DEPARTMENT OF ELECTRICAL, MECHATRONIC AND INDUSTRIAL ENGINEERING

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Head of Department
doc. Ing. Michal Girman, PhD.
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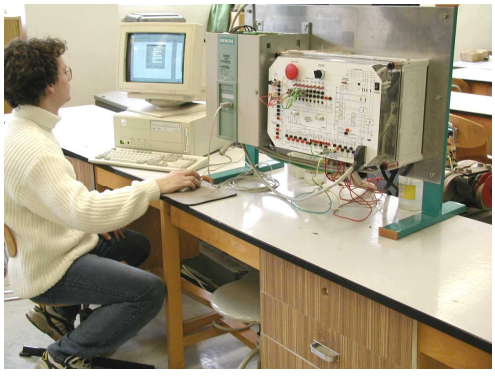
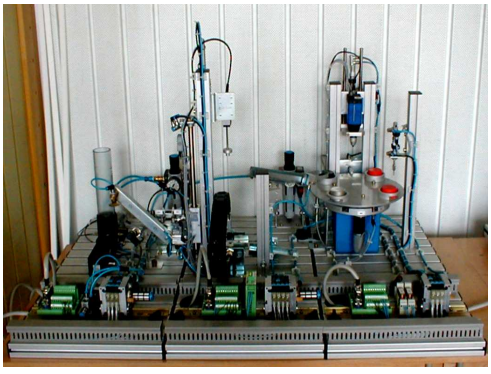
1 DEPARTMENT'S PROFILE

The Department was established from the previous units: from Department of Electrical Drives and Mechatronics and from Laboratory of Industrial Engineering. The both units fused into the Department of Electrical, Mechatronic and Industrial Engineering.

The Department is responsible for education and research in electrical engineering in fields of power and industrial electronics, electrical machines and apparatuses, electromechanical systems, esp. in controlled drives, industrial and automotive mechatronic systems and in the area of effective production planning and control, quality management, and continuous improvement of products and services. The Department offers both types of undergraduate courses (master and bachelor courses) as well as the Ph.D. postgraduate course in Electrical Engineering.





2 STAFF

Professors:
prof. Ing. Jaroslav Timko, PhD.
prof. Ing. Pavol Fedor, PhD.
doc. Ing. Pavel Záskalický, PhD. - extra ordinary professor

Associate Professors:
doc. Ing. Jaroslav Dudrik, PhD.
doc. Ing. Viliam Fedák, PhD.
doc. Ing. Ján Fetyko, PhD.
doc. Ing. Michal Girman, PhD.
doc. Ing. Felicita Chromjaková, PhD.
doc. Ing. Iraida Kolcunová, PhD.
doc. Ing. Michal Kostelný, PhD.
doc. Ing. Peter Kováčik, PhD.
doc. Ing. Irena Kováčová, PhD.
doc. Ing. Daniela Perduková, PhD.

Assistant Professors:
Ing. Peter Bober, PhD.
Ing. František Ďurovský, PhD. .
doc. Ing. Želmíra Ferková, PhD.
Ing. Ján Kaňuch, PhD.
Ing. Mgr. Peter Kmec, PhD.
Ing. Peter Košč, PhD.
Ing. Stanislav Fedor (by 30 April, 2006)
doc. Ing. Jozef Ondera, PhD.
Ing. Jaroslava Žilková, PhD.

Assistants:
Ing. Peter Girovský (since October 1, 2006)
Ing**.** Jana Ferencová (since August 7, 2006)

Senior Scientists:
Ing. Peter Keusch
Peter Hajsák (since September 1, 2006)
doc. Ing. Juraj Oetter, PhD.
Ing. Peter Višnyi, PhD.
prof. Ing. Ladislav Zboray, CSc.

Technical Staff:
Ing. Gabriela Brečková
Katarína Gočová
František Hajsák
Zuzana Olexová
Ing. Vladimír Suchý

Ph.D. Students:
Ing. Ľubomír Cibuľa
Ing. Dominik Fabrici
Ing.Tomáš Hrdina (by July 31, 2006)
Ing. Milan Lacko
Ing. Peter Macko
Ing. Martin Olejár
Ing. Martin Repiščák
Ing. Vladimír Ruščin
Ing. Ladislav Nemec (by September 30, 2006)

3 EQUIPMENT

3.1. Teaching and Research Laboratories

- two laboratories for teaching of subjects on electrical engineering basics
- Power Electronics Laboratory, Applied Electronics Laboratory
- Laboratory for CAD and Robotics (COSMOS, ProEngineer, MATLAB, PSpice, and applied SW)
- Laboratory of Industrial Automation and Mechatronics
- Laboratory of Electrical Machines and Apparatuses
- two specialized laboratories for electrical drives and servosystems based on industrial systems
- Laboratory of Industrial Systems for teaching of subjects Industrial Systems and Automation of Technological Processes.
- Laboratory of Information Technologies for Multimedia Techniques, Java Programming, Information Systems in Industry, Simulation of Production Systems, and Business Process Modelling.

3.2. Special Measuring Instruments and Computers

Control Systems

- Modicon TSX Premium (Schneider Electric) incl. development SW (PL7 Pro V3.1), TELEMECANIQUE (TSX 07).
- OMRON - Sysmac Mini SK20, OMRON - Sysmac CQM 1
- Allen Bradley Programmable controller SLC 200 incl. development SW RS logic 500, Tech. Terminal AB PanelView 550 and converter AB 1305
- Control system Simadyn
- Automat LOGO, Siemens
- SIEMENS - SIMATIC S7-400 with SIMATIC NET CP for Industrial Ethernet, FM-458, SIMATIC S7-300 with PID Control Module and SIVAREX Weight Module, and two SIMATIC ET200M, LOGO controller.

Apparatus

- Logic Analyser PHILIPS
- Controlled drives and converters
- DSP controlled AC drive
- DSP based dSpace DS1102 for Hardware in the Loop
- DOMINOPUTER - teaching kit
- Pneumatic and hydraulic systems FESTO DIDACTIC - teaching kit
- 4-channel digital oscilloscope METIX

Converters

- AC Frequency Converter ABB ACS 600, 5,5 kW,
- AC Frequency Converters SIEMENS: SIMOVERT 6SE21, MicroMaster Junior, SIMOVERT 6SE70 Master drive, 6SE70 Master Drives - Motion Control 2-axes servodrive
- DC thyristor converters SIMOREG 6RA24 a 6RA70 DCMaster (SIEMENS)
- Softstarter (ABB, Siemens)
- Ward-Leonard drive system

Mechatronics systems
- Educational Robot Tech Quipment MA 2000
- Physical model of production line
- Model of liquid reservoir
- Model of caster material reservoirs
- Model of flow rate control
- Model of crane and inverted pendulum
- Modular Production System from FESTO DIDACTIC (full functional distribution, testing, and processing stations controlled by PLC)

