

DEPARTMENT OF ELECTRICAL ENGINEERING AND MECHATRONICS

<http://www.kem.fei.tuke.sk>

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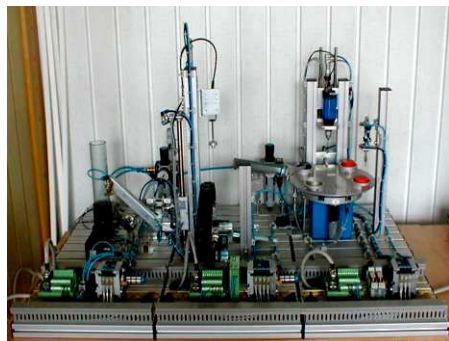
Head of Department
doc. Ing. Michal Girman, PhD.
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1 DEPARTMENT'S PROFILE

The Department was established in 2005 from the previous units at the faculty: from Department of Electrical Drives and Mechatronics (establ.in1969) and from Laboratory of Industrial Engineering. The both units fused into the Department of Electrical, Mechatronic and Industrial Engineering. In 2010 the name was changed to Department of Electrical Engineering and Mechatronics.

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 all types of university courses (bachelor in 2 branches, two master courses and two Ph.D. courses).



2 STAFF

- Professors:** prof. Ing. Jaroslav Dudrik, PhD.
prof. Ing. Pavol Fedor, PhD.
prof. Ing. Irena Kováčová, PhD.
prof. Ing. Jaroslav Timko, CSc. (till June 2011)
prof. Ing. Pavel Záskalický, PhD.
- Associate Professors:** doc. Ing. František Ďurovský, PhD.
doc. Ing. Viliam Fedák, PhD.
doc. Ing. Želmíra Ferková, PhD.
doc. Ing. Michal Girman, PhD.
doc. Ing. Michal Kostelný, CSc.
doc. Ing. Daniela Perduková, PhD.
doc. Ing. Jaroslava Žilková, PhD.
- Assistant Professors:** Ing. Peter Bober, PhD.
Ing. Peter Girovský, PhD.
Ing. Mgr. Peter Kmec, PhD.
Ing. Peter Košč, PhD.
Ing. Ján Kaňuch, PhD.
Ing. Milan Lacko, PhD.
Ing. Peter Višnyi, PhD.
- Assistants:** Ing. Jana Harvanová
- Senior Scientists:** Ing. Peter Keusch
Bc. Peter Hajsák
Ing. Erik Eötvös (till August 2011)
Ing. Karol Kyslan (since December 2011)
- Technical Staff:** Ing. Gabriela Brečková
Zuzana Olexová
František Hajsák
prof. Ing. Jaroslav Timko, CSc. (since July 2011)
- Full time Ph.D. Students:** Ing. František Baník (till August 2011)
Ing. Mišel Batmed
Ing. Tomáš Béreš
Ing. Marcel Bodor
Ing. Matúš Hric
Ing. Godem Ali M. Ismeal
Ing. Michal Kaľavský
Ing. Karol Kyslan
Ing. Peter Nguyen
Ing. Marek Pástor
Ing. Marek Vacek (since September 2011)

3 LABORATORIES

- Laboratories of Electrical Engineering
- Power Electronics Laboratory
- Laboratory for CAD (COSMOS, ProEngineer, MATLAB, PSpice, and applied SW)
- Laboratory of Industrial Automation
- Laboratory of Electrical Machines
- Laboratory of Electrical Drives
- Laboratory of Controlled Electrical Drives and Mechatronics
- Laboratory of Process Modelling and Simulation
- Laboratory of Control Systems and Robotics
- Virtual Laboratory of Technological Processes Control by Programmable Logic. www.virtual.laboratory.kempi.fei.tuke.sk
- Virtual Laboratory of Mechatronic Systems Control: <http://andromeda.fei.tuke.sk>
- Laboratory for Integrated Mechatronic Modules for Adaptive Drives. Joint Laboratory of Department of Electrical Engineering and Mechatronics TU Košice, ZTS VVÚ Košice, a.s. and SPINEA, s.r.o. Prešov.

