

DEPARTMENT OF ELECTRICAL ENGINEERING AND MECHATRONICS

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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.
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. (since October 2010)

Assistants:

Ing. Jana Harvanová

Senior Scientists:

Ing. Peter Keusch
Ing. Peter Višnyí, PhD.
Bc. Peter Hajsák
Ing. Erik Eötvös (since September till December 2010)
prof. Ing. Ladislav Zboray, CSc.

Technical Staff:

Ing. Gabriela Brečková
Zuzana Olexová
František Hajsák

Ph.D. Students:

Ing. František Baník
Ing. Mišel Batmed (since September 2010)
Ing. Tomáš Béreš
Ing. Marcel Bodor
Ing. Matúš Hric

Ing. Godem Ali M. Ismeal (since September 2010)
 Ing. Michal Kafavský
 Ing. Karol Kyslan
 Ing. Ľubomír Matis (till August 2010)
 Ing. Peter Nguyen
 Ing. Marek Pástor (since September 2010)

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, ZŤS 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	Ďurovský
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	Đurovský
Bachelor Thesis II.	6 th	0/8	Perduková
Motion Control	6 th	2/2	Đurovský
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
Controlled Drives	6 th	2/2	Đurovský
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 Automatisation	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	Višňyi
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
Semiconductor Power 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 New Generation High Frequency Soft Switching Converters.* APVV project No. APVV -0095-07 (2008-2010). Project contractor: FEI TU Košice. Co-ordinator: DUDRIK, J.
- *New Circuit Breaker up to 63 A and Equipments for Breaker Hourly Tests.* APVV project No. APVV -0287-07 (2008-2010). Project contractor: SEZ Krompachy, co-operation FEI TU Košice. Co-ordinator: DUDRIK, J.
- *Research of behaviour of the small electrical motor by a non harmonic supply.* APVV project No: APVV 0510-06 (2007-2010), Co-ordinator, ZÁSKALICKÝ, P.
- *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, (05/2009 - 04/2011) 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 on integrated research and application of progressive materials and technologies in automotive electronics (Centrum excelentnosti integrovaného výskumu a využitia progresívnych materiálov a technológií v oblasti automobilovej elektroniky), 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.

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

6.2.1. Visits of Staff Members to Foreign Institutions

- DUDRIK, J.: Ohrid, Macedonia, Conf. EPE-PEMC 2010, 4-11 Sept.2010
- ĎUROVSKÝ, F. – FEDÁK, V.: University of Miskolc, microCAD Conference, 18 March, 2011
- ĎUROVSKÝ, F.: ČVUT Praha (CZ), Faculty of Transportation Sciences, 8 Apr. 2010.
- ĎUROVSKÝ, F.: TU Liberec (CZ), 7-9 Apr. 2010.
- ĎUROVSKÝ, F.- HRIC, M. - KYSLAN, K.: Automatica 2010, Munich (D), 9-11 June, 2010
- ĎUROVSKÝ, F.- HRIC, M.- KYSLAN, K.: TU Munich (D), 11 June 2010
- ĎUROVSKÝ, F.: Hella, Mohelnice (CZ), 15 Sept. 2010

- ĎUROVSKÝ, F.: SensoDrive, Munich (D), 11-13 October 2010
- FERKOVÁ, Ž.: Tech Soft Praha, 30 Sept. 2010.
- HRIC, M.: SPS/IPC/DRIVES 2011 (Electric Automation - Systems & Components) Nurnberg, 22-23 Nov. 2010
- ZÁSKALICKÝ, P. - KAŇUCH, J.: Polytechnika Slaska Gliwice (PL), 21-24 June 2010
- ZÁSKALICKÝ, P. - KAŇUCH, J. - FERKOVÁ, Ž.: VUT Brno (CZ), 8 -9 Nov. 2010

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. Executive Council member, General Assembly member
- TIMKO, J. – International Conference POWER ELECTRONICS and MOTION CONTROL, Ohrid, Macedonia, 2010. Member of the International Steering Committee.

6.4. Membership in Slovak Professional Bodies

- FERKOVÁ, Ž.: member of Technical Standards Commission on Electrical Machines in SR
- FEDÁK, V.; KAŇUCH, J.; TIMKO, J.; ZÁSKALICKÝ, P.; ZBORAY, L.: 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
- 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.; ZBORAY, L.; 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

6.5. Contracts, International Projects

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

6.6. National Educational Projects

- Students' Skills Development for Mechatronic Systems Control" - KEGA 103-039 TUKE-4/2010. Project co-ordinator: ĎUROVSKÝ, F.
- E-learning multimedial education of the subject – Electromagnetic compatibility, 2008-10, KEGA, No 3/6388/08. Project co-ordinator: KOVÁČOVÁ, I.
- 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.

