (2011), p. 93-98. (in English)
- [15] HAŠKO, D. - ŠATKA, A. - UHEREK, F. - KOVÁČ, J.: Diagnostic Methods in International Laser Centre. In: Transfer. - ISSN 1337-9747. - Vol. 3, No. 3 (2011), p. 8-9. (in Slovak)
- [16] HOTOVÝ, I. - KOSTIČ, I. - HAŠČÍK, Š. - ŘEHÁČEK, V. - LIDAY, J. - SITTE, H.: Development and Fabrication of TiO₂ Tip Arrays for Gas Sensing. In: Journal of Electrical Engineering. - ISSN 1335-3632. - Vol. 62, No. 6 (2011), p. 363-366. (in English)
- [17] HRIBIK, J. - LOJKO, B. - FUCHS, P.: Accuracy Verification of Simplified Error Correction Method. In: Metrológia a skúšobníctvo. - ISSN 1335-2768. - Vol. 16, No. 2 (2011), p. 9-17. (in Slovak)
- [18] HRONEC, P. - KOVÁČ, J.: Charakterizácia impulzných vlastností tranzistorov HEMT na báze GaN. In: Posterus. - ISSN 1338-0087. - December (2011), <http://www.posterus.sk/?p=12150>. (in Slovak)
- [19] JAKABOVIČ, J. - ŘEHÁČEK, V. - VINCZE, A. - DONOVAL, D. - KOVÁČ, J. - UHEREK, F.: Electronic System Miniaturization and its Impact to SMART Technologies, Systems and Services Development at STU. In: Spektrum. - ISSN 1336-2593. - Vol. 17, No. 8 (2011), p. 14-16. (in Slovak)
- [20] JAKABOVIČ, J. - VINCZE, A. - KOVÁČ, J. - SRNÁNEK, R. - KOVÁČ, J. - DOBROČKA, E. - DONOVAL, D. - HEINEMEYER, U. - SCHREIBER, F. - MACHOVIČ, V. - UHEREK, F.: Surface and Interface Analysis of Iodine-Doped Pentacene Structures for OTFTs. In: Surface and Interface Analysis. - ISSN 0142-2421. - Vol. 43, Iss. 1-2 (2011), p. 518-521. (in English)

- [21] KELEMEN, S. - STUCHLÍKOVÁ, Ľ.: Adobe Flash as Effective Tool of Science and Engineering Popularization. In: Posterus. - ISSN 1338-0087. - August (2011), <http://www.posterus.sk/?p=11370>. (in Slovak)
- [22] KOŠEL, V. - DRŽÍK, M. - ŠATKA, A. - CHLPÍK, J. - GLAVANOVICS, A. - DONOVAL, D.: Transient Thermo-Mechanical Analysis of Smart Power Switches by a Laser Doppler Vibrometer and Numerical Simulations. In: Measurement Science and Technology. - ISSN 0957-0233. - Vol. 22 (2011), p. 1-7. (in English)
- [23] KOVÁČ, J. - ŠRAMATÝ, R. - CHVÁLA, A. - SIBBONI, H. - MORVAN, E. - DIFORTE-POISSON, MA. - DONOVAL, D. - KORDOŠ, P.: Schottky Barrier Height on Thermally Oxidized InAlN Surface Evaluated by Electrical and Optical Measurements. In: Applied Physics Letters. - ISSN 0003-6951. - Vol. 98 (2011), Art. No. 162111. (in English)
- [24] KUBICOVÁ, I. - PUDIŠ, D. - ŠUŠLIK, L. - ŠKRINIAROVÁ, J.: Capabilities of NSOM Lithography Using Metal-Coated Fiber Tip. In: Technológ. - ISSN 1337-8996. - Vol. 3, Special Issue (2011), p. 75-78. (in English)
- [25] KUKUČKA, M. - KRAJČUŠKOVÁ, Z.: Automatized Multi-Electrode Voltage Map Measurement of Active Points on Skin. In: Communications. - ISSN 1335-4205. - Vol. 13, No. 1 (2011), p. 51-55. (in English)
- [26] KUPEC, P.: Simulation of RF Field Absorption in Models of Human Head. In: Posterus. - ISSN 1338-0087. - January (2011), <http://www.posterus.sk/?p=9694>. (in Slovak)
- [27] LABON, P. - BREZOVÍČ, Z.: Capacitance Converters. In: Posterus. - ISSN 1338-0087. - December (2011), <http://www.posterus.sk/?p=12355>. (in Slovak)
- [28] LEKSCHA, T. - ĎURAČKOVÁ, D.: Feasibility Investigations of the Possibility of Measurements, of the Ultrasonic Transducer Power Output at Ultrasonic-Therapy-Devices, with Piezoceramic Sensors. In: Journal of Electrical Engineering. - ISSN 1335-3632. - Vol. 62, No. 5 (2011), p. 313-316. (in English)
- [29] LIDAY, J. - VOGRINČIČ, P. - HOTOVÝ, I. - SITTER, H. - BONANNI, A.: Ohmic Contacts to p-GaN Using Au/Ni-Zn-O Metallization. In: Journal of Electrical Engineering. - ISSN 1335-3632. - Vol. 62, No. 5 (2011), p. 309-312. (in English)
- [30] LIDAY, J. - VOGRINČIČ, P. - ECKE, G.: Some Aspects of Quantitative Analysis of Ternary Alloys of Group III-Nitrides by Auger Electron Spectroscopy. In: Journal of Electrical Engineering. - ISSN 1335-3632. - Vol. 62, No. 6 (2011), p. 367-369. (in English)
- [31] MARTON, M. - KOVALČÍK, D. - ZDRAVECKÁ, E. - VARGA, M. - GAJDOŠOVÁ, L. - VAVRINSKÝ, E. - VESELÝ, M. - REDHAMMER, R. - HOPFELD, M.: The Influence of Substrate Bias on Nanohardness of a-C:N Films. In: Chemické listy. - ISSN 0009-2770. - Vol. 105 S (2011), p. s832-s833. (in English)
- [32] NOVÁK, J. - TELEK, P. - VÁVRA, I. - HASENÖHRL, S. - REIFFERS, M.: MOVPE Growth and Properties of Light Emitting Diodes with an Incorporated InMnAs Ferromagnetic Layer. In: Journal of Crystal Growth. - ISSN 0022-0248. - Vol. 315 (2011), p. 78-81. (in English)
- [33] PŮČIK, J. - COCHEROVÁ, E. - SULTAN, A. M.: Experiments for Analysis of Respiratory Sinus Arrhythmia by Means of Spectral Methods. In: Physiological Research. - ISSN 0862-8408. - Vol. 60, Iss. 4 (2011), p. 38 P. (in English)
- [34] PUDIŠ, D. - ŠUŠLIK, L. - ŠKRINIAROVÁ, J. - KOVÁČ, J. - MARTINČEK, I. - KOVÁČ, J. - HAŠČÍK, Š. - KUBICOVÁ, I. - NOVÁK, J. - VESELÝ, M.: Light Extraction from a Light Emitting Diode with Photonic Structure in the Surface Layer Investigated by NSOM. In: Optics and Laser Technology. - ISSN 0030-3992. - Vol. 43 (2011), p. 917-921. (in English)
- [35] RACKO, J. - MIKOLÁŠEK, M. - HARMATHA, L. - BREZA, J. - HUDEC, B. - FRÖHLICH, K. - AARIK, J. - TARRE, A. - GRANZNER, R. - SCHWIERZ, F.: Analysis of Leakage Current Mechanisms in RuO₂-TiO₂-RuO₂ MIM Structures. In: Journal of Vacuum Science and Technology. B. - ISSN 1071-1023. - Vol. 29, No. 1 (2011), Art. No. 01AC08. (in English)
- [36] RACKO, J. - MIKOLÁŠEK, M. - BENKO, P. - HARMATHA, L. - GALLO, O. - GRANZNER, R. - SCHWIERZ, F.: Coupled Defect Level Recombination in th P-N Junction. In: Journal of Electrical Engineering. - ISSN 1335-3632. - Vol. 62, No. 6 (2011), p. 355-358. (in English)
- [37] RACKO, J. - MIKOLÁŠEK, M. - GRANZNER, R. - BREZA, J. - DONOVAL, D. - GRMANOVÁ, A. - HARMATHA, L. - SCHWIERZ, F. - FRÖHLICH, K.: Trap-Assisted Tunnelling Current in MIM Structures. In: Central European Journal of Physics. - ISSN 1895-1082. - Vol. 9, No. 1 (2011), p. 230-241. (in English)
- [38] ŘEHÁČEK, V. - HOTOVÝ, I. - VOJS, M. - KOTLÁR, M. - KUPS, T. - SPIESS, L.: Pyrolyzed Photoresist Film Electrodes for Application in Electroanalysis. In: Journal of Electrical Engineering. - ISSN 1335-3632. - Vol. 62, No. 1 (2011), p. 49-53. (in English)
- [39] SCHEJBAL, V. - FIŠER, O. - ONDRÁČEK, O.: Comments on 'On the Power Absorbed and Scattered by an Antenna'. In: IEEE Antennas and Propagation Magazine. - ISSN 1045-9243. - Vol. 53, No. 2 (2011), p. 172-174. (in English)
- [40] TAGUCHI, D. - SHINO, T. - CHEN, X. - ZHANG, L. - LI, J. - WEIS, M. - MANAKA, T. - IWAMOTOY, M.: Analyzing Photovoltaic Effect of Double-Layer Organic Solar Cells as a Maxwell-Wagner Effect System by Optical Electric-Field-Induced Second-Harmonic Generation Measurement. In: Journal of Applied Physics. - ISSN 0021-8979. - Vol. 110 (2011), Art. No 103717. (in English)
- [41] TEPLAN, M. - KUKUČKA, M. - ONDREJKOVIČOVÁ, A.: Impedance Analysis of Acupuncture Points and Pathways. In: Journal of Physics: Conference Series. - ISSN 1742-6588. - Vol. 329 (2011), Art. no. 012034. (in English)
- [42] VANČO, Ľ. - KADLEČÍKOVÁ, M.: Selected Spectroscopic Methods Applied in the Analysis of Historical Painting Works. In: Materials Engineer. Materiálový inžinier. - ISSN 1337-8953. - Vol. 4 (2011), <http://www.materialing.com/archeometria>. (in Slovak)

- [43] WEIS, M. - LI, J. - TAGUCHI, D. - MANAKA, T. - IWAMOTOY, M.: Effect of Photogenerated Carriers on Ferroelectric Polarization Reversal. In: Applied Physics Express. - ISSN 1882-0778. - Vol. 4 (2011), Art. no 121601. (in English)
- [44] WRACHIEN, N. - CESTER, A. - BARI, D. - KOVÁČ, J. - JAKABOVIČ, J. - DONOVAL, D. - MENEGHESSO, G.: Near-UV Irradiation Effects on Pentacene-Based Organic Thin Film Transistors. In: IEEE Transactions on Nuclear Science. - ISSN 0018-9499. - Vol. 58, Iss. 6 (2011), p. 2911-2917. (in English)

IX. 2 Conference Proceedings

- [1] ARBET, D. - BRENKUŠ, J. - GYEPES, G. - STOPJAKOVÁ, V.: Increasing the Efficiency of Analog OBIST Using On-Chip Compensation of Technology Variations. In: Design & Diagnostics of Electronic Circuits&Systems. DDECS: 14th IEEE Symposium. Cottbus, Germany, April 13-15, 2011. - Piscataway: IEEE, 2011. - ISBN 978-1-4244-9754-6. - CD-Rom. (in English)
- [2] ARBET, D.: on Chip Application Test Method for Built-in Self Test of Analog and Mixed-Signal Systems. In: Computer Architecture and Diagnostic 2011: Czech-Slovak Workshop for PhD. Students. Stará Lesná, Slovak Republic, 12.-14. 9. 2011. - Bratislava: Nakladateľstvo STU, 2011. - ISBN 978-80-227-3552-0. - p. 109-114. (in English)
- [3] ARBET, D. - BRENKUŠ, J. - MAJER, L. - STOPJAKOVÁ, V.: Oscillation-Based Built-In Self Test of Integrated Active Analog Filters. In: Applied Electronics 2011: International Conference on Applied Electronics. Pilsen, 7-8 September 2011. - Pilsen: University of West Bohemia, 2011. - ISBN 978-80-7043-987-6. - p. 25-28. (in English)
- [4] BALLO, P. - HARMATHA, L.: Quantum Tunneling Through a Very Narrow Triangular Potential Barrier, Exact and WKB Solution. In: APCOM 2011. Applied Physics of Condensed Matter: 17th International Conference. Nový Smokovec, Slovak Republic, June 22-24, 2011. - Žilina: University of Žilina, 2011. - ISBN 978-80-554-0386-1. - p. 151-154. (in English)
- [5] BERNÁT, M. - ŠATKA, A.: Time Resolved Reflectometry. In: ŠVOČ 2011: Proceedings of Selected Works. Bratislava, Slovak Republic, 4. 5. 2011. - Bratislava: FEI STU, 2011. - ISBN 978-80-227-3508-7. - p. 485-489. (in Slovak)
- [6] BRATH, T. - BÚC, D. - KOVÁČ, J. - HRNČIAR, V. - ČAPLOVIČ, L.: Study of Sputtered ZnO Thin Films on SiO₂ and GaP Substrates. In: APCOM 2011. Applied Physics of Condensed Matter: 17th International Conference. Nový Smokovec, Slovak Republic, June 22-24, 2011. - Žilina: University of Žilina, 2011. - ISBN 978-80-554-0386-1. - p. 73-76. (in English)
- [7] BREZA, J. - PASTORKOVÁ, K. - KADLEČIKOVÁ, M. - JESENÁK, K. - ČAPLOVIČOVÁ, M. - KOLMAČKA, M. - LAZIŠŤAN, F.: Formation of Nanocomposites Based on Carbon Nanotubes and Silicates. In: APCOM 2011. Applied Physics of Condensed Matter: Proceedings of the 17th International Conference. Nový Smokovec, Slovak Republic, June 22-24, 2011. - Žilina: University of Žilina, 2011. - ISBN 978-80-554-0386-1. - p. 44-47. (in English)
- [8] BÚC, D. - BRATH, T. - HOTOVÝ, I. - ŘEHÁČEK, V. - ČAPLOVIČOVÁ, M. - MIKULA, M.: ZnO Gas Sensor Structure. In: 7th International Symposium on Transparent Oxide Thin Films for Electronics and Optics: Tokyo, Japan, March 14-16, 2011. - Tokyo: Waseda University, 2011. - p. 137. (in English)
- [9] BUTVINOVÁ, B. - BUTVIN, P. - KUZMINSKI, M. - KADLEČIKOVÁ, M. - SLAWSKA-WANIEWSKA, A.: Indication of Intrinsic Macroscopic Forces Affecting Magnetic Properties of Fe-Nb/Mo-Cu-B-Si Ribbons. In: SMM 2011: 20th International Conference on Soft Magnetic Materials. Athens, Greece, 19.-22. 9. 2011. - Athens: X mpenou Publ. House, 2011. - ISBN 978-960-9534-14-7. - p. 227. (in English)
- [10] CEBÁK, M. - MAREK, J.: Communication and Control Systems in Modern Cars. In: ŠVOČ 2011: Proceedings of Selected Works. Bratislava, Slovak Republic, 4. 5. 2011. - Bratislava: FEI STU, 2011. - ISBN 978-80-227-3508-7. - p. 468-472. (in Slovak)
- [11] CHVÁLA, A. - DONOVAL, D. - MAREK, J. - MOLNÁR, M. - PRÍBYTNÝ, P. - KOVÁČ, J. - KORDOŠ, P.: Analysis of the Leakage Current of AlGaIn/GaN Schottky Diode Dependent on Ohmic Contact PAD Electrode Position. In: WOCSDICE 2011: 35th Workshop on Compound Semiconductor Devices and Integrated Circuits. Catania, Italy, May 29 - June 1, 2011. - Catania: CNR-IMM, 2011. - p. 127-128. (in English)
- [12] CHVÁLA, A. - DONOVAL, D. - MAREK, J. - PRÍBYTNÝ, P. - MOLNÁR, M.: Characterisation of Thermal Equivalent Circuit for SPICE-like Electro-Thermal Model of Power MOSFET. In: APCOM 2011. Applied Physics of Condensed Matter: 17th International Conference. Nový Smokovec, Slovak Republic, June 22-24, 2011. - Žilina: University of Žilina, 2011. - ISBN 978-80-554-0386-1. - p. 90-93. (in English)
- [13] COCHEROVÁ, E. - KUPEC, P. - ŠTOFANIK, V. - PŮČIK, J.: An Analysis of the RF Field Absorption in the Human Body Models. In: Trends in Biomedical Engineering: 9th Czech-Slovak Conference. Rožnov p. Radhoštěm, Czech Republic, 21.-23. 9. 2011. - Ostrava: VŠB - TU Ostrava, 2011. - ISBN 978-80-248-2475-8. - p. 167-170. (in English)
- [14] ČIČÁKOVÁ, O. - JANÍK, J. - VESELÝ, M.: Computerized Measurements in Vacuum. In: IN-TECH 2011: Proceedings of International Conference on Innovative Technologies. Bratislava, Slovak Republic, 1. 9. -3. 9. 2011. - Jaroměř: Jan Kudláček, 2011. - ISBN 978-80-904502-6-4. - p. 422-425. (in English)

- [15] DAŘÍČEK, M. - HORÍNEK, F. - VAVRINSKÝ, E. - DONOVAL, M. - TELEK, P. - DONOVAL, D.: Smart System for Low-Power Wireless Probes Human Biosignal Sensing. In: Bio-Sensing Technology: 2nd International Conference. Amsterdam, The Netherlands, 10-12 October 2011. - Bristol: Institute of Bio-Sensing Technology, 2011. - P 213. (in English)
- [16] DOMONKOS, M. - IŽÁK, T. - BABCHENKO, O. - KROMKA, A. - HRUŠKA, K.: Influence of CO2 Concentration on Diamond Film Morphology in Pulsed Linear Antenna MV CVD System. In: Proceedings of the 2nd Winter Education Seminar: Rokytnice nad Jizerou, Czech Republic, February 16-18, 2011. - Prague: FZÚ AV ČR, 2011. - ISBN 978-80-260-0911-5. - p. 33-36. (in English)
- [17] FLOROVIČ, M. - HRONEC, P. - KOVÁČ, J. - KORDOŠ, P. - ŠKRINIAROVÁ, J. - DONOVAL, D.: Off-State Stress and Pulse Response Investigation of InAlN/GaN HFET. In: APCOM 2011. Applied Physics of Condensed Matter: 17th International Conference. Nový Smokovec, Slovak Republic, June 22-24, 2011. - Žilina: University of Žilina, 2011. - ISBN 978-80-554-0386-1. - p. 130-134. (in English)
- [18] FUCHS, P. - HRIBIK, J.: Modern Systems for Digital Signal Processing in Radio Electronic, Measurement, and Biomedicine Applications, Multimedia and Vehicular Technology. In: Society of Graduates and Friends of FEI SUT. Annual Almanac 2010. - Bratislava: STU, 2011. - p. 108-110. (in Slovak)
- [19] GRANČIČ, B. - MIKULA, M. - ROCH, T. - DOBROČKA, E. - KRIŽANOVÁ, Z. - ZEMAN, P. - MIČUŠÍK, M. - ČIČKA, R. - ŠATKA, A. - SATRAPINSKY, L. - ZAHORAN, M. - PLECENIK, A. - KÚŠ, P.: High Temperature Oxidation of Silicon-Doped Titanium Diboride Coatings. In: Coatings and Layers 2011. Rožnov pod Radhoštěm, Czech Republic, 17.-18. 10. 2011. - Trenčín: Miloš Vavřík - Kníhviazačstvo, 2011. - ISBN 978-80-970824-0-6. - p. 203. (in English)
- [20] GRANZNER, R. - MUSTAFA, N. - RACKO, J. - MIKOLÁŠEK, M. - BREZA, J. - SCHWIERZ, F.: on the Coexistence of Two-Dimensional Electron and Hole Gases in GaN-based Heterostructures. In: APCOM 2011. Applied Physics of Condensed Matter: 17th International Conference. Nový Smokovec, Slovak Republic, June 22-24, 2011. - Žilina: University of Žilina, 2011. - ISBN 978-80-554-0386-1. - p. 126-129. (in English)
- [21] GYEPES, G.: Application of Iddt Test towards Increasing SRAM Reliability in Nanometer Technologies. In: Computer Architecture and Diagnostic 2011: Czech-Slovak Workshop for PhD. Students. Stará Lesná, Slovak Republic, 12.-14. 9. 2011. - Bratislava: Nakladateľstvo STU, 2011. - ISBN 978-80-227-3552-0. - p. 91-96. (in English)
- [22] GYEPES, G. - BRENKUŠ, J. - ARBET, D. - STOPJAKOVÁ, V.: Comparison of Iddt Test Efficiency in Covering Opens in SRAMs Realised in Two Different Technologies. In: Design & Diagnostics of Electronic Circuits&Systems. DDECS: 14th IEEE Symposium. Cottbus, Germany, April 13-15, 2011. - Piscataway: IEEE, 2011. - ISBN 978-1-4244-9754-6. - CD-Rom. (in English)
- [23] HAGARA, M. - KULLA, P.: Edge Detection with Sub-Pixel Accuracy. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 17, Special Issue: ELOSYS, Trenčín, 11.-14. 10. 2011, p. 60-64. (in Slovak)
- [24] HARMATHA, L. - MIKOLÁŠEK, M. - ŘEHÁČEK, V. - KOZÁR, M. - BALLO, P. - PRUŠÁKOVÁ, L. - ŠUTTA, P. - VINCZE, A. - MATAY, L.: Preparation and Properties of Amorphous Silicon Based Thin Film Structures for Photovoltaics. In: Power Engineering 2011. Renewable Energy Sources 2011: Tatranské Matliare, Slovak Republic, June 7-9, 2011. - Bratislava: Slovak University of Technology in Bratislava, 2011. - ISBN 978-80-89402-38-0. - USB flash. (in English)
- [25] HASENÖHRL, S. - ELIÁŠ, P. - VÁVRA, I. - NOVOTNÝ, I. - KOVÁČ, J. - NOVÁK, J.: GaP/ZnO Core-Shell Nanowires - Growth and Characterization. In: EWMOVPE XIV: European Workshop on Metalorganic Vapor Epitaxy. - Wrocław: University of Technology, 2011. - ISBN 978-83-7493-599-9. - p. 259-262. (in English)
- [26] HAŠKO, D. - ŠATKA, A. - PRIESOL, J. - KOVÁČ, J.: Laboratory of Material and Surface Analysis. In: Photonics 2011: 6th Annual Scientific Workshop of International Laser Centre. Bratislava, Slovak Republic, 10.-11. 2. 2011. - Bratislava: STU, 2011. - ISBN 978-80-970493-2-4. - CD-Rom. (in Slovak)
- [27] HLAVOŇ, A. - KUPEC, P.: Radio-Frequency Field Absorption in the Ellipsoid Model of Human Body. In: ŠVOČ 2011: Proceedings of Selected Works. Bratislava, Slovak Republic, 4. 5. 2011. - Bratislava: FEI STU, 2011. - ISBN 978-80-227-3508-7. - p. 98-101. (in Slovak)
- [28] HORÍNEK, F. - DAŘÍČEK, M.: Development Kid EduBoard. In: ŠVOČ 2011: Proceedings of Selected Works. Bratislava, Slovak Republic, 4. 5. 2011. - Bratislava: FEI STU, 2011. - ISBN 978-80-227-3508-7. - p. 495-498. (in Slovak)
- [29] HORÍNEK, F. - DAŘÍČEK, M. - DONOVAL, D. - TELEK, P. - VAVRINSKÝ, E. - DONOVAL, M. - ŠATKA, A.: Novel Methods of Muscle Biosignals Processing. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 17, Special Issue: ELOSYS, Trenčín, 11.-14. 10. 2011, p. 9-11. (in Slovak)
- [30] HORÍNEK, F. - DAŘÍČEK, M. - SLÁDEK, L. - DONOVAL, D. - HORNIÁK, M.: Stax-Extensible Platform for Rapid Prototyping. In: ELITECH'11: 13th Conference of Doctoral Students Faculty of Electrical Engineering and Information Technology. Bratislava, Slovak Republic, 17 May, 2011. - Bratislava: Nakladateľstvo STU, 2011. - ISBN 978-80-227-3500-1. - p. 1-4. (in English)