4 TEACHING

4.1. Undergraduate Study (Bc.)

a) Bc. study programme in Electrical Engineering

Subject	Semester	Lectures/exercises (hours per week)	Lecturer
Electrical Engineering Fundamentals	1 st	2/2	Kaňuch
Industrial Electronics	2 nd	2/2	Kováčová
Electrical Machines	3 rd	2/2	Záskalický
Microprocessor Techniques	3 rd	2/2	Perduková
Electrical Drives and Power Electronics	4 th	2/2	Záskalický
Man-Machine Interfaces	4 th	2/2	Perduková
Semiconductor Supply Sources and Converters	5 th	3/2	Dudrik
Automation in Industrial Systems	5 th	2/2	Fedor
Bachelor Thesis I.	5 th	0/5	Supervisor
Controlled Drives	6 th	2/2	Đurovský
Electrical Systems Projecting	6 th	2/2	Ferková
Bachelor Thesis II.	6 th	0/9	Supervisor

b) Bc. study programme in Automation of Mechatronics Systems

Subject	Semester	Lectures/exercises (hours per week)	Lecturer
Business and Management	1 th	2/0	Kmec
Industrial Electronics	2 nd	2/2	Kováčová
Microcontroller Techniques	3 th	2/2	Perduková
Computer Applications	3 th	2/2	Perduková
Electrical Machines	3 rd	2/2	Záskalický
Electrotechnics in Vehicles	3 th	2/2	Đurovský
Electrical Actuators and Drives	4 th	2/2	Žilková
ManMachine Interface	4 th	2/2	Perduková

CAE Programs	4 th	2/2	Fedák
Bachelor Thesis I.	5 th	0/8	Supervisor
Industrial Control Systems	5 th	2/2	Fedor
Sensors and Measurement of Nonelectrical Variables	5 th	2/2	Fedor
Pneumatic nad Hydraulic Drives	5 th	2/2	Bober
Automotive Mechatronics	5 th	2/2	Žurovský
Power Semiconductor Converters	5 th	2/2	Dudrik
Bachelor Thesis II.	6 th	0/8	Perduková
Motion Control	6 th	2/2	Žurovský
Projecting of Electrical Systems	6 th	2/2	Ferková
Technical Practice	6 th	0/6	Perduková

c) Bc. study programme in Industrial Engineering

Subject	Semester	Lectures/exercises (hours per week)	Lecturer
Business and Management	1 th	2/0	Kmec
Information Systems in Industry	2 nd	2/2	Košč
Industrial Electronics	2 nd	2/2	Kováčová
Electrical Machines	3 rd	2/2	Záskalický
Human Resource Management	3 th	2/2	Košč
Pneumatic and Hydraulics Drives	3 th	2/2	Bober
Microcomputer Techniques	3 th	2/2	Perduková
Electrical Actuators and Drives	4 th	2/2	Žilková
Simulation of Production Systems	4 th	2/2	Bober
Man-Machine Interface	4 th	2/2	Perduková
Automation of Industrial Systems	5 th	2/2	Fedor
Microprocessor Technique	5 th	2/2	Perduková
CAD Suported Management	5 th	2/2	Fedák
Sensors and Measurement of Non-electrical Variables	5 th	2/2	Fedor
Design of Electrical Systems	5 th	2/2	Ferková
Power Semiconductor Converters	5 th	2/2	Dudrik
Controlled Drives	6 th	2/2	Žurovský
Technical Practice in Enterprise	6 th	0/6	Perduková
Bachelor Thesis	6 th	0/4	Supervisor

