

# DEPARTMENT OF ELECTRICAL ENGINEERING AND MECHATRONICS

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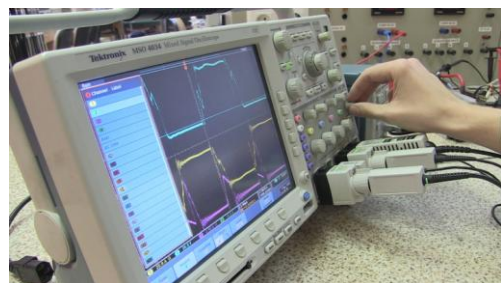


## 1 DEPARTMENT'S PROFILE

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 systems of 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. Karol Kyslan, PhD.  
Ing. Milan Lacko, PhD.  
Ing. Marek Pástor, PhD.
- Senior Scientists:** Ing. Peter Hajsák
- 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. Milan Biroš  
Ing. Godem Ali M. Ismeal  
Ing. Martin Lešo  
Ing. Radoslav Sivý  
Ing. Ľuboš Suchý (since September 2015)  
Ing. Viktor Šlapák  
Ing. Peter Talian  
Ing. Marek Vacek (till June 2015)  
Ing. Róbert Úveges (since September 2015)  
Ing. Róbert Žatkovič

### 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.fei.tuke.sk](http://www.virtual.laboratory.kempi.fei.tuke.sk)
- Virtual Laboratory of Mechatronic Systems Control: <http://andromeda.fei.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	Ďurovský
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	Ďurovský
Microprocessor Technique	5 <sup>th</sup>	2/2	Lacko
ManMachine Interface	5 <sup>th</sup>	2/2	Peduková
Bachelor Project	5 <sup>th</sup>	0/8	Supervisor
Bachelor Thesis II.	6 <sup>th</sup>	0/8	Supervisor
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 Electro-Mechanical 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
Diploma Project	8 <sup>th</sup>	0/4	Supervisor
Robotics	8 <sup>th</sup>	2/2	Žilková
Diploma Project II	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>	0/18	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 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

- *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. Prinipal investigator: ZTS VVÚ Košice, Paritcipation on project as a partner.
- *Research of New Principles and Methods for Design of Electrotechnical Systems*. Project VEGA 1/0464/15 Scientific Grant Agency of the Ministry of Education, science, research and sport of the Slovak Republic and the Slovak Academy of Sciences. Principal investigator: DUDRIK, J. (2015-2018).
- *Electrical Drive with Highfrequency 2-phase Induction Motor*. Project VEGA 2/0192/15. Scientific Grant Agency of the Ministry of Education, science, research and sport of the Slovak Republic and the Slovak Academy of Sciences. Principal investigator: ZASKALICKÝ, P. (2015-2018)
- *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 projects 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
- University of Zagreb, Croatia

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

- BAČÍK, J.: TRADR Summer School on Autonomous Micro Aerial Vehicles, Fraunhofer – Sank Augustin, 24-28 August 2015
- ĎUROVSKÝ, F.: European Robotics Forum 2015. Vienna (AT), 11-13 March 2015.
- ĎUROVSKÝ, F., KYSLAN, K., ŠLAPÁK, V., BIROŠ, M.: Siemens (SIMEA) Vienna (AT), 22 April 2015.
- ĎUROVSKÝ, F., KYSLAN, K., ŠLAPÁK, V., FERKOVÁ, Ž.: APVV SK-CZ-2013-0065 Bilateral Exchange Project on Technical University of Liberec (CZ), 7-12 June 2015.
- ĎUROVSKÝ, F., KYSLAN, K., ŠLAPÁK, V.: Siemens Erlangen (AT), 11 June 2015.
- ĎUROVSKÝ, F., BOBER, P.: Technická univerzita Plzeň (CZ), June 2015.
- ĎUROVSKÝ, F., BOBER, P.: Škoda Transportation Plzeň (CZ). June 2015.
- KAŇUCH, J., FERKOVÁ, Ž.: VŠB-TU Ostrava (ČR), 20-22 Januar 2015.
- KYSLAN, K, PÁSTOR, M.: ELECTRONICS 2015, 1 Palanga, Lithuania, 15-17 June 2015
- KYSLAN, K, ŠLAPÁK, V., GIROVSKÝ, P.: Humusoft, s.r.o., Matlab Training, STU Bratislava, 15-19 September 2015

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

- DUDRIK, J; PÁSTOR, M; KYSLAN, K: IEEE members.
- FEDÁK, V.: IEEE ICETA 2015, Starý Smokovec. Program Chairman.
- PERDUKOVÁ, D.; ŽILKOVÁ, J.: members of Programme Committee: 10th International Conference on Soft Computing Models in Industrial and Environmental Applications – SOCO 2015, Burgos, Spain, June, 2015.
- KYSLAN, K; EDPE 2015, Tatranska Lomnica, Member of Local Organizing

Committee.