Software
- ARIS tool for business process reengineering
- Cognos ReportNet, Impromptu, PowerPlay, Cognos Metrics Manager
- ELCAD for electrical engineering design
- J Builder for Java programming
- Macromedia Director
- Matlab, Simulink, dSpace
- PS-8 project management software,
- PV 4 simulation software
- SIMPLE++ simulation software
- CosmosEMS 3.0
- Pro/Eengineer Wildfire

4 TEACHING

4.1. Undergraduate Study (Bc.)

a) Bc. study programme on Electrical Engineering

Subject	Semester	Lectures/exercises (hours per week)	Name of lecturer
Electrical Engineering Fundamentals	1st	2/2	Ďurovský
Electrical Machines	3rd	3/3	Záskalický
Applied Electronics	3rd	2/2	Kováčová
Electrical Actuators and Drives	4th	3/3	Timko
Electrical Apparatuses	4th	1/2	Záskalický, Ferková
Digital Electronics	4th	2/2	Kováčová
Power Electronics	4th	2/2	Dudrik, Ondera
Microcomputer Techniques	4th	2/2	Perduková
CAD SW in El. Engineering	4th	2/2	Fedák
Automation Equipment I.	5th	3/3	Fedor
Semiconductor Supply Sources and Converters	5th	3/3	Ondera, Dudrik
Semester Project	5th	0/5	supervisor
Electrical Systems in Vehicles	5th	2/2	Dudrik, Ďurovský
Electrical Systems Projecting	5th	0/2	Záskalický, Kaňuch
Electromechanical Systems Dynamics	5th	2/2	Fedák

Electrotechnics in Cars	5th	2/2	Dudrik, Ďurovský
Control Electronics	5th	2/2	Kováčová
Information Systems in Industry	5th	2/2	Girman, Košč
Controlling and Visualisation Systems	6th	3/3	Perduková
Controlled Drives	6th	3/3	Zboray
Industrial Electrical Systems	6th	2/1	Fetyko, Ďurovský
Bakalárska práca	6th	0/4	supervisor

b) Bc. study programme on Informatics and Control Systems in Mechatronics

Subject	Semester	Lectures/exercises (hours per week)	Name of Lecturer
Electrical Engineering Fundamentals	1st	2/2	Ďurovský
Computer Applications	3rd	2/2	Fedor, Perduková
Electrical Machines	3rd	3/3	Záskalický
Microcomputer Techniques	4th	2/2	Perduková
Electrical Actuators and Drives	4th	3/3	Timko
Electrical Apparatuses	4th	1/2	Záskalický, Ferková
Digital Electronics	4th	2/2	Kováčová
Projecting of Electrical Systems	4th	2/2	Fetyko, Ďurovský
CAD in Mechatronics	4th	2/2	Fedák
Automation Equipment I.	5th	2/2	Fedor
Semester Project	5th	0/4	supervisor
Dynamics of Electromechanical Systems	5th	2/2	Fedák
Electrotechnics in Cars	5th	2/2	Dudrik, Ďurovský
Intelligent Control in Mechatronics I.	5th	2/2	Perduková, Žilková
Control and Visualisation Systems	6th	2/2	Perduková
Controlled Drives	6th	3/3	Ďurovský
Bachelor Thesis	6th	0/4	supervisor
Robotics	6th	2/2	Fetyko
Automation Techniques II.	6th	2/2	Fedor
Mechatronic Production Systems	6th	2/2	Fetyko, Ďurovský

c) Bc. study programme on Industrial Engineering

Subject	Semester	Lectures/exercises (hours per week)	Name of lecturer
Information Systems in Industry	3rd	2/2	Girman, Košč
Production Technologies in Electrical Industry	3rd	2/2	Kostelný
Marketing	3rd	2/2	Kováčová
Multimedia Techniques	3rd	2/2	Kováčik
Programming Seminar I.	3rd	0/4	Girman, Keusch
Human Resource Management	4th	2/2	Girman, Košč
Simulation of Production Systems	4th	2/2	Girman, Bober
Automation of Technological Processes	4th	2/2	Kováčik

Subject	Semester	Lectures/exercises (hours per week)	Name of lecturer
Database Systems for CIS	4th	2/2	Fedor
Programming Seminar II.	4th	0/4	Girman, Keusch
Management of Companies	5th	2/2	Kováčik, Kmec
Production Management and Logistics	5th	2/2	Kováčik
Semester Project	5th	0/4	supervisor
Industrial Systems	5th	2/3	Kováčik, Bober
Production Quality	5th	2/2	Girman
Costing and Pricing	6th	2/2	Girman
Economic Analysis and Accounting	6th	2/2	Kováčová
Bachelor Thesis	6th	0/4	supervisor

4.2. Graduate Study (Ing.)

a) Ing. study programme on Electrical Engineering

Subject	Semester	Lectures/exercises (hours per week)	Name of lecturer
Special Electrical Machines	7th	2/2	Záskalický
Models of Dynamic Systems	7th	2/2	Fedák
Power Semiconductor Systems	7th	2/2	Ondera
Electromagnetic Compatibility	8th	3/2	Kováčová
Control Circuits for Power Electronics	8th	3/3	Višnyi
Motion Control	8th	3/3	Fetyko
Semester Project	8th	0/4	supervisor
Projecting of Electrical Machines	8th	2/2	Ferková
Logic and Non-linear Control	8th	2/0	Fedor
Artificial Intelligence Methods in Control	8th	2/2	Žilková
Electrical Apparatuses Construction	8th	2/2	Ferková
Projecting of Electrical Engineering Systems	9th	3/3	Ďurovský
Semiconductor Converters Applications	9th	2/2	Ondera
Signal Processors	9th	2/2	Višnyi
Control of Robots	9th	2/2	Fetyko
Semiconductor Converters Construction	9th	2/2	Ondera
Economic Analysis and Accounting	10th	2/0	Kováčová
Electrotechnics of Intelligent Buildings	10th	2/0	Ďurovský
El. Engineering Production	10th	2/0	Záskalický

b) Ing. study programme on Control of Mechatronic Systems

Subject	Semester	Lectures/exercises (hours per week)	Name of lecturer
Models of Mechatronic Systems	7th	2/2	Fedák
Signal Processing and Transmission	7th	2/2	Fedor
Semester Project	8th	0/4	supervisor