4.2. Graduate Study (Ing.)

a) Ing. study programme in Electrical Engineering

Subject	Semester	Lectures/exercises (hours per week)	Lecturer
Power Semiconductor Systems	7 th	2/2	Dudrik
Applied Electronics	7 th	2/2	Kováčová
Dynamic Phenomena of Electrical Machines	7 th	2/2	Záskalický
Technology of Production in Electronics	7 th	2/2	Slosarčík
Enterprise Control Management	7 th	2/2	Girman
Control Management	7 th	2/2	Kmec
Electromagnetic Compatibility	8 th	2/2	Kováčová
Electrical Machines for Automatisatation	8 th	2/2	Ferková
Semiconductor Converters Construction	8 th	2/2	Dudrik
Control of Assembly Lines with Programming Controllers	8 th	2/2	Fedor
Statistical Process Control	8 th	2/2	Girman
Semester Project	8 th	0/4	Supervisor

Databases Systems	8 th	2/2	
Control Intelligent Control in El. Systems	9 th	2/2	Žilková
Three-Dimensional Modelling and Simulation	9 th	2/2	Ferková
Signal Processors	9 th	2/2	Višnyí
Electro Energetic			Kolcun
Servosystems	9 th	2/2	Đurovský
Technology of Production in Electrotechnics	9 th	2/2	Girman
Diploma Thesis	9 th	0/12	Supervisor

b) Ing. study programme in Automation of Mechatronic Systems

Subject	Semester	Lectures/exercises (hours per week)	Lecturer
Models of Mechatronic Systems	7 th	2/2	Fedák
Non-linear Mechatronic Systems	7 th	2/2	Fedor
Power Semiconductor Systems	7 th	2/2	Dudrik
Semester Project	8 th	0/4	Fedor
Control of Production Systems by PLC	8 th	2/2	Fedor
Electrical Machines for Automation	8 th	2/2	Ferková
Robotics	8 th	2/2	Žilková
Database Systems	8 th	2/2	Perduková
Diploma Thesis I.	9 th	0/6	Fedor
Production Technologies in Mechatronics	9 th	2/2	Girman
Servosystems	9 th	2/2	Đurovský
Project Control	9 th	2/2	Girman
Intelligent Control of El. Systems	9 th	2/2	Žilková
Mechatronic Production Systems	9 th	2/2	Đurovský
Diploma Thesis II.	10 th	0/18	Supervisor

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

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

4.4. Ph.D Postgraduate Course on Electrical Engineering

Subject	Semester	Lectures/exercises (hours per week)	Lecturer
Power Converter Systems	1 st	2/0	Dudrik
Ph.D. Project I	1 st	0/2	Supervisor
Foreign Language I	1 st	2/0	Dept. of Foreign Languages
Servosystems	2 nd	2/0	Fedor
Ph.D. Project II	2 nd	0/2	Supervisor
Foreign Language II	2 nd	2/0	Dept. of Foreign Languages
Ph.D. Project III	3 rd	0/4	Supervisor
Subject of Specialization	3 rd	2/0	According to the subject
Scientific Activity	3 rd	0/8	Supervisor
Ph.D. Project IV	4 th	0/2	Supervisor
Scientific Activity	4 th	0/8	Supervisor
Ph.D. Project IV	5 th	0/2	Supervisor
Scientific Activity	5 th	0/8	Supervisor
Ph.D. Thesis	5 th	0/9	Supervisor

4.5. Ph.D Postgraduate Course on Mechatronic Systems

Subject	Semester	Lectures/exercises (hours per week)	Lecturer
Theory of Mechatronic Systems	1 st	2/0	Fedor
Ph.D. Project I	1 st	0/2	Supervisor
Foreign Language I	1 st	2/0	Dept. of Foreign Languages
Servosystems	2 nd	2/0	Fedor
Ph.D. Project II	2 nd	0/2	Supervisor
Foreign Language II	2 nd	2/0	Dept. of Foreign Languages
Ph.D. Project III	3 rd	0/4	Supervisor
Subject of Specialization	3 rd	2/0	According to the subject
Scientific Activity	3 rd	0/8	Supervisor
Ph.D. Project IV	4 th	0/2	Supervisor
Scientific Activity	4 th	0/8	Supervisor
Ph.D. Project IV	5 th	0/2	Supervisor
Scientific Activity	5 th	0/8	Supervisor
Ph.D. Thesis	5 th	0/9	Supervisor