6.7. 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
- 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 Maszym elektrycznych, Katowice, Poland. ISSN 0239-3646

7 THESES

Thesis type	Bachelor	Master	Doctoral
Number	70	59	1

8 OTHER ACTIVITIES

8.1. Symposia, Workshops, Conferences

- High-Tech Workshop, Herľany 2010 (May 21 -23, 2010). 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.

8.2. Projects for Industry

- Reasons of asymmetric arcing at separately excited DC machine 5MS9 at 4th stand 5STT in Cold Roll Mill. U.S.Steel Košice (technical analysis), P-104-0001/10, Co-ordinator: Ferková, Ž.
- Current state analysis of Central Technology Controller and logical control (DIALOG) and design of measures for technical conditions and reliability improvement at winders in Hot Roll Mill U.S.Steel Košice (technical analysis), P/104/0002/10, Co-ordinator: ĎUROVSKÝ, F.

8.3. Student Competitions and Rewards

- Schneider-Electric award: The best Bachelor/Master Theses, first price for Ján Bačik

- Schneider-Electric award: The best Bachelor/Master Theses, third price for František Ďurovský, jr.
- Robot Challenge 2010, Vienna, Jan Bačik, 10th place.
- Bosch Electromobil Race 2010. Miskolc, participation of 3 teams.

8.4. Compositions for Dissertation Examinations

- BANÍK, František: Intelligent navigation of autonomous vehicle.
- BÉREŠ, Tomáš: Bidirectional DC/DC converters.
- BODOR, Marcel: High frequency soft-switching DC/DC converters.

9 PUBLICATIONS

9.1. Textbooks

- [1] DUDRIK, Jaroslav.: Návrh, dimenzovanie a ochrana výkonových polovodičových súčiastok - riešené príklady. (Design and protection of power semiconductor converters – solved examples).1. vyd. - Košice: Elfa, 2010. - 118 s. - ISBN 978-80-80861-41-4.

9.2. Scientific Journals

Foreign Journals

- [1] DUDRIK, Jaroslav - TRIP, Nistor-Daniel: Soft-switching PS-PWM DC-DC converter for full-load range applications. In: IEEE Transactions on Industrial Electronics. - ISSN 0278-0046. - Vol. 57, no. 8 (2010), p. 2807-2814.
- [2] BÉREŠ, Tomáš - OLEJÁR, Martin - DUDRIK, Jaroslav: Hybrid battery with bi-directional DC/DC converter. In: Journal of Electrical and Electronics Engineering. - ISSN 1844 - 6035. - Vol. 3, no. 1 (2010), p. 35-38. http://electroinf.uoradea.ro/reviste_EEE/volumes/volumes.htm.
- [3] DUDRIK, Jaroslav - BODOR, Marcel - TRIP, Daniel Nistor: Soft switching DC/DC converter using controlled output rectifier with auxiliary circuit. In: Journal of Electrical and Electronics Engineering. - ISSN 1844 - 6035. - Vol. 3, no. 1 (2010), p. 65-70. http://electroinf.uoradea.ro/reviste_EEE/volumes/volumes.htm.
- [4] BAUER, Pavol - FEDÁK, Viliam: Teaching electrical drives and power electronics: elearning and beyond. In: Automatika. - ISSN 0005-1144. - Vol. 51, no. 2 (2010), p. 166-173.
- [5] FERKOVÁ, Želmíra - ZBORAY, Ladislav: Observers for an elastic two-mass system. In: Acta Technica. - ISSN 0001-7043. - Vol. 55, no. 2 (2010), p. 139-148.
- [6] GIRMAN, Michal - KEUSCH, Peter - KMEC, Peter: Faults, failures and availability in self-service technology. In: Management Services. - ISSN 0 307 6768. - Vol. 53, no. 4 (2009), p. 44-47.
- [7] GIROVSKÝ, Peter - TIMKO, Jaroslav - ŽILKOVÁ, Jaroslava: Modelling of neural network speed estimator for field oriented control of induction motor. In: Metalurgija. - ISSN 0543-5846. - Vol. 49, no. 2 (2010), p. 231-235. (CD-ROM)
- [8] KAŇUCH, Ján - VIŠNYI, Peter: EMC of universal DC motor. In: Zeszyty Problemowe: Maszyny Elektryczne. - ISSN 0239-3646. - No. 88 (2010), p. 209-215.
- [9] PERDUKOVÁ, Daniela - FEDOR, Pavol: Simple method of fuzzy linearization of non-linear dynamic system. In: Acta Technica. - ISSN 0001-7043. - Vol. 55,