Motion Control	8th	3/3	Fetyko
Artificial Intelligence Methods	8th	3/2	Timko
Logical and Nonlinear Control	8th	3/3	Fedor
Electromechanical Transducers	8th	2/2	Timko
Control of Mechatronic Production Systems	9th	3/3	Fetyko, Ďurovský
Semester Project	9th	0/3	supervisor
Signal Processors	9th	2/2	Fedor, Višnyi
Control of Robots	9th	2/2	Fetyko
Production Management and Logistics	9th	2/2	Girman
Diagnostics and Reliability in Mechatronics	9th	2/2	Fetyko, Ďurovský
Marketing	9th	2/2	Kováčová
Mechatronics Systems Projecting	10th	2/2	Fetyko
Microelectromechanics	10th	2/2	Gmiterko, Ferková
Database systems	10th	2/2	Fedor
Economic Analysis and Accounting	10th	2/2	Kováčová

c) Ing. study programme on Industrial Engineering

Subject	**Semester**	**Lectures/exercises** (hours per week)	**Name of lecturer**
Artificial Intelligence Fundamentals	7th	2/2	Timko, Žilková
Operational Management	7th	2/2	Girman
Financial Management of Companies	7th	2/2	Kováčik
Strategic Management	8th	2/2	Girman
Design of Manufacturing Systems	8th	2/2	Girman
Statistical Process Control	8th	2/2	Kováčik, Kmec
Human Resources Development	8th	2/2	Kováčik, Košč
Certification and Standardization	8th	2/2	Girman
Semester Project	8th	0/5	supervisor
Project Management	9th	2/2	Girman, Kmec
Modelling, Simulation, and Optimization of Processes	9th	2/2	Girman
AI Methods in Control	9th	2/2	Timko, Žilková
Software Quality Engineering	9th	2/2	Girman, Bober
Financial and Economic Analysis	10th	2/2	Kováčik
Fuzzy Systems	10th	2/2	Fedor

4.1. Undergraduate and Graduate Study for Foreign Students (in English)

All subjects listed above are offered in English language for foreign students.

5 RESEARCH PROJECTS

- *Intelligent Mechatronic Systems.* VEGA (Scientific Grant Agency) project No 1/2177/05 (2005 - 2007). Co-ordinator: FETYKO, J.
- *Efficient utilization of renewable energy sources using modern power electronics converters and special electrical machines*. VEGA (Scientific Grant Agency)

project No 1/2178/05 (2005 - 2007). Co-ordinator: DUDRIK, J.

- *EMC of Power Semiconductor Converters.* VEGA (Scientific Grant Agency) project No /0176/03, (01/2003 - 12/2005). Co-ordinator: KOVÁČOVÁ, I.
- *Research of Basic Holonic Manufacturing Systems and their Applicability*. VEGA (Scientific Grant Agency) No. 1/1093/04 (2004-2006), Co-ordinator: GIRMAN, M.

6 CO-OPERATION

6.1. Co-operation in Slovakia

The Department co-operates with many industrial enterprises in Slovakia having joint project at modernising of the electrical drive systems, control and mechatronic applications: US STEEL Košice, SIEMENS, ABB, BSH Drives and Pumps Michalovce, Křižík Prešov, Schneider Electric Slovakia, Spell Procont Prešov, Vonsch Podbrezová, TEKO Košice, ENERGO CONTROL Košice, ZŤS VVU Košice, ŽP Podbrezová, Bukóza Hencovce, Genesis Ltd. Prešov, Embraco Slovakia Ltd. Spišská Nová Ves, Kopex Ltd. Košice, Cogent Ltd. Košice, Regada Ltd. Prešov, Slovak Union for Quality, Innovation and Design Q-IMPULZ, Košice

6.1.1. Visitors to the Department

- RICHTER, A., RYDLO, P., KOPRNICKÝ, J., TU Liberec, Czech Republic, Nov. 20-23, 2006- study visit in framework of the joint bilateral Czech-Slovak project
- KONEČNÁ, E. TU Liberec, Czech Republic, Aug 28-Sept 1, 2006, study visit in framework of the joint bilateral Czech-Slovak project
- MAGHIAR, T., GORDAN, M., LEUCA, T., TRIP, N.D., University oif Oradea, April 26 – May 5, 2006 – a series of lectures for PhD. students from fields of Power Electronics, Modelling and Simluation of Power Semiconductor Converters, Control of Electrical Drives. Cooperation in field of research, teaching, and joint publications.

6.2. International Co-operation

- University of Zagreb, Croatia
- Brno University of Technology, Czech Republic
- Technical University of Liberec, Czech Republic
- VŠB -Technical University of Ostrava, Czech Republic
- West Bohemian University, Pilsen, Czech Republic
- University of Vaasa, Finland
- Institut National Polytechniqe de Lorrain, ENSEM, Nancy, France
- Fachhochschule Ulm, Germany
- National Technical University of Athens, Greece
- University of Technology and Economy, Budapest, Hungary
- University of Miskolc, Hungary
- Delft University of Technology, The Netherlands
- Warsaw University of Technology, Poland
- University of Maribor, Slovenia

6.2.1. Visits of Staff Members to Foreign Institutions

- FERKOVÁ Ž., , KOSTELNÝ M., ZÁSKALICKÝP.: Pilsen, Czech Republic, Jan. 23-27, 2006
- FERKOVÁ Ž., KOSTELNÝ M.: Prague, Czech Republic, Feb. 13-16, 2006
- FEDÁK V.: Brussels, Belgium, Feb. 5-8, 2006
- FERKOVÁ Ž.: Liberec, Czech Republic, May 14-18, 2006
- FEDÁK V.: Romania, May 31 - June 4, 2006
- FERKOVÁ Ž.: Liberec, Czech Republic, June 6, 2006
- ZÁSKALICKÝ P.: Maribor, Slovenia, June 27-30, 2006
- GIRMAN M., TIMKO J. FEDOR ĎUROVSKÝ F., FEDÁK V.: Pilsen Czech Republic, June 12-16, 2006
- KOLCUNOVÁ I.: Russia, July 2-9, 2006
- FERKOVÁ Ž.: Prague, Czech Republic, Sept. 5-6, 2006
- DUDRIK J., FEDÁK V., ZÁSKALICKÝ P.: Portoroz, Slovenia, August 28 - Sept. 2, 2006
- DUDRIK J.: TU Delft, Sept. 10-13, 2006,
- GIRMAN M.: Brno, Zlín, Rožnov p/Radhostěm, Czech Republic, Oct. 11-14, 2006
- FEDÁK V.: Hungary, Sept. 29-30, 2006
- ĎUROVSKÝ F.: Liberec, Czech Republic, Oct. 15-20, 2006
- FEDÁK V.: Warszawa, Poland, Oct. 12-14, 2006
- GIRMAN M.: Pilsen , Czech Republic, Nov. 22-25, 2006
- FERKOVÁ Ž.: Mělník, Czech Republic, Oct. 18-20, 2006
- KAŇUCH J., Brno, Czech Republic, Nov. 12-14, 2006
- MACKO P., OLEJÁR M.: Liberec, Czech Republic, Nov. 12-17, 2006
- BOBER P., KOŠČ P.: Pilsen, Czech Republic, Nov. 22-25, 2006
- FEDÁK V., PERDUKOVÁ D.: Vienna, Austria, Nov. 30 - Dec. 2, 2006
- FEDÁK V., Ukraine, Dec. 9-12, 2006
- FEDÁK V., PERDUKOVÁ D.: Romania, Dec. 17-19, 2006