- [31] HORŇÁK, P.: Investigation on RSOA-Based Long Reach WDM PONs. In: Optical Communications 2010: Prague, Czech Republic, 21. -22. 10. 2010. - Prague: Action M, 2011. - ISBN 978-80-86742-31-1. - p. 65-69. (in English)
- [32] HOTOVÝ, I. - PEZOLDT, J. - CAPONE, S. - BÚC, D. - KUPS, T. - ŘEHÁČEK, V. - SICILIANO, P. - SPIESS, L.: Structural, Optical and Gas Sensing Characterization of Sputtered Indium Oxide Films Deposited at Room Temperature. In: 7th International Symposium on Transparent Oxide Thin Films for Electronics and Optics: Tokyo, Japan, March 14-16, 2011. - Tokyo: Waseda University, 2011. - p. 112. (in English)
- [33] HRIBIK, J. - LOJKO, B. - FUCHS, P.: Accuracy Verification of Simplified Error Correction Method in Digital Electricity Meters. In: Measurement 2011: 8th International Conference on Measurement. Smolenice, Slovak Republic, 27. -30. 4. 2011. - Bratislava: Slovak Academy of Sciences, 2011. - ISBN 978-80-969-672-4-7. - p. 38-41. (in English)
- [34] HRIBIK, J. - HRUŠKOVIC, M. - FUCHS, P.: Microprocessor Controlled Portable AC Current Source for Electricity Meters Testing. In: Radioelektronika 2011: 21st International Conference. Brno, Czech Republic, April 19-20, 2011. - Brno: University of Technology, 2011. - ISBN 978-1-61284-322-3. - p. 45-48. (in English)
- [35] HRICA, P. - ŠTOFANIK, V.: Modelling of the RF Radiation Absorption in Biological Objects. In: ŠVOČ 2011: Proceedings of Selected Works. Bratislava, Slovak Republic, 4. 5. 2011. - Bratislava: FEI STU, 2011. - ISBN 978-80-227-3508-7. - p. 113-118. (in Slovak)
- [36] HRICA, P. - ŠTOFANIK, V.: Modelling of the RF Radiation Emitted from Dipole. In: ŠVOČ 2011: Proceedings of Selected Works. Bratislava, Slovak Republic, 4. 5. 2011. - Bratislava: FEI STU, 2011. - ISBN 978-80-227-3508-7. - p. 500-503. (in Slovak)
- [37] HRONEC, P. - KOVÁČ, J.: Pulse Properties Characterisation of GaN Based HEMT's. In: ŠVOČ 2011: Proceedings of Selected Works. Bratislava, Slovak Republic, 4. 5. 2011. - Bratislava: FEI STU, 2011. - ISBN 978-80-227-3508-7. - p. 442-447. (in Slovak)
- [38] IŽÁK, T. - KROMKA, A. - POTMĚŠIL, J. - HRUŠKA, K.: Influence of Methane Concentration on Diamond Film Morphology and Growth Rate. In: 2nd Winter Education Seminar: Rokytnice nad Jizerou, Czech Republic, February 16 - 18, 2011. - Prague: FZÚ AV ČR, 2011. - ISBN 978-80-260-0911-5. - p. 28-32. (in English)
- [39] JAKABOVIČ, J. - KOVÁČ, J. - SRNÁNEK, R. - WEIS, M. - SOKOLSKÝ, M. - GULDAN, Š. - BROCH, K. - SCHREIBER, F. - DONOVAL, D. - CIRÁK, J.: OTFT with Pentacene-Gate Dielectric Interface Modified by Silicon Nanoparticles. In: APCOM 2011. Applied Physics of Condensed Matter: 17th International Conference. Nový Smokovec, Slovak Republic, June 22-24, 2011. - Žilina: University of Žilina, 2011. - ISBN 978-80-554-0386-1. - p. 56-60. (in English)
- [40] JESENÁK, K. - KADLEČÍKOVÁ, M. - BREZA, J. - PASTORKOVÁ, K. - KOLMAČKA, M. - LAZIŠŤAN, F. - MICHALKA, M.: Brief Description of Research Synthesis of Nanotubes. In: Proceedings of the 13th Conference on Special Anorganic Pigments and Powder Materials: Pardubice, Czech Republic, 22. 9. 2011. - Pardubice: University of Pardubice, 2011. - ISBN 978-80-7395-404-8. - p. 72-74. (in Slovak)
- [41] JESENÁK, K. - KADLEČÍKOVÁ, M. - BREZA, J. - PASTORKOVÁ, K. - KOLMAČKA, M. - LAZIŠŤAN, F. - MICHALKA, M. - ČAPLOVIČOVÁ, M.: Selection of Interesting Structures of Carbon Nanotubes Prepared in Clay Minerals and Zeolites. In: Natural and Synthetic Zeolites in Slovakia. Bratislava, Slovak Republic, 22. 6. 2011. - Bratislava: STU, 2011. - ISBN 978-80-227-3522-3. - p. 136-144. (in Slovak)
- [42] KADLEČÍKOVÁ, M. - BREZA, J. - JESENÁK, K. - PASTORKOVÁ, K. - KOLMAČKA, M. - ČAPLOVIČOVÁ, M. - LAZIŠŤAN, F.: Creation of Nanocomposites Based on Carbon Nanotubes and Zeolite and Carbon Nanotubes and Montmorillonite. In: NANOCON 2009. 1st Conference with International Participation: Rožnov pod Radhoštěm, Czech Republic, 20. -22. 10. 2009. - Ostrava: TANGER s r. o, 2011. - ISBN 978-80-87294-23-9. - CD-Rom. (in English)
- [43] KAPUSTA, T. - BORIŠ, M.: Sources of Electromagnetic Interference in Power Electronic Systems and its Elimination. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 17, Special Issue: ELOSYS, Trenčín, 11. -14. 10. 2011, p. 134-137. (in English)
- [44] KELEMEN, S. - STUHLÍKOVÁ, Ľ.: Popularization of Science and Technology Using Adobe Flash. In: ŠVOČ 2011: Proceedings of Selected Works. Bratislava, Slovak Republic, 4. 5. 2011. - Bratislava: FEI STU, 2011. - ISBN 978-80-227-3508-7. - p. 181-185. (in Slovak)
- [45] KINDER, R. - MIKOLÁŠEK, M. - KOVÁČ, J. - TLACZALA, M.: Hall and a Four Point Probe for Characterization of Semiconductors. In: APCOM 2011. Applied Physics of Condensed Matter: 17th International Conference. Nový Smokovec, Slovak Republic, June 22-24, 2011. - Žilina: University of Žilina, 2011. - ISBN 978-80-554-0386-1. - p. 224-227. (in English)
- [46] KORDOŠ, P. - KOVÁČ, J. - ŠRAMATÝ, R. - ŠKRINIAROVÁ, J. - ŠATKA, A. - CHVÁLA, A. - DONOVAL, D.: Tunneling Current via Dislocations in AlGaIn/GaN Schottky Contacts. In: EMC 2011: 53rd Electronic Materials Conference. Santa Barbara, June 22 - 24, 2011. - p. 60-61. (in English)

- [47] KÓSA, A. - STUHLÍKOVÁ, L.: DLTS Spectra Analysis and Processing. In: ŠVOČ 2011: Proceedings of Selected Works. Bratislava, Slovak Republic, 4. 5. 2011. - Bratislava: FEI STU, 2011. - ISBN 978-80-227-3508-7. - p. 175-180. (in Slovak)
- [48] KOŠČ, I. - HOTOVÝ, I. - FLICKYNGEROVÁ, S. - KÁDÁR, O. - KOVÁČ, J. - PREDANOCY, M.: Preparation and Optical Properties of Compound NiO/TiO₂ Based Thin Films. In: ELITECH'11: 13th Conference of Doctoral Students Faculty of Electrical Engineering and Information Technology. Bratislava, Slovak Republic, 17 May, 2011. - Bratislava: Nakladateľstvo STU, 2011. - ISBN 978-80-227-3500-1. - p. 1-5. (in English)
- [49] KOŠČ, I. - HOTOVÝ, I. - GRIESELER, R. - ŘEHÁČEK, V. - WILKE, M. - SPIESS, L.: Thin Compound Oxide Films Based on NiO and TiO₂ for Gas Detection. In: APCOM 2011. Applied Physics of Condensed Matter: 17th International Conference. Nový Smokovec, Slovak Republic, June 22-24, 2011. - Žilina: University of Žilina, 2011. - ISBN 978-80-554-0386-1. - p. 268-271. (in English)
- [50] KOTLÁR, M. - VRETNÁR, V. - VESELÝ, M. - REDHAMMER, R.: Chemical Sensors Using Carbon Nanotubes. In: ELITECH'11: 13th Conference of Doctoral Students Faculty of Electrical Engineering and Information Technology. Bratislava, Slovak Republic, 17 May, 2011. - Bratislava: Nakladateľstvo STU, 2011. - ISBN 978-80-227-3500-1. - p. 1-4. (in English)
- [51] KOTLÁR, M. - VRETNÁR, V. - VESELÝ, M. - REDHAMMER, R.: Growth of Different Carbon Nanotubes Formations by CVD. In: Proceedings of the 2nd Winter Education Seminar: Rokytnice nad Jizerou, Czech Republic, February 16 - 18, 2011. - Prague: FZÚ AV ČR, 2011. - ISBN 978-80-260-0911-5. - p. 17-23. (in English)
- [52] KOTLÁR, M. - VRETNÁR, V. - VESELÝ, M. - REDHAMMER, R.: Growth of Single Walled Carbon Nanotubes Networks Using Al-Ni as Catalyst. In: APCOM 2011. Applied Physics of Condensed Matter: 17th International Conference. Nový Smokovec, Slovak Republic, June 22-24, 2011. - Žilina: University of Žilina, 2011. - ISBN 978-80-554-0386-1. - p. 52-55. (in English)
- [53] KOVÁČ, J. - ŠRAMATÝ, R. - ŠKRINIAROVÁ, J. - MORVAN, E. - CHVÁLA, A. - DONOVAL, D. - KORDOŠ, P.: Analysis of Schottky Barriers on AlGaIn/GaN and InAlN/GaN Heterostructures Using Electrical and Optical Characterization. In: 9th International Conference on Nitride Semiconductors: Glasgow, Scotland, 10-15 July 2011. - p. PC 1. 27. (in English)
- [54] KOVÁČ, J. - KOVÁČ, J. - HOTOVÝ, J. - NOVOTNÝ, I. - ŠKRINIAROVÁ, J. - DUTKOVÁ, E. - BALÁŽ, P.: Electrical Characterisation of Semiconductor Structures Using AFM Techniques. In: APCOM 2011. Applied Physics of Condensed Matter: 17th International Conference. Nový Smokovec, Slovak Republic, June 22-24, 2011. - Žilina: University of Žilina, 2011. - ISBN 978-80-554-0386-1. - p. 212-215. (in English)
- [55] KOVÁČ, J. - BRATH, T. - NOVOTNÝ, I. - BRUNCKO, J. - BÚC, D. - KÁDÁR, O. - HASENÖHRL, S. - NOVÁK, J.: Growth and Characterisation of GaP/ZnO Heterojunction Properties. In: APCOM 2011. Applied Physics of Condensed Matter: 17th International Conference. Nový Smokovec, Slovak Republic, June 22-24, 2011. - Žilina: University of Žilina, 2011. - ISBN 978-80-554-0386-1. - p. 40-43. (in English)
- [56] KOVÁČ, M. - ŠTOFANIK, V.: Experimental Examination of GPS Receiver Sensitivity. In: ŠVOČ 2011: Proceedings of Selected Works. Bratislava, Slovak Republic, 4. 5. 2011. - Bratislava: FEI STU, 2011. - ISBN 978-80-227-3508-7. - p. 515-519. (in Slovak)
- [57] KOVALČÍK, D. - MARTON, M.: Diamondlike Carbon Thin Films for Biomedical Application. In: ŠVOČ 2011: Proceedings of Selected Works. Bratislava, Slovak Republic, 4. 5. 2011. - Bratislava: FEI STU, 2011. - ISBN 978-80-227-3508-7. - p. 208-212. (in Slovak)
- [58] KOZÁR, M. - MIKOLÁŠEK, M.: Analysis of the Current Transport Mechanisms through a Thin Amorphous Silicon Passivation Layer for Solar Cells Based on the a-Si:H/c-Si Heterojunction. In: ŠVOČ 2011: Proceedings of Selected Works. Bratislava, Slovak Republic, 4. 5. 2011. - Bratislava: FEI STU, 2011. - ISBN 978-80-227-3508-7. - p. 457-461. (in Slovak)
- [59] KRAJČOVIČ, F. - BILÍK, V.: S-Parameters Approximation of Coaxial Impedance Transformer Tuning Element. In: Radioelektronika 2011: 21st International Conference. Brno, Czech Republic, April 19-20, 2011. - Brno: University of Technology, 2011. - ISBN 978-1-61284-322-3. - p. 349-352. (in English)
- [60] KRAJČUŠKOVÁ, Z. - KUKUČKA, M.: Time-Frequency Representation and Unconventional Reliability Growth Model. In: Telecommunications and Signal Processing TSP-2011: 34th International Conference. Budapest, Hungary, 18. -20. 8. 2011. - Brno: VUT in Brno, 2011. - ISBN 978-1-14577-1409-2. - p. 518-520. (in English)
- [61] KRAJČUŠKOVÁ, Z. - KUKUČKA, M.: Unconventional Reliability Growth Model. In: APCOM 2011. Applied Physics of Condensed Matter: 17th International Conference. Nový Smokovec, Slovak Republic, June 22-24, 2011. - Žilina: University of Žilina, 2011. - ISBN 978-80-554-0386-1. - p. 308-311. (in English)
- [62] KRAJMER, M.: Implementation of Computer Vision Methods to FPGA. In: Computer Architecture and Diagnostic 2011: Czech-Slovak Workshop for PhD. Students. Stará Lesná, Slovak Republic, 12. -14. 9. 2011. - Bratislava: Nakladateľstvo STU, 2011. - ISBN 978-80-227-3552-0. - p. 133-137. (in Slovak)

- [63] KUBICOVÁ, I. - PUDIŠ, D. - ŠUŠLIK, L. - ŠKRINIAROVÁ, J.: Characterization of Metal-Coated Fiber Tip for NSOM Lithography by Tip-to-tip Scan. In: APCOM 2011. Applied Physics of Condensed Matter: 17th International Conference. Nový Smokovec, Slovak Republic, June 22-24, 2011. - Žilina: University of Žilina, 2011. - ISBN 978-80-554-0386-1. - p. 114-117. (in English)
- [64] KUBICOVÁ, I. - PUDIŠ, D. - ŠUŠLIK, L. - ŠKRINIAROVÁ, J. - SLABEYCIUSOVÁ, S.: NSOM as Promising Subwavelength Patterning Technique and Detection Method. In: Vacuum and Advanced Materials: Štrbské Pleso, Slovak Republic, 8. -11. 9. 2011. - Bratislava: Slovak Vacuum Society, 2011. - ISBN 978-80-969435-9-3. - p. 51-55. (in English)
- [65] KUBLIHA, M. - TRNOVCOVÁ, V. - LABAŠ, V. - PSOTA, J. - KADLEČÍKOVÁ, M. - PEDLÍKOVÁ, J.: Structural Peculiarities and Physical Properties of TeO₂. PbCl₂. PbF₂ Glasses Doped with Rare Earth Elements. In: 5th International Conference on Amorphous and Nanostructured Chalcogenides: Abstract Book. Magurele - Bucharest, Romania, June 26-July 1, 2011. - p. 30. (in English)
- [66] KUDJÁK, V. - BREZOVÍČ, Z. - MURÍN, M.: a Two-Resonator Quartz Model for Advanced PC-Supported Design for a VCXO. In: Radioelektronika 2011: 21st International Conference. Brno, Czech Republic, April 19-20, 2011. - Brno: University of Technology, 2011. - ISBN 978-1-61284-322-3. - p. 49-51. (in English)
- [67] KUKUČKA, M. - KRAJČUŠKOVÁ, Z.: The Frequency Influence in Measurement of the Active Points on Human Skin. In: Trends in Biomedical Engineering: 9th Czech-Slovak Conference. Rožnov p. Radhoštěm, Czech Republic, 21. -23. 9. 2011. - Ostrava: VŠB - TU Ostrava, 2011. - ISBN 978-80-248-2475-8. - p. 149-153. (in English)
- [68] KUKUČKA, M. - KRAJČUŠKOVÁ, Z.: Various Effects in Voltage Chart Measurement of Active Points on Skin. In: Radioelektronika 2011: 21st International Conference. Brno, Czech Republic, April 19-20, 2011. - Brno: University of Technology, 2011. - ISBN 978-1-61284-322-3. - p. 301-304. (in English)
- [69] KUPEC, P. - HAJACH, P. - COCHEROVÁ, E. - PŮČIK, J. - GONŠOROVÁ, M.: Microwave Field Absorption in the Human Head Model. In: Proceedings of YBERC 2010: Young Biomedical Engineers and Researchers Conference. Košice, Slovak Republic, 1-3 July, 2010. - Košice: Technical University, 2011. - ISBN 978-80-553-0596-7. - CD-Rom. (in English)
- [70] KUZMA, A. - CHOVAN, J. - UHEREK, F. - SEYRINGER, D.: Design and Simulation of Planar Passive Optical MMI Couplers. In: Optical Communications 2010: Prague, Czech Republic, 21. -22. 10. 2010. - Prague: Action M, 2011. - ISBN 978-80-86742-31-1. - p. 97-100. (in English)
- [71] KUZMA, A. - UHEREK, F.: Modelling and Simulation of VCSE Lasers Properties with Nanostructure. In: ŠVOČ 2011: Proceedings of Selected Works. Bratislava, Slovak Republic, 4. 5. 2011. - Bratislava: FEI STU, 2011. - ISBN 978-80-227-3508-7. - p. 436-441. (in Slovak)
- [72] LABON, P. - BREZOVÍČ, Z.: Capacitance Converters. In: ŠVOČ 2011: Proceedings of Selected Works. Bratislava, Slovak Republic, 4. 5. 2011. - Bratislava: FEI STU, 2011. - ISBN 978-80-227-3508-7. - p. 504-508. (in Slovak)
- [73] LEKSCHA, T. - ĎURAČKOVÁ, D. - KUKUČKA, M. - KRAJČUŠKOVÁ, Z.: Determination of the Power Output of Ultrasonic Therapy Transducers by Piezoceramic Sensors. In: Trends in Biomedical Engineering: 9th Czech-Slovak Conference. Rožnov p. Radhoštěm, Czech Republic, 21. -23. 9. 2011. - Ostrava: VŠB - TU Ostrava, 2011. - ISBN 978-80-248-2475-8. - p. 113-114. (in English)
- [74] LEKSCHA, T. - ĎURAČKOVÁ, D.: Ultrasonic-Therapy-Devices with Piezoceramic Sensors. In: IN-TECH 2011: International Conference on Innovative Technologies. Bratislava, Slovak Republic, 1. 9. -3. 9. 2011. - Jaroměř: Jan Kudláček, 2011. - ISBN 978-80-904502-6-4. - p. 336-339. (in English)
- [75] MACHERZYŃSKI, W. - PASZKIEWICZ, B. - PASZKIEWICZ, R. - VINCZE, A. - KOVÁČ, J. - TLACZALA, M.: Ohmic Contacts Based on Ti/Al Metallization to n-Type AlGaIn/GaN Heterostructures. In: IMAPS-CPMT 2011: 35th International Microelectronics and Packaging IMAPS - IEEE CPMT Poland Conference. Gdańsk, Poland, September 21-24, 2011. - IMAPS, 2011. - p. 35-39. (in English)
- [76] MAJER, L. - STOPJAKOVÁ, V. - BRENKUŠ, J.: Non-Invasive Monitoring of Human Stress Using Advanced Methods and Nanotechnologies. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 17, Special Issue: ELOSYS, Trenčín, 11. -14. 10. 2011, p. 16-20. (in Slovak)
- [77] MAREK, J. - DONOVAL, D. - CHVÁLA, A. - PRÍBYTNÝ, P. - MOLNÁR, M.: Analysis of a Low Voltage Vertical Power MOS Transistor Failure During UIS Test Supported by 2-D and 3-D Simulations. In: APCOM 2011. Applied Physics of Condensed Matter: 17th International Conference. Nový Smokovec, Slovak Republic, June 22-24, 2011. - Žilina: University of Žilina, 2011. - ISBN 978-80-554-0386-1. - p. 94-97. (in English)
- [78] MARTON, M. - KOVALČÍK, D. - ZDRAVECKÁ, E. - VARGA, M. - GAJDOŠOVÁ, L. - VESELÝ, M. - REDHAMMER, R.: Effect of Substrate Bias on Electrochemical Corrosion of Amorphous Carbon Nitride Thin Films. In: APCOM 2011. Applied Physics of Condensed Matter: 17th International Conference. Nový Smokovec, Slovak Republic, June 22-24, 2011. - Žilina: University of Žilina, 2011. - ISBN 978-80-554-0386-1. - p. 77-81. (in English)
- [79] MARTON, M. - KOVALČÍK, D. - VARGA, M. - KOTLÁR, M. - VESELÝ, M. - REDHAMMER, R.: Study of Electrochemical Corrosion of a-C:N Films. In: Vacuum and Advanced Materials: Štrbské Pleso, Slovak Republic, 8. -11. 9. 2011. - Bratislava: Slovak Vacuum Society, 2011. - ISBN 978-80-969435-9-3. - p. 56-59. (in Slovak)

- [80] MASARYKOVÁ, L. - VOJS, M.: Carbon Thin Films for Applications in Biomedical Sensors. In: ŠVOČ 2011: Proceedings of Selected Works. Bratislava, Slovak Republic, 4. 5. 2011. - Bratislava: FEI STU, 2011. - ISBN 978-80-227-3508-7. - p. 202-207. (in Slovak)
- [81] MICHNIAK, P. - VARGA, M. - VINCZE, A.: Preparation and Analysis of Diamond Structure. In: ŠVOČ 2011: Proceedings of Selected Works. Bratislava, Slovak Republic, 4. 5. 2011. - Bratislava: FEI STU, 2011. - ISBN 978-80-227-3508-7. - p. 191-196. (in Slovak)
- [82] MIHÁLOV, J.: Implementation of Sigma-Delta Analog to Digital Converter in FPGA. In: Computer Architecture and Diagnostic 2011: Czech-Slovak Workshop for PhD. Students. Stará Lesná, Slovak Republic, 12. -14. 9. 2011. - Bratislava: Nakladateľstvo STU, 2011. - ISBN 978-80-227-3552-0. - p. 169-174. (in Slovak)
- [83] MIHÁLOV, J. - STOPJAKOVÁ, V.: Implementation of Sigma-Delta Analog to Digital Converter in FPGA. In: Applied Electronics 2011: International Conference. Pilsen, Czech Republic, 7-8 September 2011. - Pilsen: University of West Bohemia, 2011. - ISBN 978-80-7043-987-6. - p. 263-266. (in English)
- [84] MIKOLÁŠEK, M. - PRUŠÁKOVÁ, L. - MATAY, L. - ŘEHÁČEK, V. - JAKABOVIČ, J. - VANKO, G. - KOTLÁR, M. - HARMATHA, L.: Determination of the Conduction Band Offset in the a-Si:H/c-Si Heterojunction Structures from Coplanar Temperature Current-Voltage Measurements. In: APCOM 2011. Applied Physics of Condensed Matter: 17th International Conference. Nový Smokovec, Slovak Republic, June 22-24, 2011. - Žilina: University of Žilina, 2011. - ISBN 978-80-554-0386-1. - p. 184-187. (in English)
- [85] MIKOLÁŠEK, M. - PRUŠÁKOVÁ, L. - HARMATHA, L. - TVAROŽEK, V. - ŠUTTA, P.: Numerical Analysis of the ZnO:Al Back Reflector Fabrication Leading to Deterioration of the Single Junction a-Si:H Solar Cell Performance. In: Thin Film & Advanced Solutions: Photovoltaic Technical Conference 2011. Aix en Provence, France, May 25-27, 2011. (in English)
- [86] MIŠUN, M. - TOMÁŠKA, M.: Microwave High-Temperature Probe Station. In: ELITECH'11: 13th Conference of Doctoral Students Faculty of Electrical Engineering and Information Technology. Bratislava, Slovak Republic, 17 May, 2011. - Bratislava: Nakladateľstvo STU, 2011. - ISBN 978-80-227-3500-1. - p. 1-4. (in English)
- [87] MIŠUN, M. - TOMÁŠKA, M.: Thermal Analysis of Microwave High-Temperature Probe Station. In: APCOM 2011. Applied Physics of Condensed Matter: 17th International Conference. Nový Smokovec, Slovak Republic, June 22-24, 2011. - Žilina: University of Žilina, 2011. - ISBN 978-80-554-0386-1. - p. 216-219. (in English)
- [88] MOLNÁR, M. - DONOVAL, D. - KOVÁČ, J. - MAREK, J. - FLOROVIČ, M. - CHVÁLA, A. - PRÍBYTNÝ, P.: Analysis of Electrical Properties of In_{0.12}Al_{0.88}N/GaN Hemt Transistor Supported by TCAD Modelling and Simulation. In: ELITECH'11: 13th Conference of Doctoral Students Faculty of Electrical Engineering and Information Technology. Bratislava, Slovak Republic, 17 May, 2011. - Bratislava: Nakladateľstvo STU, 2011. - ISBN 978-80-227-3500-1. - p. 1-6. (in English)
- [89] MOLNÁR, M. - DONOVAL, D. - KOVÁČ, J. - MAREK, J. - CHVÁLA, A. - PRÍBYTNÝ, P.: Analysis of Electrical Properties of In_{0.12}Al_{0.88}N/GaN HEMT Transistor Supported by TCAD Modelling and Simulation. In: APCOM 2011. Applied Physics of Condensed Matter: 17th International Conference. Nový Smokovec, Slovak Republic, June 22-24, 2011. - Žilina: University of Žilina, 2011. - ISBN 978-80-554-0386-1. - p. 188-191. (in English)
- [90] MURÍN, M. - KUDJÁK, V.: Optimized Design of a VCXO in 100 MHz Band. In: ŠVOČ 2011: Proceedings of Selected Works. Bratislava, Slovak Republic, 4. 5. 2011. - Bratislava: FEI STU, 2011. - ISBN 978-80-227-3508-7. - p. 509-514. (in Slovak)
- [91] NAGY, L.: Completion Detection by Current Sensing in Dual-Rail Circuits. In: Computer Architecture and Diagnostic 2011: Czech-Slovak Workshop for PhD. Students. Stará Lesná, Slovak Republic, 12. -14. 9. 2011. - Bratislava: Nakladateľstvo STU, 2011. - ISBN 978-80-227-3552-0. - p. 151-156. (in English)
- [92] NAGY, L. - STOPJAKOVÁ, V.: Current Sensing Methodology for Completion Detection in Self-timed Systems. In: Design & Diagnostics of Electronic Circuits&Systems. DDECS: 14th IEEE Symposium. Cottbus, Germany, April 13-15, 2011. - Piscataway: IEEE, 2011. - ISBN 978-1-4244-9754-6. - CD-Rom. (in English)
- [93] NEMEC, M. - BENKO, P. - NEUPAUER, M. - ČIČO, K. - HARMATHA, L. - FRÖHLICH, K.: Preparation and Characterization of Thin ZrO₂ Layers for Gate Insulation in MOSFET. In: APCOM 2011. Applied Physics of Condensed Matter: 17th International Conference. Nový Smokovec, Slovak Republic, June 22-24, 2011. - Žilina: University of Žilina, 2011. - ISBN 978-80-554-0386-1. - p. 98-101. (in English)
- [94] NOVÁK, J. - ELIÁŠ, P. - HASENÖHRL, S. - STOKLAS, R. - VÁVRA, I. - NOVOTNÝ, I.: Characterization of GaP/ZnO Core-Shell Nanowires. In: HeTech 2011. 20th European Workshop on Heterostructure Technology: Lille, France, November 7-9, 2011. (in English)
- [95] OLŠOVSKÝ, P. - PODHORANSKÝ, P.: Properties and Application of PN Sequences. In: ELITECH'11: 13th Conference of Doctoral Students Faculty of Electrical Engineering and Information Technology. Bratislava, Slovak Republic, 17 May, 2011. - Bratislava: Nakladateľstvo STU, 2011. - ISBN 978-80-227-3500-1. - p. 1-6. (in English)
- [96] OLŠOVSKÝ, P. - PODHORANSKÝ, P. - FUCHS, P. - ŠTOFANIK, V.: Theory and Use of PN Sequences in Communication Systems. In: Communication and Information Technologies: 6th International Scientific Conference. Tatranské Zruby, Slovak Republic, October 5- 7, 2011. - Liptovský Mikuláš: Armed Forces Academy of General M. R. Štefánik, 2011. - ISBN 978-80-8040-426-0. - CD-Rom. (in English)

