

# DEPARTMENT OF ELECTRICAL ENGINEERING AND MECHATRONICS

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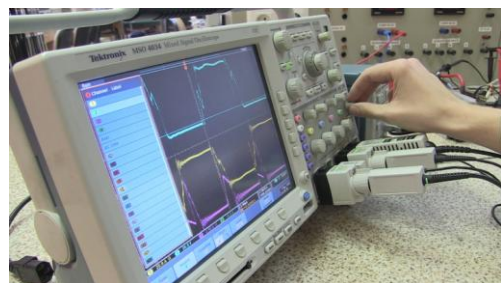


## 1 DEPARTMENT'S PROFILE

The Department was established at foundation of the Faculty of Electrical Engineering in 1969 as the Department of Electrical Drives but originally it is derived from the Department of Electrical Engineering established at foundation of the Technical University of Kosice (1953). Through the years the name of the department was changed in order to express closer its activities and development.

Staff members of the department are experienced in wide areas of electrical engineering, incl. automotive electrical engineering, mechatronics, and robotics what they utilise in teaching and research. Currently, the department is responsible for education and research in electrical engineering, namely in fields of power and industrial electronics, electrical machines and apparatuses, sensors, electromechanical systems, controlled drives, multi-motor drives, control systems, industrial and automotive mechatronic systems up to drives of robots.

The Department offers all types of university courses: bachelor course, master course and two Ph.D. courses.



## 2 STAFF

- Professors:** prof. Ing. Jaroslav Dudrik, PhD.  
prof. Ing. Pavol Fedor, PhD.  
prof. Ing. Daniela Perduková, PhD.  
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. Jaroslava Žilková, PhD.
- Assistant Professors:** Ing. Peter Bober, PhD.  
Ing. Peter Girovský, PhD.  
Ing. Ján Kaňuch, PhD.  
Ing. Milan Lacko, PhD.  
Ing. Karol Kyslan, PhD.  
Ing. Marek Pástor, PhD. (since June 2014)
- Senior Scientists:** Ing. Peter Hajsák  
Ing. Michal Pajkoš (till December 2014)  
Ing. Ján Tkáč, PhD. (till December 2014)
- Technical Staff:** Ing. Gabriela Brečková  
Zuzana Olexová  
doc. Ing. Michal Kostelný, CSc.  
prof. Ing. Jaroslav Timko, CSc.
- Full time Ph.D. Students:** Ing. Ján Bačík  
Ing. Godem Ali M. Ismeal  
Ing. Marek Pástor (till May 2014)  
Ing. Radoslav Sivý  
Ing. Viktor Šlapák  
Ing. Marek Vacek  
Ing. Milan Biroš (since September 2014)  
Ing. Martin Lešo (since September 2014)  
Ing. Peter Talian (since September 2014)  
Ing. Róbert Žatkovič (since September 2014)

### 3 LABORATORIES

- Laboratory of Electrical Engineering
- Power Electronics Laboratory
- Laboratory for CAD (COSMOS, ProEngineer, MATLAB, PSpice, and applied SW, ABBRobotStudio)
- Laboratory of Industrial Automation
- Laboratory of Electrical Machines
- Laboratory of Electrical Drives
- Laboratory of Controlled Electrical Drives and Mechatronics
- Laboratory of Automotive Mechatronics
- Laboratory of Pneumatic and Hydraulic Systems
- Virtual Laboratory of Technological Processes Control by Programmable Logic. [www.virtual.laboratory.kempi.fe.i.tuke.sk](http://www.virtual.laboratory.kempi.fe.i.tuke.sk)
- Virtual Laboratory of Mechatronic Systems Control: <http://andromeda.fe.i.tuke.sk>