5 RESEARCH PROJECTS

- *Research of power semiconductor converters with high efficiency of electric energy conversion.* APVV - 0185-10 (Slovak Research and Development Agency), 2011-2014. Principal investigator: DUDRIK, J.
- *Research of power semiconductor converters for industrial and electric utility applications.* VEGA (Scientific Grant Agency) Project No 1/0099/09 (2009-2011. Co-ordinator: DUDRIK, J.
- *Centre of excellence of power electronics systems and materials for their components.* Code ITMS: 26220120003, (06/2009 - 05/2011) The project is funded by European Community, ERDF – European regional development fund. Project contractor: University of Žilina, co-operation FEI TU Košice. Co-ordinator: DUDRIK, J.
- *Low power static supply development for electrical systems.* Structural Funds Projects of the EU. SF EU (2010-2011), ITMS 26220220029, Project co-ordinator: FEDOR, P.
- *Centre of excellence of power electronics systems and materials for their components II.* Code ITMS: ITMS: 26220120046, (9/2010 - 8/2013) The project is funded by European Community, ERDF – European regional development fund. Project contractor: University of Žilina, co-operation FEI TU Košice. Co-ordinator: DUDRIK, J.
- *Centre of excellence on integrated research and application of progressive materials and technologies in automotive electronics.* ITMS 26220120055. The project is funded by European Community.
- *Applying artificial intelligence methods to industrial systems controlling..* VEGA (Scientific Grant Agency) Project No 1/0006/10 (2010-2011. Co-ordinator: TIMKO, J.
- *Research and development of a small power drives with two-phase motors,* APVV-0138-10, 2011-2014, Coordinator: Záskalický, P.

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: U.S.STEEL Košice, SIEMENS, ABB, BSH Drives and Pumps Michalovce, BWG Prešov, Křížík Prešov, Schneider Electric Slovakia, Spell Procont Prešov, Spinea Prešov, Vonsch Brezno, Kybernetika Košice, TEKO Košice, ENERGO CONTROL Košice, ZŤS VVU Košice, ŽP Podbrezová, Bukóza Hencovce, Genesis Prešov, Embraco Slovakia Spišská Nová Ves, Kopex Košice, Slovak Union for Quality, Innovation and Design Q-IMPULZ, Košice, SEZ Krompachy, DATAKON Košice.

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 Technology and Economy, Budapest, Hungary
- University of Miskolc, Hungary
- Delft University of Technology, The Netherlands
- Warsaw University of Technology, Poland
- Czech Academy of Science, Prague.
- Silesian Polytechnic Institute of Gliwice
- Transilvania University of Brasov, Romania
- University of Oradea, Romania
- University of Maribor, Slovenia
- INPL-ENSEM Nancy, France

6.2.1. Visits of Staff Members to Foreign Institutions

- ĎUROVSKÝ, F.; HRIC, M.; KYSLAN, K.: Siemens Vienna (A), 25 Oct. 2011
- FEDÁK V.: microCAD 2011, Miskolc (HU),
- FERKOVÁ, Ž.: Tech Soft Praha, 19-21 Oct. 2011.
- FERKOVÁ, Ž.: VUT Brno, KOPES 2011, 31.1.-2.2.2011
- ZÁSKALICKÝ, P.; KAŇUCH, J.; FERKOVÁ, Ž.: West Pomeranian University of Technology, Szczecin (PL), 19-23 June 2011
- KAŇUCH, J.: VŠB-TU Ostrava (CZ), 7-9 Sept. 2011
- ZÁSKALICKÝ, P.; KAŇUCH, J.; FERKOVÁ, Ž.: VUT Brno (CZ), 7-8 Nov. 2011