- [97] PERNÝ, M. - ŠÁLY, V. - MIKOLÁŠEK, M. - HURAN, J. - ORSZÁGH, J.: Electronic and Structural Properties of Amorphous N-Doped Silicene Carbide. In: ISSE 2011. 34th International Spring Seminar on Electronics Technology: Tatranská Lomnica, Slovak Republic, 11-15 May 2011. - Piscataway: IEEE, 2011. - ISBN 978-1-4577-2111-3. - p. 212-215. (in English)
- [98] PETRUS, M. - STUHLÍKOVÁ, L. - ŠEBOK, J.: Identification of Defects in AlGaIn/GaN. In: ŠVOČ 2011: Proceedings of Selected Works. Bratislava, Slovak Republic, 4. 5. 2011. - Bratislava: FEI STU, 2011. - ISBN 978-80-227-3508-7. - p. 453-456. (in Slovak)
- [99] PETRUS, M. - STUHLÍKOVÁ, L. - ŠEBOK, J. - HARMATHA, L. - KOVÁČ, J. - NEMEC, M. - ŠKRINIAROVÁ, J.: Study of Electrical Properties of AlGaIn/GaN Structures by DLTS Method. In: APCOM 2011. Applied Physics of Condensed Matter: 17th International Conference. Nový Smokovec, Slovak Republic, June 22-24, 2011. - Žilina: University of Žilina, 2011. - ISBN 978-80-554-0386-1. - p. 135-138. (in English)
- [100] PREDANOCY, M. - HOTOVÝ, I. - KOŠČ, I.: Characterization and Thermal Distribution of Platinum Microheaters for Gas Sensors on Different Substrates. In: APCOM 2011. Applied Physics of Condensed Matter: 17th International Conference. Nový Smokovec, Slovak Republic, June 22-24, 2011. - Žilina: University of Žilina, 2011. - ISBN 978-80-554-0386-1. - p. 272-275. (in English)
- [101] PRÍBYTNÝ, P. - DONOVAL, D. - CHVÁLA, A. - MAREK, J. - MOLNÁR, M.: Analysis and Optimization of Power Diode Supported by Electro-Thermal Modelling and Simulation. In: APCOM 2011. Applied Physics of Condensed Matter: 17th International Conference. Nový Smokovec, Slovak Republic, June 22-24, 2011. - Žilina: University of Žilina, 2011. - ISBN 978-80-554-0386-1. - p. 155-159. (in English)
- [102] PRIESOL, J. - ŠATKA, A.: Monte Carlo Simulation of CL Generation in Semiconductor Structures. In: Photonics 2011: 6th Annual Scientific Workshop of International Laser Centre. Bratislava, Slovak Republic, 10.-11. 2. 2011. - Bratislava: STU, 2011. - ISBN 978-80-970493-2-4. - p. 38-43. (in Slovak)
- [103] PRIESOL, J. - ŠATKA, A.: Monte Carlo Simulation of the Electron Beam Carrier Generation in InGaIn/GaN Nanostructures. In: ELITECH'11: 13th Conference of Doctoral Students Faculty of Electrical Engineering and Information Technology. Bratislava, Slovak Republic, 17 May, 2011. - Bratislava: Nakladateľstvo STU, 2011. - ISBN 978-80-227-3500-1. - p. 1-5. (in English)
- [104] PRIESOL, J. - ŠATKA, A. - SHIELDS, PA. - ALLSOPP, D. W. E. - DONOVAL, D. - UHEREK, F.: Study of Cathodoluminescence in InGaIn/GaN Nanostructure by Monte Carlo Method. In: APCOM 2011. Applied Physics of Condensed Matter: 17th International Conference. Nový Smokovec, Slovak Republic, June 22-24, 2011. - Žilina: University of Žilina, 2011. - ISBN 978-80-554-0386-1. - p. 160-163. (in English)
- [105] PŘIBIL, J. - PŘIBILOVÁ, A.: Comparison of Spectral and Prosodic Parameters of Male and Female Emotional Speech in Czech and Slovak. In: 2011 IEEE International Conference on Acoustics, Speech, and Signal Processing: Prague, Czech Republic, May 22-27, 2011. - Piscataway: IEEE, 2011. - ISBN 978-1-4577-0539-7. - p. 4720-4723. (in English)
- [106] PŮČIK, J. - ŠALING, M. - ONDRÁČEK, O. - LOVÁS, S.: Posturography Reserarch with Regard to Quality of Life. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 17, Special Issue: ELOSYS, Trenčín, 11. -14. 10. 2011, p. 21-24. (in Slovak)
- [107] PŮČIK, J. - ŠALING, M. - ONDRÁČEK, O. - LOVÁS, S. - COCHEROVÁ, E.: Visual Stimulation System for Posturography Research. In: Trends in Biomedical Engineering: 9th Czech-Slovak Conference. Rožnov p. Radhoštěm, Czech Republic, 21. -23. 9. 2011. - Ostrava: VŠB - TU Ostrava, 2011. - ISBN 978-80-248-2475-8. - p. 94-97. (in English)
- [108] PUDIŠ, D. - ŠUŠLÍK, L. - ŠKRINIAROVÁ, J. - KOVÁČ, J. - KUBICOVÁ, I. - MARTINČEK, I. - NOVÁK, J. - HAŠČÍK, Š.: 2D PHC Structure with Subwavelength Resolution in the LED Surface. In: Vacuum and Advanced Materials: Štrbské Pleso, Slovak Republic, 8. -11. 9. 2011. - Bratislava: Slovak Vacuum Society, 2011. - ISBN 978-80-969435-9-3. - p. 47-50. (in English)
- [109] RACKO, J. - MIKOLÁŠEK, M. - GRMANOVÁ, A. - BREZA, J. - BENKO, P. - GALLO, O. - HARMATHA, L.: a New Model of Multiphon Excitation Trap-Assisted Band-to-Band Tunneling. In: EDS'11. Electronic Devices and Systems IMAPS CS International Conference 2011: Brno, Czech Republic, June 22-23, 2011. - Brno: VUT in Brno, 2011. - ISBN 978-80-214-4303-7. - p. 168-174. (in English)
- [110] RADZIEWICZ, D. - SCIANA, B. - PUCICKI, D. - ZBOROWSKA-LINDERT, I. - KOVÁČ, J. - ŠKRINIAROVÁ, J. - VINCZE, A.: Characterization and Technology of AlGaAs/GaAs Phototransistor with Double Deltadoped Base. In: APCOM 2011. Applied Physics of Condensed Matter: 17th International Conference. Nový Smokovec, Slovak Republic, June 22-24, 2011. - Žilina: University of Žilina, 2011. - ISBN 978-80-554-0386-1. - p. 180-183. (in English)
- [111] REMEŠ, Z. - BABCHENKO, O. - NEYKOVA, N. - VARGA, M.: Photothermal and Photocurrent Spectroscopy of Wide Band Gap Nanocrystalline Semiconductors. In: NANOCON 2009. 1st Conference with International Participation: Rožnov pod Radhoštěm, Czech Republic, 20. -22. 10. 2009. - Ostrava: TANGER s. r. o, 2011. - ISBN 978-80-87294-23-9. - CD-Rom. (in English)

- [112] RENDEK, K. - ŠATKA, A. - KOVÁČ, J. - DONOVAL, D.: Investigation of Low-Frequency Noise in AlGaIn/GaN HEMT Structures under Illumination. In: APCOM 2011. Applied Physics of Condensed Matter: 17th International Conference. Nový Smokovec, Slovak Republic, June 22-24, 2011. - Žilina: University of Žilina, 2011. - ISBN 978-80-554-0386-1. - p. 143-146. (in English)
- [113] RYBÁR, J. - KÓSA, A. - DUBECKÝ, F. - PETRUS, M. - STUHLÍKOVÁ, Ľ. - BENKOVSKÁ, J. - HARMATHA, L. - HRKÚT, P. - BAČEK, D. - KOVÁČ, P.: DLTS Study of Neutron Bombarded Silicon Detector. In: APCOM 2011. Applied Physics of Condensed Matter: 17th International Conference. Nový Smokovec, Slovak Republic, June 22-24, 2011. - Žilina: University of Žilina, 2011. - ISBN 978-80-554-0386-1. - p. 192-195. (in English)
- [114] RÝGER, I. - VANKO, G. - LALINSKÝ, T. - VALLO, M. - TOMÁŠKA, M. - RITOMSKÝ, A.: AlGaIn/GaN Based SAW-HEMT Devices for Chemical Gas Sensors Operating in GHz Range. In: Procedia Engineering. - ISSN 1877-7058. - Vol. 25: Conference Eurosensors XXV. Athens, Greece, September 4-7, 2011, p. 1101-1104. (in English)
- [115] RÝGER, I. - TOMÁŠKA, M. - LALINSKÝ, T.: Microwave SAW Oscillator for Sensoric Applications. In: ŠVOČ 2011: Proceedings of Selected Works. Bratislava, Slovak Republic, 4. 5. 2011. - Bratislava: FEI STU, 2011. - ISBN 978-80-227-3508-7. - p. 490-494. (in Slovak)
- [116] SCIANA, B. - RADZIEWICZ, D. - PUCICKI, D. - SERAFINCZUK, J. - TLACZALA, M. - KUDRAWIEC, R. - KOVÁČ, J. - VINCZE, A. - FLOROVIČ, M.: Investigation of the Epitaxial Growth of AlInBv-N Heterostructures for Solar Cell Applications. In: Nanomaterials: Application & Properties 2011: Alushta, Ukraine, September 27-30, 2011. - Sumy State University, 2011. - Vol. 2, Part 1, p. 211-217. (in English)
- [117] SCIANA, B. - RADZIEWICZ, D. - PUCICKI, D. - ZBOROWSKA-LINDERT, I. - PANEK, M. - TLACZALA, M. - KOVÁČ, J. - ŠKRINIAROVÁ, J. - FLOROVIČ, M.: MOVPE Growth and Characterization of Optimized Construction of Heterojunction Bipolar Phototransistor. In: EWMOVPE XIV: European Workshop on Metalorganic Vapor Epitaxy. - Wrocław: University of Technology, 2011. - ISBN 978-83-7493-599-9. - p. 139. (in English)
- [118] SCIANA, B. - PUCICKI, D. - RADZIEWICZ, D. - ZBOROWSKA-LINDERT, I. - PANEK, M. - KOVÁČ, J.: MOVPE Growth of Semiconductor Compounds for PV Applications. In: WOCSDICE 2011. - German-Polish Conference on Crystal Growth (GPCCG 2011): Frankfurt(Oder), Germany, March 14 -16, 2011. (in English)
- [119] SEDLÁČEK, M. - KUPEC, P.: Modelling of Biological Effects of Radio-Frequency Radiation. In: ŠVOČ 2011: Proceedings of Selected Works. Bratislava, Slovak Republic, 4. 5. 2011. - Bratislava: FEI STU, 2011. - ISBN 978-80-227-3508-7. - p. 102-106. (in Slovak)
- [120] SEDLÁK, V.: Adaptive Filters for Noise Canceling. In: Computer Architecture and Diagnostic 2011: Czech-Slovak Workshop for PhD. Students. Stará Lesná, Slovak Republic, 12. -14. 9. 2011. - Bratislava: Nakladateľstvo STU, 2011. - ISBN 978-80-227-3552-0. - p. 50-54. (in English)
- [121] SEDLÁK, V. - ĎURAČKOVÁ, D.: Methods for Speech Visualization. In: ELITECH'11: 13th Conference of Doctoral Students Faculty of Electrical Engineering and Information Technology. Bratislava, Slovak Republic, 17 May, 2011. - Bratislava: Nakladateľstvo STU, 2011. - ISBN 978-80-227-3500-1. - p. 1-4. (in English)
- [122] SEDLÁK, V. - ĎURAČKOVÁ, D.: Speech Signals Visualization. In: APCOM 2011. Applied Physics of Condensed Matter: 17th International Conference. Nový Smokovec, Slovak Republic, June 22-24, 2011. - Žilina: University of Žilina, 2011. - ISBN 978-80-554-0386-1. - p. 316-319. (in English)
- [123] SEYRINGER, D. - BIELIK, M. - KYTKA, M.: Introduction of a New Software Tool to Design Arrayed Waveguide Gratings. In: APCOM 2011. Applied Physics of Condensed Matter: 17th International Conference. Nový Smokovec, Slovak Republic, June 22-24, 2011. - Žilina: University of Žilina, 2011. - ISBN 978-80-554-0386-1. - p. 122-125. (in English)
- [124] SHTEREVA, K. - TVAROŽEK, V. - ŠUTTA, P. - NOVOTNÝ, I. - VINCZE, A. - FLICKYNGEROVÁ, S. - VOJS, M.: Acceptor Doping in Sputtered ZnO Thin Films. In: E-MRS Fall Meeting: Warsaw, Poland, September 19-23, 2011. - Warsaw: University of Technology, 2011. (in English)
- [125] SHTEREVA, K. - TVAROŽEK, V. - NOVOTNÝ, I. - ŠUTTA, P. - MILOSAVLJEVIC, M. - VINCZE, A. - VOJS, M. - FLICKYNGEROVÁ, S.: Effect of Annealing on Properties of Sputtered and Nitrogen-Implanted ZnO:Ga Thin Films. In: Thin Film & Advanced Solutions: Photovoltaic Technical Conference 2011. Aix en Provence, France, May 25-27, 2011. (in English)
- [126] SHTEREVA, K. - TVAROŽEK, V. - NOVOTNÝ, I. - ŠUTTA, P. - KOVÁČ, J. - FLICKYNGEROVÁ, S.: Effect of Deposition Temperature on Electrical, Optical and Structural Properties of Ga-N Co-Doped ZnO Oxide Thin Films. In: APCOM 2011. Applied Physics of Condensed Matter: 17th International Conference. Nový Smokovec, Slovak Republic, June 22-24, 2011. - Žilina: University of Žilina, 2011. - ISBN 978-80-554-0386-1. - p. 65-68. (in English)
- [127] SHTEREVA, K. - ŠUTTA, P. - NOVOTNÝ, I. - KOVÁČ, J. - TVAROŽEK, V.: Influence of Doping and Co-Doping on the Behavior of Sputtered ZnO Thin Films. In: 219th ECS Meeting: Montréal, Canada USA, May 1 - 6, 2011. - Pennington: Electrochemical Society, 2011. - ISBN 2151-2035. (in English)

- [128] SHTEREVA, K. - TVAROŽEK, V. - NOVOTNÝ, I. - MILOSAVLJEVIC, M. - ŠUTTA, P. - FLICKYNGEROVÁ, S.: Modification of Physical Properties of Sputtered Zinc Oxide thin Films by Introduction of Gallium and Nitrogen. In: APCOM 2011. Applied Physics of Condensed Matter: 17th International Conference. Nový Smokovec, Slovak Republic, June 22-24, 2011. - Žilina: University of Žilina, 2011. - ISBN 978-80-554-0386-1. - p. 61-64. (in English)
- [129] SLÁDEK, L. - DAŘÍČEK, M. - JAGELKA, M. - DONOVAL, M. - HORÍNEK, F. - DONOVAL, D. - ŠATKA, A.: Application of Soil Volumetric Water Content Measurement Method. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 17, Special Issue: ELOSYS, Trenčín, 11. -14. 10. 2011, p. 25-28. (in Slovak)
- [130] SLÁDEK, L. - DAŘÍČEK, M. - ŠATKA, A. - DONOVAL, D.: Electronic Systems for Complex Analysis of Soil Properties. In: ELITECH '11: 13th Conference of Doctoral Students Faculty of Electrical Engineering and Information Technology. Bratislava, Slovak Republic, 17 May, 2011. - Bratislava: Nakladateľstvo STU, 2011. - ISBN 978-80-227-3500-1. - p. 1-5. (in English)
- [131] SLÁDEK, L. - ŠATKA, A. - DAŘÍČEK, M.: Soil Volumetric Water Content Measurement System. In: APCOM 2011. Applied Physics of Condensed Matter: 17th International Conference. Nový Smokovec, Slovak Republic, June 22-24, 2011. - Žilina: University of Žilina, 2011. - ISBN 978-80-554-0386-1. - p. 280-283. (in English)
- [132] SOLÁRIKOVÁ, P. - VAVRINSKÝ, E. - BREZINA, I. - MOSKALOVÁ, D.: Psychophysiological Correlates Used in Automobile Industry. In: PhD. Existence I. Czech-Slovak Psychological Conference for PhD. Students: Olomouc, 4. -5. 4. 2011. - Olomouc: Palacky University, 2011. - ISBN 978-80244-2858-1. - p. 172-178. (in Slovak)
- [133] SRNÁNEK, R. - ŠATKA, A. - KOVÁČ, J. - KORDOŠ, P. - DONOVAL, D.: Study of Stress in GaN-Based Transistor Heterostructures. In: APCOM 2011. Applied Physics of Condensed Matter: 17th International Conference. Nový Smokovec, Slovak Republic, June 22-24, 2011. - Žilina: University of Žilina, 2011. - ISBN 978-80-554-0386-1. - p. 196-199. (in English)
- [134] SRNÁNEK, R. - JAKABOVIČ, J. - KOVÁČ, J. - DOBROČKA, E. - DONOVAL, D.: Thin Pentacene Layer Under Pressure. In: APCOM 2011. Applied Physics of Condensed Matter: 17th International Conference. Nový Smokovec, Slovak Republic, June 22-24, 2011. - Žilina: University of Žilina, 2011. - ISBN 978-80-554-0386-1. - p. 296-299. (in English)
- [135] STUCHLÍKOVÁ, L. - BENKOVSKÁ, J.: e-Learn Central - the Journey to e-Learning. In: ICL 2011: 14th International Conference on Interactive Collaborative Learning and 11th International Conference Virtual University. Piešťany, Slovak Republic, September 21-23. 2011. - Piscataway: IEEE, 2011. - ISBN 978-1-4577-1746-8. - p. 16-23. (in English)
- [136] STUCHLÍKOVÁ, L. - BENKOVSKÁ, J.: Moodle? Yes, but First and Foremost as Course, not Just as Content Management System!. In: MoodleMoot. cz: Ostrava, Czech Republic, 20. -21. 10. 2011. - Ostrava: PragoData Consulting, s. r. o., 2011. - ISBN 978-80-248-2496-3. - <http://2011.moodle moot.cz/mod/data/view.php?d=1&rid=32>. (in English)
- [137] ŠALING, M. - KUCHARIK, M. - PŮČÍK, J.: Adaptation of Postural Responses to Moving Visual Scene in Patients with Dementia. In: Czech and Slovak Neurology and Neurosurgery. - Vol. 74: 25th Czech and Slovak Neurological Congress, 58th Joint Congress of Czech and Slovak Society of Clinical Neurology. Brno, 23. -26. 11. 2011. - p. S52-S53. (in Slovak)
- [138] ŠALING, M. - KUCHARIK, M. - CINGELOVÁ, M. - PŮČÍK, J.: Head Extension Effect on Postural Responses to Galvanic Vestibular Stimulation. In: 6th International Posture Symposium. Posture and Gaint in Research, Clinic and Sport: Smolenice. Slovak Republic, 15-18 September 2011. - Bratislava: SAV, 2011. - p. 84. (in English)
- [139] ŠEBOK, J. - STUCHLÍKOVÁ, L. - PECHÁČEK, J. - PÍSEČNÝ, P. - PETRUS, M. - KOVÁČ, J. - NEMEC, M. - HARMATHA, L. - ŠKRINIAROVÁ, J.: Study of Electrical Properties of AlGaIn/GaN Structures by Capacitance Method. In: APCOM 2011. Applied Physics of Condensed Matter: 17th International Conference. Nový Smokovec, Slovak Republic, June 22-24, 2011. - Žilina: University of Žilina, 2011. - ISBN 978-80-554-0386-1. - p. 139-142. (in English)
- [140] ŠIPOŠ, E. - VOJS, M.: Trace Metal Sensor Based on Diamond Layers. In: ŠVOČ 2011: Proceedings of Selected Works. Bratislava, Slovak Republic, 4. 5. 2011. - Bratislava: FEI STU, 2011. - ISBN 978-80-227-3508-7. - p. 197-201. (in Slovak)
- [141] ŠOLTIS, L. - TOMÁŠKA, M.: Database System for Microwave Measurements. In: ŠVOČ 2011: Proceedings of Selected Works. Bratislava, Slovak Republic, 4. 5. 2011. - Bratislava: FEI STU, 2011. - ISBN 978-80-227-3508-7. - p. 481-484. (in Slovak)
- [142] ŠTOFANIK, V. - ŠTOFANIK, A. - COCHEROVÁ, E.: Design and Verification of Thermostat with Peltier Thermoelectric Modules. In: Radioelektronika 2011: 21st International Conference, April 19-20, 2011. - Brno: University of Technology, 2011. - ISBN 978-1-61284-322-3. - p. 193-196. (in English)
- [143] ŠTOFANIK, V. - MINÁRIK, M. - BALÁŽ, I. - COCHEROVÁ, E. - BOHÁČ, V.: Enhanced Method of the Quartz Resonator Self-Temperature-Sensing. In: Measurement 2011: 8th International Conference on Measurement. Smolenice, Slovak Republic, 27. -30. 4. 2011. - Bratislava: Slovak Academy of Sciences, 2011. - ISBN 978-80-969-672-4-7. - p. 265-268. (in English)

- [144] ŠTORCEL, J. - NAGY, G. - KOVÁČIK, T. - TOMÁŠKA, M.: Design of 24 GHz Oscillator. In: ŠVOČ 2011: Proceedings of Selected Works. Bratislava, Slovak Republic, 4. 5. 2011. - Bratislava: FEI STU, 2011. - ISBN 978-80-227-3508-7. - p. 474-480. (in Slovak)
- [145] ŠUŠLIK, L. - PUDIŠ, D. - ŠKRINIAROVÁ, J. - KOVÁČ, J. - KUBICOVÁ, I. - TVAROŽEK, V. - MARTINČEK, I. - KUBICOVÁ, I.: GaAs/AlGaAs Light Emitting Diode with 2D Photonic Structure in the Surface. In: Proceedings of SPIE. Vol. 8070: Metamaterials VI. - Bellingham: The International Society for Optical Engineering, 2011. - ISBN 9780819486608. - Art. No. 807017. (in English)
- [146] UHEREK, F. - DONOVAL, D. - HAŠKO, D. - ŠATKA, A. - VINCZE, A. - CHOVAN, J. - BRUNCKO, J. - JAKABOVIČ, J. - JAKABOVIČ, J. - VOJS, M.: Building of Nano/Microtechnology Center as a Frame of Ce Smart and NanoNet. In: Vacuum and Advanced Materials: Štrbské Pleso, Slovak Republic, 8. -11. 9. 2011. - Bratislava: Slovak Vacuum Society, 2011. - ISBN 978-80-969435-9-3. - p. 28-34. (in Slovak)
- [147] UHEREK, F. - CHOVAN, J. - ŠATKA, A. - PÍSEČNÝ, P. - KUZMA, A.: Photonics and Defense Environment. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 17, Special Issue: ELOSYS, Trenčín, 11. -14. 10. 2011, p. 29-33. (in Slovak)
- [148] VANČO, L. - KADLEČÍKOVÁ, M. - ČAPLOVIČ, L. - GREGOR, M.: Identification of Compounds from Ground Layer of St. Anthony of Padua Altar Painting in Galanta by Raman Spectroscopy, Electron Microscopy and X-Ray Diffraction. In: Conservation Science, Technology and Industry: Bratislava, Slovak Republic, 3. -4. 11. 2011. - Bratislava: SNM, 2011. - ISBN 978-80-8060-276-5 (http://www.snm.sk/swift_data/source/odborna_verejnost/konferencia_csti_2011/Program_koferencie_Zbornik_abstraktov.pdf). (in Slovak)
- [149] VANČO, L. - KADLEČÍKOVÁ, M. - ČAPLOVIČ, L. - GREGOR, M.: Spectroscopic Methods in Material Analysis of the Historical Painting. In: Vacuum and Advanced Materials: Štrbské Pleso, Slovak Republic, 8. -11. 9. 2011. - Bratislava: Slovak Vacuum Society, 2011. - ISBN 978-80-969435-9-3. - p. 33-36. (in Slovak)
- [150] VARGA, M. - REMEŠ, Z. - BABCHENKO, O. - KROMKA, A.: Electronic Quality of Oxygen Containing Nanocrystalline Diamond Films: a Photocurrent Spectroscopy Study. In: Diamond 2011: 22nd European Conference on Diamond, Diamond-Like Materials, Carbon Nanotubes and Nitrides. Garmisch-Partenkirchen, Germany, September, 4-6, 2011. (in English)
- [151] VARGA, M. - KOTLÁR, M. - VRETNÁR, V. - IŽÁK, T. - ŠOLTÝS, J. - KROMKA, A. - VESELÝ, M.: Influence of Nucleation and Methane Concentration on Buckypapers Exposed to Hot Filament Chemical Vapor Deposition Process. In: Proceedings of the 2nd Winter Education Seminar: Rokytnice nad Jizerou, Czech Republic, February 16-18, 2011. - Prague: FZÚ AV ČR, 2011. - ISBN 978-80-260-0911-5. - p. 57-62. (in English)
- [152] VAVRINSKÝ, E. - DAŘÍČEK, M. - DONOVAL, M. - TELEK, P. - STOPJAKOVÁ, V. - TVAROŽEK, V.: Alternative Methods for Heart-Rate Sensing. In: ISABEL 2011: 4th International Symposium on Applied Sciences in Biomedical and Communication Technologies. Barcelona, Spain, October 26-29, 2011. - ACM, 2011. - ISBN 978-1-4503-0913-4. - nestr. (in English)
- [153] VAVRINSKÝ, E. - DAŘÍČEK, M. - DONOVAL, M. - RENDEK, K. - HORÍNEK, F. - HORNIAK, M. - DONOVAL, D.: Design of EMG Wireless Sensor System. In: Applied Electronics 2011: International Conference. Pilsen, Czech Republic, 7-8 September 2011. - Pilsen: University of West Bohemia, 2011. - ISBN 978-80-7043-987-6. - p. 401-404. (in English)
- [154] VAVRINSKÝ, E. - GAŠPIERIK, P. - TVAROŽEK, V.: Design of Non-Invasive Setup for Car Driver Biomonitoring. In: Bio-Sensing Technology: 2nd International Conference. Amsterdam, The Netherlands, 10-12 October 2011. - Bristol: Institute of Bio-Sensing Technology, 2011. - P118. (in English)
- [155] VAVRINSKÝ, E. - PRUŠÁKOVÁ, L. - TESAŘ, J. - ŠUTTA, P. - TVAROŽEK, V. - BENKO, P.: Resistivity Measurement and Conductivity Type Determination for Semiconducting Materials Using a Four-Point Probe. In: APCOM 2011. Applied Physics of Condensed Matter: 17th International Conference. Nový Smokovec, Slovak Republic, June 22-24, 2011. - Žilina: University of Žilina, 2011. - ISBN 978-80-554-0386-1. - p. 220-223. (in English)
- [156] VAVRINSKÝ, E. - DAŘÍČEK, M. - RENDEK, K. - HORÍNEK, F. - DONOVAL, D.: Sensor System for Wireless Bio-Signal Monitoring. In: Bio-Sensing Technology: 2nd International Conference. Amsterdam, The Netherlands, 10-12 October 2011. - Bristol: Institute of Bio-Sensing Technology, 2011. - P 152. (in English)
- [157] VINCZE, A. - MICHNIAK, P. - VARGA, M. - DOBROČKA, E. - MICHÁLKA, M. - VESELÝ, M.: Development and Analysis of Diamond Layers. In: Vacuum and Advanced Materials: Štrbské Pleso, Slovak Republic, 8. -11. 9. 2011. - Bratislava: Slovak Vacuum Society, 2011. - ISBN 978-80-969435-9-3. - p. 64-68. (in Slovak)
- [158] VINCZE, A. - MICHNIAK, P. - VARGA, M. - DOBROČKA, E. - UHEREK, F.: Development of Diamond Thin Films on Various Substrates. In: APCOM 2011. Applied Physics of Condensed Matter: 17th International Conference. Nový Smokovec, Slovak Republic, June 22-24, 2011. - Žilina: University of Žilina, 2011. - ISBN 978-80-554-0386-1. - p. 82-85. (in English)
- [159] VINCZE, A. - MICHNIAK, P. - HAŠKO, D. - DOBROČKA, E. - VARGA, M. - MICHÁLKA, M.: Diamond Thin Film Development and Analysis on Various Substrates. In: 2nd Winter Education Seminar: Rokytnice nad Jizerou, Czech Republic, February 16-18, 2011. - Prague: FZÚ AV ČR, 2011. - ISBN 978-80-260-0911-5. - p. 38-44. (in English)