#### **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.
- 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 Ph.D. Study in Electrical Engineering at FEI TU Košice.

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

- 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 Czech Academy of Science, Prague. Czech Republic. ISSN 0001-7043.
- ZÁSKALICKÝ, P.: Editorial board of KOMEL, Branzowy osrodek badawczo-rozwojowy Maszyn elektrycznych, Katowice, Poland. ISSN 0239-3646.

#### **7. THESEDefened Ph.D. Theses in 2015**

- BATMEND, M.: Controlled mechatronics system for image engrave. Supervisor: Perduková, D.
- KOLLÁR, P.: Intelligent Control of Pallet Stacker. Supervisor: Girman, M.
- PÁSTOR, M.: DC/AC converters for renewable energy sources. Supervisor: Dudrik, J.

- VACEK, M.: Optical robotic workplace safety system. Supervisor: Žilková, J.

Thesis type	Bachelor	Master	Doctoral
Number	6	36	4

## 8 **OTHER ACTIVITIES**

### 8.1. **Symposia, Workshops, Conferences**

The 18th International Conference (and 7th Joint Slovakian-Croatian Conference) was held under the title 2015 International Conference on Electrical Drives and Power Electronics (EDPE) was held in the hotel Slovan, The High Tatras, Tatranská Lomnica on 21-23 Sept. 2015 ([www.edpe.sk](http://www.edpe.sk)).

History: The conference was established in 1973 in Slovakia (and a similar one in Croatia). Both conferences merged in 2003 and since then it is a joint Slovakian-Croatian conference organised alternatively in both countries.

Organisers of the conference since 2003: FEI, TU Košice. SES – Slovak Electrotechnical Society, Branch FEI TU Košice, Slovakia, FER – Faculty of Electrical Engineering and Computing, University of Zagreb, Croatia, KoREMA – Croatian Society for Communications, Computing, Electronics, Measurement and Control.

Sponsors: The technical consponsor were: IEEE, Czechoslovakia Section, IAS/IES Joint Chapter oc CZ Section IEEE, Media sponsors: Automatika Journal (Croatia), Transactions on Elctrical Engineering, Czech Republic and ATP Journal, Slovakia.

Number of EDPE 2015 participants: 115, number of papers: 92, prepared by authors from 28 countries.

Scientific program: The ppares were presented in 3 oral sessions, 3 poster session and 3 plenary sessions. The keynote lectures were presented by Prof. Pavol Bauer (DUT, Delft, The Netherlands), Prof. Peter Korondi (BMGE Budapest, Hungary), Prof. Ivan Petrović, University of Zagreb, Croatia. Proceedings: <http://ieeexplore.ieee.org/xpl/mostRecentIssue.jsp?punumber=7311167>.

Social program: The conference trip to: Joseph Petzwall Museum in Spišská Belá, Castel Museum in Kežmarok city, the wooden Articular Chuch in Kežmarok, where also a concert of famous Collegium Technicum mixed choir from the Technical University of Košice was held.

Conclusion: The conference had a great success, thanks esp. to the co-sponsorship of the IEEE and to the to the perfect work of the organising committee from the Department: Viliam Fedák (general chair), Jaroslav Dudrik (program chair), Karol Kyslan (asistent), Marek Pástor (asistent), Viktor Šlapák (technician) and Rina Tkáčiková (secretary).

### 8.2. **Projects for Industry**

- Control of Rotary Knife. For Datakon Košice, 2015. Co-ordinator: Ďurovský, F.

### 8.3. **Student Competitions and Rewards**

- BAČÍK Ján: RobotChallenge 2015 – (RobotChallenge is an international championship for self-made, autonomous, and mobile robots. It takes place



annually in Vienna, Austria), 5<sup>th</sup> place from 10 participants in Air Race category.

