# **DEPARTMENT OF MICROELECTRONICS**

### http://kme.elf.stuba.sk/kme/

**Head of Department** 

 Prof. Ing. Daniel Donoval, DrSc.
 Tel: ++421-2-654 23 486

 e-mail: daniel.donoval@stuba.sk
 Fax: ++421-2-654 23 480

### I. STAFF

Professors prof. Ing. Juraj Breza, PhD., prof. Ing. Otto Csabay, DrSc., visiting professor

of the Technical University in Vienna, prof. Ing. Daniel Donoval, DrSc., prof. Ing. Daniela Ďuračková, PhD., prof. Ing. Jaroslav Kováč, PhD., prof. Ing. Angelika Ottová, DrSc., prof. RNDr. Vladimír Tvarožek, PhD.,

prof. Ing. František Uherek, PhD.

Associate Professors doc. Ing. Ladislav Hulényi, PhD., doc. Ing. Peter Kordoš, DrSc.,

doc. Ing. Róbert Redhammer, PhD., doc. Ing. Viera Stopjaková, PhD., doc. Ing. Lubica Stuchlíková, PhD., doc. Ing. Alexander Šatka, PhD., doc. Ing. Marian Veselý, PhD., doc. Ing. Milan Žiška, PhD., doc. Ing. Ladislav Harmatha, PhD., doc. Ing. Ján Janík, PhD., doc. Ing. Jozef Liday, PhD., doc. Ing. Ivan Hotový, PhD.,

doc. Ing. Rudolf Srnánek, PhD.

Assistant Professors Ing. Milan Kempný, Ing. Fedor Mika, PhD., Ing. Loránt Peternai, PhD.,

Ing. Martin Tomáška, PhD., Ing. Erik Vavrinský, PhD.

Senior Scientists Ing. Magdaléna Kadlečíková, PhD., doc. Ing. Rudolf Kinder, PhD.,

Ing. Juraj Racko, PhD., Ing. Jaroslava Škriniarová, PhD.,

doc. Ing. Bedřich Weber, PhD.

Scientific Workers Ing. Dalibor Búc, PhD., Ing. Ján Jakabovič PhD.,

Ing. Alexander Kromka, PhD., Ing. Ivan Novotný, PhD., RNDr. Vlastimil Řeháček, PhD., Ing. Andrej Vincze, PhD.

Research Workers Ing. Martin Florovič, RNDr. Alena Grmanová, Ing. Ľubomír Jánoš,

Ing. Michal Konfal, Ing. Pavol Kúdela, Ing. Oľga Valentová, Ing. Peter Vogrinčič, Ing. Marian Vojs, Ing. Andrej Vrbický

Technical Staff Božena Harmathová, Jozef Ivan, Jozef Král

PhD. Students Ing. Peter Benko, Ing. Juraj Brenkuš, Ing. Denis Bulejka, Ing. Tibor Daniš,

Ing. Soňa Flickyngerová, Ing. Aleš Chvála, Ing. Tibor Ižák, Ing. Jaroslav Kováč, jr., Ing. Milan Kytka, Ing. Libor Majer, Ing. Pavol Malošek, Ing. Marián Marton, Ing. Vladislav Nagy,

Ing. Peter Pinteš, Ing. Pavol Písečný, Ing. Andrea Reháková, Ing. Peter Valent,

Ing. Radovan Víglaský, Ing. Anna Vojačková

#### II. EQUIPMENT

# **II.1 Teaching and Research Laboratories**

- Laboratory of Thin Films I
- Laboratory of Thin Films II
- Laboratory of Semiconductor Structures
- Laboratory of Optoelectronics
- Laboratory of AES
- Laboratory of SIMS

- Laboratory of SAM and REM
- Laboratory of SEM
- Laboratory of Electronic Devices
- Laboratory of Electrophysical Measurements
- Laboratory of Computer Analysis
- Laboratory of Microelectronic Devices Diagnostics
- Laboratory of Material Electronics
- Laboratory of Electronic Devices
- Laboratory of Semiconductor Structures
- Laboratory of Sensor Systems and Microsystems
- Laboratory of Thin Film Sensors
- Laboratory of Vacuum Technique and Electronics
- Laboratory of Design IO
- Laboratory of Raman Spectroscopy
- Laboratory of Vacuum Technology I
- Laboratory of Vacuum Technology II
- Laboratory of Chemical Processes I
- Laboratory of Chemical Processes II
- Laboratory of Optoelectronic Device Technology
- Laboratory of Deposition Technology
- Laboratory of Plasma Processes
- Laboratory of Microwave Electronics
- Laboratory of Digital Signal Processing
- Laboratory of Optical Measurements
- Laboratory of Sensors and Lock Technique
- Laboratory of Microlithography
- Laboratory of Biochemical Sensors
- Laboratory of CIS
- Laboratory of Digital Circuits
- PC Laboratory for Design IO and Semiconductor Structures
- Laboratory of Laser Technology