6.3. Membership in International Organizations, Societies and Committees

- FEDÁK, V.: EPE – European Power Electronics and Drives Association, Brussels: Executive Council member, General Assembly member
- FEDÁK, V., FETYKO, J., TIMKO, J.: Power Electronics and Motion Control Council EPE-PEMC – Budapest: Council members
- KOVÁČIK, P.: The Institute of Electrical and Electronics- Senior Member, American Institute of Aeronautics and Astronautics - Senior Member, European Engineering educator – International society for Engineering Education, Member of the International Astronautical Federation, Member of the International Council of Aeronautical Sciences

Members of the Programme and Steering Committees of the International Conferences

- FEDÁK, V.: Co-Chairman of the EPE-PEMC 2006 (Power Electronics and Motion Control) International Conference, Portorož, 30 Aug. – 1 Sept. 2006

6.4. Membership in Slovak Professional Bodies

- TIMKO, J. (Vice-chairman); FEDÁK, V.; ZBORAY, L.; FEDOR, P. FETYKO J., DUDRIK J. - members of Joint Slovak Board for the Ph.D. Study in Electrical Engineering
- TIMKO, J. (chairman), FETYKO, J., GIRMAN, M., KOVÁČOVÁ, I., FEDOR, P., FEDÁK, V., DUDRIK, J.: members of board for the PhD. Study in Electrical Engineering at FEEI TU Košice
- FERKOVÁ, Ž.: member of Technical Standards Commission on Electrical Machines in SR
- FEDÁK, V.; FETYKO, J.; KAŇUCH, J.; ONDERA, J.; TIMKO, J.; ZÁSKALICKÝ, P.; ZBORAY, L.: members of The SES (Slovak Electrotechnical Society), Branch at FEEI TU Košice
- FEDÁK, V.: Council of the Secondary Technical School for EE, Košice (delegate of the FEEI TU Košice)
- KOVÁČIK, P.: The Slovak Society for Applied Cybernetics and Informatics, SLOVAK TRANSPORT SOCIETY at the Slovak Academy of Sciences, Žilina
- ONDERA, J.: Slovak Electrotechnical Society, Committee member
- GIRMAN, M., BOBER, P., KEUSCH, P.: Editorial board for Journal „Kvalita, Inovácia, Prosperita" (Quality, Innovation, Prosperity), ISSN 1335-1745

6.5. Contracts, International Projects

- Project name: **E-learning Distance Interactive Practical Education** - EDIPE
  EU programme: Leonardo da Vinci
  Project No: CZ/06/B/F/PP-168022,
  Project Duration: 10/2006 - 09/2008
  Contracting Institution: VUT Brno,
  Project co-ordinator for FEEI: FEDÁK, V.
  The objective of the project is to develop a complete set of 18 different interactive design oriented virtual or distance laboratories covering basic fields of applied electrical engineering starting from fundamentals of EE, through electronics, power electronics, applications of power electronics, dynamics of electro-mechanical systems including industrial application of electrical drives, motion control and also complex drive systems. The experiments will be not only analysis oriented (to measure and see the results) but also synthesis oriented (involving a design aspect).
  Project partners: Brno University of Technology (CZ), Technische Universiteit Delft (NL), Technische Universität Wien (A), Ruhr Universität Bochum (D), National Technical University of Athens (EL), Institut National Polytechnique de Lorraine (F), Budapest Muszaki es Gazdasagtudomanyi Egyetem (H), Simulation Research CASPOC (NL), Politechnika Warszawa (PL), Politehnica University Timişoara (RO), FEEI Technical University of Košice (SK), Trenčín University of A. Dubček v Trenčíne (SK), University of Maribor (SI).
  Co-operating institutions: ATAS Náchod (CZ), Brno University of Defence (CZ), Exendis (NL), Ganz Transelektro Electric Co. LtD. (H), APS Energia (PL), NES Nova Dubnica (SK), RMC, s.r.o. (SK), AMET, S.r.l., Torino, (I), Delft Koptech (NL)

- Project name: Learning Enhanced by Virtual Reality - IDENTITY
  EU programme: SOCRATES/MINERVA: ODL and ICT in EDUCATION
  Project No: 229930-CP-1-2006-1-RO-MINERVA-M

Project Duration: 10/2006 - 09/2008.
Contracting Institution: Transylvania University of Brasov, Romania
Project co-ordinator for FEEI: FEDÁK, V.
The overall project objective is to produce a high level quality learning environment in an academic European network ensuring an open access to improved educational resources, as well as to the best practices.
Project partners: Transilvania University of Brasov (RO), Noema-CMI Oy, FINLAND, Technical University of Ilmenau (D), DIBE - University of Genoa (I), Laboratorio delle Idee (I), Universidade Nova de Lisboa (PT), SIEMENS PSE (RO), FEEI, Technical University of Kosice, (SK), The Swedish TelePed. Knowledge Centre (S), EMMERCE EEIG (S)

- In 2006 we continued in cooperation with Budapest University of Technology and Economics Department of Automation and Applied Informatics in the project of bilateral Slovak – Hungarian Science and Technology Co-operation for years 2004 – 2005 in framework of the project named "Analysis of Nonlinear Systems in the Field of Power Electronics".

- In 2006 we continued in cooperation with Dept. of El. Engineering of the Technical university of Liberec, Czech Republic in framework of a joint project based on an intergovernmental agreement between Czech Republic and Slovakia.
  Guarrantee: FERKOVÁ, Ž.
  The working plan in 2006: joint visits at the departments supported by the lecture on topical research. Based on these, a plan of co-operation for collaboration in the next years is under preparation.

- SOCRATES Program: Higher education (ERASMUS), SOCRATES project, partner: University of Applied Sciences, Ulm (Germany), duration: 2003 - 2006, contact: GIRMAN, M., activity: Co-operation within the SOCRATES Program - students and teachers exchange.

- SOCRATES Program: Higher education (ERASMUS), SOCRATES project, partner: University of Vaasa (Finland), duration: 2003 - 2006, contact: ZGODAVOVÁ, K. (BOBER, P.), activity: Co-operation within the SOCRATES Program - students and teachers exchange program.

- SOCRATES Program: Higher education (ERASMUS), SOCRATES project, partner: University of Oradea (Romania), duration: 2006 – 2010 contact: DUDRIK, J., activity: Co-operation within the SOCRATES Program - students and teachers exchange program.

6.6. National Educational Projects

- Basics of Industrial Organization Management - Lifelong e-learning, Contract for Embraco Slovakia, Ltd., Spišská Nová Ves, Slovakia.

- Key Competences Development at PhD. Students for Creating Research Teams, for Research Project Preparation and Management in Mechatronics and Relative Fields. European Social Fund.
  Goal of the project: to prepare 10 PhD. students in order to be able to submit research projects in framework of European Union research programmes and to teach them to all skills to be able to manage such projects and research teams. Project co-ordinator: GIRMAN, M., project manager: FEDÁK, V.

- Virtual Laboratory of Technological Processes Control by Programmable Logic Controllers, 2006-2008, KEGA, No 3/4196/06

7 THESES

7.1. Bachelor Theses

a) Bachelor Theses, study program Electrical Drives, part–time student

1. MÚDRY, J.: Model inteligentnej brány, riadenej programovateľným automatom (Model of an Intelligent Gate Controlled by a Programmable Controller), Supervisor: Fedor, P.

