

DEPARTMENT OF ELECTRICAL ENGINEERING AND MECHATRONICS

<http://kem.feituke.sk>

Tel.: ++421 55 602 2279, Fax: ++421 55 633 0115

Head of Department
prof. Ing. Daniela Perduková, PhD.
E-mail: Daniela.Perdukova@tuke.sk

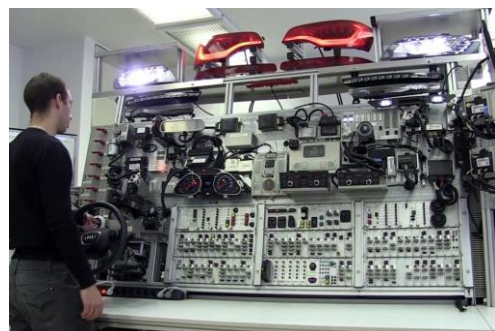
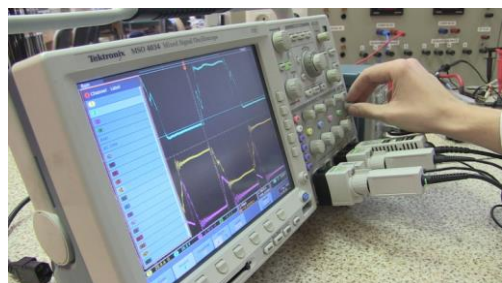
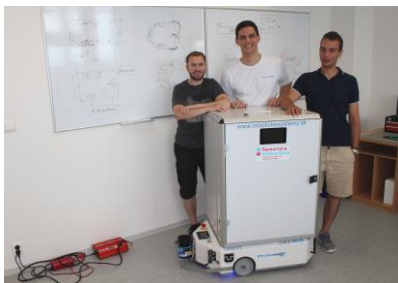


1 DEPARTMENT'S PROFILE

The Department was established at foundation of the Faculty of Electrical Engineering in 1969 as the Department of Electrical Drives but originally it was 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 area 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, and industrial and automotive mechatronic systems up to drives of robots.

The Department offers all types of university courses: bachelor, master and 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. Ján Kaňuch, PhD.
doc. Ing. Milan Lacko, PhD.
doc. Ing. Jaroslava Žilková, PhD.
- Assistant Professors:** Ing. Ján Bačík, PhD.
Ing. Peter Bober, PhD.
Ing. Peter Girovský, PhD.
Ing. Karol Kyslan, PhD.
Ing. Marek Pástor, PhD.
- Senior Scientists:** Ing. Milan Biroš, PhD. (since August 2018)
Ing. Peter Hajsák
Ing. Viktor Šlapák, PhD.
- Technical Staff:** Ing. Gabriela Brečková
Zuzana Olexová
doc. Ing. Michal Kostelný, CSc.
prof. Ing. Jaroslav Timko, CSc.
- Full time Ph.D. Students:** Ing. Milan Biroš (till June 2018)
Ing. Martin Lešo (till June 2018)
Ing. Ľuboš Suchý
Ing. Peter Talian (till June 2018)
Ing. Róbert Űveges
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 Mechatronic Systems Control:
<http://andromeda.fei.tuke.sk>

4 TEACHING

4.1. Undergraduate Study (Bc.)

a) Bc. study programme in Automated Electrical Systems

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

4.2. Graduate Study (Ing.)

a) Ing. study programme in Electrical Systems

Subject	Semester	Lectures/exercises (hours per week)	Lecturer
Power Semiconductor Systems	7 th	2/2	Dudrik
Non-linear Electro-Mechanical Systems	7 th	2/2	Fedor
Servosystems	7 th	2/2	Ďurovský
Dynamic Phenomena of Electrical Machines	7 th	2/2	Záskalický

Electrical Machines for Automation	7 th	2/2	Ferková
Technology of Production in Electronics	7 th	2/2	Slosarčík
Vehicle Mechatronics	8 th	2/2	Đurovský
Construction and Design of Converters	8 th	2/2	Dudrik
Control of Assembly Lines with Programming Controllers	8 th	2/2	Fedor
Statistical Process Control	8 th	2/2	Bober
Diploma Project	8 th	0/4	Supervisor
Robotics	8 th	2/2	Žilková
Diploma Project II	9 th	0/6	Supervisor
Mechatronic Production Systems	9 th	2/2	Đurovský
Intelligent Control in EI Systems	9 th	2/2	Žilková
Three-Dimensional Modelling and Simulation	9 th	2/2	Ferková
Signal Processors	9 th	2/3	Lacko
Technology of Production in Electrotechnics	9 th	2/2	Girman
Diploma Thesis	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 Systems