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## **II.2 Special Measuring Instruments and Computers**

- Semiconductor profile plotter (Bio-Rad)
- Computer aided system for I-V and C-V measurements and analysis in temperature range from 20 to 400 K, DLTS system 300 W Solar, QDLTS Time Domain Spectrometer
- Sputtering unit Perkin-Elmer Ultek/Randex 2400/8L
- Cathode sputter deposition system Z 550 SM (Leybold-Heraeus)
- Talystep S112 profilometer
- Vacuum system B55.3 Hochvakuum Dresden with magnetron sputtering sources
- Sputter etcher XNE-01 (Secon)
- Auger electron spectrometer (Varian)
- X-ray Photoelectron spectrometer (VG Microtech)
- Raman spectrometer (ISA-Jobin Yvon-Dilor-Horiba)
- Secondary ion mass spectrometer
- Microwave analyzer HP 8408 S
- Scanning electron microscope BS 300 for diagnostics of semiconductor structures (equipped with EBIC and EBIV modes)
- Ultrahigh vacuum scanning electron microscope and Auger microscope BS 350.
- TCAD Process and Device Modelling and Simulation Tools (ISE)
- Symbolic layout software design software CAMELEON
- HSPICE, CADENCE and SYNOPSYS design systems (through ROPRACTICE)

- XILINX and ALTERA development systems (vendors donation)
- Workstations Sun Ultra 10, Sun Sparc, HP712
- Analog Devices and Motorola DSP systems

# III. TEACHING

# III.1 Undergraduate Study (Bc.)

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

Materials for Electronics	(3rd sem., 3-2h)	D. Donoval
Electronics	(3rd sem., 3-2h)	M. Žiška
Electronic Devices and Circuits	(4th sem., 3-2h)	R. Redhammer
Physical Electronics of Solids I	(5th sem., 3-2h)	D. Donoval
Sensorics	(5th sem., 2-2h)	V. Tvarožek
Optoelectronics	(6th sem., 3-2h)	F. Uherek
Physical Electronics of Solids II	(6th sem., 3-1h)	M. Veselý
Technology of IC (TCAD)	(6th sem., 2-2h)	D. Donoval
Digital Circuits	(6th sem., 3-2h)	F. Mika
Integrated Circuit Structures	(7th sem., 3-2h)	O. Csabay, L. Harmatha
Semiconductor Lasers and Photodetectors	(7th sem., 2-2h)	J. Kováč
Methods of Material Analysis	(7th sem., 3-1h)	J. Breza
Basic Processes of Micromechanics	(7th sem., 2-2h)	I. Hotový
Quality Management	(7th sem., 2-2h)	L. Hulényi
Bachelor Project I	(7th sem., 0-4h)	F. Uherek
Computer Aided Circuit Analysis	(8th sem., 3-2h)	M. Tomáška
Laser Technique	(8th sem., 2-2h)	F. Uherek
Programming IC	(8th sem., 2-2h)	J. Jakabovič
IC Design	(8th sem., 2-2h)	D. Ďuračková
Integrated Circuits	(8th sem., 2-3h)	D. Ďuračková
Surface Physics	(8th sem., 2-2h)	M. Veselý
Microsensors	(8th sem., 2-2h)	V. Tvarožek
Bachelor Project II	(8th sem., 0-4h)	F. Uherek
Applied Sensorics	(8th sem., 2-2h)	I. Hotový
Constants Starts (Inc.)		