### 4 TEACHING

#### 4.1. Undergraduate Study (Bc.)

##### a) Bc. study programme in Control of electromechanical systems

Subject	Semester	Lectures/exercises (hours per week)	Lecturer
Fundamentals of Electrical Engineering	1 <sup>st</sup>	2/2	Kaňuch
Computer Applications	3 <sup>th</sup>	2/2	Perduková
Electrical Machines	3 <sup>rd</sup>	2/2	Záskalický
Electrotechnics in Vehicles	3 <sup>th</sup>	2/2	Đurovský
Linux I.	3 <sup>th</sup>	2/2	Perduková
Industrial Electronics	3 <sup>th</sup>	2/2	Záskalický
Electrical Drives	4 <sup>th</sup>	2/2	Žilková
CAD Programs in Electrical Engineering	4 <sup>th</sup>	2/2	Fedák
Power Semiconductor Converters and Sources	4 <sup>th</sup>	2/2	Dudrik
Sensors and Measurement of Nonelectrical Variables	4 <sup>th</sup>	2/2	Girovský
Industrial Control Systems	4 <sup>th</sup>	2/2	Fedor
Bachelor Thesis I.	5 <sup>th</sup>	0/8	Supervisor
Simulation of Production Systems	5 <sup>th</sup>	2/2	Bober
Controlled Electrical Drives	5 <sup>th</sup>	2/2	Đurovský
Microprocessor Technique	5 <sup>th</sup>	2/2	Lacko
ManMachine Interface	5 <sup>th</sup>	2/2	Perduková
Bachelor Thesis II.	6 <sup>th</sup>	0/8	Perduková
Modeling of Electromechanical Systems	6 <sup>th</sup>	2/2	Fedák
Projecting of Electrical Systems	6 <sup>th</sup>	2/2	Ferková
Pneumatic and Hydraulics Drives	6 <sup>th</sup>	2/2	Bober

## 4.2. Graduate Study (Ing.)

### a) Ing. study programme in Electrical Engineering

Subject	Semester	Lectures/exercises (hours per week)	Lecturer
Power Semiconductor Systems	7 <sup>th</sup>	2/2	Dudrik
Non-linear Mechatronic Systems	7 <sup>th</sup>	2/2	Fedor
Servosystems	7 <sup>th</sup>	2/2	Đurovský
Dynamic Phenomena of Electrical Machines	7 <sup>th</sup>	2/2	Záskalický
Electrical Machines for Automation	7 <sup>th</sup>	2/2	Ferková
Technology of Production in Electronics	7 <sup>th</sup>	2/2	Slosarčík
Vehicle Mechatronics	8 <sup>th</sup>	2/2	Đurovský
Construction and Design of Converters	8 <sup>th</sup>	2/2	Dudrik
Control of Assembly Lines with Programming Controllers	8 <sup>th</sup>	2/2	Fedor
Statistical Process Control	8 <sup>th</sup>	2/2	Bober
Semester Project	8 <sup>th</sup>	0/4	Supervisor
Robotics	8 <sup>th</sup>	2/2	Žilková
Diploma Thesis	9 <sup>th</sup>	0/6	Supervisor
Mechatronic Production Systems	9 <sup>th</sup>	2/2	Đurovský
Intelligent Control in EI Systems	9 <sup>th</sup>	2/2	Žilková
Three-Dimensional Modelling and Simulation	9 <sup>th</sup>	2/2	Ferková
Signal Processors	9 <sup>th</sup>	2/2	Lacko
Technology of Production in Electrotechnics	9 <sup>th</sup>	2/2	Girman
Diploma Thesis	10 <sup>th</sup>	0/12	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 Electronics	1 <sup>st</sup>	2/0	Dudrik
Ph.D. Project I	1 <sup>st</sup>	0/2	Supervisor
Foreign Language I	1 <sup>st</sup>	2/0	Dept. of Foreign Languages
Servosystems	2 <sup>nd</sup>	2/0	Fedor
Ph.D. Project II	2 <sup>nd</sup>	0/2	Supervisor
Foreign Language II	2 <sup>nd</sup>	2/0	Dept. of Foreign Languages
Ph.D. Project III	3 <sup>rd</sup>	0/4	Supervisor
Subject of Specialization	3 <sup>rd</sup>	2/0	According to the subject
Scientific Activity	3 <sup>rd</sup>	0/8	Supervisor
Ph.D. Project IV	4 <sup>th</sup>	0/2	Supervisor
Scientific Activity	4 <sup>th</sup>	0/8	Supervisor
Ph.D. Project IV	5 <sup>th</sup>	0/2	Supervisor
Scientific Activity	5 <sup>th</sup>	0/8	Supervisor
Ph.D. Thesis	5 <sup>th</sup>	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 <sup>st</sup>	2/0	Fedor
Ph.D. Project I	1 <sup>st</sup>	0/2	Supervisor
Foreign Language I	1 <sup>st</sup>	2/0	Dept. of Foreign Languages
Servosystems	2 <sup>nd</sup>	2/0	Fedor
Ph.D. Project II	2 <sup>nd</sup>	0/2	Supervisor
Foreign Language II	2 <sup>nd</sup>	2/0	Dept. of Foreign Languages
Ph.D. Project III	3 <sup>rd</sup>	0/4	Supervisor
Subject of Specialization	3 <sup>rd</sup>	2/0	According to the subject
Scientific Activity	3 <sup>rd</sup>	0/8	Supervisor
Ph.D. Project IV	4 <sup>th</sup>	0/2	Supervisor
Scientific Activity	4 <sup>th</sup>	0/8	Supervisor
Ph.D. Project IV	5 <sup>th</sup>	0/2	Supervisor
Scientific Activity	5 <sup>th</sup>	0/8	Supervisor
Ph.D. Thesis	5 <sup>th</sup>	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.
- *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.
- *University Science Park TECHNICOM for Innovation Applications Supported by Knowledge Technology,* ITMS: 26220220182, supported by the Research & Development Operational Programme funded by the ERDF. Participation on Activity 3.2, Pilot Project 2 (PP2).
- *Research of Modulus for Intelligent Robotic Systems.* ITMS: 26220220141. Research & Development Operational Programme funded by the ERDF. Call: OPVaV-2009/2.2/05-SORO. Principal investigator: ZTS VVÚ Košice, Participation on project as a partner.
- *Research and development of a small power drives with two-phase motors,* APVV-0138-10, 2011-2014, Principal investigator: Záskalický, P.
- *Multivariable Physical Calculation Applicable to Electric Drives.* SK-CZ-2013-0065. Project of Czech and Slovak intergovernmental scientific and technological cooperation (KEM FEI TU Košice and KEL TU Liberec). (2014-2015). Principal investigator: FERKOVÁ, Ž.