6.3. Membership in International Organizations, Societies and Committees

- DUDRIK, J. – IEEE member
- DUDRIK, J., FEDÁK, V., TIMKO, J.: Power Electronics and Motion Control Council EPE-PEMC – Budapest. Council members.
- FEDÁK, V.: EPE – European Power Electronics and Drives Association, Brussels. EC member, General Assembly member, ISC
- FERKOVÁ, Ž.: member of Steering Committee ISEM (INTERNATIONAL SYMPOSIUM ON ELECTRIC MACHINERY) ČVUT Praha.
- FEDÁK, V.: EDPE 2011, The High Tatras, Co-chairman

6.4. Membership in Slovak Professional Bodies

- FEDÁK, V.; KAŇUCH, J.; TIMKO, J.; ZÁSKALICKÝ, P.: members of The SES (Slovak Electrotechnical Society), Branch at FEI TU Košice
- FEDÁK, V.: Council of the Secondary Technical School for EE, Košice (delegate of the FEI TU Košice)
- FEDOR, P.: member of board for the PhD. Study in Mechatronic systems at FEI TU Košice
- FERKOVÁ, Ž.: member of Technical Standards Commission on Electrical Machines in SR
- PERDUKOVÁ, D.: member of board for the PhD. Study in Electrical Engineering at FEI TU Košice
- PERDUKOVÁ, D.: member of board for the PhD. Study in Mechatronic systems at FEI TU Košice
- TIMKO, J. (Vice-chairman); FEDÁK, V.; FEDOR, P. DUDRIK J. - members of Joint Slovak Board for the Ph.D. Study in Electrical Engineering
- TIMKO, J. (chairman), GIRMAN, M., KOVÁČOVÁ, I., FEDOR, P., FEDÁK, V., DUDRIK, J.: members of board for the PhD. Study in Electrical Engineering at FEI TU Košice
- TIMKO, J.: member of board for the PhD. Study in Electrical Engineering at EF ZU Žilina
- TIMKO, J.: member of board for the PhD. Study in Mechatronics at SjF TU Košice
- ZÁSKALICKÝ, P.: member of board for the PhD. Study in Electrical Engineering at EF ZU Žilina
- ZÁSKALICKÝ, P.: member of board for the PhD. Study in Electrical Engineering at FEI TU Košice
- ZÁSKALICKÝ, P.: member of board for the PhD. Study in Mechatronic systems at FEI TU Košice

6.5. National Educational Projects

- Students' Skills Development for Mechatronic Systems Control. KEGA 103-039TUKE-4/2010. Project co-ordinator: ĎUROVSKÝ, F.
- New technologies in education of subjects in the field of electrotechnical and mechatronic systems control. KEGA 006-005TUKE-4/2010. Project co-ordinator: PERDUKOVÁ, D.

6.6. Editorial Boards

- BOBER, P. Editorial board for journal „Kvalita, Inovácia, Prosperita“ (Quality, Innovation, Prosperity), ISSN 1335-1745.
- DUDRIK, J. – Member of the Series Editorial Board of Annals of the Academy of Romanian Scientists.
- PERDUKOVÁ, D.: Editorial board of Elektroenergetika journal, ISSN 1337-6756.
- ZÁSKALICKÝ, P.: Editorial board of Acta Technica CSAV. Journal of Academy of Science of the Czech republic, Praha. ISSN 0001-7043.
- ZÁSKALICKÝ, P.: Editorial board of KOMEL, Branzowy osrodek badawczo-rozwojowy Maszyn elektrycznych, Katowice, Poland. ISSN 0239-3646.

7. THESES Defened Ph.D. Theses

- BANÍK, František: Intelligent navigation of autonomous vehicles in space. Supervisor: Perduková, D.