Subject	Semester	Lectures/exercises (hours per week)	Lecturer
Power Electronics	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

5 RESEARCH PROJECTS

- *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)

- *Modular power converter for compact actuators with high precision gears.* Project supported by the Slovak Research and Development Agency under the contract No. APVV-15-0750. Principal investigator: ĎUROVSKÝ, F. (2016-2020).
- *Modular Development System for Control of Power Plant Units based on DCS.* Project supported by the Slovak Research and Development Agency under the contract No. APVV-16-0206. Principal investigator: FEDOR, P. (2017-2020).
- *Smart Drive with Five-Phase Asynchronous Motor.* Project supported by the Slovak Research and Development Agency under the contract No. APVV-16-0270. Principal investigator: : ZASKALICKÝ, P. (2017-2021).
- *Development of Dynamically Demanding and Energy-Optimal Electromechanical Systems.* Project VEGA 1/0187/18 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. (2018-2020)
- *High-Frequency Converters With High-Efficiency of Energy Conversion.* Grant FEI-2017-40: Principal investigator: PÁSTOR, M. (2018).

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, Embraco Slovakia Spišská Nová Ves, Kopex Košice, Slovak Union for Quality, Innovation and Design Q-IMPULZ, Košice, SEZ Krompachy, DATAKON Košice, SLOVRES Košice, STATON Turany, CAG Český Brod (ČR), ROŠERO-P, Sp.N.Ves.

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
- Széchenyi István University, Győr, 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
- University of Novi Sad, Serbia

6.2.1. Visits of Staff Members to Foreign Institutions

- DUDRIK, J., FEDÁK, V., PÁSTOR, M., KYSLAN, K., ŠLAPÁK, V.: IEEE-PEMC 2018 International Conference on Power Electronics and Motion Control, Budapest, Hungary, 26-30 August, 2018.
- FEDÁK, V.; ĎUROVSKÝ, F.; KYSLAN, K.; ŠLAPÁK, V.: SYMEP 2018, Modrava (CZ), 11-13 September 2018.
- FEDÁK V.: GOLDEN AMPER 2018 – a traditional competition for the most beneficial showpieces of the 26th International Trade Fair of Electrotechnics, Energetics, Automation, Lightning, and Security Technologies, Brno, Czech Republic – evaluation committee member, 19-22 March, 2017.
- FEDÁK, V.; FERKOVÁ, Ž.; ZÁSKALICKÝ, P.: University of Novi Sad, Serbia, 6 – 12 May 2018, ERASMUS Academic Staff Mobility.
- FERKOVÁ, Ž.: ZU Plzeň (CZ), January 2017.
- Ferková, Ž.: SPEEDAM, Amalfi, (Italy), June 2018
- FERKOVÁ, Ž.: TechSoft Engineering Praha (CZ), December 2018
- KAŇUCH, J.: KOMEL 2018, Katowice (PL), May 2018

6.3. Membership in International Organizations, Societies and Committees

- FEDÁK, V. Vicechairman of PEMC 2018 conference, Budapes, Hungary
- FEDÁK, V.: Vicechairman of the PEMC Council (Power Electronics and Motion Control) with the headquarters in Budapest.
- DUDRIK, J; FERKOVÁ, Ž, KYSLAN: IEEE members.
- PERDUKOVÁ, D.: member of Programme Committee: 13th International Conference on Soft Computing Models in Industrial and Environmental Applications – SOCO 2018, Leon, Spain, 6-8 June, 2018.
- ZÁSKALICKÝ, P.: member of International Scientific Committee: the 12th International conference ELEKTRO, Mikulov, Czech rep., 21-23 May, 2018
- ZÁSKALICKÝ, P.: member of International Scientific Committee: KOMEL, Rytro, Poland, 24-25 May, 2018

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).
- PERDUKOVÁ, D.: Program Committee of 18th Scientific Conference of Young Researchers of the Faculty of Electrical Engineering and Informatics, Technical University of Košice – SCYR 2018
- KOVÁČOVÁ, I., (chairman), DUDRIK, J., GIRMAN, M., PERDUKOVÁ, D., ZÁSKALICKÝ, P.: members of board for the PhD. Study in Electrical Systems at FEI TU Košice.