- [160] VITTOZ, S. - RUFER, L. - REHDER, G. - SRNÁNEK, R. - KOVÁČ, J.: Study of Built-in Stress Distribution in AlGaN/AIN Heterostructure Based Cantilevers for Mechanical Sensing in Harsh Environments. In: IWASI 2011: 4th International Workshop on Advances in Sensors and Interfaces. Brindisi, Italy, 28-29 June 2011. -: IEEE, 2011. - ISBN 978-1-4577-0622-6. - p. 17-20. (in English)
- [161] VOJS, M. - MASARYKOVÁ, L. - ŠIPOŠ, E.: Carbon Thin Films for Detection of Dopamin. In: Vacuum and Advanced Materials: Štrbské Pleso, Slovak Republic, 8. -11. 9. 2011. - Bratislava: Slovak Vacuum Society, 2011. - ISBN 978-80-969435-9-3. - p. 60-63. (in Slovak)
- [162] VOJS, M. - ŠIPOŠ, E. - ŘEHÁČEK, V. - MIKOLÁŠEK, M.: High Stability Bismuth-Film Electrodes for the Determination of Trace Metals by Anodic Stripping Voltammetry. In: APCOM 2011. Applied Physics of Condensed Matter: 17th International Conference. Nový Smokovec, Slovak Republic, June 22-24, 2011. - Žilina: University of Žilina, 2011. - ISBN 978-80-554-0386-1. - p. 176-179. (in English)
- [163] WARZECHA, M. - OWEN, J. I. - WIMMER, M. - RUSKE, F. - HOTOVÝ, J. - HÜPKES, J.: High Mobility Annealing of Transparent Conductive Oxides. In: 7th International Symposium on Transparent Oxide Thin Films for Electronics and Optics: Tokyo, Japan, March 14-16, 2011. - Tokyo: Waseda University, 2011. - p. 27. (in English)
- [164] WARZECHA, M. - OWEN, J. I. - WIMMER, M. - RUSKE, F. - HOTOVÝ, J. - HÜPKES, J.: High Mobility Annealing of Transparent Conductive Oxides. In: E-MRS Fall Meeting: Warsaw, Poland, September 19-23, 2011. - Warsaw: University of Technology, 2011. - Art. No. 13. (in English)
- [165] WRACHIEN, N. - CESTER, A. - BARI, D. - MENEGHESSO, G. - KOVÁČ, J. - JAKABOVIČ, J. - SOKOLSKÝ, M. - DONOVAL, D. - CIRÁK, J.: Low-Energy UV Effects on Organic Thin-Film-Transistors. In: 2011 IEEE International Reliability Physics Symposium: Monterey, CA, April 10-14, 2011. - New York: IEEE, 2011. - ISBN 978-1-4244-9111-7. - p. 2E. 2. 1-8. (in English)
- [166] ZÁLUSKÝ, R. - KRAJMER, M. - SEDLÁK, V. - ĎURAČKOVÁ, D.: The Recognition Characters for Dactyl Alphabet with Use the Feed Forward Neural Network. In: APCOM 2011. Applied Physics of Condensed Matter: 17th International Conference. Nový Smokovec, Slovak Republic, June 22-24, 2011. - Žilina: University of Žilina, 2011. - ISBN 978-80-554-0386-1. - p. 320-323. (in English)
- [167] ŽIŠKA, M. - HARMATHA, L. - NEMEC, M. - BENKOVSKÝ, I.: Influence of Electron Irradiation on MOS Structure with CZ and NCZ Silicon Substrate. In: APCOM 2011. Applied Physics of Condensed Matter: 17th International Conference. Nový Smokovec, Slovak Republic, June 22-24, 2011. - Žilina: University of Žilina, 2011. - ISBN 978-80-554-0386-1. - p. 102-105. (in English)
- [168] ŽIŠKA, M. - KŮŇA, M. - MIKOLÁŠEK, M. - PODPERA, I.: Support of Soft Skills for Students of Technical Universities. In: IN-TECH 2011: International Conference on Innovative Technologies. Bratislava, Slovak Republic, 1. 9. -3. 9. 2011. - Jaroměř: Jan Kudláček, 2011. - ISBN 978-80-904502-6-4. - p. 619-621. (in English)

IX. 3 Parts of Books

- [1] PŘIBIL, J. - PŘIBILOVÁ, A.: Influence of Visual Stimuli on Evaluation of Converted Emotional Speech by Listening Tests. In: Lecture Notes in Computer Science. - ISSN 0302-9743. - Vol. 6800 Communication and Enactment. - Berlin: Springer Verlag, 2011, p. 378-392. (in English)
- [2] PŘIBIL, J. - PŘIBILOVÁ, A.: Spectral Properties and Prosodic Parameters of Emotional Speech in Czech and Slovak. In: Speech and Language Technologies. - Rijeka: InTech, 2011. - ISBN 978-953-307-322-4. - p. 175-200. (in English)
- [3] PŘIBIL, J. - PŘIBILOVÁ, A.: Statistical Analysis of Complementary Spectral Features of Emotional Speech in Czech and Slovak. In: Lecture Notes in Artificial Intelligence. - ISSN 0302-9743. - Vol. 6836 Text, Speech and Dialogue. - Heidelberg: Springer Verlag, 2011. - ISBN 978-3-642-23537-5, p. 299-306. (in English)
- [4] SHTEREVA, K. - ŠUTTA, P. - PECZ, B. - NOVOTNÝ, I. - KOVÁČ, J. - TVAROŽEK, V.: Influence of Doping and Co-Doping on the Behavior of Sputtered ZnO Zhn Films. In: ECS Transactions. - ISSN 1938-5862. - Vol. 35: 219th ECS Meeting (2011), p. 141-148. (in English)
- [5] VAVRINSKÝ, E. - SOLÁRIKOVÁ, P. - STOPJAKOVÁ, V. - TVAROŽEK, V. - BREZINA, I.: Implementation of Microsensor Interface for Biomonitoring of Human Cognitive Processes. In: Biomedical Engineering. Trends in Electronics, Communications and Software. - Rijeka: InTech, 2011. - ISBN 978-953-307-475-7. - 93-110. (in English)

INSTITUTE OF NUCLEAR AND PHYSICAL ENGINEERING

INSTITUTE OF NUCLEAR AND PHYSICAL ENGINEERING

<http://www.ujfi.fe.i.stuba.sk/>



Director of the Institute:
prof. Ing. Vladimír Slugeň, DrSc.

Tel: +421-2-602 91 821 / +421-2-654 27 207 / +421- 918 64 04 33

E-mail: vladimir.slugen@stuba.sk

Deputy directors:

prof. Ing. Vladimír Nečas, PhD.

Tel: +421-2-602 91 661, E-mail: vladimir.necas@stuba.sk

prof. Ing. Július Cirák, PhD.

Tel: +421-2-602 91 138, E-mail: julius.cirak@stuba.sk

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 the integration and creative development of diverse related 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 programs 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 and Biomaterial Engineering.

SECTIONS OF THE INSTITUTION:

Department of Physics

Department of Nuclear Power Engineering and Radioecology

Department of Nuclear Technology and Nuclear Methods

Department of Biomedical Engineering

I. STAFF

Professors:

prof. Ing. Peter Ballo, PhD., prof. Ing. Július Círák, 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. Mária 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 Haščik, 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., Ing. Róbert Hinc, PhD., RNDr. Juraj Chlpík, PhD., Ing. Tatiana Srámková, RNDr. Mária Valková, Mgr. Marek Vančo, PhD., Ing. Klement Vítáček, PhD., Ing. Ivan Zelenay, PhD., Ing. Miroslava Zemanová

Research Workers:

Ing. Jarmila Degmová, PhD., Ing. Július Dekan, PhD., Ing. Gabriel Farkas, PhD., Ing. Ľubomír Keleši, Mgr. Martin Konôpka, PhD., Ing. Vlasta Macková, PhD., RNDr. Martin Moško, PhD., Ing. Milan Pavúk, PhD., Ing. Martin Petriska, Ing. Katarína Sedlačková, PhD., Ing. Stanislav Sojak, PhD., Ing. Michal Sokolský, Ing. Matúš Stacho, Ing. Stanislav Stanček, Ing. Jaroslav Tóbiš, PhD., Ing. Tomáš Váry, Ing. Alfred Vlnieška, Ing. Martin Weis, PhD.

Technical Staff:

Eva Mániková (secretary), Štefan Kučera, Peter Mikula, Bc. Andrea Podhájska, Zuzana Váciová

PhD. Students:

Ing. Alica Bajusová, Mgr. Katarína Bombarová, Ing. Štefan Čerba, Ing. Pavol Čudrnák, Ing. Peter Čudrnák, Ing. Tomáš Hatala, Ing. Tomáš Hrnčíř, Mgr. Gergely Kajtár, Ing. Jakub Lüley, Ing. Štefan Motyčák, Ing. Michal Pánik, Ing. Veronika Sabelová, Ing. Jana Veterníková, Ing. Branislav Vrbán

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 ~ 10¹⁹ 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 CORE) + 7PC Cluster (24 CORE)
- Amptek Experiment's XRF Kit
- KETEK SDD and AXAS-D Systems
- Supercomputer (48 core)
- 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
- 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

- article 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

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, J. Degmová
Introduction to Physics
(1st sem., 1-2h) P. Bokes, J. Vajda, M. Vančo
Physics (for FIIT SUT)
(2nd sem., 3-2h) J. Círák
Physics 1
(2nd sem., 3-3h) P. Ballo, P. Bokes,
Special Seminar - Physics 1
(2nd sem., 0-2h) P. Ballo, P. Bokes
Physics
(2nd sem., 3-3h) P. Valko
Special Seminar - Physics
(2nd sem., 0-2h) P. Valko
Physics 2
(4th sem., 3-3h) M. Vančo
Special Seminar - Physics 2
(4th sem., 0-2h) M. Vančo
Physics
(3rd sem., 3-3h) P. Valko
Special Seminar - Physics
(3rd sem., 0-2h) P. Valko
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. Círák, P. Markoš
Special Seminar - Physics 2
(3rd sem., 0-2h) J. Círák, P. Markoš
Physics 3
(4th sem., 2-2h) P. Valko
Modern Physics
(5th sem., 3-2h) P. Markoš
Modern Methods of Material Diagnostics
(5th sem., 2-2h) E. Dobročka
Modelling 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) R. Durný

III. 2 Graduate Study (Ing.)

Nuclear Physics and Technology
(1st sem., 2-2h) J. Lipka, A. Šagátová
Team Project (EE)

(1st sem., 0-4h) V. Slugeň, G. Farkas
Team Project 1 (AI)
(1st sem., 0-3h) K. Vitázek
Team Project 2 (TLK)
(2nd sem. 0-4h) K. Vitázek
Theory of Nuclear Reactors
(2nd sem., 2-2h) J. Haščík
Material 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. Hinca
Methods of Nuclear Physics
(3rd sem., 2-2h) J. Sitek
Accelerator Physics and Technology 1
(2nd sem., 2-2h) M. Pavlovič
Accelerator Physics and Technology 2
(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
Installations
(4th sem., 2-2h) V. Slugeň
Nuclear electronics
(1st sem., 2-1h) J. Sitek
Physics of Processes
(1st sem., 3-2h) P. Bokes
Superconductivity and Low Temperature Physics
(1st sem., 2-2h) P. Valko
Bioelectronics
(1st sem., 2-1h) J. Círák
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. Círák
Applied Optics
(2nd sem., 2-2h) J. Vajda
Computer Physics
(2nd sem., 2-2h) P. Markoš
Biomaterials and Biosystems
(2nd sem., 2-2h) J. Círák
Physics of Materials I
(3rd sem., 3-2h) P. Dieška, R. Durný

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

Sources of Radiation
(6th sem., 2-3h) M. Miglierini
Radiology and Nuclear Medicine
(3rd sem., 3-1h) M. Miglierini

III. 4 Distance Study

Nuclear Installations

(6th sem., 12 h) J. Sitek

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

IV. RESEARCH PROJECTS

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

- Materials of Alternative Nuclear Fuel Cycles and Decommissioned NPP, VEGA 1/0685/09, V. Nečas
- Semiconductor Detectors for Hot Plasma Diagnostics VEGA 2/0192/10, V. Nečas
- Increase of energy safety in SR, OP Research and Development ITMS: 26220220097, V. Nečas
- Conditional Release of Materials from Decommissioning (CONRELMAT), Incentives MŠ SR N° CD-2009-36909/39460-1:11, V. Nečas
- Nuclear Installation Material Study in Extreme Radiation Load Condition, VEGA 1/0129/09, V. Slugeň
- Enhancement of Education Process for Graduates Focused on Working Positions with Impact on Increase of NPP Safe Operation and Decommissioning, KEGA 3/7241/09, R. Hinca
- Structural and Magnetic Changes of Disordered and Nanocrystalline Alloys, VEGA 1/0606/09, J. Sitek
- Hyperfine Interactions in Fe-Based Amorphous and Nanocrystalline Alloys, VEGA 1/0033/10, 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
- Controlling Spin Polarization in Nanostructures Using Electrical Currents, VEGA 1/0452/09, P. Bokes
- National Centre for Research and Application of Renewable Energy Sources, OP Research:
- IMTS 26240120016, J. Cirák, R. Durný, IMTS 26240120028, J. Cirák, R. Durný, P. Markoš
- Nanostructures for Development of Biosensors, APVV-0362-07, J. Cirák, R. Durný
- Organic Materials for Photovoltaics and Sensorics, VEGA 1/15722/10, R. Durný
- Inelastic Transport of Electrons through Nanojunctions with Phonons, VEGA 1/0632/10, M. Konôpka
- Electronic and Electromagnetic Waves in Small

Systems: Transport properties, VEGA 0633/09, P. Markoš

- 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

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 (2007-2011), V. Slugeň
- Training Schemes on Nuclear Safety Culture for Managers (TRANUSAFE) 7th Framework Project of the European Atomic Energy Community No249674 (2010-2014), V. Slugeň
- Nondestructive of Microstructural Changes in Ion Implanted Model Alloys (SMORE) IAEA Research Project No14991/RO, V. Slugeň
- Irradiation Tests of Magnetic Alloy and Organic Insulator Materials. Bilateral Agreement STU-GSI Darmstadt, M. Pavlovič
- Structural Modification of Amorphous and Nanocrystalline Fe-Based Alloys. Bilateral Project SK-PL-0013-09, 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. Šafárik, 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, pl., (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
- of Nuclear Research, Dubna, Russia
- Forschungszentrum Jülich, Institute of Bio- and Nanosystems, Germany
- AREVA-NP, Erlangen, Germany
- GSI, Accelerator Department, Darmstadt, 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
- 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 Física Nuclear, Lisbon, Portugal
- PTB Braunschweig, 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

V. 2 International Cooperation

- All-Russian Scientific Institute of Experimental Physics, Theoretical Physics Department, Sarov, Russia
- Atominstytut 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

V. 3 Contract-based Business Activities

- J. Haščík: Periodical Training of Supervising Physicists of the NPP Bohunice, JAVYS and Mochovce on the Experimental Nuclear Reactors. Contract with NPP Bohunice, Mochovce and JAVYS, Jaslovské Bohunice
- J. Haščík, R. Hinca, J. Lipka, V. Nečas, V. Slugeň: Post-gradual Requalification Training Course: Safety aspects of nuclear installations operation. Contract with SE, a. s.
- J. Haščík, J. Degmová, R. Hinca, M. Miglierini, V. Nečas, V. Slugeň: Post-gradual Requalification Training Course: Decommissioning of NPP. Contract with JAVYS, a. s.
- M. Pavlovič: Distant Teaching of Radiation and Nuclear Physics at the University of Applied Sciences Wiener Neustadt, Austria
- V. Slugeň, J. Haščík, J. Degmová, K. Vitázek, R. Hinca, G. Farkas, M. Petriska, J. Dekan, M. Stacho, S. Sojak, J. Veterníková: Radiation Degradation Assessment of NPP Materials, Contract with SE a. s.
- M. Pavlovič: Distant Teaching of Accelerator Technology at the University of Applied Sciences, Wiener Neustadt, Austria
- J. Haščík, G. Farkas, R. Hinca, J. Lüley, M. Petriska, V. Slugeň, B. Vrban: Subcriticality Analyses of Spent Fuel Storage Pool Loading by Fresh and Irradiated Gd 4,87 type Assemblies in SE a. s. EMO
- J. Haščík, G. Farkas, R. Hinca, J. Lüley, M. Petriska, V. Slugeň, B. Vrban: Verifying the Value of Thermal Reactivity Coefficients in the First Fuel Load into Reactor Core at MO 34 Units Using Calculation Code MCNP 5, SE a. s.

VI. THESES

VI. 1 Master theses

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

- [1] F. J. García Melero: Impact of In bombardment upon structure and hyperfine parameters of VITROPERM alloys (M. Miglierini)
- [2] P. Fedorek: Design of a CVD-detector system for monitoring of high-energy charged particle beams (M. Pavlovič)
- [3] D. Gaži: Determination of spatial weighing factors of chosen ex-core detector for reactors VVER-440 by Monte Carlo method (G. Farkas, J. Haščík)
- [4] M. Pisár: Radiation protection of employees in nuclear power engineering (R. Hinca)
- [5] F. Polakovič: Determination of residual heat in spent nuclear fuel Gd-II (V. Nečas, V. Chrapčiak)
- [6] L. Tóth: Radiation monitoring on nuclear power plants (R. Hinca)
- [7] Š. Motyčák: Numerical simulation of SQUID. (P. Valko)

VI. 2 PhD. Theses

- [1] S. Sojak: Radiation degradation study of fusion reactor materials (V. Slugeň)
- [2] M. Zachar: Development of methodology improving the effectiveness of calculation assessment of materials management process within the nuclear installation decommissioning (V. Nečas)
- [3] J. Röschlová: Physical properties of nanoparticle systems prepared by LB-deposition. (J. Círák)

VII. OTHER ACTIVITIES

- Organization of the Postgraduate Study “Nuclear Installation Operation Safety Aspects” for participants from different organizations. Organised for SE, a. s.
- Organisation of the Postgraduate Study “Decommissioning of Nuclear Power Plants” for participants from different organizations. Organised for JAVYS 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 “Nuclear Safety”, Demänová, 7-10 February 2011
- Organization of French-Slovak Summer School “Fusion and Materials for Nuclear Energy”, Kočovce, 12-16 September 2011
- Contribution to the “8th International Conference Secure Energy Supply 2011”, Bratislava, 22-23 September 2011
- Organization of “Winter School of Synchrotron radiation”, WSSR 2011, Liptovský Ján, 31. 1. - 4. 2. 2011
- Public Lesson: Fukushima accident, FEI STU 21. 3. 2011 (V. Slugeň)
- Public Lessons for physics popularisation (J. Krempaský, V. Slugeň, M. Pavlovič)
- Organisation of Technical Tour “Cernobyl after 25 years”
- Contribution to organisation of technical exposition and measurement of radiation of human body at festival POHODA 2011 in Trenčín
- Organizing and Program Committee. The 17th international conference - Applied Physics of Condensed Matter, APCOM 2011, Nový Smokovec, 22. - 24. June 2011 (P. Ballo, J. Vajda, M. Weis)
- Public Lecture: Ionizing Radiation – Threat or Assistant? (M. Miglierini)

- Organizing the 2nd International scientific conference: Renewable energy sources. Tatranské Matliare, May 2011 (J. Cirák – conference chairman)
- Beamline coordinator in European theoretical spectroscopy facility (P. Bokes)
- Club of physicists (J. Cirák)
- Organizing the conference - Open source software in education, research and IT solutions, 6 – 9 July 2011, University of Žilina. (T. Šrámková)
- Co-director: Conf. MetamaterialsVI, (SPIE Congress) 20. -21. April 2011, Prague (P. Markoš)

VIII. MEMBERSHIP IN INSTITUTIONS/ COMMITTEES

VIII. 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. Petriska, J. Sitek, A. Šagátová, M. Seberíni, M. Pavlovič, M. Stacho, S. Sojak, J. Veterníková, V. Sabelová)
- 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 FEI SUT (V. Nečas, V. Slugeň, J. Cirák, P. Ballo)
- Board of editors, Journal of Electrical Engineering (P. Ballo)
- Board of Nuclear Safety SE-EBO (J. Haščík)
- Board of Nuclear Safety SE-EMO (V. Slugeň)
- 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 (V. Nečas)
- Scientific Council of Slovak Institute of Metrology (J. Lipka, V. Nečas)
- Slovak Nuclear Forum (J. Lipka – vice-president)
- Slovak Physical Society (M. Miglierini, V. Nečas, J. Sitek, M. Pavlovič)
- Slovak Spectroscopic Society (M. Miglierini - president, J. Sitek, member)

VIII. 2 Membership in International Institutions/Committees

- European Nuclear Society (V. Slugeň, 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)
- Science and Technology Advisory Committee of EU - Area Nuclear Fusion (V. Slugeň)
- 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. Cirák)
- Europhysical Society (P. Ballo, P. Bokes, J. Cirák, R. Durný, J. Krempaský, P. Markoš, P. Valko)
- IEEE (J. Cirák)
- 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] BAČÍK, P. - OZDÍN, D. - MIGLIERINI, M. - KARDOŠOVÁ, P. - PENTRÁK, M. - HALODA, J.: Crystallochemical Effects of Heat Treatment on Fe-Dominant Tourmalines from Dolní Bory (Czech Republic) and Vlachovo (Slovakia). In: *Physics and Chemistry of Minerals*. - ISSN 0342-1791. - Vol. 38 (2011), p. 599-611. (in English)
- [2] BAJUSOVÁ, A. - GREZDA, J. - PALUGA, M. - MIGLIERINI, M.: Influence of Cavities in HDR Brachytherapy. In: *Journal of Contemporary Brachytherapy*. - ISSN 1689-832X. - Vol. 3, No. 3 (2011), p. 172. (in English)
- [3] BARÁTOVÁ, D. - HRNČÍŘ, T.: Modelling of External Exposure of Workers during the Process of Radioactive Waste Disposal at Near-Surface Repository. In: *Posterus*. - ISSN 1338-0087. - October (2011), <http://www.posterus.sk/?p=11836>. (in Slovak)
- [4] BEELEY, P. - SLUGEŇ, V. - KYRKI-RAJAMÄKI, R.: Nuclear Education, Training and Nuclear Knowledge Management in Europe. In: *EE časopis pre elektrotechniku a energetiku*. - ISSN 1335-2547. - Vol. 17, No. 1 (2011), p. 16-17. (in Slovak)
- [5] BOHÁČ, V. - DIEŠKA, P. - VRETNÁR, V. - GREIF, V.: Model for Cuboid Shape Samples and its Analysis Used for Measurements of Thermophysical Properties of Sandstone. In: *Measurement Science Review*. - ISSN 1335-8871. - Vol. 11, No. 6 (2011), p. 192-197. (in English)
- [6] BOHÁČEK, P. - DUBECKÝ, F. - ZAŤKO, B. - SEKÁČOVÁ, M. - HURAN, J. - NEČAS, V. - MUDROŇ, J.: Technology and Performance Study of a Two-Line Monolithic X-and γ -Ray Detection Chip Based on Semi-Insulating GaAs. In: *IEEE Transactions on Nuclear Science*. - ISSN 0018-9499. - Vol. 58, Iss. 6 (2011), p. 3354-3358. (in English)
- [7] BOKES, P.: Time Operators in Stroboscopic Wave-Packet Basis and the Time Scales in Tunneling. In: *Physical Review A*. - ISSN 1050-2947. - ISSN 0556-2791. - Vol. 83 (2011), Art. No. 032104. (in English)
- [8] CHETVERTKOVA, V. - STRAŠÍK, I. - BELOUSOV, A. - IWASE, H. - MOKHOV, N. - MUSTAFIN, E. - LATYSHEVA, L. - PAVLOVIČ, M. - RATZINGER, U. - SOBOLEVSKY, N.: Activation of Aluminium by Argon: Experimental Study and Simulations. In: *Nuclear Instruments & Methods in Physics Research Section B - Beam Interactions with Materials and Atoms*. - ISSN 0168-583X. - Vol. 269 (2011), p. 1336-1340. (in English)
- [9] ČUDRNÁK, Pa. - NEČAS, V.: Optimization of Fuel Assemblies with a Reduced Content of the Burning Absorber for Light Water Reactors. In: *EE časopis pre elektrotechniku a energetiku*. - ISSN 1335-2547. - Vol. 17, No. 4 (2011), p. 6-7. (in Slovak)
- [10] ČUDRNÁK, Pa. - NEČAS, V.: Optimization of Fuel Assembly with Gadolinium for LWRS. In: *Journal of Power Technologies*. - ISSN 20834187. - Vol. 91, Iss. 4 (2011), p. 186-190. (in English)
- [11] ČUDRNÁK, Pe. - NEČAS, V.: Isotopic Composition of Spent Nuclear Fuel of VVER-440 Reactor with Various Average Assembly Enrichment. In: *EE časopis pre elektrotechniku a energetiku*. - ISSN 1335-2547. - Vol. 17, No. 4 (2011), p. 8-9. (in Slovak)
- [12] ČUDRNÁK, Pe. - NEČAS, V.: Model Analysis of Isotopic Composition of VVER-440 Spent Nuclear Fuel. In: *Journal of Power Technologies*. - ISSN 20834187. - Vol. 91, Iss. 3 (2011), p. 136-139. (in English)
- [13] DEGMOVÁ, J. - DEBARBERIS, L. - ACOSTA, B. - NOVOTNÝ, R. - BRANCUCCI, C.: Characterisation of as-Cast Model Steels with Parametric Variation of Ni, Mn, Si and Cr Content. In: *International Journal of Microstructure and Materials Properties*. - ISSN 1741-8410. - Vol. 6, No. 5 (2011), p. 347-358. (in English)
- [14] FRÖHLICH, K. - FEDOR, J. - KOSTIČ, I. - MAŇKA, J. - BALLO, P.: Gadolinium Scandate: Next Candidate for Alternative Gate Dielectric in CMOS Technology? In: *Journal of Electrical Engineering*. - ISSN 1335-3632. - Vol. 62, No. 1 (2011), p. 54-56. (in English)
- [15] HEDBERG, V. - MOREV, M. - SILARI, M. - ZAJACOVÁ, Z.: Activation of Liquid Argon in the Atlas Calorimeter by High-Energy Hadrons. In: *Nuclear Technology*. - ISSN 0029-5450. - Vol. 173 (2011), p. 327-331. (in English)
- [16] HRNČÍŘ, M. - ČERBA, Š. - NEČAS, V.: Determination of Multiplication Properties of Simplified MOX Fuel Assembly of Gas Cooled Fastreactor ALLEGRO by MCNP Code. In: *Posterus*. - ISSN 1338-0087. - September (2011), <http://www.posterus.sk/?p=11712>. (in Slovak)
- [17] HRNČÍŘ, T. - NEČAS, V.: Specific Scenario of Industrial Use of Very Low-Active Steels in Tunnel Constructions. In: *EE časopis pre elektrotechniku a energetiku*. - ISSN 1335-2547. - Vol. 17, No. 4 (2011), p. 12-14. (in Slovak)
- [18] KAISER, M. - SOKOLSKÝ, M. - CIRÁK, J.: Dye-Sensitized Solar Cells Based on Natural Organic Dyes. In: *Posterus*. - ISSN 1338-0087. - November (2011), <http://www.posterus.sk/?p=12008>. (in Slovak)
- [19] KOŠEL, V. - DRŽÍK, M. - ŠATKA, A. - CHLPIK, J. - GLAVANOVICS, A. - DONOVAL, D.: Transient Thermo-Mechanical Analysis of Smart Power Switches by a Laser Doppler Vibrometer and Numerical Simulations. In: *Measurement Science and Technology*. - ISSN 0957-0233. - Vol. 22 (2011), p. 1-7. (in English)