Thesis type	Bachelor	Master	Doctoral
Number	45	87	1

8 OTHER ACTIVITIES

8.1. Symposia, Workshops, Conferences

- The 17th Int. Conference on Electrical Drives and Power Electronics, EDPE 2011 (and simultaneously the 5rd Joint Slovak-Croatian Conference), was held in the Hotel Academia, Stará Lesná, The High Tatras, on Sept. 28 – 30, 2011. 65 papers were presented there by participants from 11 countries in 4 keynote, 6 technical and 2 dialogue sessions. The keynote lecturers Prof. Helmut Weiss, Montanuniversity of Leoben (A), Prof. Ivo Doležal Ivo, Czech Technical University in Prague (CZ), Prof. Miro Milanovič, University of Malibor (SL), Prof. Zdeněk Peroutka, University of West Bohemia in Pilsen (CZ). 15 papers were presented from our insitution. The details and papers are available at the conference web site www.edpe.sk, menu: EDPE CD-ROM ARCHIVE.

8.2. Projects for Industry

- Test bench for precise actuators. For ZTS VVÚ Košice. P/104/0002/11, Co-ordinator: ĎUROVSKÝ, F.

8.3. Student Competitions and Rewards

- BODOR Marcel: Rector award for the best doctoral paper in framework of „Week of science in Slovakia 2011“.
- BODOR Marcel: Dean award for the best paper at the 11th Scientific Conference of Young Researchers of Faculty of Electrical Engineering and Informatics Technical University of Košice (SCYR 2011).
- PÁSTOR Marek: Award for the best poster at the 11th Scientific Conference of Young Researchers of Faculty of Electrical Engineering and Informatics Technical University of Košice (SCYR 2011).
- BATMEND Mišél: Dean Award of poster presentation at 11th Scientific Conference of Young Researchers of Faculty of Electrical Engineering and Informatics Technical University of Košice (SCYR 2011).
- BANÍK František: SES Branch Award of oral presentation of the paper at 11th Scientific Conference of Young Researchers of Faculty of Electrical Engineering and Informatics Technical University of Košice (SCYR 2011).
- TANKO Viktor: Schneider-Electric award: The best Bachelor/Master Theses, First price. 2011.
- BAČIK Ján: Robot Challenge 2011, Vienna, 3rd place in Free Style category.
- Bosch Electromobil Race 2011. Miskolc, participation of 3 teams.

8.4. Compositions for Dissertation Examinations

- HRIC, Matúš: Control of servodrives with high precision demands. Supervisor: Fedák, V.
- KÁĽAVSKÝ, Michal: Using of potential fields for moving of electrical car in space. Supervisor: Ferková, Ž.
- KYSLAN, Karol: Load Torque Emulator. Supervisor: Ďurovský, F.
- NGUYEN, Peter: Sensorless control of electrical drives. Supervisor: Žilková, J.
- PÁSTOR, Marek: Cascade inverter for fotovoltaic systems. Supervisor: Dudrik, J.

9 PUBLICATIONS

9.1. Books

- [1] PERDUKOVÁ, Daniela - FEDOR, Pavol: Vybrané univerzálne metódy riadenia nelineárnych mechatronických systémov. 1. vyd. Košice, TU-2011. 146 p. ISBN 978-80-553-0649-0.
- [2] KOŠČ, Peter: Implementácia e-learningových technológií vo vzdelávacej inštitúcii. Košice: TU-2011. 82 s. ISBN 978-80-553-0782-4.

9.2. Textbooks

- [1] ŠIMKO, Vojtech - KOVÁČOVÁ, Irena: Elektronika: časť Elektrotechnika vybrané kapitoly.1.vyd. Košice: VŠBM. 2011. 82 p.ISBN 978-80-89282-50-0.
- [2] KOVÁČOVÁ, Irena - KOVÁČ, Dobroslav: Priemyselná elektrotechnika: 1.časť: Modelovanie meničov. Košice. TU. 2011. 65 p. ISBN 978-80-553-0617-9.
- [3] KOVÁČOVÁ, Irena - KOVÁČ, Dobroslav: Priemyselná elektrotechnika: 2.časť. Modelovanie meničov. Košice. TU. 2011. 66 p.ISBN 978-80-553-0618-6.
- [4] KOVÁČ, Dobroslav - KOVÁČOVÁ, Irena: Automatizované systémy merania. Košice. TU. 2011. 78 p.ISBN 978-80-553-0616-2.
- [5] KOŠČ, Peter - ANDREJKO, Anton: Systém riadenia výučby ULERN 2.0. Košice. TU. 2011. 112 p.ISBN 978-80-553-0780-0.