6.5. National Educational Projects

6.6. Editorial Boards

- BOBER, P. Editorial board of journal "Quality, Innovation, Prosperity" (Kvalita, Inovacia, 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.
- DUDRIK, J.: International Editorial Board of Power Electronics and Drives, Wroclaw, Poland, ISSN: 2451-0262, eISSN: 2543-4292.
- FEDÁK, V.: Editorial board of the Journal "Przeglad Elektrotechniczny" (Polish Academy of Sciences, Warsszaw, <http://www.red.pe.org.pl/>), ISSN 0033-2097, e-ISSN 2449-9544.
- FEDOR, P: Editorial board of Acta Electrotechnica et Informatica – AEI. Journal of the Faculty of Electrical Engineering and Informatics. ISSN 1335-8243.
- KYSLAN, K; Associate Editor of journal „Power Electronics and Drives“, Wroclaw, Poland, ISSN 2543-4292
- PERDUKOVÁ, D.: Editorial board of Elektroenergetika journal, ISSN 1337-6756.
- PERDUKOVÁ, D.; FEDÁK, V.; DUDRIK, J.; ĎUROVSKÝ, F.; FEDOR, P.; GIROVSKÝ, P.; LACKO, M.; KYSLAN, K.; PÁSTOR, M.: Editorial board of Elektrotechnické listy, ISSN 2453-8981
- 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. THESES Defened Ph.D. Theses in 2018

- BIROŠ, M.: *Power management in mobile systems*. Supervisor: Ďurovský, F.
- LEŠO, M.: *Fuzzy control of DC-DC converter*. Supervisor: Žilková, J.
- TALIAN, P.: *PLC based HIL workplace for verification of electrical drives control methods*. Supervisor: Perduková, D.

Thesis type	Bachelor	Master	Doctoral
Number	28	4	3

8 OTHER ACTIVITIES

8.1. Symposia, Workshops, Conferences

- *International Science Conference of the Teachers of Electrical Engineering - SEKEL 2018*, September 10.-12. 2018 Košice, Herľany, Slovakia.

8.2. Projects for Industry

- *Design of Power Supply and its Topology for House Appliances*. For BSH Drives and Pumps, Michalovce. Co-ordinator: PÁSTOR, M.

- *The study for the selection of an appropriate method of measuring the load in the washing machine.* For BSH drives and pumps s.r.o. Michalovce. Co-ordinator: PERDUKOVÁ, D.
- *Electromagnetic design of rotors for 3-phase synchronous reluctance motors. $P=3kW$, $15kW$.* For CAG Electric Machinery, Český Brod. Co-ordinator: FERKOVÁ, Ž.
- *Electromagnetic design of rotor geometry for 3-phase synchronous reluctance motors with $f_N=100Hz$.* For CAG Electric Machinery, Český Brod. Co-ordinator: FERKOVÁ, Ž.
- *Drive with BLDC motor 5,5kW.* (development of motor, power converter and controller). For CAG Electric Machinery. Co-ordinator: FERKOVÁ, Ž.
- *Training on technological control.* For Siemens Slovakia. Co-ordinator: ĎUROVSKÝ, F.
- *Training on technological control.* For Siemens Slovakia. Co-ordinator: ĎUROVSKÝ, F.
- *Development of control for drive on steam generator fragmenter.* For Sjf TU Košice, Co-ordinator: ĎUROVSKÝ, F.