- BAČÍK Ján: SCYR 2015, (19 May 2015). 1<sup>st</sup> place (Dean's Award) in EEE 2<sup>nd</sup> to 4<sup>th</sup> year section.
- SIVÝ Radovan: SCYR 2015, (19 May 2015). FTP Slovakia Award.
- TALIAN Peter: SCYR 2015, (19 May 2015). Award of ELFA s.r.o. company for the section "1<sup>st</sup> year PhD students".
- ŽATKOVIČ Róbert: SCYR 2015 (19 May 2015) – 1<sup>st</sup> place (Dean's Award) in EEE 1<sup>st</sup> year section.

#### 8.4. Compositions for Dissertation Examinations

- BOROVSÝ, T.: Drive control of wire rod rolling mill. Supervisor: Ďurovský, F.

### 9 PUBLICATIONS

#### 9.1. Books

- [1] FEDÁK Viliam - ZÁSKALICKÝ Pavel: **Support for Learning of Dynamic Performance of Electrical Rotating Machines by Virtual Models**. Chapter in the book "E-Learning - Instructional Design, Organizational Strategy and Management", editor Boykja Gradinarova, INTECH Croatia, 2016, pp. 3-31. ISBN 978-953-51-2188-6.
- [2] FEDOR, Pavol - PERDUKOVÁ, Daniela: **Nelineárne elektromechanické systémy**. 1.vyd. Košice. TU, 2015. 103 pp. [CD-ROM]. ISBN 978-80-553-2037-3.

#### 9.2. Textbooks

- [1] TIMKO, Jaroslav - ŽILKOVÁ, Jaroslava: **Elektrické pohony**. 1.vyd. Košice. TU, 2015. 199 pp. ISBN 978-80-553-2069-4.
- [2] FEDÁK, Viliam: **Modelovanie elektromechanických sústav**. 1.vyd. Košice. TU, 2015. 243 pp. ISBN 978-80-553-2111-0.
- [3] FERKOVÁ, Želmíra: **Elektrické stroje pre automatizáciu**. 1.vyd. Košice. TU. 2015. 110 pp. ISBN 978-80-553-2070-0.
- [4] PERDUKOVÁ, Daniela: **Spreadsheets**. 1.vyd. Košice. TU, 2015. 208 pp. ISBN 978-80-553-1989-6.
- [5] ZÁSKALICKÝ, Pavel **Elektrické stroje**. 1.vyd. Košice. TU, 2015. 138 pp. ISBN 978-80-553-2117-2.
- [6] ĎUROVSKÝ, František - KAŇUCH, Ján: **Automobilová elektrotechnika**. 1.vyd. Košice. TU 2015. 152 pp.
- [7] FERKOVÁ, Želmíra - ĎUROVSKÝ, František - LACKO, Milan: **Projektovanie elektrotechnických zariadení**. 1.vyd. Košice. TU, 2015. 154 pp.

#### 9.3. Scientific Journals

##### Journals indexed in Thomson Reuters "Current Contents" list

- [1] KAŇUCHOVÁ, Mária - KOZÁKOVÁ, Ľubica - DRÁBOVÁ, Miroslava - SISOL, Martin - EŠTOKOVÁ, Adriana - KAŇUCH, Ján - ŠKVARLA, Jiří: **Monitoring and characterization of creation of geopolymers prepared from fly ash and metakaolin by X-ray photoelectron spectroscopy method**. In:

### Foreign Journals

- [1] FERKOVÁ, Želmíra - BOBER, Peter: **Stator Pole Arrangement of the Permanent Magnet Stepper Motor With Asymmetric Stator for Achieving the Uniform Step.** In: *Maszyny Elektryczne - Zeszyty Problemowe*. Vol. 107, no. 3 (2015), pp. 173-177. ISSN 0239-3646.
- [2] FERKOVÁ, Želmíra - KAŇUCH, Ján: **Synchronous motor prototype with an external rotor using permanent magnets.** In: *Technical Transactions. Electrical Engineering*. Vol. 8, no. 1-E (2015), DOI: 10.4467/2353737XCT.15.024.3824, ISSN 1897-6301.
- [3] KAŇUCH, Ján - DUČAY, Andrej: **Design of a special motor with permanent magnets.** In: *Maszyny elektryczne - Zeszyty problemowe*. Vol. 105, no. 1 (2015), pp. 169-173. ISSN 0239-3646.
- [4] PERDUKOVÁ, Daniela - BATMEND, Mišél – FEDOR, Pavol: **Automated Headstone Photo Engraving.** *Applied Mechanics and Materials*, Vol. 816 (2015), pp 313-320. ISSN: 1662-7482.
- [5] SARASWATHI Ananthavel - SANJEEVIKUMAR Padmanaban - SUTHA Shanmugham - BLAABJERG Frede - ERTAS Ahmet H. - FEDÁK Viliam: **Analysis of enhancement in available power transfer capacity by STATCOM integrated SMES by numerical simulation studies.** *International Journal on Engineering Science and Technology*, ELSEVIER, 10 Nov. 2015. Available online: <http://www.sciencedirect.com/science/article/pii/S2215098615001627>.
- [6] ŽÁSKALICKÝ, Pavel: **Harmonic analysis of the two-phase converters for small two-phase drives.** In: *Maszyny elektryczne - Zeszyty Problemowe*. Vol. 106, no. 2 (2015), pp. 147-152. ISSN 0239-3646.

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

- [1] BAČÍK, JÁN - PERDUKOVÁ, Daniela – FEDOR, Pavol: **Design of fuzzy controller for hexacopter position control.** *Advances in Intelligent Systems and Computing*, Volume 347. Springer-International Publishing. Switzerland 2015, pp. 193- 202. ISSN 2194-5357.
- [2] BIROŠ, M., KYSLAN, K., ĎUROVSKÝ, F., **A hardware-in-the-loop simulator based on a real Skoda Superb vehicle and RT-LAB/Carsim** (2015), *Acta Polytechnica*, 55 (6), pp. 366-372.
- [3] FEDÁK, V., ĎUROVSKÝ, F., ÜVEGES, R., KYSLAN, K., LACKO, M., **Implementation of Robot Control Algorithms by Real-time Control System** (2015), *International Journal of Engineering Research in Africa*, Vol. 18, pp. 112-119, Oct. 2015. ISSN: 1663-4144. (Access: <http://www.scientific.net/JERA.18.112>).
- [4] FEDOR, Pavol - PERDUKOVÁ, Daniela: **Fuzzy Model for Middle Section of Continuous Line.** *International Journal of Engineering Research in Africa*, Vol. 18 (2015), pp 75-84. ISSN 1663-3571.
- [5] FEDÁK, Viliam - ĎUROVSKÝ, František - ÜVEGES, Róbert - KYSLAN, Karol: **HIL Simulator of Drives of an Industrial Robot with 6 DOF.** In: *Elektronika Ir Elektrotechnika*. Vol. 21, no. 2 (2015), pp. 14-19. ISSN 1392-1215. Access: <http://eejournal.ktu.lt/index.php/elt/issue/view/414>.
- [6] FERKOVÁ, Želmíra: **Comparison between 2D and 3D modelling of induction machine using finite element method.** In: *Advances in Electrical and Electronic Engineering*. Vol. 13, no. 2 (2015), pp. 120-126. ISSN 1336-

1376.

- [7] PÁSTOR, Marek - DUDRIK, Jaroslav. **Predictive control of grid-connected multilevel inverter with output LCL filter.** In: Elektronika ir Elektrotechnika. Vol. 21, no. 3 (2015), pp. 10-15. ISSN 1392-1215  
Access: <http://www.eejournal.ktu.lt/index.php/elt/article/view/10033>.

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

##### National Journals

- [1] GIROVSKÝ, Peter - KUNDRÁT, Matúš: **Ovládanie robotickej ruky prostredníctvom dátovej rukavice.** In: ATP Journal. Roč. 22, č. 5 (2015), pp. 56-57. ISSN 1335-2237.
- [2] PERDUKOVÁ, Daniela - FEDOR, Pavol: **Využitie fuzzy logiky pri modelovaní pohonárskych komplexov.** In: Strojárstvo EXTRA. Roč. 19, č. 4 (2015), pp.90-91. ISSN 1335-2938.

#### 9.4. Other publications (papers in conference proceedings, etc.)

Publication Type	Confereces		Other
	Foreign	Home	
Number	5	25	-