7.2. Masters Theses

a) Master Theses, study program Electrical Drives, full –time students

1. BENÍK M.: Modelovanie vypínacích procesov v ističi nn (Simulation of switching off process of low voltage circuit breaker), Supervisor: Ferková, Ž.
2. CIBUĽA, Ľ.: Priame momentové riadenie asynchrónneho motora (Direct torque control of an induction motor), Supervisor: Žilková, J.
3. HUDÁK, M.: Meničový systém pre obnoviteľné zdroje energie (Converter system for renewable energy sources), Supervisor: Dudrik, J.
4. MANÍK, P.: Možnosti návrhu solárnej nabíjačky malých akumulátorov (Possibilities of design of a solar supply unit to charge the small accumulators), Supervisor: Ondera, J.
5. MIŠANKO, T.: Emulátor záťažového momentu (Mechanical load emulator), Supervisor: Ďurovský, F.
6. PAVLOV, M.: Chladenie 90W/115V meniča pre BLDC motor (Cooling of 90W/115V Converter for BLDC Engine), Supervisor: Ferková, Ž.
7. PETRVALSKÝ, J.: Návrh laboratórnej prúdovej sondy so snímačmi prúdu LEM (Design of a laboratory current probe with LEM current transducers), Supervisor: Ondera, J.
8. RUŠČIN, V.: Elektronická bodová zváračka pre automobily (Electronic spot welder for automobiles), Supervisor: Dudrik, J.
9. SLOVENČÁK, E.: Interaktívny e-vzdelávací modul „Striedavé elektrické stroje – Synchrónne stroje“ (Interactive e-learning module "AC machines-synchronous machines"), Supervisor: Kostelný, M.
10. ŠIMKO, J.: Riadenie fyzikálneho modelu zásobníka sypkých materiálov (Control physical model of loose materials storage), Supervisor: Perduková, D.
11. ŠTOFKA, Š.: Pohon elektrického skútra (Drive of electric scooter), Supervisor: Ďurovský, F.
12. ŠÜTÖ, J.: Polohová regulácia otočného stola (Positional control of rotary table), Supervisor: Ďurovský, F.
13. TÓTH, M.: Vlastnosti automobilových poistiek (Properties of automotive fuses), Supervisor: Ferková, Ž.
14. TUHÁRSKY, M.: Návrh riešenia pohonu trolejbusov striedavými motormi firmy ABB (Design of T-buses drive with alternating current motors of ABB), Supervisor: Perduková, D.

b) Master Theses, study program Industrial Engineering, full –time students

1. ANDRÁŠKO, P.: Vzdelávací portál zameraný na metódy výberu zamestnancov (E-learning Portal specialised on Recruitment Methods), Supervisor: Košč, P.
2. BABJAK, M.: Model plánovania výroby v hutníckej prevádzke (Model of production planning in metallurgy plant), Supervisor: Girman, M.
3. BAČA, I.: Implementácia e-learning technológií v podnikovom vzdelávaní (Implementation of e-Learning technologies in workplace education), Supervisor: Košč, P.
4. BAJAJOVÁ, T.: Rozvoj motivačných a organizačných zručností manažérov (Development of Motivation and Organization Skills of Management), Supervisor: Košč, P.
5. BARTOVÁ, M.: Analýza a zefektívnenie rezervačného systému cestovnej agentúry Slovakia Holiday (Analysis and Information System Improvement of The Travel Agency Slovakia Holiday), Supervisor: Košč, P.
6. BEDNÁROVÁ, S.: Heuristika pre distribúciu tovaru (Heuristics for distribution of goods), Supervisor: Kmec, P.
7. BERGMANN, R.: Analýza pojmových máp pre projekty (Concept Maps analysis for projects), Supervisor: Kmec, P.
8. ČOPÁK, M.: Výkazníctvo pre prípravu rozvrhov (Reporting for making timetable), Supervisor: Bober, P.
9. FECKO, T.: Vizualizácia a riadenie podávacej a testovacej stanice MPS FESTO prostredníctvom programu ControlWeb 2000 a PLC S-300 (Visualisation and controlling of distributing and testing station MPS FESTO with program Control Web 2000 and PLC S-300), Supervisor: Kováč, D.
10. FERENCOVÁ, J.: Programové vybavenie pre projektovanie výrobných liniek (Software equipment for projecting of manufacturing lines), Supervisor: Girman, M.
11. HRUŠČÁK, P.: Vizualizácia a riadenie obrábacej stanice MPS FESTO prostredníctvom programu ControlWeb 2000 a PLC S-400 (Visualisation and control of a tool machine complex MPS FESTO by the software ControlWeb 2000 a PLC S-400), Supervisor: Kováč, D.
12. CHOMOVÁ, J.: Možnosti rozvoja strojárskej firmy (Possibilities of machine engineering company development), Supervisor: Kmec, P.
13. IVAN, D.: Benchmarking Centrum na internete (Benchmarking Centrum on Internet), Supervisor: Bober, P.
14. JAKUBEC, J.: Nástroje Business Intelligence na podporu rozhodovania manažéra (Business Intelligence tools supporting decision f a manager), Supervisor: Košč, P.
15. JURČIŠIN, L.: EBay ako model aukčného obchodovania (eBay as a model of auction business), Supervisor: Kmec, P.
16. JURKO, D.: Marketingová stratégia feminizácie elektrotechnických odborov (The marketing strategy for feminization of electrical and informatics´ specializations), Supervisor: Kováčová, I.
17. JUTKA, P.: Návrh aplikácie metódy Balanced Scorecard vo vybranej stavebnej organizácii (Design of Aplication methods Balanced Scorecard in a chosen construction Company), Supervisor: Zgodavová, K.
18. KALAPÍROVÁ, K.: Neurónová sieť pre modelovanie a prognózu parametrov výrobnej linky (The Neural network for modelling and prediction parameters of manufacturing line), Supervisor: Girman, M.
19. KEĽO, J.: CMS systém pre oblasť rozvoja ľudských zdrojov (CSM System for Human Resources Development), Supervisor: Košč, P.