### 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, SLOVRES 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
- Czech Academy of Science, Prague.
- Silesian Polytechnic Institute of Gliwice
- University of Oradea, Romania
- University of Maribor, Slovenia

### 6.2.1. Visits of Staff Members to Foreign Institutions

- BAČIK, J.: ICINS 2014. The 21<sup>st</sup> St. Petersburg International Conference on Integrated Navigation System, Saint Petersburg, 26–28 May 2014.
- ĎUROVSKÝ, F.: Expert Workshop at CluStrat, Clusterland OÖ GmbH, Linz, (AT), 5-6 Februar and 20-21 March 2014
- ĎUROVSKÝ, F.: WIFI Linz (AT), 5 Februar 2014
- ĎUROVSKÝ, F.: Johannes Kepler University, Linz, (AT), 6 Februar 2014.
- ĎUROVSKÝ, F.: University of Applied Sciences Upper Austria (AT), Wels, 21 March 2014.
- ĎUROVSKÝ, F.: Automatica 2014, Munchen (D) 3-5 June 2014.
- ĎUROVSKÝ, F.: Bergische University Wuppertal (D), 6 June 2014
- ĎUROVSKÝ, F.; LACKO, M.; ŠLAPÁK, V.: SYMEP 2014, Vysoká škola báňská – Technická univerzita Ostrava (CZ), 25–27 June 2014
- ĎUROVSKÝ, F.; PÁSTOR, M.; ŠLAPÁK, V.; PAJKOŠ, M.: SPS/IPC Drives 2014, Nürnberg (D), 25-27 November 2014
- FEDÁK, V.: microCAD, Miskolc, 10-11 April 2014
- FEDÁK, V. KYSLAN, K.: PEMC 2014, Antalya, 21-24 September 2014
- FERKOVÁ, Ž.: TechSoft Praha, 28-30 May 2014.
- FERKOVÁ, Ž.: SPEEDAM, Ischia, Italy, 16-21 June 2014
- FERKOVÁ Ž., KYSLAN, K.; M; ŠLAPÁK, V.: TU Liberec(CZ) 1-5 June 2014
- FERKOVÁ, Ž; KYSLAN, K; ŠLAPÁK V: APVV SK-CZ-2013-0065 Bilateral Exchange Project on Technical University of Liberec, 31 August to 5 September 2014
- KAŇUCH, J., FERKOVÁ, Ž.: TU Liberec (ČR), 21-23 Januar 2014.
- KAŇUCH, J., FERKOVÁ, Ž.: Politechnika Krakow (PL), 22-25 June 2014.
- KYSLAN, K: Annual General Meeting of IEEE Czechoslovakia Section, Žilina,

12 December 2014

- KYSLAN, K; FEDÁK, V.: „16<sup>th</sup> International Power Electronics & Motion Control Conference and Exposition PEMC 2014, Antalya, Turkey, 21-25 September 2014
- LACKO, L.; PÁSTOR, M.: PCIM Europe 2014, Nürnberg (D), 20-22 May 2014.
- PÁSTOR, M. – Electronics 2014, 18 International Conference, 16-18 June 2014, Palanga (LT)
- ZÁSKALICKÝ, P., KAŇUCH, J.; KOMEL Katowice, Rytró (PL), 28-30 May 2014.