- [20] KREMPASKÝ, J. - SCHOLTZ, V.: Spontaneous Structuralization of Discrete Biological Systems with Diffusion. In: Dynamics of Continuous, Discrete and Impulsive Systems - Series B: Applications & Algorithms. - ISSN 1492-8760. - Vol. 18 (2011), p. 135-147. (in English)
- [21] KRŠJAK, V. - SOJAK, S. - SLUGEŇ, V. - PETRISKA, M.: Ion Implantation Induced Defects in Fe-Cr Alloys Studied by Conventional Positron Annihilation Lifetime Spectroscopy. In: Journal of Physics: Conference Series. - ISSN 1742-6588. - Vol. 265 (2011), Art. No. 012014. (in English)
- [22] KRŠJAK, V. - SZARAZ, Z. - DEGMOVÁ, J. - HÄHNER, P.: NDT Study of Oxide Dispersion Strengthened Steels. In: Journal of Physics: Conference Series. - ISSN 1742-6588. - Vol. 262 (2011), Art. No. 012034. (in English)
- [23] PÁNIK, M. - NEČAS, V.: Effective Utilization of Very Low Waste from Decommissioning of Nuclear Power Plants for Construction of Building Structures. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 17, No. 4 (2011), p. 10-11. (in Slovak)
- [24] PETRISKA, M. - SLUGEŇ, V. - KRŠJAK, V. - ZEMAN, A.: Application Possibilities of Acqiris digital Card DP240 for Positron Lifetime Measurement. In: Journal of Physics: Conference Series. - ISSN 1742-6588. - Vol. 265 (2011), Art. No. 012029. (in English)
- [25] SAČKOVÁ, M. - HATALA, B. - NEČAS, V.: Analysis of Temperature Field Inside the Fuel Rod of the VVER 440 Fuel Assembly. In: International Review of Mechanical Engineering. - ISSN 1970-8734. - Vol. 5, No. 2 (2011), p. 291-297. (in English)
- [26] SEDLAČKOVÁ, K. - BOKOR, J. - NEČAS, V.: AMPTEK XRF KIT - Complete Detection System for X-Ray Fluorescence Analysis. In: Metrológia a skúšobníctvo. - ISSN 1335-2768. - Vol. 16, No. 3 (2011), p. 12-16. (in Slovak)
- [27] SLIMÁK, A. - HRNČÍŘ, T. - NEČAS, V.: Handling with Fibre-Reinforced Concrete Containers in the Area of Nuclear Facility. In: Posterus. - ISSN 1338-0087. - December (2011), <http://www.posterus.sk/?p=12223>. (in Slovak)
- [28] SLUGEŇ, V. - KRŠJAK, V. - EGGER, W. - PETRISKA, M. - SOJAK, S. - VETERNÍKOVÁ, J.: Fe-Cr Alloys Behavior after Helium Implantation. In: Journal of Nuclear Materials. - ISSN 0022-3115. - Vol. 409 (2011), p. 163-166. (in English)
- [29] SLUGEŇ, V. - HINCA, R. - STACHO, M.: Positron Annihilation Techniques Applied to Reactor Steels. In: Journal of Physics: Conference Series. - ISSN 1742-6588. - Vol. 265 (2011), Art. No. 012008. (in English)
- [30] SOKOLSKÝ, M. - KUSKO, M. - KAISER, M. - CIRÁK, J.: Fabrication and Characterization of Dye-Sensitized Solar Cells Based on Natural Organic Dyes. In: Elektroenergetika. - ISSN 1337-6756. - Vol. 4, No. 2 (2011), p. 26-29. (in English)
- [31] STANČÍK, S. - MURÍN, J. - KUTIŠ, V. - PAULECH, J. - FRIC, R. - CIRÁK, J.: Computer Modelling in the National Center for Research and Application for Renewable Energy Sources. In: Elektroenergetika. - ISSN 1337-6756. - Vol. 4, No. 2 (2011), p. 20-22. (in English)
- [32] VRBAN, B. - HAŠČÍČ, J.: Monitoring of the VVER 440 Fuel Nuclides Composition in Dependence on Burn up. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 17, No. 1 (2011), p. 11-14. (in Slovak)
- [33] ZACHAR, M. - DANIŠKA, V. - NEČAS, V.: Improved Analytical Methodology for Calculation Assessment of Material Parameters in the Nuclear Installation Decommissioning Process. In: Progress in Nuclear Energy. - ISSN 0149-1970. - Vol. 53 (2011), p. 463-470. (in English)
- [34] ZAJAC, R. - DAŘÍLEK, P. - NEČAS, V.: Hypothetical Integration of a Fast Reactor to the Fuel Cycle in Slovakia. In: Annals of Nuclear Energy. - ISSN 0306-4549. - Vol. 38 (2011), p. 1705-1714. (in English)
- [35] ZAŤKO, B. - SEDLAČKOVÁ, K. - DUBECKÝ, F. - BOHÁČEK, P. - SEKÁČOVÁ, M. - NEČAS, V.: Detection of Fast Neutrons Using Detectors Based on Semi-Insulating GaAs. In: Journal of Instrumentation. - ISSN 1748-0221. - Vol. 6 (2011), Art. No. 12047. (in English)
- [36] ZAŤKO, B. - DUBECKÝ, F. - BOHÁČEK, P. - HURAN, J. - NEČAS, V. - RYC, L.: Development and Evaluation of Semi-Insulating GaAs Detectors in Hot Plasmas Diagnostics. In: Nuclear Instruments & Methods in Physics Research Section A. - ISSN 0168-9002. - Vol. 633 (2011), p. S 131-133. (in English)

IX. 2 Conference Proceedings

- [1] BAJAN, M. - ČUDRNÁK, Pa. - NEČAS, V.: Minor Actinoides in Spent Nuclear Fuel. In: ŠVOČ 2011: Proceedings of Selected Works. Bratislava, Slovak Republic, 4. 5. 2011. - Bratislava: FEI STU, 2011. - ISBN 978-80-227-3508-7. - p. 339-344. (in Slovak)
- [2] BALÁZSOVÁ, C. - BALLO, P.: Space Mechanics - from Aristoteles to Newton. In: ŠVOČ 2011: Proceedings of Selected Works. Bratislava, Slovak Republic, 4. 5. 2011. - Bratislava: FEI STU, 2011. - ISBN 978-80-227-3508-7. - p. 264-268. (in Slovak)
- [3] BALLO, P. - HARMATHA, L.: Quantum Tunneling Through a Very Narrow Triangular Potential Barrier, Exact and WKB Solution. In: APCOM 2011. Applied Physics of Condensed Matter: 17th International Conference. Nový Smokovec, Slovak Republic, June 22-24, 2011. - Žilina: University of Žilina, 2011. - ISBN 978-80-554-0386-1. - p. 151-154. (in English)

- [4] BARÁTOVÁ, D. - HRNČÍŘ, T.: Workers Dose Assessment in the Disposal Process of Fibre-Reinforced Concrete Container in Near Surface Repository. In: ŠVOČ 2011: Proceedings of Selected Works. Bratislava, Slovak Republic, 4. 5. 2011. - Bratislava: FEI STU, 2011. - ISBN 978-80-227-3508-7. - p. 327-332. (in Slovak)
- [5] BARTOŠOVÁ, I. - VETERNÍKOVÁ, J.: Non-Destructive Research Methods Applied on Materials for the New Generation of Nuclear Reactors. In: NUSIM 2011: 19th Annual Nuclear Seminar and Information Meeting. Pilsen, Czech Republic, October 10-12, 2011. - Prague: Czech Nuclear Society, 2011. - CD-Rom. (in English)
- [6] BARTOŠOVÁ, I. - VETERNÍKOVÁ, J.: Application of Non-Destructive Technique for Material Research of New Generation of Nuclear Reactors. In: Technical Conference of Young Generation of Slovak Nuclear Society: Častá-Papiernička, Slovak Republic, 28. 4. 2011. - Bratislava: Slovak Nuclear Society, 2011. - ISBN 978-80-969943-3-5. (in Slovak)
- [7] BARTOŠOVÁ, I. - VETERNÍKOVÁ, J.: Research of Construction Materials of 4th Generation of Nuclear Reactors. In: ŠVOČ 2011: Proceedings of Selected Works. Bratislava, Slovak Republic, 4. 5. 2011. - Bratislava: FEI STU, 2011. - ISBN 978-80-227-3508-7. - p. 289-294. (in Slovak)
- [8] BEZÁK, P. - HAJKOVÁ, E. - ONDRA, F. - DANIŠKA, V. - NEČAS, V.: Reuse of Conditionally Released Steels; Proposal and Evaluation of Processes for Manufacturing of Steel Elements and for Construction of Selected Scenarios. In: ICEM 2011: 14th International Conference on Environmental Remediation and Radioactive Waste Management. Reims, France, September 25-29, 2011. - New York: ASME, 2011. - p. 104. (in English)
- [9] BRUNNER, B. - CHLPIK, J. - CIRÁK, J.: Physical Properties of Ordered 2D Systems of Metallic Nanoparticles. In: ŠVOČ 2011: Proceedings of Selected Works. Bratislava, Slovak Republic, 4. 5. 2011. - Bratislava: FEI STU, 2011. - ISBN 978-80-227-3508-7. - p. 284-287. (in Slovak)
- [10] ČERBA, Š. - NEČAS, V.: Impact of the Fast Breeder Reactor on the Fuel Cycle of Slovakia. In: Power Engineering 2011. Energy - Ecology - Economy 2011: Tatranské Matliare, Slovak Republic, June 7-9, 2011. - Bratislava: Slovak University of Technology in Bratislava, 2011. - ISBN 978-80-89402-40-3. - USB flash. (in English)
- [11] ČERBA, Š. - NEČAS, V.: Implementation of the Gas Cooled Fast Reactor into the Fuel Cycle of Slovakia. In: ELITECH'11: 13th Conference of Doctoral Students Faculty of Electrical Engineering and Information Technology. Bratislava, Slovak Republic, 17 May, 2011. - Bratislava: Nakladateľstvo STU, 2011. - ISBN 978-80-227-3500-1. - CD-Room. (in English)
- [12] ČERBA, Š. - NEČAS, V. - DAŘILEK, P.: Nuclear Energy Scenarios for Slovakia. In: IYCE'11: 3rd International Youth Conference on Energetics. Leira, Portugal, 7-9 July, 2011. - Piscataway: IEEE, 2011. - ISBN 978-989-95055-6-8. - USB. (in English)
- [13] ČUDRNÁK, Pa. - NEČAS, V.: Fuel Assemblies with Higher Burn-Ups in Light Water Reactors. In: ELITECH'11: 13th Conference of Doctoral Students Faculty of Electrical Engineering and Information Technology. Bratislava, Slovak Republic, 17 May, 2011. - Bratislava: Nakladateľstvo STU, 2011. - ISBN 978-80-227-3500-1. - p. 1-4. (in English)
- [14] ČUDRNÁK, Pa. - NEČAS, V.: Optimization of Fuel Assembly with Gadolinium for Light Water Reactors. In: 1st International Nuclear Energy Congress: Warsaw, 23. -24. 5. 2011. - Warsaw: University of Technology, 2011. - CD-Rom; <http://nuclear.ucbze.edu.pl/en/proceedings>. (in English)
- [15] ČUDRNÁK, Pa. - NEČAS, V.: Optimized Gadolinium Fuel Assemblies For Light Water Reactors. In: Power Engineering 2011. Energy - Ecology - Economy 2011: Tatranské Matliare, Slovak Republic, June 7-9, 2011. - Bratislava: Slovak University of Technology in Bratislava, 2011. - ISBN 978-80-89402-40-3. - USB flash. (in English)
- [16] ČUDRNÁK, Pe. - NEČAS, V.: Effect of the Operating Conditions on VVER-440 Reactor Isotopic Composition Spent Nuclear Fuel. In: 1st International Nuclear Energy Congress: Warsaw, 23. -24. 5. 2011. - Warsaw: University of Technology, 2011. - CD-Rom; <http://nuclear.ucbze.edu.pl/en/proceedings>. (in English)
- [17] ČUDRNÁK, Pe. - NEČAS, V.: Impact of the Operational Conditions on the Isotopic Composition of VVER-440 Reactor Spent Fuel. In: Power Engineering 2011. Energy - Ecology - Economy 2011: Tatranské Matliare, Slovak Republic, June 7-9, 2011. - Bratislava: Slovak University of Technology in Bratislava, 2011. - ISBN 978-80-89402-40-3. - USB flash. (in English)
- [18] ČUDRNÁK, Pe. - NEČAS, V.: Isotopic Composition of VVER-440 Spent Nuclear Fuel Analysis. In: ELITECH'11: 13th Conference of Doctoral Students Faculty of Electrical Engineering and Information Technology. Bratislava, Slovak Republic, 17 May, 2011. - Bratislava: Nakladateľstvo STU, 2011. - ISBN 978-80-227-3500-1. - p. 1-4. (in English)
- [19] DANIŠKA, V. - PRÍTRSKÝ, J. - ONDRA, F. - REHÁK, I. - ZACHAR, M. - NEČAS, V.: Reuse of Conditional Released Materials from Decommissioning; a Review of Approaches and Scenarios with Long-Term Constructions. In: ICEM 2011: 14th International Conference on Environmental Remediation and Radioactive Waste Management. Reims, France, September 25 - 29, 2011. - New York: ASME, 2011. - p. 110. (in English)

- [20] DEGMOVÁ, J. - KRŠJAK, V. - VETERNÍKOVÁ, J. - SABELOVÁ, V.: Destructive & Non-Destructive Testing of Model Materials for NPP'S Applications. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 17, Special Issue: ELOSYS, Trenčín, 11. -14. 10. 2011. - p. 112-114. (in English)
- [21] DEGMOVÁ, J. - KRŠJAK, V.: MBT Applied to NPP's Model Materials. In: 9th International Conference on Barkhausen Noise and Micromagnetic Testing: Hejnice, Czech Republic, 27-30 June 2011. - Vaajakoski: Stresstech Qy, 2011. - ISBN 978-952-67247-5-1. - Art. No. 13. (in English)
- [22] DUBECKÝ, F. - GOMBIA, E. - VANKO, G. - FERRARI, C. - BALDINI, M. - RYC, L. - ZAŤKO, B. - NEČAS, V.: Characterization of Epitaxial 4H-SiC as Material for Spectrometric Radiation Detectors. In: APCOM 2011. Applied Physics of Condensed Matter: Proceedings of the 17th International Conference. Nový Smokovec, Slovak Republic, June 22-24, 2011. - Žilina: University of Žilina, 2011. - ISBN 978-80-554-0386-1. - p. 240-243. (in English)
- [23] EPSKAMP, K. - JANISZ, E. - SLUGEŇ, V.: Education and Training Platform of ENS. In: ENYGF 2011: European Nuclear Young Generation Forum 2011. Prague, Czech Republic, 17. -22. 5. 2011. - Prague: Czech Nuclear Society, 2011. - ISBN 978-80-02-02320-3. - p. 26. (in English)
- [24] FARKAS, G. - HAŠČÍK, J. - LÜLEY, J. - VRBAN, B. - PETRISKA, M. - SLUGEŇ, V. - URBAN, P.: Criticality Safety Analysis of Fresh and Spent Fuel Storage and Handling for NPP Mochovce Using MCNP5. In: 21st Symposium of AER on VVER Reactor Physics and Reactor Safety: Dresden, Germany, September 19-23, 2011. - Dresden, 2011. - p. 5. 2. (in English)
- [25] FARKAS, G. - LIPKA, J. - HAŠČÍK, J. - SLUGEŇ, V.: Computation of Ex-Core Detector Weighting Functions for VVER-440 Using MCNP5. In: Nuclear Energy for New Europe 2011: 20th International Conference. Bovec, Slovenia, September 12-15, 2011. - Ljubljana: Nuclear Society of Slovenia, 2011. - Art. No. 317. (in English)
- [26] HARMATHA, L. - MIKOLÁŠEK, M. - ŘEHÁČEK, V. - KOZÁR, M. - BALLO, P. - PRUŠÁKOVÁ, L. - ŠUTTA, P. - VINCZE, A. - MATAY, L.: Preparation and Properties of Amorphous Silicon Based Thin Film Structures for Photovoltaics. In: Power Engineering 2011. Renewable Energy Sources 2011: Tatranské Matliare, Slovak Republic, June 7-9, 2011. - Bratislava: Slovak University of Technology in Bratislava, 2011. - ISBN 978-80-89402-38-0. - USB flash. (in English)
- [27] HAŠČÍK, J.: Status of (Technical) Education in Slovakia. In: Secure Energy Supply: International Conference. Bratislava, Slovak Republic, September 29-30, 2011. - Bratislava: SNUS, 2011. - p. 22. (in English)
- [28] HATALA, T. - MIGLIERINI, M.: Crystallization of Amorphous (Fe_{1-x}Cox)₇₆Mo₈Cu_{1B15} Alloy. In: APCOM 2011. Applied Physics of Condensed Matter: 17th International Conference. Nový Smokovec, Slovak Republic, June 22-24, 2011. - Žilina: University of Žilina, 2011. - ISBN 978-80-554-0386-1. - p. 304-307. (in English)
- [29] HATALA, T. - MIGLIERINI, M.: Evolution of Nanocrystalline Grains in Fe-Mo-Cu-B-type NANOPERM Alloy with Varying Co Content. In: 7th Seeheim Workshop on Mössbauer Spectroscopy: Frankfurt, Germany, 13. -17. 6. 2011. - Karlsruhe: Karlsruhe Institute of Technology, 2011. - p. 168. (in English)
- [30] HINCA, R. - STACHO, M. - JAVORNÍK, A.: Radiological Situation in the Chernobyl Exclusion Zone. In: 33rd Days of Radiation Protection: Vyhne, Slovak Republic, 7. -11. 11. 2011. - Bratislava: Slovak Medical University in Bratislava, 2011. - ISBN 978-80-89384-04-4. - p. 151. (in Slovak)
- [31] HRNČÍŘ, M. - ČERBA, Š. - NEČAS, V.: Criticality Calculation of the Starting Fuel Assembly of the Gas Cooled Fast Reactor ALLEGRO. In: ŠVOČ 2011: Proceedings of Selected Works. Bratislava, Slovak Republic, 4. 5. 2011. - Bratislava: FEI STU, 2011. - ISBN 978-80-227-3508-7. - p. 333-338. (in Slovak)
- [32] HRNČÍŘ, T. - NEČAS, V.: Impact of Nuclide Vector Composition Contained in Conditionally Released Steel Reused in Motorway Tunnels Scenario on Calculated Individual Effective Doses. In: ICEM 2011: 14th International Conference on Environmental Remediation and Radioactive Waste Management. Reims, France, September 25-29, 2011. - New York: ASME, 2011. - p. 71. (in English)
- [33] HRNČÍŘ, T. - PÁNIK, M. - NEČAS, V.: Recycling and Reuse of Conditionally Released Metal Radioactive Waste in Tunnel Building Scenario. In: Power Engineering 2011. Energy - Ecology - Economy 2011: Tatranské Matliare, Slovak Republic, June 7-9, 2011. - Bratislava: Slovak University of Technology in Bratislava, 2011. - ISBN 978-80-89402-40-3. - USB flash. (in English)
- [34] HRNČÍŘ, T. - PÁNIK, M. - NEČAS, V.: The Utilization of Conditionally Released Radioactive Metal Waste in Motorway Tunnel Construction. In: ELITECH'11: 13th Conference of Doctoral Students Faculty of Electrical Engineering and Information Technology. Bratislava, Slovak Republic, 17 May, 2011. - Bratislava: Nakladateľstvo STU, 2011. - ISBN 978-80-227-3500-1. - p. 1-5. (in English)
- [35] JAKABOVIČ, J. - KOVÁČ, J. - SRNÁNEK, R. - WEIS, M. - SOKOLSKÝ, M. - GULDAN, Š. - BROCH, K. - SCHREIBER, F. - DONOVAL, D. - CIRÁK, J.: OTFT with Pentacene-Gate Dielectric Interface Modified by Silicon Nanoparticles. In: APCOM 2011. Applied Physics of Condensed Matter: 17th International Conference. Nový Smokovec, Slovak Republic, June 22-24, 2011. - Žilina: University of Žilina, 2011. - ISBN 978-80-554-0386-1. - p. 56-60. (in English)

- [36] KAISER, M. - SOKOLSKÝ, M. - CIRÁK, J.: Dye-Sensitized Solar Cells Based on Organic Pigments. In: ŠVOČ 2011: Proceedings of Selected Works. Bratislava, Slovak Republic, 4. 5. 2011. - Bratislava: FEI STU, 2011. - ISBN 978-80-227-3508-7. - p. 269-273. (in Slovak)
- [37] KATRÍK, P. - PAVLOVIČ, M.: Experimental Study of Residual Activity Induced by High-Energy Uranium Ion Beam in Copper. In: ŠVOČ 2011: Proceedings of Selected Works. Bratislava, Slovak Republic, 4. 5. 2011. - Bratislava: FEI STU, 2011. - ISBN 978-80-227-3508-7. - p. 295-299. (in Slovak)
- [38] KILPELÄINEN, S. - SLUGEŇ, V. - TUOMISTO, F. - VETERNÍKOVÁ, J.: Oxide Dispersion Strengthened Steels: a Comparison of Microstructure Features of Some Commercial Steels with Applying of Doppler Broadening Spectroscopy. In: ENYGF 2011: European Nuclear Young Generation Forum 2011. Prague, Czech Republic, 17. -22. 5. 2011 (2011). - Prague: Czech Nuclear Society. - ISBN 978-80-02-02320-3. - p. 44. (in English)
- [39] KILPELÄINEN, S. - PETRISKA, M. - SABELOVÁ, V. - SLUGEŇ, V. - VETERNÍKOVÁ, J.: PAS Application in Defects Detection in Fe-9Cr and Fe-12Cr Alloys. In: ENYGF 2011: European Nuclear Young Generation Forum 2011. Prague, Czech Republic, 17. -22. 5. 2011. - Prague: Czech Nuclear Society, 2011. - ISBN 978-80-02-02320-3. - p. 60. (in English)
- [40] KREMPASKÝ, J.: Problems of Contemporary Physics. In: Modern Physics and its Application in Teaching: Ružomberok, Slovak Republic, 27–28 January 2011. - Ružomberok: VERBUM, 2011. - ISBN 978-80-8084-798-2. - p. 9-16. (in Slovak)
- [41] KREMPASKÝ, J.: The Growth and the Decline of Thermoelectric Measurements. In: Thermophysics 2011: 16th International Meeting of Thermophysical Society. Valtice, Czech Republic, 2. -4. 11. 2011. - Brno: University of Technology, 2011. - ISBN 978-80-214-4345-7. - p. 9-14. (in English)
- [42] MIGLIERINI, M.: Ionizing Radiation in Medicine. In: European Chemistry and Chemical Engineering Education Network Annual Conference & ECTN Association Meeting 2011: Bratislava, Slovak Republic, May 19-22, 2011. - Bratislava: Comenius University, 2011. - p. 9. (in English)
- [43] MIGLIERINI, M. - HATALA, T. - FRYDRYCH, J. - ŠAFÁŘOVÁ, K.: Surface Crystallization of Co-Containing Nanoperm-Type Alloys. In: ICAME 2011. International Conference on the Applications of the Mössbauer Effect: Kobe, Japan, September 25-30, 2011. - Yamada Science Foundation, 2011. - p. 158. (in English)
- [44] MIGLIERINI, M. - FRYDRYCH, J. - ŠAFÁŘOVÁ, K. - KOHOUT, J. - LANČOK, A.: 57Fe Mössbauer and 57Fe NMR Study of Fe-Zr-B NANOPERM Alloy. In: 7th Seeheim Workshop on Mössbauer Spectroscopy: Frankfurt, Germany, 13.-17. 6. 2011. - Karlsruhe: Karlsruhe Institute of Technology, 2011. - p. 70. (in English)
- [45] MOJTO, E. - KUTIŠ, V. - FARKAŠ, G.: Flow Simulation in Nuclear Reactor WWER 440. In: ŠVOČ 2011: Proceedings of Selected Works. Bratislava, Slovak Republic, 4. 5. 2011. - Bratislava: FEI STU, 2011. - ISBN 978-80-227-3508-7. - p. 35-39. (in Slovak)
- [46] NISHIDA, A. - TAKA, Ch. - CHROMIK, Š. - DURNÝ, R.: Nanometer Thickness Effects on Critical Properties in MgB₂ Thin Films. In: ICEC 23 - ICMC 2010: 23rd International Cryogenic Engineering Conference and International Cryogenic Materials Conference 2010. Wroclaw, Poland, July 19-23 2010. - Wroclaw: Oficyna Wydawnicza Politechniki Wroclawskiej, 2011. - ISBN 978-83-7493-589-0. - p. 1249-1254. (in English)
- [47] OBERTÁŠ, J. - VALKO, P.: Preliminary Gravity Probe B Data Set - Demonstration Study. In: ŠVOČ 2011: Proceedings of Selected Works. Bratislava, Slovak Republic, 4. 5. 2011. - Bratislava: FEI STU, 2011. - ISBN 978-80-227-3508-7. - p. 279-283. (in Slovak)
- [48] PÁNIK, M. - NEČAS, V.: Evaluation of External Exposure During Building and Operation of Concrete Bridges Constructions that Reuse the Conditionally Released Steels. In: ICEM 2011: 14th International Conference on Environmental Remediation and Radioactive Waste Management. Reims, France, September 25-29, 2011. - New York: ASME, 2011. - p. 70. (in English)
- [49] PÁNIK, M. - HRNČÍŘ, T. - NEČAS, V.: Evaluation of Personnel External Exposure during Construction of Concrete Bridge which Reuse Radioactive Steels. In: ELITECH'11: 13th Conference of Doctoral Students Faculty of Electrical Engineering and Information Technology. Bratislava, Slovak Republic, 17 May, 2011. - Bratislava: Nakladateľstvo STU, 2011. - ISBN 978-80-227-3500-1. - p. 1-5. (in English)
- [50] PÁNIK, M. - HRNČÍŘ, T. - PAULÍK, P.: Perspective Radioactive Steel Utilization for Construction. In: Preparation, Projection and Realisation of Constructions: International Scientific Conference CONECO 2011. Bratislava, Slovak Republic, 31. 3. 2011. - Bratislava: SvF STU, 2011. - ISBN 978-80-227-3469-1. - p. 1-9. (in Slovak)
- [51] PÁNIK, M. - HRNČÍŘ, T. - NEČAS, V.: Reuse of Radioactive Materials from NPP Decommissioning Applied in Concrete Bridges Construction. In: Power Engineering 2011. Energy - Ecology - Economy 2011: Tatranské Matliare, Slovak Republic, June 7-9, 2011. - Bratislava: Slovak University of Technology in Bratislava, 2011. - ISBN 978-80-89402-40-3. - USB flash. (in English)
- [52] PÁNIK, M. - NEČAS, V.: Utilization of Conditionally Released Steel for Construction of Concrete Bridge Foundation. In: Technical Conference of Young Generation of Slovak Nuclear Society: Častá-Papiernička, 28. 4. 2011. - Bratislava: Slovak Nuclear Society, 2011. - ISBN 978-80-969943-3-5. - p. 1-10. (in Slovak)