9.3. Scientific Journals

Foreign Journals

- [1] KMEC, Peter: Temporal hierarchy in enterprise risk identification. 2011. In: Management Decision. Vol. 49, no. 9 (2011), pp.1489-1509. ISSN 0025-1747.
- [2] KAŇUCH, Ján - FERKOVÁ, Želmíra: Disk stepper motor with permanent magnets. 2011. In: KOMEL-Maszyny Elektryczne: Zeszyty Problemowe. No. 93 (2011), pp.149-154. ISSN 0239-3646.
- [3] HRENIUC, Ovidiu - PÁSTOR, Marek: Simulation of Full-Bridge Series Resonant Inverter for Induction Heating with Asymmetrical Voltage-Cancellation Control. 2011.In: Journal of Electrical and Electronics Engineering. Vol. 4, no. 1 (2011), pp.75-78. ISSN 1844-6035. http://electroinf.uoradea.ro/reviste_EEE/volumes/JEEE_VOL4_NO1_MAY_2011.pdf.
- [4] ZÁSKALICKÝ, Pavel - ŤAHLA, Miroslav: Modelling of a separately excited dc motor supplied by a three-phase bridge rectifier using a complex fourier series. 2011. In: KOMEL-Maszyny Elektryczne: Zeszyty Problemowe. Vol. 92, no. 4 (2011), p. 33-37. ISSN 0239-3646.

- [5] FEDOR, Pavol - PERDUKOVÁ, Daniela: Riadiaci systém pre tester tepelnej spúšte ističov. *Elektrotechnika v praxi*. Vol. 21, no. 9-10 (2011), p. 70-72. ISSN 0862-9730.

National Journals

- [1] BODOR, Marcel - DUDRIK, Jaroslav: DCDC menič s mäkkým spínaním s riadeným výstupným usmerňovačom. 2011. In: *Časopis pre elektrotechniku a energetiku*. Roč. 17, č. 1 (2011), pp. 22-23. ISSN 1335-2547.
- [2] PÁSTOR, Marek - DUDRIK, Jaroslav - BODOR, Marcel - LACKO, Milan: Kaskádový mostíkový striedač pre fotovoltický systém. 2011. In: *EE Časopis pre elektrotechniku a energetiku*. Roč. 17, č. 1 (2011), pp. 24-25. ISSN 1335-2547.
- [3] EÖTVÖS, Erik - DUDRIK, Jaroslav - BÉREŠ, Tomáš: DC-DC rezonančný menič pre fotovoltický systém. 2011. In: *EE Časopis pre elektrotechniku a energetiku*. Roč. 17, č. 1 (2011), pp. 26-27. ISSN 1335-2547.
- [4] BÉREŠ, Tomáš - EÖTVÖS, Erik - DUDRIK, Jaroslav: Obojsmerný znižovaco-zvyšovací DCDC menič pre hybridnú batériu. 2011. In: *Časopis pre elektrotechniku a energetiku*. Roč. 17, č. 1 (2011), pp. 31-32. ISSN 1335-2547.
- [5] KYSLAN, Karol - KEUSCH, Peter - ĎUROVSKÝ, František: HIL simulácia mechatronických systémov s využitím komerčných meničov. 2011. In: *ATP Journal*. Č. 2 (2011), pp. 44-46. ISSN 1335-2237.
- [6] GIROVSKÝ, Peter - TIMKO, Jaroslav - ŽILKOVÁ, Jaroslava: Neurónový pozorovateľ uhlovej rýchlosti v riadení pohonu s asynchrónnym motorom. 2011. In: *EE : Časopis pre elektrotechniku a energetiku*. Roč. 17, č. 1 (2011), pp. 28-29. ISSN 1335-2547.
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9.4. Patents

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9.5. Other publications

Publication Type	Confereces		Other
	Foreign	Home	
Number	10	37	3