# III.2 Graduate Study (Ing.)

DSP Circuits (	(1st sem., 2-1h)	A. Satka
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CAE of Electronic Devices	(1st sem., 2-2h)	D. Donoval
Computer Aided Circuit Design	(1st sem., 2-2h)	M. Tomáška
Electronic Measurement and Measurement Devices	(1st sem., 2-2h)	A. Šatka
Optical Communication Systems	(1st sem., 2-2h)	F. Uherek
Applied Optoelectronics and Lasers	(1st sem., 2-2h)	J. Kováč
Spectroscopes for Analysis of Surfaces and Thin Films	(1st sem., 2-1h)	J. Liday
Vacuum Technique for Light Sources	(1st sem., 2-2h)	M. Veselý
Team Project	(1st sem., 0-6h)	D. Donoval
Diploma Project I	(1st sem., 0-6h)	F. Uherek
Scientific Communication	(1st sem., 1-0h)	F. Uherek, D. Donoval J. Breza
Sensor Microsystems	(2nd sem., 2-2h)	V. Tvarožek
Nanoelectronics	(2nd sem., 2-2h)	R. Redhammer
Computer Aided IC Design	(2nd sem., 3-2h)	V. Stopjaková
Microwave Electronics	(2nd sem., 2-2h)	M. Tomáška
Vacuum Physics and Technique	(2nd sem., 2-2h)	M. Veselý
Superconductor Electronics	(2nd sem., 2-1h)	J. Breza
Diagnostics of Integrated Circuits and Systems	(2nd sem., 3-2h)	V. Stopjaková
Analog IC Design	(2nd sem., 2-1h)	D. Ďuračková
Microsystems Technology	(2nd sem., 2-1h)	I. Hotový
Integrated Optoelectronics	(2nd sem., 2-1h)	J. Kováč
Diploma Project II	(2nd sem., 0-4h)	F. Uherek
Diploma Project III	(3rd sem., 0-8h)	F. Uherek

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

Electronic Devices	(3rd sem., 4-2h)	M. Žiška, L. Hulényi
Safety in Electrical Engineering	(4th sem., 1-0h)	M. Kempný
Sensorics	(5th sem., 4-2h)	V. Tvarožek
Optoelectronics	(5th sem., 4-2h)	F. Uherek, J. Kováč
Integrated Circuits	(5th sem., 4-2h)	M.Žiška

#### IV. RESEARCH PROJECTS

- Advanced Low Dimensional Structure Development Based on Compound A<sup>3</sup>B<sup>5</sup>, A<sup>2</sup>B<sup>6</sup> and Organic Semiconductors for Applications in Optoelectronic and Photonic Devices. VEGA 1/3106/06, J. Kováč
- Investigation of Electrophysical and Technological Issues of MIS Structures with Ultrathin Insulator Layers for a New Generation of Unipolar Devices. VEGA 1/3091/06, L. Harmatha
- Thin Film Biochemical Microsensors. VEGA 1/0168/03, V. Tvarožek
- Micromachined Metal Oxide Gas Microsensors. VEGA 1/0170/03, I. Hotový
- Carbon Nanotubes and Their Emission Properties. VEGA 1/2040/05, J. Janík
- Raman Spectroscopy of Catalytically Synthetized Carbon Nanotubes, VEGA 1/03034/06,
   M. Kadlečíková
- Implementation of Neural Networks on a Chip and Their Use by Signal Processing in Bioapplications VEGA 1/2046/05, D. Ďuračková
- Novel Metallization Structures for Ohmic Contacts on p-GaN and Analysis of Their Properties by Spectroscopical Methods. VEGA 1/1054/04, J. Liday
- Design, characterization and simulation of electrophysical properties of power semiconductor structures and devices of submicrometer dimensions, VEGA 1/2041/05, D. Donoval
- Submicron technologies and (nano-) structures of Bipolar-CMOS-DMOS FET for smart power electronic devices and integrated circuits, APVV-20-0554-05, D. Donoval
- Investigation of Physical and Electrical Properties of Nanocrystalline Diamond, VEGA 1/2061/05,M.Veselý
- Innovation of Educational Schedule in Microelectronics Study with an Orientation on Basic Subjects of Undergraduate and Graduate Study with an Emphasis on Progressive Micro-, Opto- and Nanoelectronic Technologies, KEGA 3/4009/06, O. Csabay
- Carbon Llayers for Tooling and Electronic Applications. AV/4/0124/06, R. Redhammer
- Gas Sensing Microsystem Based on GaAs Micromachined Structures. AV/1115/2004,
   I. Hotový
- Development of Methodology and Equipment for Unpenetrated Biomedicine Monitoring and Analysis of Physiological and Psychophysiological Processes. VTP 1013/2003, V. Stopjaková
- Development and Application of Diagnostic Methods to Semiconductor Devices and Integrated Circuits Assessment. AV 4/0022/05, A. Šatka
- Development of High Frequency Characterization Methods for Advanced Electronic Devices. AV/806/2002, M. Tomáška
- Thin Oxide Films for Advanced MOS Structures, APVT 51 017004, Karol Fröhlich, L. Harmatha
- Monolithic Integrated Gas Sensing Microsystem Based on GaAs Microstructures APVT-20-21004, I. Hotovy
- Six-port Reflectometer Integration. AV/4/0017/05, M. Tomaška
- Development of New Superhard Materials Based on Carbon and Nitride Films with Special Emphasis on Diamond and Cubic Bor Nitride, APVT APV-344-Ves-Sk1,(2005-2007), M. Veselý