- [53] PAVLOVIČ, M. - MIGLIERINI, M. - MUSTAFIN, E. - SEIDL, T. - ŠOKA, M. - STRAŠÍK, I.: Magnetic Susceptibility Measurements of Soft-Magnetic Metallic Glasses under Ion Bombardment. In: APCOM 2011. Applied Physics of Condensed Matter: 17th International Conference. Nový Smokovec, Slovak Republic, June 22-24, 2011. - Žilina: University of Žilina, 2011. - ISBN 978-80-554-0386-1. - p. 260-263. (in English)
- [54] PAVÚK, M. - MIGLIERINI, M.: Synchrotron X-ray Diffraction Study of the Crystallization Process in the As-Prepared Amorphous Fe-Mo-Cu-B System. In: Measurement 2011: 8th International Conference on Measurement. Smolenice, Slovak Republic, 27. -30. 4. 2011. - Bratislava: Slovak Academy of Sciences, 2011. - ISBN 978-80-969-672-4-7. - p. 188-191. (in English)
- [55] PECKO, S. - VETERNÍKOVÁ, J. - SLUGEŇ, V.: ALLEGRO - Gas Colled Fast Reactor. In: ŠVOČ 2011: Proceedings of Selected Works. Bratislava, Slovak Republic, 4. 5. 2011. - Bratislava: FEI STU, 2011. - ISBN 978-80-227-3508-7. - p. 300-305. (in Slovak)
- [56] PETRISKA, M. - SABELOVÁ, V. - SLUGEŇ, V. - SOJAK, S. - STACHO, M. - VETERNÍKOVÁ, J.: Digital Coincidence Doppler Broadening Setup at FEI STU. In: Positron Studies of Defects 2011. PSD-11: Book of Abstracts. Delft, The Netherlands, August 28 - September 2, 2011. - Delft: Technical University, 2011. - p. 43. (in English)
- [57] PETRISKA, M. - SABELOVÁ, V. - SLUGEŇ, V. - SOJAK, S. - STACHO, M. - VETERNÍKOVÁ, J.: Software for Digital Coincidence Doppler Broadening Setup. In: PPC-10. 10th International Workshop on Positron and Positronium Chemistry: Smolenice Castle, Slovak Republic, September 5-9, 2011. - Bratislava: SNUS, 2011. - p. 89. (in English)
- [58] PINŤA, J. - VETERNÍKOVÁ, J.: Material Research of Reactor Pressure Vessel of VVER with Applying of Positron Annihilation Spectroscopy. In: ŠVOČ 2011: Proceedings of Selected Works. Bratislava, Slovak Republic, 4. 5. 2011. - Bratislava: FEI STU, 2011. - ISBN 978-80-227-3508-7. - p. 310-313. (in Slovak)
- [59] PRÍTRSKÝ, J. - BRODŇAN, M. - NEČAS, V.: Conditional Release of Steel from Decommissioning in a Form of Reinforced Concrete. In: ICEM 2011: 14th International Conference on Environmental Remediation and Radioactive Waste Management. Reims, France, September 25-29, 2011. - New York: ASME, 2011. - p. 102. (in English)
- [60] SABELOVÁ, V. - PETRISKA, M. - VETERNÍKOVÁ, J. - SLUGEŇ, V. - KILPELÄINEN, S.: Comparison of He and H Effects in Fe-9Cr and Fe-12Cr Alloys with Using PAS Application in Defects Detection. In: Positron Studies of Defects 2011. PSD-11: Book of Abstracts. Delft, The Netherlands, August 28 - September 2, 2011. - Delft: Technical University, 2011. - p. 70. (in English)
- [61] SABELOVÁ, V. - PETRISKA, M. - VETERNÍKOVÁ, J. - SLUGEŇ, V. - DEGMOVÁ, J. - KILPELÄINEN, S.: Defects Detection in Fe-Cr Alloys with Using Positron Annihilation Doppler Broadening Spectroscopy. In: PPC-10. 10th International Workshop on Positron and Positronium Chemistry: Smolenice Castle, Slovak Republic, September 5-9, 2011. - Bratislava: SNUS, 2011. - p. 90. (in English)
- [62] SABELOVÁ, V. - PETRISKA, M. - VETERNÍKOVÁ, J. - SLUGEŇ, V. - KILPELÄINEN, S.: PAS Doppler Broadening Spectroscopy Application in Defects Detection in Alloys. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 17, Special Issue: ELOSYS, Trenčín, 11. -14. 10. 2011, p. 166-170. (in English)
- [63] SITEK, J. - DEGMOVÁ, J. - SEDLAČKOVÁ, K.: Influence of Weak Magnetic Field at Fe-Ni-Nb-B Alloy. In: SMM 2011: 20th International Conference on Soft Magnetic Materials. Athens, Greece, 19. -22. 9. 2011. - Arhens: X mpenou Publ. House, 2011. - ISBN 978-960-9534-14-7. - p. 209. (in English)
- [64] SITEK, J. - DEGMOVÁ, J. - DEKAN, J.: Košice Meteorite Analysis. In: APCOM 2011. Applied Physics of Condensed Matter: 17th International Conference. Nový Smokovec, Slovak Republic, June 22-24, 2011. - Žilina: University of Žilina, 2011. - ISBN 978-80-554-0386-1. - p. 228-230. (in English)
- [65] SITEK, J. - DEGMOVÁ, J. - DEKAN, J.: Mössbauer Spectroscopy Analysis of Košice Meteorite. In: 7th Seeheim Workshop on Mössbauer Spectroscopy: Frankfurt, Germany, 13. -17. 6. 2011. - Karlsruhe: Karlsruhe Institute of Technology, 2011. - p. 211. (in English)
- [66] SITEK, J. - NEČAS, V.: Non-Electric Application of Nuclear Power. In: Power Engineering 2011. Energy - Ecology - Economy 2011: Tatranské Matliare, Slovak Republic, June 7-9, 2011. - Bratislava: Slovak University of Technology in Bratislava, 2011. - ISBN 978-80-89402-40-3. - USB flash. (in English)
- [67] SLÁDEK, M. - ZACHAR, M. - NEČAS, V.: Valuation of Advantageous of Very Low Active Waste Management in Process of Nuclear Reactors Decommissioning. In: ŠVOČ 2011: Proceedings of Selected Works. Bratislava, Slovak Republic, 4. 5. 2011. - Bratislava: FEI STU, 2011. - ISBN 978-80-227-3508-7. - p. 321-326. (in Slovak)
- [68] SLANINKA, A. - SLÁVIK, O. - NEČAS, V.: Container Monitoring System for Material Release into the Environment - Uncertainty in Measurement and the Method of Metrological Verification. In: 33rd Days of Radiation Protection: Vyhne, Slovak Republic, 7. -11. 11. 2011. - Bratislava: Slovak Medical University in Bratislava, 2011. - ISBN 978-80-89384-04-4. - p. 84. (in Slovak)

- [69] SLANINKA, A. - SLÁVIK, O. - NEČAS, V.: Uncertainty Analysis of Activity Measurement of New Monitoring System for Free-Release for NPP A-1 Decommissioning, Slovakia. In: ICEM 2011: 14th International Conference on Environmental Remediation and Radioactive Waste Management. Reims, France, September 25 - 29, 2011. - New York: ASME, 2011. - p. 102. (in English)
- [70] SLIMÁK, A. - HRNČÍŘ, T. - NEČAS, V.: Selected Scenario of Handling with Fibre-Reinforced Concrete Containers during their Storage. In: ŠVOČ 2011: Proceedings of Selected Works. Bratislava, Slovak Republic, 4. 5. 2011. - Bratislava: FEI STU, 2011. - ISBN 978-80-227-3508-7. - p. 315-320. (in Slovak)
- [71] SLUGEŇ, V. - STACHO, M. - SABELOVÁ, V. - PETRISKA, M.: Advanced Evaluation of Spent Fuel in Long Term Wer Storage in Slovakia. In: ICAPP 2011: International Congress on Advanced in Nuclear Power Plants. Nice, France, 2 - 6 May 2011. - Paris: SFEN, 2011. - p. 2136-2139. (in English)
- [72] SLUGEŇ, V.: European Nuclear Research and Possibilities for Slovak Institutions. In: NUSIM 2011: 19th Annual Nuclear Seminar and Information Meeting. Pilsen, Czech Republic, October 10-12, 2011. - Prague: Czech Nuclear Society, 2011. - CD-Rom. (in English)
- [73] SLUGEŇ, V.: European Nuclear Research and Possibilities of Slovak Institutions to Join it. In: Secure Energy Supply: International Conference. Bratislava, Slovak Republic, September 29-30, 2011. - Bratislava: SNUŠ, 2011. - p. 19. (in English)
- [74] SLUGEŇ, V.: Fukushima Accident - Reasons and Consequences. In: Power Engineering 2011. Energy - Ecology - Economy 2011: Tatranské Matliare, Slovak Republic, June 7-9, 2011. - Bratislava: Slovak University of Technology in Bratislava, 2011. - ISBN 978-80-89402-40-3. - USB flash. (in English)
- [75] SLUGEŇ, V. - SOJAK, S. - EGGER, W. - KRŠJAK, V. - VETERNÍKOVÁ, J. - SABELOVÁ, V. - STACHO, M.: Influence of Chromium in Defects Production in Fe-Cr Alloys. In: ICAPP 2011: International Congress on Advanced in Nuclear Power Plants. Nice, France, 2-6 May 2011. - Paris: SFEN, 2011. - p. 2425-2429. (in English)
- [76] SLUGEŇ, V.: Nuclear Education Program in Slovak Republic. In: Transatlantis Nuclear Days: International Conference on Global Cooperation for the Future Development of Nuclear Power. Prague, Czech Republic, October 6-7, 2011. - Prague: Czech Nuclear Society, 2011. - CD-Rom. (in English)
- [77] SLUGEŇ, V. - VETERNÍKOVÁ, J. - SABELOVÁ, V. - DEGMOVÁ, J. - PETRISKA, M. - SOJAK, S.: Study of Residual Stress and Vacancy Defects in Oxide Dispersion Strengthened Steels. In: Positron Studies of Defects 2011. PSD-11: Book of Abstracts. Delft, The Netherlands, August 28 - September 2, 2011. - Delft: Technical University, 2011. - p. 47. (in English)
- [78] SLUGEŇ, V. - VETERNÍKOVÁ, J. - SABELOVÁ, V. - DEGMOVÁ, J. - HINCA, R. - PETRISKA, M. - SOJAK, S.: Vacancy Type Defects in Oxide Dispersion Strengthened Steels. In: PPC-10. 10th International Workshop on Positron and Positronium Chemistry: Smolenice Castle, Slovak Republic, September 5-9, 2011. - Bratislava: SNUŠ, 2011. - p. 33. (in English)
- [79] SLUGEŇ, V. - Von ESTORFF, U.: Ways to Succeed the HR Challenge of the Nuclear Renaissance via Preservation and Effective Management of Nuclear Knowledge. In: Transactions: Nuclear Education and Training NESTET 2011. Prague, Czech Republic, 15 - 18 May 2011. - Brussels: European Nuclear Society, 2011. - ISBN 978-92-95064-12-6. - p. 68-71. (in English)
- [80] SNOPEK, J. - VETERNÍKOVÁ, J.: Study of Radiation Damage of Superconductive Materials YBCO via Positron Annihilation Spectroscopy. In: ŠVOČ 2011: Proceedings of Selected Works. Bratislava, Slovak Republic, 4. 5. 2011. - Bratislava: FEI STU, 2011. - ISBN 978-80-227-3508-7. - p. 306-309. (in Slovak)
- [81] SOJAK, S. - SLUGEŇ, V. - KRŠJAK, V. - EGGER, W. - RAVELLI, L. - PETRISKA, M. - STANČEK, S. - VITÁZEK, K. - STACHO, M. - VETERNÍKOVÁ, J. - SABELOVÁ, V.: Different Chromium Content and Thermal Annealing Influence on Ions Implanted Fe-Cr Model Alloys. In: Positron Studies of Defects 2011. PSD-11: Book of Abstracts. Delft, The Netherlands, August 28 - September 2, 2011. - Delft: Technical University, 2011. - p. 14. (in English)
- [82] SOJAK, S. - SLUGEŇ, V. - KRŠJAK, V. - EGGER, W. - RAVELLI, L. - PETRISKA, M. - STANČEK, S. - VITÁZEK, K. - STACHO, M. - VETERNÍKOVÁ, J. - SABELOVÁ, V.: Thermal Annealing Influence on Ions Implanted Fe-Cr Model Alloys. In: PPC-10. 10th International Workshop on Positron and Positronium Chemistry: Smolenice Castle, Slovak Republic, September 5-9, 2011. - Bratislava: SNUŠ, 2011. - p. 73. (in English)
- [83] SOKOLSKÝ, M. - KAISER, M. - KUSKO, M. - CIRÁK, J.: Anthocyanines as Light Harvesters in the Dye-Sensitized TiO₂ Solar Cell. In: APCOM 2011. Applied Physics of Condensed Matter: 17th International Conference. Nový Smokovec, Slovak Republic, June 22-24, 2011. - Žilina: University of Žilina, 2011. - ISBN 978-80-554-0386-1. - p. 276-279. (in English)
- [84] SOKOLSKÝ, M. - KAISER, M. - CIRÁK, J. - KUSKO, M.: Construction and Characterization of DSSC Based on Blackberry Dye. In: Power Engineering 2011. Renewable Energy Sources 2011: Tatranské Matliare, Slovak Republic, June 7-9, 2011. - Bratislava: Slovak University of Technology in Bratislava, 2011. - ISBN 978-80-89402-38-0. - USB flash. (in English)

- [85] SOKOLSKÝ, M. - CIRÁK, J. - GMUCOVÁ, K.: Study of Interfacial Properties of Calixarenes as a Perspective System in Biosensing. In: 18th Conference of Slovak Physicists: Banská Bystrica, Slovak Republic, 6. -9. 9. 2010. - Košice: Slovak Physical Society, 2011. - ISBN 978-80-970625-0-7. - p. 125-126. (in English)
- [86] STACHO, M. - KRŇÁČ, Š. - SLUGEŇ, V. - HINCA, R. - SOJAK, S.: Application of Whole Spectrum Processing for Analysis of Gamma-Ray Spectra Measured at JE EMO. In: 33rd Days of Radiation Protection: Vyhne, Slovak Republic, 7. -11. 11. 2011. - Bratislava: Slovak Medical University in Bratislava, 2011. - ISBN 978-80-89384-04-4. - p. 89. (in Slovak)
- [87] STANKOV, S. - MIGLIERINI, M. - CHUMAKOV, A. I. - SERGUEEV, I. - YUE, Y. Z. - SEPIOL, B.: Vibrational Dynamics and Thermodynamics of Nanocrystalline Materials. In: 7th Seeheim Workshop on Mössbauer Spectroscopy: Frankfurt, Germany, 13. -17. 6. 2011. - Karlsruhe: Karlsruhe Institute of Technology, 2011. - p. 49. (in English)
- [88] VETERNÍKOVÁ, J. - CHUDÝ, M. - SLUGEŇ, V. - SOJAK, S. - PETRISKA, M. - SABELOVÁ, V. - DEGMOVÁ, J. - HINCA, R.: a Study of Radiation Resistance of High Temperature Superconductors for Fusion Reactors. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 17, Special Issue: ELOSYS, Trenčín, 11. -14. 10. 2011, p. 185-188. (in English)
- [89] VETERNÍKOVÁ, J. - DEGMOVÁ, J. - KRŠJAK, V. - SLUGEŇ, V. - HINCA, R. - PETRISKA, M. - SOJAK, S.: Barkhausen Noise Applying in Residual Stress Study of 9% Cr Ferritic/Martensitic Steels. In: 9th International Conference on Barkhausen Noise and Micromagnetic Testing: Hejnice, Czech Republic, 27-30 June 2011. - Vaajakoski: Stresstech Qy, 2011. - ISBN 978-952-67247-5-1. - p. 1-7. (in English)
- [90] VETERNÍKOVÁ, J. - CHUDÝ, M. - SLUGEŇ, V. - SOJAK, S. - DEGMOVÁ, J. - PETRISKA, M. - HINCA, R.: Investigation of Radiation Affected High Temperature Superconductors - YBCO. In: Positron Studies of Defects 2011. PSD-11: Book of Abstracts. Delft, The Netherlands, August 28 - September 2, 2011. - Delft: Technical University, 2011. - p. 12. (in English)
- [91] VETERNÍKOVÁ, J. - KILPELÄINEN, S. - ŠKARBA, E. - TUOMISTO, F. - SLUGEŇ, V. - DEGMOVÁ, J.: Positron Annihilation Measurements Performed on Oxide-Dispersion Strengthened Steels. In: PPC-10. 10th International Workshop on Positron and Positronium Chemistry: Smolenice Castle, Slovak Republic, September 5-9, 2011. - Bratislava: SNUS, 2011. - p. 91. (in English)
- [92] VETERNÍKOVÁ, J. - KILPELÄINEN, S. - DEGMOVÁ, J. - SLUGEŇ, V.: Research of Construction Materials of Fuel Cladding for 4th Generation of Reactors. In: Technical Conference of Young Generation of Slovak Nuclear Society: Častá-Papiernička, 28. 4. 2011. - Bratislava: Slovak Nuclear Society, 2011. - ISBN 978-80-969943-3-5. - nestr. (in Slovak)
- [93] WRACHIEN, N. - CESTER, A. - BARI, D. - MENEGHESSO, G. - KOVÁČ, J. - JAKABOVIČ, J. - SOKOLSKÝ, M. - DONOVAL, D. - CIRÁK, J.: Low-Energy UV Effects on Organic Thin-Film-Transistors. In: 2011 IEEE International Reliability Physics Symposium: Monterey, CA, April 10-14, 2011. - New York: IEEE, 2011. - ISBN 978-1-4244-9111-7. - 2E. 2. 1-8. (in English)
- [94] ZACHAR, M. - DANIŠKA, V. - NEČAS, V.: Methodology for Identification of Conditionally Released Materials from Decommissioning Using the Omega Code. In: ICEM 2011: 14th International Conference on Environmental Remediation and Radioactive Waste Management. Reims, France, September 25 - 29, 2011. - New York: ASME, 2011. - p. 71. (in English)
- [95] ZAJKOSKA, S. - BOKES, P.: Induced Magnetic Field in 2D Nanoconductors. In: ŠVOČ 2011: Proceedings of Selected Works. Bratislava, Slovak Republic, 4. 5. 2011. - Bratislava: FEI STU, 2011. - ISBN 978-80-227-3508-7. - p. 274-278. (in Slovak)
- [96] ZAŤKO, B. - SEDLAČKOVÁ, K. - DUBECKÝ, F. - BOHÁČEK, P. - SEKÁČOVÁ, M. - NEČAS, V.: Detection of Fast Neutrons Using Detectors Based on Semi-Insulating GaAs. In: 13th International Workshop on Radiation Imaging Detectors -IWORLD: Zurich, Switzerland, 3-7 July 2011. - Villigen: Paul Scherrer Institut, 2011. - p. 109. (in English)
- [97] ZAŤKO, B. - DUBECKÝ, F. - SEDLAČKOVÁ, K. - BOHÁČEK, P. - SEKÁČOVÁ, M. - NEČAS, V.: Detection of Fast Neutrons Using Semi-Insulating GaAs Coated by High Density Polyethylene. In: APCOM 2011. Applied Physics of Condensed Matter: 17th International Conference. Nový Smokovec, Slovak Republic, June 22-24, 2011. - Žilina: University of Žilina, 2011. - ISBN 978-80-554-0386-1. - p. 244-247. (in English)

IX. 3 Books

- [1] SLUGEŇ, V.: Safety of VVER-440 Reactors: Barriers against Fission Products Release. - London: Springer Verlag London, 2011. - 178 p. - ISBN 978-1-84996-419-7. (in English)
- [2] VALKO, P.: Superconductivity. - Zlín: Kniha ZLÍN, 2011. - 380 p. - ISBN 978-80-87497-44-9. (in Slovak)

IX. 4 Parts of Books

- [1] KREMPASKÝ, J.: Metamorphoses of Science. In: Teacher of Science for the Third Millenium. - Trnava: Typi Universitas Tyrnaviensis, 2011. - ISBN 978-80-8082-440-2. - p. 9-53. (in Slovak)
- [2] KREMPASKÝ, J.: Main Problems of Contemporary Science. In: Teacher of Science for the Third Millenium. - Trnava: Typi Universitas Tyrnaviensis, 2011. - ISBN 978-80-8082-440-2. - p. 147-152. (in Slovak)
- [2] KREMPASKÝ, J.: Presence of Physics in Ethics of Society Control and Management. In: Physics and Ethics V. Knowledge, Science and Society: Proceedings of Monograph Studies. - Nitra: Constantine the Philosopher University in Nitra, 2011. - ISBN 978-80-8094-688-3. - p. 98-109. (in Slovak)
- [3] ZAJAC, R. - DAŘÍLEK, P. - NEČAS, V.: Modelling and Spatial Discretization in Depletion Calculations of the Fast Reactor Cell with HELIOS 1. 10. In: Computational Modelling and Advanced Simulations. - Dordrecht: Springer Science+Business Media B. V., 2011. - ISBN 978-94-007-0316-2. - p. 241-254. (in English)

IX. 5 Textbooks

- [1] DEGMOVÁ, J.: Ecology and Nuclear Facilities: Textbook for Advanced Qualification Training Course: Decommissioning of Nuclear Facilities. - Bratislava: FEI STU, 2011. - 78 p. (in Slovak)
- [2] HAŠČÍK, J.: Building of Nuclear Reactors: Textbook for Advanced Qualification Training Course: Decommissioning of Nuclear Facilities. - Bratislava: FEI STU, 2011. - 111 p. (in Slovak)
- [3] HAŠČÍK, J.: Nuclear Reactors: Textbook for Advanced Qualification Training Course: Safety Aspects of Nuclear Facility Operation. - Bratislava: FEI STU, 2011. - 129 p. (in Slovak)
- [4] HINCA, R.: Radiation Safety and Radiation Protection: Textbook for Advanced Qualification Training Course: Decommissioning of Nuclear Facilities. - Bratislava: FEI STU, 2011. - 58 p. (in Slovak)
- [5] HINCA, R.: Radiation Safety and Radiation Protection: Textbook for Advanced Qualification Training Course: Safety Aspects of Nuclear Facility Operation. - Bratislava: FEI STU, 2011. - 91 p. (in Slovak)
- [6] LIPKA, J.: Nuclear Physics and Technology: Textbook for Advanced Qualification Training Course: Safety Aspects of Nuclear Facility Operation. - Bratislava: FEI STU, 2011. - 60 p. (in Slovak)
- [7] MIGLIERINI, M.: Nuclear and Neutron Physics: Textbook for Advanced Qualification Training Course: Decommissioning of Nuclear Facilities. - Bratislava: FEI STU, 2011. - 96 p. (in Slovak)
- [8] NEČAS, V. - JAKUBEC, R.: Decommissioning of Nuclear Facilities and Radioactive Waste Management: Textbook for Advanced Qualification Training Course: Decommissioning of Nuclear Facilities. - Bratislava: FEI STU, 2011. - 126 p. (in Slovak)
- [9] NEČAS, V.: Material Aspects of Nuclear Power Plant: Textbook for Advanced Qualification Training Course: Safety Aspects of Nuclear Facility Operation. - Bratislava: FEI STU, 2011. - 68 p. (in Slovak)
- [10] NEČAS, V. - ĎURČEK, E. - JAKUBEC, R.: Radioactive Waste and Decommissioning of Nuclear Facilities: Textbook for Advanced Qualification Training Course: Safety Aspects of Nuclear Facility Operation. - Bratislava: FEI STU, 2011. - 93 p. (in Slovak)
- [11] SLUGEŇ, V. - BOŽÍK, M.: Nuclear Fuel Cycle: Textbook for Advanced Qualification Training Course: Decommissioning of Nuclear Facilities. - Bratislava: FEI STU, 2011. - 97 p. (in Slovak)
- [12] SLUGEŇ, V. - UHRÍK, P.: Nuclear Safety: Textbook for Advanced Qualification Training Course: Safety Aspects of Nuclear Facility Operation. - Bratislava: FEI STU, 2011. - 90 p. (in Slovak)
- [13] SLUGEŇ, V. - HOMOLA, J.: Nuclear Safety: Textbook for Advanced Qualification Training Course: Decommissioning of Nuclear Facilities. - Bratislava: FEI STU, 2011. - 77 p. (in Slovak)

IX. 6 Patents and Standards

- [1] EICKHOFF, H. - HABERER, T. - SPILLER, P. - PAVLOVIČ, M.: Beam Scanning System for a Heavy Ion Gantry: European Patent EP 1 282 900 B8. Date of Publication: 26. 01. 2011. (in English)

INSTITUTE OF ELECTRICAL ENGINEERING

www.ue.fei.stuba.sk



Director of the Institute: prof. Ing. Viktor Smieško, PhD.

Tel: ++421-2-602 91 894 / Fax: ++421-2-654 40 227
E-mail: viktor.smiesko@stuba.sk

Deputy Director of the Institute: doc. Ing. Ľubomír Šumichrast, CSc.
Tel: ++421-2-654 23 502, E-mail: lubormir.sumichrast@stuba.sk
Fax: 421-2-654 40 227

Secretary of the Institute: Ružena Nagyová
Tel: ++421-2-654 29 600, E-mail: ruzena.nagyova@stuba.sk,
Fax: ++421-2-654 40 227

General Information

The Institute of Electrical Engineering FEI STU is a direct successor of the Institute of Theory and Experimentation in 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 Theory and Experimentation in Electrical Engineering (KTEE) and as such it existed until 2011.

The Group of Electric 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 the split of KTEE in 1980, when the Depart-

ment of Measurement (KMER) was established. On the 1st May 2011 these two departments merged and gave rise to the Institute of Electrical Engineering which concluded the evolution by returning to its roots after 31 years.

Departments of the Institute:

Department of Measurement

Department Chair: 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. Ivan Bojna, PhD., doc. Ing. Jan 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. Peter Kukuča, 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. Olga Čičáková, Ing. Jaroslav Franek, PhD., Mgr. Ján Grman, PhD., Ing. Miroslav Kamenský, PhD., Ing. Mojmír Kollár, PhD., Ing. Eva Králiková, Ing. Pavol Krivošík, PhD., Ing. Iveta Ondrášová, PhD., Ing. Marian Štofka, PhD., Ing. Vladimír Olah, PhD.

Senior Scientists:

Ing. Ján Bezek, PhD., Ing. Vladimír Bilík, PhD., Ing. Mikuláš Bittera, PhD., Ing. Jozef Hallon, PhD., Ing. Anton Krammer, Ing. Jozef Pala, PhD., Ing. Imrich Szolík, Ing. Martin Šoka, PhD., Ing. Marianna Ušáková, PhD.

Technical Staff:

Mária Brunovská, Milan Brunovský, Marta Jančovičová, Ružena Nagytová, Alojz Vdačný, PhD. Students Ing. Miroslav Földi, Ing. Branislav Korenko, Anton Krammer, Ing. Lukáš Maršalka, Ing. Lukáš Šroba, Ing. Marek Šuplata, Ing. Gabriel Váľky

II. EQUIPMENT

II.1 Teaching and Research Laboratories

- Electromagnetic Compatibility (EMC) Laboratory 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
- Digitizing 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 Optica 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, H_m 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, spol.s r.o.