### **6.3. Membership in International Organizations, Societies and Committees**

- DUDRIK, J; PÁSTOR, M; KYSLAN, K: IEEE members
- DUDRIK, J., FEDÁK, V., TIMKO, J.: Power Electronics and Motion Control Council EPE-PEMC – Budapest. Council and Steering Committee members.
- FEDÁK, V.: IEEE ICETA 2014, Starý Smokovec. Program Chairman.
- FERKOVÁ, Ž.: member of Steering Committee ISEM (INTERNATIONAL SYMPOSIUM ON ELECTRIC MACHINERY) ČVUT Praha.
- FEDOR, P., PERDUKOVÁ, D. ŽILKOVÁ, J.: members of Programme Committee: 9th International Conference on Soft Computing Models in Industrial and Environmental Applications – SOCO 2014, Bilbao, Spain, June 25<sup>th</sup>-27<sup>th</sup>, 2014.

### **6.4. Membership in Slovak Professional Bodies**

- FEDÁK, V.; KAŇUCH, J.; TIMKO, J.; ZÁSKALICKÝ, P.; FEDOR, P.; FERKOVÁ, Ž.; GIROVSKÝ, P.; HAJŠÁK, P.; LACKO, M. ; PERDUKOVÁ, D.: members of The SES (Slovak Electrotechnical Society), Branch at FEI TU Košice
- FEDOR, P., (chairman), FEDÁK, V., GIRMAN, M., PERDUKOVÁ, D., ZÁSKALICKÝ, P.: members of board for the PhD. Course in Mechatronic Systems at FEI TU Košice.
- FERKOVÁ, Ž.: member of Technical Standards Commission on Electrical Machines in SR
- PERDUKOVÁ, D.: member of Accreditation Commission working group for research in Electrical and Power Engineering.
- PERDUKOVÁ, D.: Council of the Secondary Technical School for EE, Košice (delegate of the FEI TU Košice).
- KOVÁČOVÁ, I., (chairman), DUDRIK, J., GIRMAN, M., PERDUKOVÁ, D., ZÁSKALICKÝ, P.: members of board for the PhD. Study in Electrical Engineering at FEI TU Košice
- TIMKO, J.: member of board for the PhD. Study in Mechatronics at Sjf TU Košice
- TIMKO, J., ZÁSKALICKÝ, P.: member of board for the PhD. Study in Electrical Engineering at EF ZU Žilina

### **6.5. National Educational Projects**

- Teaching innovation in control of mechatronic systems. KEGA 042TUKE-4/2012. (2012-2014). Coordinator: LACKO, M.
- E-MLAB a set of original laboratory workstations to support and extend

research and teaching laboratories in the field of Mechatronics. KEGA 011TUKE-4/2013. Coordinator: PERDUKOVÁ, D.

## 6.6. Editorial Boards

- BOBER, P. Editorial board for journal “Quality, Innovation, Prosperity” (Kvalita, Inovácia, Prosperita), ISSN 1335-1745 (print), ISSN 1338-984X (online).
- DUDRIK, J. – Member of the Series Editorial Board of Annals of the Academy of Romanian Scientists.
- DUDRIK, J.: Editorial board of Transactions on electrical engineering, Czech Republic, ISSN 1805-3386.
- FEDÁK, V.: Editorial board of Scientific Works of the Institute of Electrical Machines Drives and Measurement (Wroclaw Univ. of Technology), ISSN 0033-2097.
- FEDOR, P: Editorial board of Acta Electrotechnica et Informatica – AEI. Journal of the Faculty of Electrical Engineering and Informatics. ISSN 1335-8243.
- 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

- BATMEND, M.: Controlled mechatronics system for image engrave. Supervisor: Perduková, D.
- PÁSTOR, M.: DC/AC converters for renewable energy sources. Supervisor: Dudrik, J.