- no. 1 (2010), p. 97-111. [http://journal.it.cas.cz/55\(10\)1-Contents/55\(10\)1c.pdf](http://journal.it.cas.cz/55(10)1-Contents/55(10)1c.pdf)
- [10] TIMKO, Jaroslav - Žilková, Jaroslava - Girovský, Peter - Kušiak, Ivan: Controlling the tinning line input stage (Metalurgija) / J. Timko ... [et al.], 2010. - 1 elektronický optický disk (CD-ROM). In: Metalurgija. - ISSN 0543-5846. - Vol. 49, no. 2 (2010), p. 561-565.
- [11] TRIP Nistor, Daniel - POPESCU, Viorel - DUDRIK, Jaroslav: Modeling and state control of switched mode DC-DC buck converter. In: Journal of Electrical and Electronics Engineering. - ISSN 1844-6035. - Vol. 3, no. 1 (2010), p. 233-236. <http://electroinf.uoradea.ro/reviste%20EEE/default.htm>.
- [12] ZÁSKALICKÝ, Pavel: Torque ripple calculation of a permanent magnet synchronous motor supplied by a three phase inverter with PWM. In: Zeszyty Problemove : Maszyny Elektryczne. - ISSN 0239-3646. - No. 88 (2010), p. 81-86.
- [13] ŽILKOVÁ, Jaroslava - TIMKO, Jaroslav - KOVÁČ Michal: Fuzzy vector control of asynchronous motor. In: Acta Technica. - ISSN 0001-7043. - Vol. 55, no. 3 (2010), p. 259-274. [http://journal.it.cas.cz/55\(10\)3-Contents/55\(10\)3c.pdf](http://journal.it.cas.cz/55(10)3-Contents/55(10)3c.pdf)
- [14] ZÁSKALICKÝ, Pavel - ZÁSKALICKÁ, Mária: Analytical method of calculation of torque ripple of a universal motorsupplied by an IGBT chopper. In: Acta Technica. - ISSN 0001-7043. - Vol. 55, no. 4 (2010), p. 275-286.

National Journals

- [1] DUDRIK, Jaroslav - RUŠČIN, Vladimír: ZVZCS PWM DC-DC converter with controlled output rectifier. In: Acta Electrotechnica et Informatica. - ISSN 1335-8243. - Roč. 10, č. 1 (2010), s. 12-17.
- [2] FEDOR, Pavol - PERDUKOVÁ, Daniela: Univerzálny inteligentný výkonový zdroj pre testovanie tepelnej spúšte ističov. In: Strojárstvo extra. - ISSN 1335-2938. - Č. 5 (2010), s. 58/1-58/3.
- [3] FERKOVÁ, Želmíra - ZBORAY, Ladislav: Optimálne riadenie pri minimalizovaní energie strát. In: Strojárstvo extra. - ISSN 1335-2938. - Č. 5 (2010), s. 33/1-33/3. (CD-ROM)
- [4] HRIC, Matúš - ĎUROVSKÝ, František - FEDÁK, Viliam. Model kontinuálnej linky pre praktickú výučbu riadenia mechatronických systémov. In: Strojárstvo extra. - ISSN 1335-2938. - Č. 5 (2010), s. 18/1-18/4. (CD-ROM)
- [5] OLEJÁR, Martin - GUZAN, Milan - ŠPÁNY, Viktor - GALAJDA, Pavol: Realizácia Chuaovho obvodu generujúceho chaos. In: Acta technologica agriculturæ. - ISSN 1335-2555. - Roč. 12, č. 3 (2009), s. 67-70.
- [6] TOMČÍKOVÁ, Iveta - KOVÁČ, Dobroslav - KOVÁČOVÁ, Irena: Stress field distribution in magnetoelastic pressure force sensor. In: Communications. - ISSN 1335-4205. - Roč. 12, č. 1 (2010), s. 16-19.
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9.3. Patents

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9.4. Other publications

Publication Type	Confereces		Other
	Foreign	Home	
Number	21	19	3