20. KOČAN, V.: Implementácia CRM systému pre podporu vzťahov so zákazníkmi (CRM system for customer relations support), Supervisor: Košč, P.
21. KOČIŠ, Ľ.: Analýza a modely implementácie elektronického obchodu (Analysis and Implementation Models of e-Commerce), Supervisor: Košč, P.
22. KOKORÁK, P.: Odhad výrobnej kapacity linky (Estimate the manufacturing capacity of the line), Supervisor: Kmec, P.
23. KORBÍNIOVÁ, L.: Vedenie ľudí a rozvoj tímovej práce (Team Leading and Development of Team Work), Supervisor: Košč, P.
24. KOVÁCS, R.: Stratégia firemného rozvoja (The strategy of company development), Supervisor: Kmec, P.
25. KUBAČKOVÁ, J.: Rozvoj komunikačných zručnosti a manažment konfliktov, Supervisor: Košč, P.
26. KUREKOVÁ, M.: Zefektívnenie vzdelávania zamestnancov vo firme CaSM Tisovec (Effective Learning of the CaSM Company Empolyees), Supervisor: Košč, P.
27. LEDLOVÁ, G.: Riadiaci systém pre riadenie poravinárskej linky (Control system of a production ine in food industry), Supervisor: Girman, M.
28. LEŠKOVSKÁ, A.: Model výrobného procesu v stavebnej firme (Modelling of production processes in a civil building company), Supervisor: Girman, M.
29. MIHOK, P.: Metóda FMEA v zlepšovaní procesov (The method FMEA in improvement operations), Supervisor: Kmec, P.
30. MICHALKA, P.: Multiagentový systém pre riadenie výroby (Multiagent system for operation management), Supervisor: Girman, P.
31. OBRINOVÁ, M.: Aplikácia pre hodnotenie projektov Business Intelligence (Application for evaluation of projects Business Intelligence), Supervisor: Bober, P.
32. ORŠUĽÁKOVÁ, J.: Obchod s výpočtovou technikou – prípadová štúdia (Business with information technology), Supervisor: Kmec, P.
33. PČOLINSKÝ, M.: Metodika cvičenia pre štatistické riadenie procesov (Methodology of exercise for Statistical process control), Supervisor: Kmec, P.
34. PIVARNÍK, V.: Zlepšovanie vybraných oblastí v priemyselnej organizácii (Repair planting chosen areas in industrial organization), Supervisor: Bober, P.
35. POLAČOK, J.: Implementácia elektronického obchodovania na Internete (Implementation E-Commerce on Internet), Supervisor: Košč, P.
36. RONĎOŠ, J.: Analýza procesu tvorby študijných programov a jeho podpora informačnými technológiami (Analyse of education program creation and its support by information technology), Supervisor: Bober, P.
37. SITÁŠOVÁ, G.: Informačný systém pre podporu personálneho manažmentu (Information systems supporting personal management), Supervisor: Košč, P.
38. SÝKORA, T.: Program pre automatické testovanie vedomostí (Program for an automatic verification of knowledge), Supervisor: Girman, M.
39. VOHÁR, P.: Analýza tvorby sieťových grafov pre projekty (Analysis of Network Diagrams building for projects), Supervisor: Kmec, P.
40. FIUT, R.: Hodnotenie prínosu simulácie pri zvyšovaní výkonu statorovej linky (Benefit Evaluation of Using Simulation in a Production Line Improvement), Supervisor: Bober, P.

c) Master Theses, study program Industrial Engineering, part–time students

1. BARANOVÁ, born DANCSHÁZIOVÁ, E.: Implementácia postupov kvality pri riadení aktivít vo vzdelávacom systéme (Implementation of qualitative approaches of activities control in educational process). Supervisor: Madarász, L.

2. GÁBOR, F.: Návrh montážnej linky na výrobu telefónneho prístroja (Project of an assembly line for production of telephone device), Supervisor: Girman, M.
3. GUZEJ, M.: Kvalita - integrácia systému kvality do riadenia podnikov (Quality - integration of quality system to the company´s management), Supervisor: Girman, M.
4. KUKURICÁŠOVÁ, M.: Vizualizácia a riadenie jednosmerného pohonu prostredníctvom programu ControlWeb 2000 (Visualization and control of one-way traction by the program Control Web), 2000 Supervisor: Kováč, D.
5. LEŠKO, F.: Model procesov pri projektovaní a realizácii transformátorových staníc (Model of processes at designing and realization of transformer stations), Supervisor: Girman, M.
6. PITUK, M.: Návrh montážnej linky na výrobu rozvodných skríň (Project of assembly line on production of distribution boxes), Supervisor: Girman, M.
7. SZOVÁK, N.: Zvýšenie účinnosti inšpekčného automatizovaného kamerového systému pri detekcii mechanických chýb (Enhancement of effectiveness of a camera inspection system detecting), mechanical defects Supervisor: Bober, P.
8. VESELEŇÁK, S.: Sledovanie kvality dodávky elektriny v distribučnej spoločnosti Východoslovenská energetika a.s. (Monitoring of the Electricity Supply Quality withing the Distribution Company VSE, Inc.), Supervisor: Girman, M.

Note: All theses are in Slovak language.

7.3. Theses to the PhD. Exam.

1. HRDINA, T.: Utilization of Power Electronics Converters in Renewable Energy Sources, April 2006. Supervisor: Dudrik, J.
2. OLEJÁR, M.: Hybrid Bateries, May 2006. Supervisor: Dudrik, J.
3. REPIŠČÁK, M: Control of Multi-mass Drive Systems with Mutual Coupling. June 2006. Supervisor: Fedák V.

7.4. PhD. Theses

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8 OTHER ACTIVITIES

8.1. Symposia, Workshops, Conferences

- *High-Tech Workshop, Herľany 2006* (12-14 May 2006). High-Tech (as the abbreviation of High-Technology) presents an engineering workshop aimed to the informal exchange of ideas of teachers, students, graduates and colleagues from practise in the Educational and Training Centre of Technical University of Košice in Herľany (www.gejzir.sk). Organiser: Perduková D. More information about this activity is to be found in www.tuke.sk/hth.
- STRAPING'05: Seminar and Meeting of Industrial Engineers, May 20 - 22, 2005, Herľany, Slovakia
- Student visit in enterprises (11 –14 April 2005): Transgaz Jablonov n.T., Slovalco Žiar n.Hr., SE Gabčíkovo, EBO Jaslovské Bohunice, Osram Nové Zámky, Neusiedler Ružomberok, Cableway Jasná p.Chopkom, NDS – highway tunnel Branisko (19 students + 2 pedagogical staff). Organiser: Ďurovský F.

8.2. Student Competitions and Rewards

- *"Werner von Siemens Excellence Award for the Master Thesis*". Ing. Ján Kaňuch was awarded by the companies Siemens, s.r.o., Siemens Business Services s.r.o., System Engineering, s.r.o. for the 1st position in category "Doctoral Theses" to his work: Design of Investigation Methodology for EMC Drives with Disc Motor. Supervisor: Kováčová I. More information at www.siemens.sk.

8.3. Project for Industry

Project title: Testing equipments for controlling and setting of the circuit breaker thermal and magnetic releases, APVT-20-P03105,
Done for: SEZ Krompachy, a.s.
Project manager: Dudrik, J.
Co-operating staff: Ďurovský, F., Fedor, P., Ondera, J., Višnyi, P., Fedor, S., Perduková, D., Kaňuch, J., Suchý, V., Hajsák, F.

Project title: Implementation of new technology into the production of Residual current circuit breakers with overcurrent protection, APVV -99-P04705,
Done for: SEZ Krompachy, a.s.
Project manager: Dudrik, J.
Co-operating staff: Ďurovský, F., Fedor, P., Ondera, J., Višnyi, P., Kaňuch, J., Ferková, Ž.