- (3rd+4th sem., 3-2h) E. Ušák, R. Dosoudil
- Electrotechnology II (2nd+3rd sem., 3-2h) Ľ. Šumichrast, M. Kollár
- Electromagnetic Field (4th+5th sem., 3-2h) J. Jasenek
- Basics of Electrical Engineering (FIIT 3rd sem., 3-2h) V. Jančárik
- Electronics (FIIT 4th sem., 3-2h) E. Ušák

III.2 Graduate Study (Ing.)

- Electromagnetic Compatibility (2nd sem., 3-2h) R. Hartánský
- Electromagnetic Compatibility (1st sem., 3-2h) R. Hartánský
- Visual Systems (3rd sem., 2-3h) R. Ravas
- Telemetry and Information Transmission (3rd sem., 3-2h) P. Kukuča
- Telemetry and Information Transmission (4th sem., 3-2h) P. Kukuča
- Theory of Measuring Systems (2nd sem., 3-2h) R. Ravas, L. Syrová
- Digital Signal Processing (2nd sem., 3-2h) K. Kováč
- Digital Signal Processing (3rd sem., 3-2h) K. Kováč
- Distributed Measurement Systems (1st sem., 2-3h) V. Smieško
- Distributed Measurement Systems (3rd sem., 2-3h) V. Smieško
- Digital Image Processing (1st sem., 2-3h) R. Ravas
- Diagnostic Systems (1st sem., 3-2h) K. Kováč
- Diagnostic Systems (3rd sem., 3-2h) K. Kováč
- Designing of Information Systems (1st sem., 2-3h) R. Ravas
- Methods and Tools of Artificial Intelligence (2nd sem., 2-3h) R. Ravas
- Methods and Tools of Artificial Intelligence (4th sem., 2-3h) R. Ravas
- Metrology, Testing and Quality Control (2nd sem., 3-2h) P. Kukuča, R. Hartánský
- Diagnostics and Electromagnetic Compatibility (2nd sem., 3-2h) K. Kováč
- Telemetry and Distributed Measurement in Automobiles (4th sem. 2-2h) V. Smieško
- Electromagnetism (SvF 1st sem., 2-2h) Ľ. Šumichrast
- Modelling of Fields (1st sem., 2-2h) Ľ. Šumichrast
- Numeric methods in Electromagnetism (SvF 1st sem., 2-2h) Ľ. Šumichrast
- Safety of Electric Equipment (2nd sem., 2-1h) I. Bojna

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
- Measuring Information Systems (3rd sem., 2-2h) L. Syrová
- Measurement (4th sem., 2-3h) P. Kukuča
- 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
- Measurement Technology (3rd sem., 2-3h) V. Smieško
- Measurement Technology (4th sem., 2-3h) V. Smieško
- Computer Architecture (2nd sem., 3-2h) R. Ravas
- Measurement in Information Technology (5th sem., 2-2h) R. Hartánský
- Methodology of Measurement (5th sem., 2-1h) L. Syrová
- Electric Circuits I (2nd+3rd sem., 3-2h) V. Jančárik, R. Dosoudil
- Electrotechnology I (2nd+3rd sem., 3-2h) J. Červeňová, M. Kollár
- Electric Circuits II

Optical Waveguides
(3rd sem., 2-1h)

J. Jasenek

III.3 Distance Study (Bc.)

Measurement Technology
(6th sem.)

V. Smieško

Measuring Information Systems
(5th sem.)

R. Hartánský

Methodology of Measurement
(7th sem.)

L. Syrová

Technical Diagnostics
(8th sem.)

K. Kováč

Computer Architecture
(2nd sem.)

R. Ravas

Electrotechnology
(2nd+3rd sem., 3-2h)

J. Sláma, E. Ušák,

Theory of Electricity I
(2nd+3rd sem., 3-2h)

J. Bydžovský, M. Kollár

Theory of Electricity II
(2nd+3rd sem., 3-2h)

P. Jahn, M. Kollár

Theory of Electricity III
(2nd+3rd sem., 3-2h)

I. Bojna, J. Franek, J. Sláma

III.4 Distance Study (Ing.)

Methods and Tools of Artificial Intelligence
(2nd sem.)

R. Ravas

Visual Systems
(3rd sem.)

R. Ravas

Electromagnetic Compatibility
(2nd sem.)

R. Hartánský

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

Measurement Technology
(3rd sem.)

V. Smieško, L. Syrová

Electronic Measurement
(4th sem.)

P. Kukuča

Microprocessor Systems
(7th sem.)

K. Kováč

Methodology and Measurement
(5th sem.)

L. Syrová

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

- Electromagnetic Compatibility of Large Systems, VEGA 1/0551/09
Duration: 2009 – 2011 (completed), (V. Smieško)
- Research and Preparation of Prospective Magnetic Nanomagnetic and Hybrid Composite Materials for

New Applications in Electrotechnology, Electronics, and Car Production, VEGA 1/0575/09

Duration: 2009 – 2011 (completed), (J. Sláma)

- Optical Fibre Sensors and their Application, VEGA 1/0617/09
Duration: 2009 – 2011 (completed), (J. Jasenek)
- Diagnostics of Electrical Steels and Construction Ferromagnetic Materials by Means of Novel Magnetic Defectoscopy Methods, VEGA 1/0747/09,
Duration: 2009 – 2011 (completed), (E. Ušák)
- The Use of Image Information in the Measurement and Diagnostics, VEGA, 1/0490/10
Duration: 2010 – 2011 (completed), (R. Ravas)
- Selected Effects of High-Frequency Electrodynamics - Methods and Algorithms of Computer
- Simulation with Applications, VEGA 1/0377/10
Duration: 2010 – 2011 (completed), (L. Šumichrast)
- Research and Synthesis of Electronic Composites and Magnetic Dielectrics, VEGA 1/0529/10
Duration: 2010 – 2011 (completed), (R. Dosoudil)
- Construction and Control of Micro-electro-mechanical Elements and Devices, VEGA, 2/0006/10
Duration: 2010 – 2012 (continued), (R. Hartánský)
- Support of Research and Development Infrastructure from the Point of View of Electromagnetic
- Compatibility Requirements, State Research and Development Program, 338/2003
Duration: 2003 – 2011 (completed), (K. Kováč)

IV.2 International Scientific Projects

- Applied Research and Development of Innovative Bore Technique for Ultra Deep Geothermal Drillings, Directed by - Geothermal Anywhere, s.r.o. (ITMS: 26240220042) (Challenge: OPVaV-2009/4.2/03-SORO)
Duration: 2010 – 2012 (continued), (J. Jasenek, E. Ušák)
- Effective Control of Production and Consumption of Energy from Renewable Resources, ENERGOZ 26240220028, Operational Programme Research and Development, European Regional Development Fund
Duration: 2010 - 2013 (continued), (V. Smieško, M. Bittera, R. Hartánský)
- Increase of Power Safety of the Slovak Republic (ITMS: 26220220077), Operational Programme Research & Development, European Regional Development Fund
Duration: 2011-2013 (continued), (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: from 2005 – (continued), (J. Bydžovský, E. Ušák, J. Paľa)
- ELLEIEC (Enhancing Lifelong Learning in Electrical and Information Engineering), 142814-LLP-1-2008-

FR-ERASMUS-ENW, project funded by the European Commission, SOCRATES Thematic Network
Duration: from 2008 – (continued), (J. Jasenek)

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
- National Security Authority, Bratislava
- Slovak Power Plants, jsc., Bratislava
- University of Žilina, Žilina
- Trenčín University, Trenčín
- Volkswagen Slovakia, jsc., Bratislava
- Slovak Electric Transmission System, jsc., Bratislava
- West Slovakia Power Systems, jsc., (Západoslovenská energetika, a.s.), Bratislava
- Middle 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, ltc., Púchov
- Military Academy of Slovak National Uprising (Vojenská akadémia Slovenského národného povstania), 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

V.2 International Cooperation

- Katholieke Hogeschool Brugge - Oostende, Oostende, Belgium
- University of York, York, England
- 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
- TU Ilmenau, Germany
- Cardiff University, Wolfson Centre for Magnetic Technology, United Kingdom
- VEV Elektrotechnisch Vakondernus Nijkkerk, The Netherlands
- TU of Czenstochowa, 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, Chorvatsko
- Faculty of Engineering, Universidad Nacional Autonoma de Mexico (UNAM), Ciudad, Mexico

V.3 Contract-based Business Activities

- 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] Morvay T.: Knowledgebased Systems and Artificial Intelligence (J. Grman)
- [2] Fraňo P.: Digital Voltmeter for Automated Measurement (A. Krammer)
- [3] Foltín I.: EMI suppression in telecommunication systems (R. Dosoudil)
- [4] Chudovan J.: Application of polarization OTDR in senzorics (J. Červeňová)

VI.2 Doctoral Theses

The names of supervisors are in brackets:

- [1] Páleník T.: Microsensors for Measurement of Parameters of Electromagnetic Field (V. Smieško)
- [2] Hlaváč M.: Optic fibre sensors with distributed parameters on the OTDR basis (J. Jasenek)

- [3] Šoka M.: Analysis of electromagnetic properties of selected magnetics for electronic applications (V. Jančárik)

VII. OTHER ACTIVITIES

- Electromagnetic Compatibility for Electronic Equipment Designers, June 2011, Courses for Practical Engineers
- Cooperation with Encyclopaedic Institute of Slovak Academy of Sciences – Encyclopaedia Beliana, (J. Sláma, P. Jahn, J. Franek)

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” 2011, 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)
- Members of Scientific Council of the FEI STU (V. Smieško, J. Jasenek, V. Jančárik)
- Chairman of Council for State Program of Ministry of Education SR (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 Chamber for State Policy and Harmonization in Technological Standardization in Slovak Republic (ÚNMS), (I. Bojna)
- Membership in the Technical Subcommittees of IMEKO (TC19 - K. Kováč)
- 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 Working Group of Accreditation Commission of the Government of Slovak Republic for the research field. No. 17 “Engineering and

- Technology” (V. Smieško)
- 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 Theoretical of Electromagnetic Engineering (5.2.10) (J. Jasenek)
- 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 Slovak Association for Physics (J. Sláma , M. Ušáková)
- 8th International Conference supported by IMEKO TC-7 MEASUREMENT 2011 (Members of the Scientific Committee V. Smieško, K. Kováč)
- 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, M. Kollár)
- AT&P Journal (V. Smieško)
- EE - Journal of Electrical and Power Engineering (V. Smieško, P. Kukuča)
- Measurement Science Review – on-line edition (V. Smieško)
- Radioengineering Journal – reviewer (R. Hartánský)

VIII.2 Membership in International Institutions/Committees

- Scientific Committee of International of Magnetic Measurement 2011 (J. Bydžovský)
- IEEE - The Institute of Electrical and Electronics Engineers (R. Hartánský)
- Scientific Committee of International of Magnetic Measurement 2011 (V. Jančárik)
- European Association for Education in Electrical and Information Engineering (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 (J. Jasenek)
- International Organizing Committee of EAEEIE Annual Conference 2011, Maribor, Slovenia (J. Jasenek)
- IET - The Institution of Engineering and Technology (P. Kukuča)
- Scientific Committee of International Conference Applied Electronics 2011, Plzeň (P. Kukuča)
- The Institution of Engineering and Technology - IET Slovak Centre (M. Kollár)
- Scientific Committee of International of Magnetic

- Measurement 2011 (M. Kollár)
- The Institution of Engineering and Technology
 - IET Slovak Centre (J. Sláma)
- SAES, European Physical Society (J. Sláma)
- Scientific Committee of International of Magnetic Measurement 2011 (J. Sláma)
- 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)
- IET - The Institution of Engineering and Technology, Fellow (V. Smieško)
- URSI – Scientific Commission for Electromagnetic Noise and Interference (V. Smieško)
- The Institute of Electrical and Electronics Engineers (L. Šumichrast)
- The Institution of Engineering and Technology
 - IET Slovak Centre (L. Šumichrast)
- European Physical Society (L. Šumichrast)
- Optical Society of America (OSA) (L. Šumichrast)
- President of the Slovak National Committee of the International Union of Radio Science (URSI) (L. Šumichrast)
- Membership in the Scientific Committee of International of Magnetic Measurement 2011 (E. Ušák)

IX. PUBLICATIONS

IX. 1 Journals

- [1] BOJNA, I.: Protective Equipotential Bonding against Static Electricity. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 17, No. 1 (2011), Suppl.Volt, p. 15. (in Slovak)
- [2] BOJNA, I.: High Buildings in Electrical Standards. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 17, No. 2 (2011), Suppl.Volt, p. 7. (in Slovak)
- [3] BOJNA, I.: Additional Protection: Residual Current Protective Devices and Supplementary Protective Equipotential Bonding. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Roč. 17, č. 6 (2011), Suppl.Volt, p. 3. (in Slovak)
- [4] BOJNA, I.: Periods of Regular Verifications in Premises Having Own Schedule of Preventive Maintenance. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Roč. 17, č. 6 (2011), Suppl.Volt, p. 3. (in Slovak)
- [5] BOJNA, I. - FRANEK, J.: Skin Effect and Proximity Effect in Time Variable Current Circuits. Part 1 - Electric Skin Effect. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 17, No. 2 (2011), Suppl. Volt, p. 2-3. (in Slovak)
- [6] BOJNA, I. - FRANEK, J.: Skin Effect and Proximity Effect in Time Variable Currents Circuits. Part 2. Proximity Effect. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 17, No. 1 (2011), Suppl.Volt, p. 2-5. (in Slovak)
- [7] BOJNA, I. - FRANEK, J.: Skin Effect and Proximity Effect in Time Variable Currents Circuits. Part 3. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 17, No. 3 (2011), Suppl. Volt, p. 2-3, 13. (in Slovak)
- [8] DOSOUDIL, R. - UŠÁKOVÁ, M. - SLÁMA, J.: Polymer-Based Composites for Minimization of EMI in Automobile Electronic Systems. In: Chemické listy. - ISSN 0009-2770. - Vol. 105 S (2011), p. 432-434. (in English)
- [9] FRANEK, J. - KOLLÁR, M. - MAKOVÍNY, I.: Microwave Electromagnetic Field and Temperature Distribution in a Multilayered Wood-Cement Board. In: Journal of Electrical Engineering. - ISSN 1335-3632. - Vol. 62, No. 1 (2011), p. 25-30. (in English)
- [10] HALLON, J. - HARTÁNSKÝ, R. - KOVÁČ, K. - MARŠALKA, L. - KARAVAEV, Y.: Investigation of Cables Geometry Influence on Measurement Repeatability of Electromagnetic Compatibility Tests. In: Intellekтуалныje sistemy v proizvodstve. - ISSN 1813-7911. - Vol. 18, No. 2 (2011), p. 194-199. (in Russian)
- [11] HALLON, J. - SMIEŠKO, V. - BITTERA, M. - KOVÁČ, K.: Laboratory of Electromagnetic Compatibility FEI STU in Bratislava. In: DPS. - ISSN 1804-4891. - No. 1 (2011), p. 58-59. (in Slovak)
- [12] KAMENSKÝ, M. - KOVÁČ, K.: Correction of ADC Errors by Additive Iterative Method with Dithering. In: Measurement Science Review. - ISSN 1335-8871. - Vol. 11, No. 1 (2011), p. 15-18. (in English)
- [13] KAMENSKÝ, M. - KOVÁČ, K. - KRAMMER, A.: Usage of Additive Iterative Method for Correction of ADC Errors in LSB Region. In: Intellekтуалныje sistemy v proizvodstve. - ISSN 1813-7911. - Vol. 17, No. 1 (2011), p. 256-262. (in English)
- [14] KOPČA, M. - VÁRY, M. - DOSOUDIL, R. - ĎURMAN, V. - LELÁK, J.: Long-Term Stability of Plastic-Ferrite Composites Using Accelerated Thermal Ageing Method. In: Elektrotehnica, Electronica, Automatica. - ISSN 1582-5175. - Vol. 59, No. 3 (2011), p. 7-10. (in English)

- [15] KORENKO, B. - JASENEK, J. - ČERVEŇOVÁ, J. - HLAVÁČ, M.: Optical Fiber Sensors with Distributed Parameters Based on Optical Fiber Reflectometry. In: *Advances in Electrical and Electronic Engineering*. - ISSN 1804-3119. - Vol. 9, No. 1 (2011), p. 48-55. (in English)
- [16] KRUŽELÁK, J. - HUDEC, I. - DOSOUDIL, R.: Elastomeric Composites Filled with Magnetic Hard Fillers. In: *Elastomery*. - ISSN PL 1427-3519. – Vol. 15, No. 1 (2011), p. 9-15. (in English)
- [17] KRUŽELÁK, J. - HUDEC, I. - DOSOUDIL, R.: Elastomeric Materials Filled with Magnetic Hard Fillers. In: *Chemické listy*. - ISSN 0009-2770. - Vol. 105 S (2011), p. 283-285. (in English)
- [18] KRUŽELÁK, J. - HUDEC, I. - UŠÁKOVÁ, M. - DOSOUDIL, R.: Elastomeric Materials with Magnetic Fillers-Curing and Properties. In: *Kautschuk Gummi Kunststoffe*. - ISSN 0948-3276. - Vol. 64, Iss. 1-2 (2011), p. 36-41. (in English)
- [19] KRUŽELÁK, J. - HUDEC, I. - DOSOUDIL, R.: Properties of Elastomeric Composites with Magnetic Fillers. In: *Gumárenské listy*. - ISSN 1212-9704. - Vol. 15, No. 1 (2011), p. 7-14. (in Slovak)
- [20] PÁLENÍK, T. - HARTĀNSKÝ, R. - BITTERA, M. - HALLON, J. - KOVÁČ, K.: Numerical Input Impedance Analysis of Loop Antennas. In: *Electrotehnica, Electronica, Automatica*. - ISSN 1582-5175. - Vol. 59, No. 3 (2011), p. 21-25. (in English)
- [21] PÁLENÍK, T. - BITTERA, M. - SMIEŠKO, V.: Sub-Domain MoM Formulation for Circular and Non-Circular Loop Antenna Arrays. In: *International Journal of Engineering Science and Technology*. - ISSN 0975-5462. - Vol. 3, No. 5 (2011), p. 3686-3692. (in English)
- [22] REKOŠOVÁ, J. - HUDEC, I. - KRUŽELÁK, J. - DOSOUDIL, R.: Composite Materials with Magnetic Fillers and Elastomeric Matrix for Construction of Intelligent Tyres. In: *Chemické listy*. - ISSN 0009-2770. - Vol. 105 S (2011), p. 373-375. (in English)
- [23] SLÁMA, J. - ŠOKA, M. - GRUSKOVÁ, A. - GONZÁLEZ-ANGELES, A. - JANČÁRIK, V.: Hopkinson Effect Study in Spinel and Hexagonal Ferrites. In: *Journal of Electrical Engineering*. - ISSN 1335-3632. - Vol. 62, No. 4 (2011), p. 239-243. (in English)
- [24] SLÁMA, J.: 180 Years Since the Birth J. C. Maxwell. In: *EE časopis pre elektrotechniku a energetiku*. - ISSN 1335-2547. - Vol. 17, No. 6 (2011), p. 20-21. (in Slovak)
- [25] ŠTOFKA, M.: Build an Accurate Bipolar Voltage Reference. In: *EDN*. - ISSN 0012-7515. - Vol. 56, Iss. 9 (2011), p. 42-43. (in English)
- [26] ŠTOFKA, M.: Finely Tune the Hue of Blue-Light Sources. In: *EDN*. - ISSN 0012-7515. - Vol. 56, Iss. 6 (2011), p. 64-65. (in English)
- [27] ŠTOFKA, M.: Positive Edges Trigger Parabolic Timebase Generator. In: *EDN*. - ISSN 0012-7515. - Vol. 56, Iss. 14 (2011), p. 51-52. (in English)
- [28] ŠTOFKA, M.: Protect MOSFETs in Heavy-Duty Inductive Switched-Mode Circuits. In: *EDN*. - ISSN 0012-7515. - Vol. 56, Iss. 3 (2011), p. 44-45. (in English)
- [29] ŠTOFKA, M.: Waveform Generator Minimizes Amplitude Dependency. In: *EDN*. - ISSN 0012-7515. - Vol. 56, Iss. 10 (2011), 52, 54. (in English)

IX. 2 Conference Proceedings

- [1] BILÍK, V. - KRAJČOVIČ, G.: Coaxial 2.45-GHz High Power Impedance Matching Device. In: *Microwave and RF Power Applications: 13th International Conference AMPERE*. Toulouse, France, 5-8 September 2011. - Toulouse: Cepadues, 2011. - ISBN 978-2-85428-978-7. - p. 119-122. (in English)
- [2] BITTERA, M. - SMIEŠKO, V.: Influence of Non-Destructive Shortening of Cables on EMI Measurement. In: *EMD 2011. XXI. International Conference on Electromagnetic Disturbances*: Białystok, Poland, September 28-30, 2011. - Białystok: University of Technology, 2011. - ISBN 978-83-62582-07-5. - p. 29-32. (in English)
- [3] BITTERA, M. - SMIEŠKO, V.: Relation between Receiving Antenna Characteristics and Measuring Distance and its Effect on EMI Measurement. In: *EMD 2011. XXI. International Conference on Electromagnetic Disturbances*: Białystok, Poland, September 28-30, 2011. - Białystok: University of Technology, 2011. - ISBN 978-83-62582-07-5. - p. 33-37. (in English)
- [4] BOJNA, I.: Major Changes Overview of STN-Standards and Legislation on Electrical Engineering in Years 2006-2011. In: *Up-Dating Expert Course. Overview of Most Important Changes in STN and Juridical Regulations in 2006-2011*. - Bratislava: Slovenský elektrotechnický zväz, 2011. - p. 61. (in Slovak)
- [5] BOJNA, I.: Major Changes Overview of STN-Standards in Years 2006-2011. In: *Up-Dating Expert Course. Overview of Most Important Changes in STN and Juridical Regulations in 2006-2011*. - Bratislava: Slovenský elektrotechnický zväz, 2011. - p. 3. (in Slovak)
- [6] BOJNA, I.: Actual Information of Technical Standardization and Legislation in Electrical Engineering Field. In: *34th Conference of Slovak Electrical Engineers*: Bratislava, Slovak Republic, 23.-24.3.2011. - Bratislava: Slovenský elektrotechnický zväz, 2011. - p. 36-45. (in Slovak)

- [7] BOJNA, I.: Actual Information of Technical Standardization in Electrical Engineering Field. In: 35th Conference of Slovak Electrical Engineers: Poprad, Slovak Republic, 9.-10.11.2011. - Bratislava: Slovenský elektrotechnický zväz, 2011. - p. 69-78. (in Slovak)
- [8] BOJNA, I.: Some Useful Tasks and Problems of Electrical Engineering. In: 34th Conference of Slovak Electrical Engineers: Bratislava, Slovak Republic, 23.-24.3.2011. - Bratislava: Slovenský elektrotechnický zväz, 2011. - p. 46-57. (in Slovak)
- [9] BOJNA, I.: Some Useful Tasks and Problems of Electrical Engineering - Second Part. In: 35th Conference of Slovak Electrical Engineers: Poprad, Slovak Republic, 9.-10.11.2011. - Bratislava: Slovenský elektrotechnický zväz, 2011. - p. 79-89. (in Slovak)
- [10] ČIČÁKOVÁ, O. - JANÍK, J. - VESELÝ, M.: Computerized Measurements in Vacuum. In: IN-TECH 2011: International Conference on Innovative Technologies. Bratislava, Slovak Republic, 1.9.-3.9.2011. - Jaroměř: Jan Kudláček, 2011. - ISBN 978-80-904502-6-4. - p. 422-425. (in English)
- [11] DIBALA, M. - RAVAS, R.: Detection of X-Corners in the Image with Chessboard Pattern. In: ŠVOČ 2011: Proceedings of Selected Works. Bratislava, Slovak Republic, 4.5.2011. - Bratislava: FEI STU, 2011. - ISBN 978-80-227-3508-7. - p. 413-419. (in Slovak)
- [12] DOSOUDIL, R. - FRANEK, J. - SLÁMA, J. - UŠÁKOVÁ, M. - GRUSKOVÁ, A.: Electromagnetic Wave Absorption Performances of Metal Alloy/Spinel Ferrite/Polymer Composites. In: SMM 2011: 20th International Conference on Soft Magnetic Materials. Athens, Greece, 19.-22.9.2011. - Athens: X Mpenou Publ. House, 2011. - ISBN 978-960-9534-14-7. - p. 259. (in English)
- [13] FRAŇO, P. - KRAMMER, A.: Digital Voltmeter for Automatized Measurement. In: ŠVOČ 2011: Proceedings of Selected Works. Bratislava, Slovak Republic, 4.5.2011. - Bratislava: FEI STU, 2011. - ISBN 978-80-227-3508-7. - p. 430-434. (in Slovak)
- [14] HAFFNER, O. - RAVAS, R.: Detection of Edges in the Image. In: ŠVOČ 2011: Proceedings of Selected Works. Bratislava, Slovak Republic, 4.5.2011. - Bratislava: FEI STU, 2011. - ISBN 978-80-227-3508-7. - p. 420-424. (in Slovak)
- [15] HAJRO, L. - ČERVEŇOVÁ, J.: Transient Phenomena in Linear Electrical Circuits ? Electronic Lecture. In: ŠVOČ 2011: Proceedings of Selected Works. Bratislava, Slovak Republic, 4.5.2011. - Bratislava: FEI STU, 2011. - ISBN 978-80-227-3508-7. - p. 186-190. (in Slovak)
- [16] HALLON, J. - BITTERA, M. - HARTĀNSKÝ, R. - KOVÁČ, K. - SMIEŠKO, V.: Reproducibility of Long Cable Test-Setup of EMC Measurements. In: Measurement 2011: 8th International Conference on Measurement. Smolenice, Slovak Republic, 27.-30.4.2011. - Bratislava: Slovak Academy of Sciences, 2011. - ISBN 978-80-969-672-4-7. - p. 229-232. (in English)
- [17] HALLON, J. - BITTERA, M. - KOVÁČ, K. - HARTĀNSKÝ, R. - SMIEŠKO, V.: Validity of Long Wire Arrangement of EMC Immunity Test. In: EMD 2011. XXI International Conference on Electromagnetic Disturbances: Bialystok, Poland, September 28-30, 2011. - Bialystok: University of Technology, 2011. - ISBN 978-83-62582-07-5. - p. 83-85. (in English)
- [18] HANAJÍK, M. - RAVAS, R. - SMIEŠKO, V.: Interest Point Detection for Vision Based Mobile Robot Navigation. In: SAMI 2011: 9th IEEE International Symposium on Applied Machine Intelligence and Informatics. January 27-29 2011, Smolenice, Slovak Republic. - IEEE, 2011. - ISBN 978-1-4244-7428-8. - p. 207-211. (in English)
- [19] HARTĀNSKÝ, R. - MIKUŠ, P. - SLÍŽIK, J.: Crosstalk on Short Transmission Line Measurement. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 17, Special Issue: ELOSYS, Trenčín, 11.-14.10.2011, p. 122-124. (in Slovak)
- [20] IGLARČÍK, M. - ČERVEŇOVÁ, J. - KORENKO, B.: Usage of OTDR for Sensoric Applications. In: ŠVOČ 2011: Proceedings of Selected Works. Bratislava, Slovak Republic, 4.5.2011. - Bratislava: FEI STU, 2011. - ISBN 978-80-227-3508-7. - p. 448-452. (in Slovak)
- [21] KAMENSKÝ, M. - KOVÁČ, K. - VÁLKY, G.: Analyses of Quantization Noise Spectrum for Multiresolution Quantization of Harmonic Signal. In: Measurement 2011: 8th International Conference on Measurement. Smolenice, Slovak Republic, 27.-30.4.2011. - Bratislava: Slovak Academy of Sciences, 2011. - ISBN 978-80-969-672-4-7. - p. 42-45. (in English)
- [22] KAMENSKÝ, M. - KOVÁČ, K. - VÁLKY, G.: Improvement of Spectral Properties of Quantization Noise by Multiresolution Quantization. In: IMEKO TC4 International Workshop on ADC Modelling Testing and Data Converter Analysis and Design: Orvieto, Italy, 30 June - 1 July 2011. - Perugia: University of Perugia, 2011. - ISBN 978-88-906201-0-2. - CD-Rom. (in English)
- [23] KOLLÁR, M. - KOVÁČ, K.: Application of Cluster Analysis on Antenna Factor Measurements Data. In: Measurement 2011: 8th International Conference on Measurement. Smolenice, Slovak Republic, 27.-30.4.2011. - Bratislava: Slovak Academy of Sciences, 2011. - ISBN 978-80-969-672-4-7. - p. 84-87. (in English)