8.3. Student Competitions and Rewards

- LEŠO Martin: SCYR 2018 (14 May 2018) – ELFA Prize, the EEE section, 4th year PhD students
- TALIAN Peter: SCYR 2018 (14 May 2018) –Dean of FEI TUKE Prize, the EEE section, 2nd – 4th year PhD students
- UVEGEŠ Róbert: SCYR 2018 (14 May 2018) – FPT Prize, the EEE section

9 PUBLICATIONS

9.1. Books

9.2. Textbooks (3)

- [1] BOBER, Peter: **Simulácia výrobných systémov - návody na cvičenia.** 1.vyd. [Simulation of production systems - training manuals]. First edition Košice: TU 2018. 71 p. ISBN 978-80-553-2963-5.
- [2] ŠLAPÁK, Viktor - LACKO, Milan: **Signálové mikrokontroléry.** 1. vyd. Košice, Technická univerzita v Košiciach. 2018. 55 s. ISBN 978-80-553-2970-3.
- [3] KYSLAN, Karol - ŠLAPÁK, Viktor - LACKO, Milan - ĎUROVSKÝ, František: **Automatické generovanie kódu z prostredia MATLAB Simulink.** 1.vyd. Košice: TU. 2018. 66 s. ISBN 978-80-553-2754-9.

9.3. Scientific Journals

Journals indexed in Thomson Reuters “Current Contents” database

- [1] BÉREŠ, M. - SILVA, C.C. - SARVEZUK, P.W.C. - WU, L. - ANTUNES, L.H.M. - JARDINI, A.L. - FEITOSA, A.L.M. - ŽILKOVÁ, Jaroslava - ABREU, H.F.G. de-FILHO, R.M.: **Mechanical and phase transformation behaviour of biomedical Co-Cr-Mo alloy fabricated by direct metal laser sintering.** In: Materials Science and Engineering A. Vol. 714 (2018), p. 36-42. ISSN 0921-5093. Spôsob prístupu: http://apps.webofknowledge.com/full_record.do?product=CCC&search_mode=GeneralSearch&qid=4&SID=F23mPTtSM24gVT3syuo&page=1&doc=1.
- [2] DUDRIK, Jaroslav - PÁSTOR, Marek - LACKO, Milan - ŽATKOVIČ, Róbert:

- Zero-voltage and zero-current switching PWM DC–DC converter using controlled secondary rectifier with one active switch and nondissipative turn-off snubber.** In: IEEE Transactions on Power Electronics. Vol. 33, no. 7 (2018), p. 6012-6023. - ISSN 0885-8993. Spôsob prístupu: <https://ieeexplore.ieee.org/document/8025398/>.
- [3] KAŇUCH, Ján - GIROVSKÝ, Peter: **The device to measuring of the load angle for salient-pole synchronous machine in education laboratory.** In: Measurement. Vol. 116 (2018), p. 49-55. - ISSN 0263-2241 Spôsob prístupu: <https://www.sciencedirect.com/science/article/pii/S0263224117306668>.
- [4] PADMANABAN, Sanjeevikumar - OZSOY, Emre - FEDÁK, Viliam - BLAABJERG, Frede: **Development of Sliding Mode Controller for a Modified Boost Cuk Converter Configuration.** In: Energies. Vol. 10, no. 10 (2018), p. 1-14. ISSN 1996-1073. Spôsob prístupu: <http://www.mdpi.com/1996-1073/10/10/1513/pdf>.
- [5] PADMANABAN, Sanjeevikumar - BHASKAR, Mahajan Sagar - MAROTI, Pandav Kiran - BLAABJERG, Frede - FEDÁK, Viliam: **An Original Transformer and Switched-Capacitor (T & SC)-Based Extension for DC-DC Boost Converter for High-VoltageLow-Current Renewable Energy Applications: Hardware Implementation of a New T & SC Boost Converter.** In: Energies. Vol. 11, no. 4 (2018), p. 1-23. - ISSN 1996-1073 Spôsob prístupu: <http://www.mdpi.com/1996-1073/11/4/783/pdf>.
- [6] FEDOROVÁ M. - PERDUKOVÁ D. - PIRNIK Z. - FEDÁK V. - SUKEL' O. - PADMANABAN S.: **The Fuzzy System as a Promising Tool for Drugs Selection in Medical Practice.** In: IEEE Access, Vol. 6, 2018, pp 27294-27301, Print ISSN: 2169-3536, Online ISSN: 2169-3536, doi: 10.1109/ACCESS.2018.2831282, Online: <https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=8352644>
- [7] ZÁSKALICKÝ, P.: **Mathematical model of a five-phase voltage-source PWM-controlled inverter** In: *Electrical Engineering* , vol. 99, No.4, December 2017, pp. 1179-1184, Springer, ISSN 0948-7921