Project title: Research and Development of New Generations Electric linear Drives with High Resolution of Position APVV -99-031205 ,
Done for: EVPÚ Nová Dubnica, a.s.
Project manager: Dudrik, J.
Co-operating staff: Ondera, J., Višnyi, P., Oetter, J., Ferková, Ž.

Project title: Training in Converters and Rectifiers of SIEMENS Production
Done for: U.S. Steel Košice, Cold Roll Mill Division
Project manager: Ďurovský, F.
Co-operating staff: Hutník, E.

Project title: Switching Equipment for Switching and Synchronisation of the Short-Circuit Current
Done for: SEZ Krompachy, a.s.
Project manager: Dudrik, J.
Co-operating staff: Vyšnyi, P.

Project title: Technical State Analysis of Supply for Main Drives of the Hot Roll Mill Finishing Line. Design of Technical Measures for Disturbance Minimize, Connection of the Controllers in the Control System. Study.
Done for: U. S. Steel Košice. Hot Roll Mill Division
Project manager: Ďurovský, F.
Co-operating staff: Fetyko, J.

Project title: Design of Screwless Terminals.
Done for: SEZ Dolný Kubín, a.s.
Project manager: Ferková, Ž.

Co-operating staff: Mantič, M., Laboš, J. (Faculty of Mechanical Engineering)

9 PUBLICATIONS

9.1. Books, theses

1. KOVÁČOVÁ, I. – KOVÁČ, D. – KAŇUCH, J.: "EMC from View of Theory and Application ", (EMC from View of Theory and Application), *BEN, s.r.o. publishing house*, 2006, 220 p., ISBN 80-7300-202-7. (In Czech)
2. FERKOVÁ Ž.: Switched Reluctance Motor – a Principle, Construction and Control. Habilitation thesis, TU Liberec, 2006. (In Slovak)

9.2. Journals

1. DUDRIK, J. – ŠPÁNIK, P. – TRIP, N.-D.: Zero Voltage and Zero Current Switching Full-Bridge DC-DC Converter with Auxiliary Transformer. *IEEE Transactions on Power Electronics*, Vol.21, No.5, September 2006, pp. 1328 – 1335.
2. DUDRIK, J. – DZURKO, P. : Arc Welder with Series-Parallel Resonant DC-DC Converter, *Acta Technica ČSAV*, Vol. 51, (2006), ISSN 0001-7043, pp.415-426.
3. DUDRIK, J. – BAUER, P.: DC Source for Arc Welding with Soft-Switching Current-Mode Controlled DC-DC Converter, *International Review of Electrical Engineering (I.R.E.E.)*, ISSN: 1827- 6600 , Vol.1, n. 1, March-April 2006, pp.162-169.
4. DUDRIK J. – ONDERA, J. – VIŠNYI, P. – RINDOŠ, P: – LENHARDT, P: Contribution to Solving High Performance Amplifiers for Sirens, *International Review of Electrical Engineering (I.R.E.E.)*, ISSN: 1827- 6600, Vol. 1, n. 3, July-August 2006, pp.400-409.
5. DUDRIK J.: Soft-Switching PS-PWM DC-DC Converter for Arc Welding. *Acta Electrotechnica et Informatica*, No.3, Vol.6, 2006, ISSN 1335-8243, pp. 40-43.
6. DZURKO, P. – DUDRIK, J.: Analýza pracovných stavov sériovo-paralelného meniča pracujúceho v nadrezonančnej oblasti (Operation States Analysis of the Series-Parallel Resonant Converter Working Above Resonance Frequency) *Advances in Electrical and Electronic Engineering, (AEEE)*, Žilina, Vol.5, 2006, pp.403-408. (In Slovak)
7. FEDÁK, V. – BAUER P.: E-learning Concept for Electrical Engineering. *Int. Review of Electrical Engineering (IREE)*, ISSN: 1827- 6660, Vol. 1, No 4, Sept.-Oct. 2006, pp. 575-581.
8. FEDOR, P. – PERDUKOVÁ, D.: Fuzzy Modeling and Control of an Injection Moulding Machine Thermal System. *Machine Building and Electrical Engineering. Scientific-Technical Union of Mechanical Engineering*, Bulgaria, Vol. 55/2006, No. 4-5, pp. 71-74, ISSN 0025-455X.
9. FERKOVÁ, Ž. – ZBORAY L.: Contribution to Control of an Elastic Two-mass System by Means of Genetic Algorithm. *AEEE Journal* Žilina 2006, ISSN 1336-1376, accepted for publication.
10. GIRMAN, M. – KOVÁČIK, P. – GÁNOCZI, J.: Použitie zápisu XML pre modelovanie podnikových procesov (Production Process Modelling by XML Script Application). *Kvalita, Inovácia, Prosperita (Quality, Innovation, Prosperity)*. Vol. 10, No. 1 (2006), pp. 26-35, ISSN 1335-1745. (In Slovak)
11. KOŠČ, P.: Implementácia E-learning technológií vo firemnom vzdelávaní (Imlementation of E-learning Technologies in Company Learning). In: *Kvalita, Inovácia, Prosperita (Quality, Innovation, Prosperity)*. Vol. 10, No. 1 (2006), pp. 26-35, ISSN 1335-1745