### V. COOPERATION

# V.1 Cooperation in Slovakia

- 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
- International Laser Centre Bratislava

- Research Institute for Welding, Bratislava
- ON Semiconductor (SEI) Piešťany
- Semikron Vrbové
- Applied Precision, Bratislava
- LOX Technologies, Piešťany
- First Welding Company, Bratislava
- University of Žilina

#### V.2 International Cooperation

- Czech Technical University, Department of Microelectronics, Prague, Czech Republic
- Technical University of Brno, Department of Microelectronics, Czech Republic
- IMEC Leuven, Belgium
- Johannes Kepler Universität 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
- Institute of Semiconductor Physics, National Academy of Sciences, Kiev, Ukraine
- Michigan State University, Lansing, USA
- 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
- On Semiconductor, Rožnov pod Radhoštěm, Czech Republic
- Harlingen Lanškroun, Czech Republic
- Faculty of Microsystem Electronics ans Photonics, Wroclaw University of Technology, Poland
- Institute for Solid State Physics, Technical University Graz, Graz, Austria
- Physikalisches Institut, Universität Würzburg, Germany
- Department of International Cooperation, DLR Cologne, Germany
- RAL Didcot UK, Surrey, Great Britain
- Imperial College, Department of Materials, London, UK
- Instituto per la Microelettronica ed i Microsistemi CNR, Lecce, Italy
- Umweltsensortechnik GmbH, Geschwenda, Germany
- City University of Hong Kong, Hong Kong, China
- Bournemouth University, Bournemouth, UK
- 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

#### V.3 International Scientific Projects

Projects within the 5th and 6th EC Framework program:

- IDEALIST34, IST-2-511355, "Partner Search Support for participants in IST Priority by European network of NCP for IST under the 6th Framework Program. B. Weber
- EPIST, Enhanced Participation in IST Projects Related to e-health, IST-3-015920, B. Weber
- IST WORLD, Knowledge Base for IST Competencies, IST-3-015823, B. Weber
- MINOS-EURONET, IST-3-015704, Micro-Nano-Systems European Network, pursuing the integration of NMS and ACC in ERA, B. Weber

- EPISTEP, Enhanced Participation of SMEs in IST European Technology Platforms, INNOV-5-023295, B. Weber
- Europractice IC Service to Academic Institutions or publicly funded Research Laboratories primarily engaged in University as activities from European Union member States, European countries eligible to participate in FP5 and other countries with close links to Europe. M. Veselý
- ERA Pilot MiNa TSI European Research Area Pilot Action on Micro/Nano Technology System Integration, 6RP/IST-3-015833, D. Donoval

#### Project within ESF:

 NANOSYS - Research and education centre of nanotechnologies for integrated circuits systems applications development. V. Stopjaková

Projects within the Austrian and Slovak Scientific and Educational Co-operation:

- Optimized contacts for blue light emitting diodes. J. Liday
- 49s5 Parylene Thin Film Preparation and Application in Electronic Devices. J. Kováč
- Progressive Materials for Nanotechnology, 49s9. B. Weber

Projects within the bilateral co-operation Slovakia-Czech Republic:

- Materials and components for environment protection MŠMT ČR 1M06031. V. Tvarožek

Projects within the bilateral co-operation Slovakia-Germany:

- Novel Materials, Technologies and Methodologies of Their Assessment for Electronics and Sensorics. J. Liday
- Advanced materials and micro/nano structures for sensoric interfaces. V. Tvarožek
- Novel surface modified thin films for gas microsensors on GaAs. I. Hotový

Project within the bilateral co-operation Slovakia-Poland:

 Advanced Semiconductor Heterostructures and Nanostructures Characterisation and Processing for Optoelectronic Devices. J. Kováč, R. Kinder