Foreign Journals

- [1] KAŇUCH, Ján: **Design and construction of BLDC motor with axial magnetic flux for direct drive.** In: Maszyny Elektryczne - Zeszyty Problemowe. No. 3/119 (2018), p. 101-106. ISSN 0239-3646.
- [2] RICHTER, Aleš - FERKOVÁ, Želmíra - BITTNER, Václav: **Physical Analysis of Low-dynamic Magnetic Field Impact on Human Tissue.** In: Transactions on Electrical Engineering: an International Scientific Journal for Electrical Engineering. Praha (Česko): ERGO NOMEN Roč. 7, č. 1 (2018), s. 14-17 [online]. ISSN 1805-3386 (online). Spôsob prístupu: <http://www.transoneline.org/2018/20181.pdf>.
- [3] TALIAN, Peter - PERDUKOVÁ, Daniela: **Technological Line Control Verified on HIL Platform.** In: Machines, technologies, materials. Vol. 12, no. 1 (2018), p. 24-27. ISSN 1313-0226. Spôsob prístupu: <http://stumejournals.com/mtm/Archive/2018/1-2018.pdf>.

Foreign Journals indexed in Web of Science or Scopus databases

- [1] TALIAN, Peter - PERDUKOVÁ, Daniela - FEDOR, Pavol: **Stable and Robust Tension Controller for Middle Section of Continuous Line.** In: Elektronika ir Elektrotechnika. Vol. 24, no. 1 (2018), p. 3-10. ISBN 978-1-5386-0394-9 - ISSN 1392-1215. Spôsob prístupu: <http://ieeexplore.ieee.org/xpl/mostRecentIssue.jsp?punumber=7994985>.

National Journals

- [1] BIROŠ, Milan - ĎUROVSKÝ, František: **Modelovanie modulárneho multiport meniča**. In: QuoVadis Research @ FEI. Roč. 1, č. 1 (2018), s. 13-21. ISSN 2585-9587.
- [2] ĎUROVSKÝ, František - ÜVEGES, Róbert: **Kinematika hydraulického manipulátora s pantografickou štruktúrou**. In: Elektrotechnické listy. Roč. 3, č. 2 (2018), s. 1-3. ISSN 2453-8981. Spôsob prístupu: http://elektrotechnickelisty.eu/casopis/rocnik_III/clanky/EL_06_2018.pdf.
- [3] FEDOR, Pavol - PERDUKOVÁ, Daniela - RADVÁNI, Peter: **Emulátor energetických systémov**. In: ATP Journal. Roč. 25, č. 6 (2018), s. 48-50. ISSN 1335-2237.
- [4] GIROVSKÝ, Peter: **Neurónové pozorovatele pre vektorové riadenie asynchrónneho motora**. In: Elektrotechnické listy. Roč. 3, č. 2 (2018), s. 1-3. ISSN 2453-8981. Spôsob prístupu: http://www.elektrotechnickelisty.eu/casopis/rocnik_III/clanky/EL_05_2018.pdf.
- [5] GIROVSKÝ, Peter - KANUCH, Ján - GOMBOS, Zoltán: **Analýza vplyvu napájania univerzálneho motora**. In: Elektrotechnické listy. - 2018 Roč. 3, č. 3 (2018), s. 1-4. ISSN 2453-8981. Spôsob prístupu: http://www.elektrotechnickelisty.eu/casopis/rocnik_III/clanky/EL_08_2018.pdf.
- [6] KANUCH, Ján: **Využitie magnetickej kvapaliny v elektrotechnike - vysokofrekvenčný transformátor**. In: Elektrotechnické listy. Roč. 3, č. 1 (2018), s. 1-6. ISSN 2453-8981. Spôsob prístupu: http://elektrotechnickelisty.eu/casopis/rocnik_III/cislo_1_2018.html.
- [7] Lacko, Milan – Bezeg, Marián: **Svetelný rotujúci efekt riadený mikrokontrolérom**. In: Elektrotechnické listy, Roč. 3, č. 3(2018), s. 1-7, ISSN 2453-8981. Spôsob prístupu: http://elektrotechnickelisty.eu/casopis/rocnik_III/clanky/EL_10_2018.pdf
- [8] LEŠO, Martin - ŽILKOVÁ, Jaroslava - BIROŠ, Milan – TALIAN, Peter: **Survey of control methods for DC-DC converters**. In: Acta Electrotechnica et Informatica. 2018; Vol.18, no.3, p. 41-46 DOI 10.15546/aei-2018-0024
- [9] PÁSTOR, Marek - DUDRIK, Jaroslav - VITKOVSKÁ, Andrea: **Vysokofrekvenčný dcdc menič s mäkkým spínaním a poloriadeným mostíkovým usmerňovačom**. In: Elektrotechnické listy. Roč. 3, č. 1 (2018), s. 1-5. ISSN 2453-8981. Spôsob prístupu: http://elektrotechnickelisty.eu/casopis/rocnik_III/clanky/EL_03_2018.pdf.
- [10] PÁSTOR, Marek: **Výkonové polovodičové súčiastky na báze SiC**. In: Elektrotechnické listy. Roč. 3, č. 3 (2018), s. 1-6. ISSN 2453-8981. Spôsob prístupu: http://elektrotechnickelisty.eu/casopis/rocnik_III/clanky/EL_09_2018.pdf.
- [11] PERDUKOVÁ, Daniela - FEDOR, Pavol: **Fuzzy linearizácia nelineárnej dynamickej sústavy**. In: Elektrotechnické listy. Roč. 3, č. 2 (2018), s. 1-4. ISSN 2453-8981. Spôsob prístupu: http://elektrotechnickelisty.eu/casopis/rocnik_III/clanky/EL_04_2018.pdf.