12. KOŠČ, P. – KOCUR, D.: Institutional Implemetation of e-Learning Technologies at the Technical University of Kosice. In: Study "E-learning? E-learning!", Germany, 2006, Sonderausdruck aus Network Cultural Diversity and New Media; Vol. 8, *trafo verlag*, Berlin, 2006. ISBN 3-89626-630-6.
13. KOVÁČ, D. – KOVÁČOVÁ, I.: "Electric Power Systems – EMC", *Advances in Electrical and Electronic Engineering*, Žilina, 2006, Vol. 5, No. 3, pp. 392-395.
14. KOVÁČOVÁ, I. – KOVÁČ, D.: "Electrical Drive's Inductive Coupling", *Journal of Electrical Engineering and Computer Science – Electrotechnical Review, Slovenija*, No. 1, pp. 25-30, 2006.
15. KOVÁČOVÁ, I. – KOVÁČ, D.: „EMC of DC Electrical Drives – Inductive Coupling", *Acta Technica CSAV*, Vol. 50, No.3, 2006, pp. 269-278.
16. KOVÁČOVÁ, I. – KOVÁČ, D.: „EMC of Electrical Systems – Electromagnetic Coupling (Part I.)", *Advances in Electrical and Computer Engineering*, Romania, Vol. 6, No.1, 2006, pp. 20-26.
17. KOVÁČOVÁ, I. – KOVÁČ, D.: „Electromagnetic Coupling – EMC of Electrical Systems (Part I.)", *International Review of Electrical Engineering*, Italy, Vol. 1, No. 2, 2006, pp. 234-240.
18. KOVÁČOVÁ, I. – KOVÁČ, D.: „Electromagnetic Coupling – EMC of Electrical Systems (Part II.)", *International Review of Electrical Engineering*, Vol. 1, No. 3, 2006, pp. 323-329.
19. KOVÁČOVÁ, I. – KOVÁČ, D.: „Galvanic Coupling – EMC of Electrical Drives (Part I.)", *Journal of Electrical Engineering*, Romania, Vol. 6, No. 2, 2006, pp. 15-23.
20. KOVÁČOVÁ, I. – KOVÁČ, D.: „Capacitive Coupling and Parasitic Capacitances of Converter's – EMC", *Electrical Power Quality and Utilisation*, Poland, Vol. 12., No. 1, 2006, pp. 89-96.
21. KOVÁČ, D. – KOVÁČOVÁ, I.: „Utilization of PC as Digital Voltmeter and Signal Generator", *Transactions of the Universities of Košice*, 2005, No.3, pp. 13-19.
22. KOVÁČ, D. – KOVÁČOVÁ, I.: "Merací systém s rozhraním GSM" (Measuring System with the GSM Interface), *Časopis pre elektrotechniku a energetiku (Journal for Electrical and Power Engineering)*, 2006.(In Slovak.)
23. KOVÁČOVÁ, I. – KOVÁČ, D. – KAŇUCH, J.: "Elektromagnetická kompatibilita elektrických pohonov I. diel", (Electromagnetic Compatibility of Electrical Drives, part 1), *AT&P Journal*, 2006, No.2, pp. 65-66.(In Slovak.)
24. KOVÁČOVÁ, I. – KOVÁČ, D. – KAŇUCH, J.: "Elektromagnetická kompatibilita elektrických pohonov II. diel", (Electromagnetic Compatibility of Electrical Drives, part 2), *AT&P Journal*, 2006, No.3, pp. 62-68.(In Slovak.)
25. KOVÁČOVÁ, I. – KOVÁČ, D. – KAŇUCH, J.: "Elektromagnetická kompatibilita elektrických pohonov III. diel", (Electromagnetic Compatibility of Electrical Drives, part 3), *AT&P Journal*, 2006, No.4, pp. 65-66.(In Slovak.)
26. KOVÁČOVÁ, I. – KOVÁČ, D. – KAŇUCH, J.: "Elektromagnetická kompatibilita elektrických pohonov IV. diel", (Electromagnetic Compatibility of Electrical Drives, part 4), *AT&P Journal*, 2006, No.5, pp. 105-107.(In Slovak.)
27. KOVÁČOVÁ, I. – KOVÁČ, D. – KAŇUCH, J. – GALLOVÁ, Š.: "Elektromagnetická kompatibilita elektrických pohonov V. diel", (Electromagnetic Compatibility of Electrical Drives, part 5), *AT&P Journal*, 2006, No.6, pp. 61-65.(In Slovak.)
28. KOVÁČOVÁ, I. – KOVÁČ, D. – KAŇUCH, J. – GALLOVÁ, Š.: "Elektromagnetická kompatibilita elektrických pohonov VI. diel", (Electromagnetic Compatibility of Electrical Drives, part 6), *AT&P Journal*, 2006, No.7, pp. 85-87.(In Slovak.)

29. KOVÁČOVÁ, I. – KOVÁČ, D. – KAŇUCH, J. – GALLOVÁ, Š.: "Elektromagnetická kompatibilita elektrických pohonov VII. diel", (Electromagnetic Compatibility of Electrical Drives, part 7), *AT&P Journal*, 2006, No.8, pp. 53-54.(In Slovak.)
30. KOVÁČIK P. – KEUSCH P.: Využitie umelej inteligencie a technických príkladov pre výcvik manažérov (Artificial Intelligence Utilisation for Training of Managers). Submitted for publication in the *Bulletin of Slovak Academy of Sciences*.
31. KOVÁČIK P. – KEUSCH P.: Využitie automatizačných systémov pre zvýšenie bezpečnosti v doprave (Utilisation of Automation Systems to Increase Transport Safety). Submitted for publication in the *Bulletin of Slovak Academy of Sciences*.
32. MACKO, P. – FEDOR, P. – PERDUKOVÁ, D.: Simplified Fuzzy Model of an Induction Motor. *International Review of Electrical Engineering IREE*, Praise Worthy Prize, Vol. 1/2006, No.2, pp. 270 – 276, ISSN 1827-6660
33. PERDUKOVÁ, D. – FEDOR, P.: The Method of Input Space Fuzzification for Electrical Drives Fuzzy Modeling. *Acta Technica CSAV*, Vol. 51, 2006, pp. 97-107. ISSN 0001-7043
34. SUDZINA, F. – KMEC, P.: Technologický paradox a hodnotenie prínosov informatizácie (Technological Paradox and Evaluation of Contribution of Informatisation), *Ekonomický časopis (Journal of Economics)*. Vol. 54, č. 3 (2006), pp. 281-293. ISSN 0013-3035.
35. SUDZINA F. – KMEC P.: Spokojnosť manažérov s ERP systémami (Satisfaction of Managers with ERP Systems). *Kvalita Inovácia Prosperita (Quality, Innovation, Prosperity)*. Vol. 10, No. 1 (2006), pp. 42-47, ISSN 1335-1745
36. ZÁSKALICKÝ, P. – ZÁSKALICKÁ, M.: Torque Ripple Calculation of the Two-Phase Permanent Magnet Synchronous Motor Supplied by a Triac Converter; *Acta Polytechnica Hungarica*, No. 2, Vol. 3/2006, pp. 17-26, Budapest, Hungary.
37. ZÁSKALICKÝ, P. – ZÁSKALICKÁ, M.: Torque Ripple Calculation of a DC Series Wound Motor Supplied by a Semi-Controlled Rectifier; *Acta Technica CSAV*, No: 51 (2006), pp.203-211, Prague, Czech Republic.
38. ZÁSKALICKÝ, P.: Nesymetrické štruktúry reluktančných strojov v automatizačných zariadeniach (Non-symmetrical Structures of Reluctance Machines in Automation Equipment); *EE- časopis pre elektrotechniku a energetiku (Journal of Electrical and Power Engineering*), Vol. 12- No. 12/2006, pp. 11-13, Bratislava 2006.
39. ZÁSKALICKÝ,P.: Modelling of a Serial Wound DC Motor Supplied by a Semi-controlled Rectifier; *Advances in Electrical and Electronic Engineering,* No.1-2. Vol.5, 2006, pp. 110-113 , Žilina, 2006.
40. ZÁSKALICKÝ,P. – DUPEJ J.: Dynamic Model of a Universal Motor Supplied by a Triac Converter; *Transaction of Universities of Košice*, No:1/2006, pp. 7-14, Košice, 2006.
41. VOJTKO, J. – KOVÁČOVÁ, I. – MADARÁSZ, L. – KOVÁČ, D.: "Neural Network Linearization of Pressure Force Sensor Transfer Characteristic", *Acta Polytechnica Hungarica*, Vol. 3, No. 2., 2006, pp. 5-15
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