Project within the bilateral co-operation Slovakia-Italy:

- Micromachined metal oxide gas microsensors. I. Hotový

Project within the bilateral co-operation Slovakia-Greece:

- Deposition of NiO thin films and optimization of their operation parameters for toxic gas sensing applications. I. Hotový

Project within the bilateral co-operation Slovakia-England:

- NiO-based thin films with Pt surface modification for gas detection. I. Hotový

#### VI. THESES

#### VI.1 Masters Theses

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

- [1] Bartal M.: Diamond-like carbon films modified by mercury for anodic stripping voltammetry (V. Řeháček)
- [2] Bradiak M.: Design of the variable gain amplifier for baseband blocks of wireless receiver (M. Konfal)
- [3] Brenkuš J.: Design of operational amplifier in CMOS technology (Z. Randlisek, V. Stopjaková)
- [4] Búda P.: The design of tunable high order filter for wireless applications. (M. Konfal)

- [5] Bulla M.: Numerical modelling of chosen optical CDMA system parameters (J. Chovan, F. Uherek)
- [6] Cígle L.: Influence of temperature on blood electrical properties (R. Viglaský, V. Tvarožek)
- [7] Daříček M.: Active higher-order lowpass filter design by switched capacitors technique (V. Stopjaková)
- [8] Ďatko S.: The sample surfaces analysis by scanning probe microscopy (J. Kováč, J.Kováč, jr.)
- [9] Donoval M.: Design of current monitors for sensing small currents in CMOS technology (V. Stopjaková).
- [10] Dedík P.: Non-invasive monitoring of the human stress with use of the microelectrodes (E. Vavrinský)
- [11] Ďurina D.: Detectors of outside area in protecting objects (M. Kempný)
- [12] Ehn F.: Measuring laboratory for evaluating passive infrared detectors (M. Kempný)
- [13] Figura D.: Characteristics of oxides prepared by pulse laser deposition (F. Uherek, J. Bruncko)
- [14] Fodor M.: Design of analog to digital converter in CMOS technology (M. Konfal)
- [15] Grega P.: Simulator of neural networks (D. Ďuračková)
- [16] Gron M.: Educational Environment eLearn central (Ľ. Stuchlíková, Ľ. Rovanová)
- [17] Havran J.: Negative refraction in two-dimensional photonic crystals (J. Kováč)
- [18] Hulín M.: Characterization of electrical and optical properties of electroluminescence diodes on organic and inorganic base (L. Peternai, J. Kováč)
- [19] Husár V.: Optical fibers for high speed optical communication systems (F. Uherek, J. Chovan)
- [20] Korecká E.: Diagnostics of semiconductor shaped structures by optical methods (R. Srnánek)
- [21] Karika F.: Discrete wavelength decomposition and its experimental use for identification of defective integrated circuits by means of artificial neural networks (V. Stopjaková, P. Malošek)
- [22] Koleda M.: Study of thermal diffusivity in semiconducting and dielectric layers based on photothermal deflection spectroscopy (M. Držík, F. Uherek)
- [23] Koleda P.: Laser coupling of metal materials (J. Bruncko, F. Uherek)
- [24] Košík T.: 2D-modelling and simulation of electrical properties of lateral DMOS transistor (A. Vrbický, D. Donoval)
- [25] Krchňák J.: Design of microcomputer system for education of microprocessor 8051 (L. Majer)
- [26] Kubánek J.: Measurement of chosen dynamic parameters of semiconductor photodetectors (F.Uherek, J. Chovan)
- [27] Kurucz E.: Analysis of selected electrical properties of vertical trench MOS transistor supported by modelling and simulation (A. Vrbický, D. Donoval)
- [28] Maderič F.: Output units of electronic security systems for object security (M. Kempný)
- [29] Marek P.: Evaluation of electrical properties and energetic endurance of DMOS transistors supported by modeling and simulation (D. Donoval, A. Vrbický)
- [30] Masár M.: Photonic crystals on glass substrate (M. Tomáška)
- [31] Matich K.: Electrical and optical properties of Si delta-doped quantum wells (M. Florovič, J. Kováč)
- [32] Matlák J.: Effect of Kr heavy ions on properties of MOS structure with nitrogen doped silicon substrate (M. Žiška)
- [33] Meliš J.: Design of system for fails detection in public light (J. Španko, D. Ďuračková)
- [34] Mihálik R.: Electronic security system with GSM (M. Kempný)
- [35] Michalíková L.: Raman spectroscopy of carbon nanotubes (M. Kadlečíková, M. Čaplovičová)