Patents and Utility Models

- [1] BOBER, Peter - FERKOVÁ, Želmíra: **Detektor poškodenia kostry v oceľovo-kordovom dopravnom páse**. [Detector of carcass damage in the steel-cord conveyor belt] úžitkový vzor č. 8195. Banská Bystrica: ÚPV SR - 2018. 6 s.

- [2] DUDRIK, Jaroslav - LACKO, Milan - PÁSTOR, Marek - ŽATKOVIČ, Róbert: **Obvod na dosiahnutie mäkkého spínania v plnom rozsahu zaťaženia sekundárneho spínača v nepriamom jednosmernom meniči s riadeným usmerňovačom** úžitkový vzor SK 8169 Y1. Banská Bystrica: ÚPV SR 2018. 6 s.
- [3] DUDRIK, Jaroslav - LACKO, Milan - PÁSTOR, Marek: **Zapojenie spínača s mäkkým spínaním na sekundárnej strane transformátora v DC-DC meničoch so šírkovým riadením** úžitkový vzor SK 8190 Y1. Banská Bystrica: ÚPV SR 2018. 7 s. Spôsob prístupu: <https://wbr.indprop.gov.sk/WebRegistre/UzitkovyVzor/Detail/48-2017>.
- [4] DUDRIK, Jaroslav - BODOR, Marcel: **Spôsob riadenia nepriameho jednosmerného meniča s mäkkým spínaním so sekundárnym riadeným usmerňovačom s dvoma sekundárnymi spínačmi**. Patentová prihláška. Banská Bystrica: [s.n.] 2018. 6 s. Spôsob prístupu: <https://wbr.indprop.gov.sk/WebRegistre/Patent/Detail/12-2012>.
- [5] DUDRIK, Jaroslav - LACKO, Milan - PÁSTOR, Marek - ŽATKOVIČ, Róbert: **Bezstratový odľahčovací obvod na dosiahnutie mäkkého spínania v plnom rozsahu zaťaženia sekundárneho plnoriedeného spínača v nepriamom jednosmernom meniči s riadeným usmerňovačom s jedným spínačom**. Patentová prihláška. Banská Bystrica: [s.n.] 2018. 6 s. Spôsob prístupu: <https://wbr.indprop.gov.sk/WebRegistre/Patent/Detail/123-2017>.
- [6] KYSLAN, Karol - LACKO, Milan - ĎUROVSKÝ, František: **Testovacie zariadenie pre elektrické pohony s voliteľnou pružnosťou a voliteľnou vôľou spojenia**. Úžitkový vzor SK 8319 Y1. Banská Bystrica: ÚPV SR 2018. 7 s. Spôsob prístupu: <https://wbr.indprop.gov.sk/WebRegistre/UzitkovyVzor/Detail/200-2017>

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

Publication Type	Confereces		Other
	Foreign	Home	
Number	9	17	2