Thesis type	Bachelor	Master	Doctoral
Number	26	38	2

## 8 OTHER ACTIVITIES

### 8.1. Symposia, Workshops, Conferences

### 8.2. Projects for Industry

- Technical support at rotor emergency repairs of HV synchronous motor. For U.S.Steel Košice, 2014. Co-ordinator: Ferková, Ž.

### 8.3. Student Competitions and Rewards

- BAČÍK Ján: European Robotics Challenges – (EuRoC has received funding from the European Union’s 7<sup>th</sup> FP for research, technological development and demonstration under grant agreement no. 608849.) - 19<sup>th</sup> place from 33 participants.



- LACKO, M.; ŠLAPÁK, V.; PAJKOŠ, M.; BIROŠ, M.: „Na Komín 2014“ - Robot climbing competition (3. – 4. October, 2014) 4th place in category II.
- VACEK Marek: SCYR 2014, (20 May 2014). 3<sup>rd</sup> place

#### 8.4. Compositions for Dissertation Examinations

- BAČÍK, J.: Helicopter Model as a non-linear Mechatronic System. Supervisor: Fedor, P.
- GODEM, A.M.I.: System identification and PID controller Optimization using Soft Computing Methods, Supervisor: Fedák, V.
- MAGURA, D.: Control of Drives of Continuous Processing Lines. Supervisor: Fedák, V.
- ŠLAPÁK, V.: Intelligent control of servodrives. Supervisor: Ďurovský, F.
- SIVÝ, R.: Navigation of autonomous vehicles based on intelligent sensor systems, Supervisor: Perduková, D.

## 9 PUBLICATIONS

### 9.1. Books

- [1] FEDÁK, Viliam - ĎUROVSKÝ, František - ÜVEGES, Róbert: Analysis of Robotic System Motion in SimMechanics and MATLAB GUI Environment. In: MATLAB Applications for the Practical Engineer. Rijeka: Intech, 2014 P.1-14. ISBN 978-953-51-1719-3.
- [2] FEDÁK, Viliam - ZÁSKALICKÝ, Pavel - GELVANIČ, Zoltán: Analysis of Balancing of Unbalanced Rotors and Long Shafts using GUI MATLAB. In: MATLAB Applications for the Practical Engineer. Rijeka: Intech, 2014 P. 535-564. - ISBN 978-953-51-1719-3. Access: <http://www.intechopen.com/articles/show/title/analysis-of-balancing-of-unbalanced-rotors-and-long-shafts-using-gui-matlab>.

### 9.2. Textbooks

- [1] PERDUKOVÁ, Daniela: Visualization in PLC. 1st edition. Košice. TU 2014. 150 p. ISBN 978-80-553-1776-2.
- [2] FEDOR, Pavol - PERDUKOVÁ, Daniela: Control of assembling lines with PLC. Košice. TU 2014. 73 p. ISBN 978-80-553-1775-5.

### 9.3. Scientific Journals

#### Journals indexed in Thomson Reuters “Current Contents” list

- [1] DUDRIK, Jaroslav - BODOR, Marcel - PÁSTOR, Marek. Soft Switching Full – Bridge PWM DC - DC Converter with Controlled Output Rectifier and Secondary Energy Recovery Turn - Off Snubber. In: IEEE Transactions on Power Electronics. Vol. 29, no. 8 (2014), p. 4116-4125. ISSN 0885-8993. Access: [http://ieeexplore.ieee.org/xpl/articleDetails.jsp?tp=&arnumber=6678628&searchWithin%3Dp\\_Last\\_Names%3ADudrik%26matchBoolean%3Dtrue%26queryText%3D%28p\\_Authors%3ADudrik%29](http://ieeexplore.ieee.org/xpl/articleDetails.jsp?tp=&arnumber=6678628&searchWithin%3Dp_Last_Names%3ADudrik%26matchBoolean%3Dtrue%26queryText%3D%28p_Authors%3ADudrik%29).