- [36] Mikula P.: Application of CCD sensors in electronic secured systems for protection of objects (M. Kempný)
- [37] Podhradská A.:Design of CMOS voltage comparator with integrated hysteresis (V. Stopjaková)
- [38] Podoba J.: Design of 12-bit current steering D/A converter in 0.35 μm CMOS technology (V. Stopjaková)
- [39] Poloha J.: Frequency measuring conductivity of solutions using with potenciostat (V. Tvarožek)
- [40] Pracný P.: The differential amplifier design in BiCMOS technology (M. Višňovec, D. Ďuračková)
- [41] Radobický J.: Animations of the choosen semiconductor structures on the base of silicon like a part of e-Learning (Ľ. Stuchlíková, O. Csabay)
- [42] Raschman E.: Degree course: Microelectronics (M. Tomáška)
- [43] Revús M.: Application of monitoring systems in object security (M. Kempný)
- [44] Šíra D.: Design of the variable gain amplifier for baseband blocks of wireless receiver (Z. Randlísek)
- [45] Šoka M.: Simply probe suitable for microwave nondestructing defectoscopy of surface (M. Kolár)
- [46] Turčan M.: Autonomous communication system in smart tyres (M. Kempný)
- [47] Valkay G.: Electrical properties of MOS structures with thin dielectric layers with high dielectric constant. (P.Valent, L. Harmatha)
- [48] Žobrák P.: Testers for car electronics (F. Mika)

#### VI.2 Doctoral Theses

- [1] Florovič M.: Characterization of electrical and optical properties of delta-doped GaAs layers and quantum wells. (J. Kováč)
- [2] Haško D.: Avalanche photodiode with separated absorption, charge and multiplication layers based on the InGaAs/InP material system. (F. Uherek)
- [3] Písečný P.: Preparation and diagnostics of MIS structures for a new generation of unipolar devices. (L. Harmatha)
- [4] Vincze A.: Molecular beam epitaxial growth and characterisation of GaAs and LT GaAs layers. (J. Kováč)

# VII. OTHER ACTIVITIES

- Contractor of the Leonardo Pilot Project "Microteaching modular teaching and learning offers for contemporary, needed and specific further education", Microteaching (M. Veselý).
- Advisor to Higher Education Section of the Slovak Ministry of Education for International projects (M. Veselý).
- Head of Office for European Union Programs at FEI STU (M. Veselý).
- Coordinator and Contractor of the FP5 Project EUROPRACTICE, (M. Veselý).
- University net for Office for EU Programmes, (M. Veselý).
- Coordinator and Contractor of the Leonardo Student Mobility Project Successful Way through the Training to the EU Market, SUWAM", (M. Veselý).
- Coordinator and Contractor of the Leonardo Student Mobility Project "Slovak University of Technology Students Vocational Training Placements in Europe, SUTSE", (M. Veselý).
- Contractor of the Leonardo Pilot Project "Information and Communication Technologies in Lifelong Learning", ICOTEL (M. Veselý).
- Contractor of the Leonardo Pilot Project "Teaching and Learning in Virtual Learning Environments for Water Management", WALTER (M. Veselý).

- Organizing of the Sixth International Conference on Advanced Semiconductor Devices and Microsystems "ASDAM '06", Smolenice Castle, Slovakia, 16-18 October 2006 (D. Donoval, J. Breza)
- Workshop "From Microelectronics to Nanoelectronics", Bratislava, Slovakia, 22 November 2006, organized by: Department of Microelectronics, Faculty of Electrical Engineering and Information Technology, Slovak University of Technology Bratislava
- Workshop "Perspectives of the Development of micro-, opto- and nano-electronics in Slovak and Czech Republic", 19. 21 Jun 2006, Malá Lučivná, Slovakia, organized by: Department of Microelectronics, Faculty of Electrical Engineering and Information Technology, Slovak University of Technology Bratislava
- Participation to activities of ENIAC Technology Platform, Education and Training Coordination Board and Scientific Community Council Management Board member D. Donoval

### **VIII. PUBLICATIONS**

VIII.1 Journals

VIII.2 Conferences

VIII.3 Parts of books

VIII.4 Textbooks

VIII.5 Patent