- [24] KORENKO, B. - JASENEK, J. - ČERVEŇOVÁ, J.: Optical Fiber Pressure Sensors. In: ELITECH'11: 13th Conference of Doctoral Students Faculty of Electrical Engineering and Information Technology. Bratislava, Slovak Republic, 17 May, 2011. - Bratislava: Nakladateľstvo STU, 2011. - ISBN 978-80-227-3500-1. - p. 1-6. (in English)
- [25] KORENKO, B. - JASENEK, J. - ČERVEŇOVÁ, J.: Smart Optical Fiber Sensors. In: Optical Communications 2010: Prague, Czech Republic, 21.-22.10.2010. - Prague: Action M, 2011. - ISBN 978-80-86742-31-1. - p. 39-42. (in English)
- [26] KRAMMER, A. - HARTĀNSKÝ, R.: Generation of Homogeneous EM Field for EMC Test Purposes. In: Measurement 2011: 8th International Conference on Measurement. Smolenice, Slovak Republic, 27.-30.4.2011. - Bratislava: Slovak Academy of Sciences, 2011. - ISBN 978-80-969-672-4-7. - p. 225-228. (in English)
- [27] KROVINA, A. - KRAMMER, A. - NOVANSKÁ, O.: Calibration of SHT71 Humidity Sensor. In: ŠVOČ 2011: Proceedings of Selected Works. Bratislava, Slovak Republic, 4.5.2011. - Bratislava: FEI STU, 2011. - ISBN 978-80-227-3508-7. - p. 425-429. (in Slovak)
- [28] KUKUČA, P. - KALUŠ, E.: Intelligent Measurement of Electrical Energy Consumption - Smart Metering. In: 34th Conference of Slovak Electrical Engineers: Bratislava, Slovak Republic, 23.-24.3.2011. - Bratislava: Slovenský elektrotechnický zväz, 2011. - p. 70-81. (in Slovak)
- [29] MARŠALKA, L. - HARTĀNSKÝ, R.: Analysis of Possible Short Length Measurement Using Energy Sucking of Electromagnetic Field. In: Measurement 2011: 8th International Conference on Measurement. Smolenice, Slovak Republic, 27.-30.4.2011. - Bratislava: Slovak Academy of Sciences, 2011. - ISBN 978-80-969-672-4-7. - p. 241-244. (in English)
- [30] MARŠALKA, L. - HARTĀNSKÝ, R.: Electromagnetic Method for Distance Measurement on MEMS Structures. In: MM Science Journal. - ISSN 1803-1269. - Special Edition: 20th International Workshop on Robotics in Alpe-Adria-Danube Region (RAAD), October 5-7, 2011, Brno, Czech Republic, October 5-7, 2011. - p. 48--53. (in English)
- [31] MARŠALKA, L. - HARTĀNSKÝ, R.: Numerical Application of Moment Method on Electromagnetic Field Simulation. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 17, Special Issue: ELOSYS, Trenčín, 11.-14.10.2011. - p. 211-216. (in Slovak)
- [32] MÓRIC, J. - KAMENSKÝ, M.: Modern Communication of Measurement Systems. In: ŠVOČ 2011: Proceedings of Selected Works. Bratislava, Slovak Republic, 4.5.2011. - Bratislava: FEI STU, 2011. - ISBN 978-80-227-3508-7. - p. 399-402. (in Slovak)
- [33] PAĽA, J. - BYDŽOVSKÝ, J.: Grain Size Influence on the Barkhausen Noise in Non-Oriented FeSi Steel. In: SMM 2011: 20th International Conference on Soft Magnetic Materials. Athens, Greece, 19.-22.9.2011. - Arhens: X Mpenou Publ. House, 2011. - ISBN 978-960-9534-14-7. - p. 395. (in English)
- [34] PAVLOVIČ, M. - MIGLIERINI, M. - MUSTAFIN, E. - SEIDL, T. - ŠOKA, M. - STRAŠÍK, I.: Magnetic Susceptibility Measurements of Soft-Magnetic Metallic Glasses under Ion Bombardment. In: APCOM 2011. Applied Physics of Condensed Matter: 17th International Conference. Nový Smokovec, Slovak Republic, June 22-24, 2011. - Žilina: University of Žilina, 2011. - ISBN 978-80-554-0386-1. - p. 260-263. (in English)
- [35] PETRUŠ, P. - KRÁLIKOVÁ, E.: LabVIEW Simulation of Resistance Measurement Using V-A Method. In: ŠVOČ 2011: Proceedings of Selected Works. Bratislava, Slovak Republic, 4.5.2011. - Bratislava: FEI STU, 2011. - ISBN 978-80-227-3508-7. - p. 403-406. (in Slovak)
- [36] RAVAS, R. - SYROVÁ, L. - GRMAN, J.: The Iterative Method of Parameters and Centre of Radial Distortion Estimation. In: Measurement 2011: 8th International Conference on Measurement. Smolenice, Slovak Republic, 27.-30.4.2011. - Bratislava: Slovak Academy of Sciences, 2011. - ISBN 978-80-969-672-4-7. - p. 233-236. (in English)
- [37] RAVAS, R. - SYROVÁ, L.: Use of Improved Iterative Correction of Radial Distortion. In: Annals of DAAAM for 2011 & Proceedings: 22nd International DAAAM Symposium "Intelligent Manufacturing & Automation: Power of Knowledge and Creativity. Vienna, Austria, 23-26 October 2011. - Vienna: DAAAM International Vienna, 2011. - ISBN 978-3-901509-83-4. - p. 37-38. (in English)
- [38] SLÁMA, J. - GRUSKOVÁ, A. - ŠOKA, M. - UŠÁKOVÁ, M. - UŠÁK, E.: Effect of Iron Deficiency on Magnetic Properties of NiZn Ferrite. In: SMM 2011: 20th International Conference on Soft Magnetic Materials. Athens, Greece, 19.-22.9.2011. - Arhens: X Mpenou Publ. House, 2011. - ISBN 978-960-9534-14-7. - p. 291. (in English)
- [39] SLÁMA, J. - ŠOKA, M. - GRUSKOVÁ, A. - DOSOUDIL, R. - JANČÁRIK, V.: Magnetic Properties of Selected Substituted Spinel Ferrites. In: SMM 2011: 20th International Conference on Soft Magnetic Materials. Athens, Greece, 19.-22.9.2011. - Arhens: X Mpenou Publ. House, 2011. - ISBN 978-960-9534-14-7. - p. 280. (in English)
- [40] SVETÍK, M. - JASENEK, J.: Polarization Mode Dispersion and Its Measurement. In: ŠVOČ 2011: Proceedings of Selected Works. Bratislava, Slovak Republic, 4.5.2011. - Bratislava: FEI STU, 2011. - ISBN 978-80-227-3508-7. - p. 462-467. (in Slovak)

- [41] ŠOKA, M. - SLÁMA, J. - GRUSKOVÁ, A. - DOSOUDIL, R. - JANČÁRIK, V. - FRANEK, J.: NiZn Ferrite Properties Change by Substitution of Zn with Cu and Co Ions. In: SMM 2011: 20th International Conference on Soft Magnetic Materials. Athens, Greece, 19.-22.9.2011. - Arhens: X Mpenou Publ. House, 2011. - ISBN 978-960-9534-14-7. - p. 293. (in English)
- [42] VÁLKY, G. - LEHOCKI, F. - KOVÁČ, M.: Wireless System for Online Acquisition of ECG Waveforms of Human Heart. In: 2nd AMA-IEEE Medical Technology Conference on Delivering on the Promise of Cost Effective Quality Healthcare. Boston, Massachusetts, 16-18 October 2011. - Piscataway: IEEE, 2011. - CD-ROM. (in English)
- [43] VASIL, E. - KAMENSKÝ, M.: Design of PC Oscilloscope. In: ŠVOČ 2011: Proceedings of Selected Works. Bratislava, Slovak Republic, 4.5.2011. - Bratislava: FEI STU, 2011. - ISBN 978-80-227-3508-7. - p. 395-398. (in Slovak)

IX. 3 Textbooks

- [1] KOPČA, M. - BOJNA, I. - PACKA, J. - VÁRY, M.: Safety of Electrical Appliances. - Bratislava: STU in Bratislava, 2011. - 215 p. - ISBN 978-80-227-3461-5. (in Slovak)

IX. 4 Patents and Standards

- [1] KOLLÁR, M. - BYDŽOVSKÝ, J. - ONDREIČKA, K.: Electropermanent Magnetic Chuck and Electropermanent Magnetic Clamping System: Patent No. 5804. Mediation Date: 4.8.2011.

DEPARTMENT OF LANGUAGES

<http://www.elf.stuba.sk/Katedry/KJAZ/index.htm>



Director of the Department:
PhDr. Ľubica Rovánová, PhD.

Tel: +421-2-602 91 794 / Fax: +421-2-654 20 415
E-mail: lubica.rovanova@stuba.sk

I. STAFF

Senior Lecturers:

PaedDr. Andrea Ambrózová, PhDr. Jarmila Belasová,
PhDr. Gabriela Fojtlová, PhDr. Mária Hujvanová,
Mgr. Jana Matiašovská, Mgr. Daniela Ondroušková,
Mgr. Jana Pätöprstá, PhDr. Ivan Podpera,
PhDr. Ľubica Rovánová, PhD., Mgr. Ľudmila Solenská

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. Pätöprstá, I. Podpera, Ľ. Rovánová

Optional courses for beginners in English

(1st sem., 0-2h) G. Fojtlová, M. Hujvanová,
J. Matiašovská, D. Ondroušková

Other optional courses:

(2nd - 10th sem., 0-2h):

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, J. Matiašovská,

D. Ondroušková, J. Pätöprstá

III. 5 Doctoral Study (PhD.)

English (0-2h) M. Hujvanová, I. Podpera, Ľ. Rovánová

German (0-2h) J. Belasová, Ľ. Solenská

IV. RESEARCH PROJECTS

none

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
- Canadian Bilingual Institute in Bratislava

V. 2 International Cooperation

- Goethe Institut, Krakow, Poland
- Goethe Institut, Nancy, France
- Miklós Zrínyi National Defense University Budapest, Hungary

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)

- ‘English for Students of D level’ - an upper-intermediate level electronic course in Moodle (I. Podpera)
- Conference presentation: ‘Moodle Courses at the Department of Languages of FEI STU in 2011’; International conference ‘Sharable Content Objects’, Brno, 22. –23. 6. 2011 (I. Podpera)
- Conference presentation: ‘E-learning at the Department of Languages of FEI STU’; International conference ‘Interactive Collaborative Learning’, Piešťany, 14. 9. 2011 (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)

VI. THESES

none

VII. OTHER ACTIVITIES

- Teacher-trainer and trainer-trainer for EGP (English for General Purposes) and ESP (English for Specific Purposes) methodology (A. Ambrózová)
- Participation in specific seminars of didactics and methodology as part of lifelong education, Pedagogical Faculty of UK (J. Pätoprstá)
- 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)

VIII. PUBLICATIONS

VIII. 1 Journals

- [1] **PÄTOPRSTÁ, J.:** Distance Education - New System of Education. In: Fórum cudzích jazykov. - ISSN 1337-9321. - Vol. 3, No. 2 (2011), p. 19-25. (in Slovak)
- [2] **PÄTOPRSTÁ, J.:** Why Do People Learn? In: Fórum cudzích jazykov. - ISSN 1337-9321. - Vol. 3, No. 4 (2011), p. 25 - 30. (in Slovak)
- [3] **SOLENSKÁ, L.:** Research Results Evaluation in the Area of Working Strategies for Specific Text. In: Fórum cudzích jazykov. - ISSN 1337-9321. - Vol. 3, No. 4 (2011), p. 31 - 35. (in Slovak)
- [4] **SOLENSKÁ, L.:** Texts in the Process of Foreign Language Teaching. In: Fórum cudzích jazykov. - ISSN 1337-9321. - Vol. 3, No. 2 (2011), p. 26-32. (in Slovak)

VIII. 2 Conference Proceedings

- [1] **PODPERA, I.:** E-Learning at the Department of Languages of FEI STU. In: ICL 2011: 14th International Conference on Interactive Collaborative Learning and 11th International Conference Virtual University. Piešťany, Slovak Republic, September 21-23., 2011. - Piscataway: IEEE, 2011. - ISBN 978-1-4577-1746-8. - CD-Rom. (in English)
- [2] **PODPERA, I.:** Moodle Courses at the Department of Languages of FEI STU in 2011. In: SCO 2011. Proceedings of the 7th Conference on electronic support of teaching.: Brno, 22. -23. 6. 2011. - Brno: Masaryk University, 2011. - ISBN 978-80-210-5528-5. - p. 31-35. (in English)
- [3] ŽIŠKA, M. - KÓŇA, M. - MIKOLÁŠEK, M. - **PODPERA, I.:** Support of Soft Skills for Students of Technical Universities. In: IN-TECH 2011: Proceedings of International Conference on Innovative Technologies. Bratislava, Slovak Republic, 1. 9. -3. 9. 2011. - Jaroměř: Jan Kudláček, 2011. - ISBN 978-80-904502-6-4. - p. 619-621. (in English)

DEPARTMENT OF PHYSICAL EDUCATION

DEPARTMENT OF PHYSICAL EDUCATION

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



Head of Department:
Mgr. Peter Miklovič, PhD.

Tel: +421-2-602 91 850 / Fax: +421-2-654 20 415

E-mail: peter.miklovic@stuba.sk

Deputy Head of Department: PaedDr. Aleš Dunajčík

Department secretary: Mgr. Pavel Lackovič

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.

I. STAFF

Assistant Professors:

Mgr. Zlatica Dariusová, PaedDr. Ľubomír Ďuračka, PhD.,
PaedDr. Aleš Dunajčík, Mgr. Libor Jurkovič, PhD.,
Mgr. Barbora Kociánová, PhD., Mgr. Pavel Lackovič,
PaedDr. Jana Lamošová, PhD., Mgr. Martin Májek,
Mgr. Peter Miklovič, PhD., PaedDr. Vladimír Pajkoš,
Mgr. Alena Suttnerová

II. EQUIPMENT

- Fitness Centre
- Gymnasium
- Small Gymnasium
- Swimming pool
- Regeneration Centre
- Laboratory of Sport Sciences
- Climbing wall

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
Badminton (1st-8th sem., 18hours each sem.)	J. Lamošová
Basketball (1st-8th sem., 18 hours each sem.)	Ľ. Ďuračka
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
Canoeing (1st-8th sem., 18hours each sem.)	P. Lackovič
Condition Gymnastics (1st-8th sem., 18 hours each sem.)	P. Lackovič
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.)	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
Table 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 Muscular Power in Resistance Exercises under Unstable Conditions: Application in Sport and Rehabilitation. (APVV), No. SK-SRB-0023-09 Duration: 2010-11 (completed). (P. Miklovič)
- External on FTVŠ UK in Bratislava. Task-oriented balance
- tests in functional assessment of athletes and individuals with motor control disorders. (VEGA), No 1/0070/11. Duration: 2011-13 (solved). (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 Handball Union, 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 Dil ettantistica EuroSportEvents, Milano, Italy

VI. THESES

VI. 1 Master theses

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

none

VI. 2 PhD. Theses

VII. OTHER ACTIVITIES

- Elementary swimming training for children of FEI STU employees – February
- Basketball College league
- Volleyball College league
- Floorball College league
- Swimming College league
- Futsal College league
- FEI STU Badminton Championship - 18. 3. 11
- FEI STU Table tennis Championship - 18. 3. 11
- FEI STU Floorball Championship - 22. 3. 11
- MIX Volleyball tournament - 24. 3. 11
- Workshop Karate – 25. 3. 11
- FEI STU Streetball Championship – 30. 3. 11
- Joga – the way to the health of body and mind (lecture) - 6. 4. 2011
- STU Swimming Championship (students) – 13. 4. 11
- STU Basketball Championship (students) – 13. 4. 11
- STU Basketball Championship (employees) – 14. 4. 11
- FEI STU Climbing Championship - 20. 4. 11

- Bouldering tournament – 9. 5. 11
- FEI STU Shooting Championship 11. 5. 11
- Self-defence prevention (lecture) – 5. 5. 11
- Elementary swimming training for children of FEI STU employees - May
- Descent of the river Vltava - 14. -17. 7. 2011
- Alpine hiking VELEBIT 2011, Croatia - 21. 8-27. 8. 2011
- Descent of the river Danube, Slovakia- Hungary - 1. -4. 9. 2011
- FESTUM ACADEMIAE - 5. 10. 11
- Basketball Tournament (students vs. employees) – Students´ Day - 16. 11. 11
- Badminton Tournament of employees FEI STU - 16. 11. 11
- Bouldering tournament – 5. 12. 10
- Volleyball Tournament (students vs. employees)– Students´ Day - 24. 11. 11
- FEI STU Floorball Tournament (students vs. employees) - 22. 12. 11
- FEI STU Powerlifting Championship - 1. 12. 11
- FEI STU Indoor Rowing Championship - 1. 12. 11
- St. Nicolaus Basketball Tournament - 8. 12. 11
- Christmas carp - 12. 12. 11
- Christmas Tennis Tournament of employees FEI STU - 16. 12. 11

VIII. MEMBERSHIP IN INSTITUTIONS/ COMMITTEES

VIII. 1, Membership in National Institutions/Committees

- Member of Slovak Rowing national team (P. Lackovič)
- Coach of Slovak Rowing Federation (P. Lackovič)
- Personal coach of best Slovak golf junior player (P. Lackovič)
- Coach in Benickyhockey center (P. Lackovič)
- Member of Slovak Ice Hockey national team (A. Dunajčík)
- Personal trainer - HC Slovan Bratislava, hockey club (A. Dunajčík)
- General secretary of committee Slovak Gojuryu Karatedo Gojukai Association (P. Miklovič)
- Member of Slovak Floorball Representation, (B. Kociánová)
- 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 (Ľ. Ďuračka, J. Lamošová)
- Coach of the volleyball club VKP (M. Májek)

- Members of University sport club VŠK FEI STU, (P. Miklovič, P. Lackovič, B. Kociánová,
- A. Dunajčík, A. Suttnerová, L. Jurkovič, 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] KOCIANOVA, B.: Motor activities games in floorball. in Physical education and sport, 2011, Vol. 21, No. 4, p. 39-40. ISSN 1335-2245 (in Slovak)

IX. 2 Conference Proceedings

- [2] ZEMKOVÁ, E. – MIKLOVIČ, P.: Monitoring of power during non-weight-bearing closed chain exercise. In: 12th International Scientific Conference of Sport Kinetics 2011, Krakow: University School of Physical Education in Krakow, 2011 p. 212. (in English)

IX. 3 Textbooks

- [1] ĎURAČKA, Ľ.: The didactics of basketball and introduction to exercises. – Bratislava STU, 2011, - 77 p. - ISBN 978-80-227-3460-8 (in Slovak)



OFFICE FOR EUROPEAN UNION PROGRAMS

OFFICE FOR EUROPEAN UNION PROGRAMS

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



Director of the Institute:
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 Programs (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 carrying out international mobility programs for STU graduates
- Search for new forms of international collaboration including new project proposal preparation within EU programs 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 programs,
- Coordination of international research, education and other project preparation,
- Communication with National Agencies and National Contact Points for individual EU programs,
- 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.

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.

Technical Staff

II. EQUIPMENT

II. 1 Teaching and Research Laboratories

II. 2 Special Measuring Instruments and Computers

III. TEACHING

III. 1 Undergraduate Study (Bc.)

III. 2 Graduate Study (Ing.)

IV. RESEARCH PROJECTS

IV. 1 National Scientific Projects

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)
- EDIGRA-pro (European Dimension of Technology Education for Slovak Graduates – a New Approach to Mobilities), LdV No.sk/09/LDV/PLM/02-93220798. Duration: 2010 – 2011 (completed). (M. Veselý)
- COSTEL (STU Graduates in European Labour Market), LdV No. 11322 1199. Duration: 2011 - 2012 (being solved). (M. Veselý)

V. COOPERATION

V. 1 Cooperation in Slovakia

- Alcatel Lucent 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
- 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
- NEC Europe, LTD., London, UK
- TNO - Research Institute, Delft, NL
- Katholische 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 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
- Balfor Recruitment, UK
- CEDO, CZ
- Finqal sarl, FR
- Architekturbüro Reinberg ZT GmbH, AT
- JML Consultnants Water Feature Design S. L., ES
- feld72 architekten zt gmbh, AT
- Fachhochschule Vorarlberg GmbH, AT
- MENIS ARQUITECTOS, ES
- Stéphane Beel Architects BVBA, BE
- OFIS arhitekti d. o. o., SI
- HONDELATTE LAPORTE ARCHITECTES, FR
- VIZE Atelier, s. r. o, CZ
- Placementmaker Limited, UK
- Organisation des Architectes Alternatifs, FR

VI. THESES

VI. 1 Master theses

VI. 2 PhD. Theses

VII. OTHER ACTIVITIES

VII. 1 Conferences and Seminars Organized by the Department

Seminar of COSTEL participants to exchange experience, 16. 6. 2011, FEI STU

VIII. MEMBERSHIP IN INSTITUTION/ COMMITTEES

VIII. 1 Membership in National Institution/Committees

- P. Podhradský: Journal of Electrical Engineering, member of Editorial Board
- 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 2011, member of International Program and Reviewers Committees
- P. Podhradský: International Symposium ELMAR 2011,

- 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
- E. Mikóczy: ITU-T - International Telecommunication Union – Telecommunication, Study Group 13 NGN, technical member
- E. Mikóczy: Reuters – Member of expert community
- E. Mikóczy: TRIDENTCOM 2011 - 6th International Conference on Testbeds and Research Infrastructures for the Development of Networks and Communities, Shanghai, China, member of International Program and Reviewers Committees,
- E. Mikóczy: 3rd ngnlab. eu International NGN Workshop, Delft, Nederland, member of International Program Committee,

IX. PUBLICATIONS

IX. 1 Journals

- [1] MIKÓCZY, E., KOTOLIAK, I., van DEVENTER, M. O.: Evolution of the converged NGN service platforms towards Future Networks, in Future Internet Journal, Special Issue "Network vs. Application Based Solutions for NGN", 2011, ISSN 1999-5903 (In English), <http://www.mdpi.com/1999-5903/3/1/67/>

IX. 2 Conference Proceedings

- [1] PODHRADSKÝ, P.: New Multimedia Applications based on IMS NGN Architecture, 18th International Conference on Systems, Signals and Image Processing, IWSSIP 2011, ISBN:978-9956-9966-1-0, 16-18 June 2011, Sarajevo, Bosnia and Herzegovina, Invited Paper,
- [2] MIKÓCZY, E., SCHUMANN, S., PODHRADSKÝ, P., KOSKI, Y., HEINIKANGAS, M.: Hybrid IPTV Service with IMS – Integration of IMS based IPTV with Broadcast and Unicast Mobile TV Service Using DVB-H", 5th International Conference on Next Generation Mobile Applications, Services and Technologies, 14. -16. September 2011, Cardiff, Wales, UK, ISBN: 978-0-7695-4496, S. 76-81 (In English),
- [3] LONDÁK, J., PODHRADSKÝ, P.: Selected security threats in VoIP IMS architecture. In: Proceedings Redžúr 2011: 5th International Workshop on Multimedia and Signal Processing. May 12, 2011, Bratislava, SR, Nakladateľstvo STU, 2011. - ISBN 978-80-227-3506-3. - S. 81-84
- [4] PODHRADSKÝ, P., KADLIC, R., LONDÁK, J., LÁBAJ, O., LEVICKÝ, D.: Enhanced ICT in Virtual Training and m-learnin. In: Proceedings ELMAR-2011: 53rd International Symposium ELMAR-2011, 14-16 September 2011, Zadar, Croatia, 2011. - ISBN 978-953-7044-12-1
- [5] PODHRADSKÝ, P., ROZINAJ, G., MIKÓCZY, E.: HBB-Next FP7 project, Digital Agenda for Europe Mini-Conference, October 2011, Bratislava. Invited presentation
- [6] PODHRADSKÝ, P., TRÚCHLY, P., KADLIC, R., LONDÁK, J., LÁBAJ, O.: Enhanced ICT in Virtual Training and m-learnin. In: LdV MLARG Final Conference, October 2011, Istanbul. Invited presentation
- [7] MIKÓCZY, E.: IPTV/IMS Blended Services and platforms convergence, IMS World Forum 2011, 12-14. April, 2011, Barcelona, Spain
- [8] MIKÓCZY, E.: NGN based IPTV tutorial, 3rd ngnlab. eu International NGN Workshop, November 2011, Delft, Nederland,

IX. 3 Parts of books

- [1] PODHRADSKÝ, P., MIKÓCZY, E., LÁBAJ, O., LONDÁK, J., TRÚCHLY, P., at al: NGN Architectures and NGN Protocols, LdV IntEleCT, Educational publication, 210 pages, Published by ČVUT Praha, ISBN: ISBN:978-80-01-04949-5, September 2011, CD version

IX. 4 Others

- [1] MIKÓCZY, E.: Standardization (active participation on ETSI TISPAN NGN Release 2/3 specifications): Technical contributions related to IPTV, co-author of more than 160 agreed drafts of contributions accepted and involved in 15 ETSI specifications of Release 2/3: WI0005, WI2048, WI2049, WI3127, WI3137, WI7029, WI1059, WI8019, WI2070, WI2074, WI2076, WI 2079, WI3208, WI3204, WI7033.
- [1] MIKÓCZY, E.: Rapportuer for Technical Specification ETSI TISPAN Release 3 work item WI3208: TS 183 064 "NGN integrated IPTV stage 3" and WI6061: TS 186 020 "IMS-based IPTV interoperability test specification" (leading ETSI STF for finalization of WI6061 test cases).

SPECIALIZED CENTRES

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 life-long 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, Nová 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. More than 150 certified tests based on clients' requirements were carried out in 2011.

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 2012

**Authorized contributions from Institutes
and Departments**

Edited by: M. Žiška, Z. Tajbošová

Typeset: M. Žiška, Z. Tajbošová
PRESTIMA, spol. s r. o.

Language consultant: D. Ondroušková, I. Podpera



SLOVENSKÁ TECHNICKÁ
UNIVERZITA V BRATISLAVE
FAKULTA ELEKTROTECHNIKY
A INFORMATIKY