## Foreign Journals

- [1] FEDOR, Pavol - PERDUKOVÁ, Daniela - BATMEND, Mišél: Analysis of the Effect of Clustering on an Asynchronous Motor Fuzzy Model. In: Advances in Intelligent Systems and Computing. Vol. 239 (2014), p. 339-348. - ISSN 2194-5357.
- [2] FERKOVÁ, Želmíra: Influence of Arrangement and Sizes of Magnets upon Cogging Torque and EMF of Two-phase PMSM. In: Maszyny elektryczne: Zeszyty Problemowe. Vol. 104, no. 4 (2014), p. 43-48. - ISSN 0239-364.
- [3] KAŇUCH, Ján - FERKOVÁ, Želmíra: Simulation and measurement of two-phases synchronous motor with permanent magnets. In: Maszyny elektryczne: Zeszyty problemowe. Vol. 102, no. 2 (2014), p. 71-75. ISSN 0239-3646.
- [4] KAŇUCH, Ján - FERKOVÁ, Želmíra: Simulation and measurement of synchronous motor prototype with an external rotor by using permanent magnets. In: Maszyny elektryczne: Zeszyty problemowe. Vol. 104, no. 4 (2014), p. 25-30. - ISSN 0239-3646.
- [5] ZÁSKALICKÝ, Pavel: Calculation of a torque ripple a three-phase asynchronous motor supplied by a PWM controlled inverter. 2014. In: Komel: Maszyny elektryczne. Vol. 102, no. 2 (2014), p. 53-58. ISSN 0239-3646.
- [6] ŽILKOVÁ, Jaroslava - GIROVSKÝ, Peter - BATMEND, Mišél: Modelling the Technological Part of a Line by Use of Neural Networks..In: Advances in Intelligent Systems and Computing. Vol. 239 (2014), p. 349-258. ISSN 2194-5357.

## Foreign Journals indexed in Web of Science or Scopus databases

- [1] BAČÍK, Ján jr. - FEDOR, Pavol - FEDÁK, Viliam: Development of Sensorial Subsystem Hardware for Mechatronics Systems. In: Electronics and Electrical Engineering. Vol. 20, no. 2 (2014), p. 11-14. ISSN 1392-1215. Access: [eejournal.ktu.lt](http://eejournal.ktu.lt).
- [2] BAČÍK, Ján ml. - SIVÝ, Radovan - ŠLAPÁK, Viktor: Mathematical Model Design of Small Helicopter - Unmanned Aerial Vehicle Development. In: Applied Mechanics and Materials. Vol. 613 (2014), p. 236-242. ISBN 978-3-03835-202-0. ISSN 1660-9336.
- [3] BATMEND, Mišél - PERDUKOVÁ, Daniela - FEDOR, Pavol: A prototype of a bitmap CNC engraver. In: Applied Mechanics and Materials. Vol. 613 (2014), p. 408-417. ISSN 1660-9336.
- [4] Fetyko, Ján - JEZŇÝ, Jaromír - ÜVEGES, Róbert - FEDÁK, Viliam: Development of Motion Control of Legs in Six-Legged Robotic Vehicle. In: Applied Mechanics and Materials. Vol. 613 (2014), p. 36-42. ISSN 1660-9336. Access: <http://www.scientific.net/AMM.613.36>.
- [5] Godem Ali M. ISMEAL, KYSLAN, Karol – FEDÁK, Viliam: CAD of Cascade Controllers for DC Drives Using Genetic Algorithm Methods. Procedia Engineering, Vol. 96 (Modelling of Mechanical and Mechatronic Systems), 2014, pp. 182–189. ISSN: 1877-7058.
- [6] MAGURA, Daniel - KYSLAN, Karol – FEDÁK, Viliam: Modeling and analysis of multi-motor drive properties in a web processing continuous line. Procedia Engineering, Vol. 96 (Modelling of Mechanical and Mechatronic Systems), 2014, pp. 281–288. ISSN: 1877-7058.
- [7] PAJKOŠ, Michal - ŠLAPÁK, Viktor - SIVÝ, Radovan - ĎUROVSKÝ, František: Measurement of Transmission Nonlinearities in Servodrives. In: Applied Mechanics and Materials. Vol. 613 (2014), p. 248-252. ISBN 978-3-03835-202-0. ISSN 1660-9336.

- [8] PÁSTOR, Marek - DUDRIK, Jaroslav: Comparison of MPC and PI controller for grid-connected cascade inverter. In: Elektronika ir Elektrotechnika. Vol. 20, no. 6 (2014), p. 46-50. ISSN 1392-1215.
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#### 9.4. Other publications

Publication Type	Confereces		Other
	Foreign	Home	
Number	2+7	12+1+9	1