

Conference Programme – April 20, 2023 (Thursday)

09:00	Conference opening at University Congress Centre, floor no. 0 (Room between main building entrance and Aula Maxima entrance)
09:30-11:30	Presentations
Section EEE	FEEI Meeting Room, floor no. 2
Section EEE+CS	University Congress Centre, room 1, floor no. 0
Section CS	University Congress Centre, room 2, floor no. 0
11:30-12:30	Raut (Lunch) at University Congress Centre, floor no. 0
12:30	Winners awards at University Congress Centre, floor no. 0 Conference closing

EEE SECTION - FEEI Meeting Room, floor no. 2

TIME	AUTHOR	TITLE	DEPT	YEAR
09:30	Rikin Tailor	Feasibility of adding renewable energy, storage system and Electric Vehicle Charging Infrastructure in the Industrial zone	KEE	3
09:35	Pavol Smoleň	A Simple Stepper-Based Controller	KEM	5
09:40	Marek Kuzmiak	Effect of increased disorder on the pair-breaking mechanism in Mo ₂ N thin films	KF / UEF SAV KE	4
09:45	Maksym Karpets	Characterization and structural studies of magnetic fluids	KF / UEF SAV KE	4
09:50	Róbert Štefko	Design of protection system for microgrids	KEE	3
09:55	Ľuboš Šárpataky	Diagnostics of the surface of the contaminated insulator using the dielectric loss factor	KEE	3
10:00	Miloš Šárpataky	Dielectric properties evaluation of ester-based nanofluids with fullerene and magnetite nanoparticles	KEE	3
10:05	Stanislav Alexovič	3D Scanning of the Indoor Environment using a quadrotor drone	KEM	3
10:10	Simeon Samuhel	Influence of temperature on domain wall dynamics in rapidly-changing magnetic field	KF	3
10:15	Július Bačkai	3/2 power law in magnetoresistance of TmB ₄	KF / UEF SAV KE	3
10:20	Viktor Petro	Experimental Verification of High Frequency Signal Injection Sensorless Control of PMSM	KEM	3
10:25	Adrián Marcinek	Multiport Power Converter with Planar Transformer – Simulation Verification	KEM	3
10:30	Gabriela Hricková	Flexible Ag ₂ S Based Thermoelectrics for Use in Thermoelectric Generators	KTE	2
10:35	Dávid Bodnár	Modeling of supercapacitor for hybrid energy storage system applications	KEM	2
10:40	Dmytro Miakota	Goethite nanorods concentration influence on the E7 liquid crystal properties	KF / UEF SAV KE	2
10:45	Kristína Zolochevska	Biomedical and biotechnological applications of magnetic nanoparticles	KF / UEF SAV KE	2
10:50	Simona Šaparová	Study of structure and molecular mobility of thermoplastic starch-based nanocomposites using NMR	KF	1
10:55	Lukáš Pancurák	Model Predictive Control in Electrical Drives: An Overview	KEM	1
11:00	Daniel Marcin	Overview of the Battery Systems and Battery Management in Electric Vehicles and a Proposal of New Modular Battery System	KEM	1
11:05	Leoš Ondriš	Study of thermoplastic starch-based materials	KF	1

EEE+CS SECTION - University Congress Centre, room 1, floor no. 0

TIME	AUTHOR	TITLE	DEPT	YEAR
09:30	Natalia Kurkina	The new routing strategy using artificial intelligence methods in Cloud MANET	KEMT	2
09:35	Emira Alzeyani	A comprehensive overview of the study and analysis of Agile methodologies	KPI	2
09:40	Oliver Lohaj	Measuring usability of decision support system for cardiologists	KKUI	2
09:45	Peter Provázek	Contribution to Analysis of Thick Layers' Adhesion Fabricated by Screen Printing Technology	KTE	2
09:50	Jozef Kromka	Compressed sensing of bio-signals	KEMT	2
09:55	Miriama Mattová	VR systems and environments unification	KPI	2
10:00	Dávid Vaľko	Collecting and preprocessing ECG data from microcontrollers for future classification	KPI	2
10:05	Šimon Gans	On the comparison of various magnetoelastic compressive force sensor models	KTPE	2
10:10	Simona Kirešová	Measuring and Monitoring Particulate Matter in an Industrial Environment	KTPE	2
10:15	Stanislav Husár	Deep learning for upper limb rehabilitation	KKUI	2
10:20	David Jozef Hreško	nnMixNet - when mixup augmentation meets nnU-Net architecture	KPI	2
10:25	Maroš Harahus	Overview of datasets used for grammar error correction in NLP	KEMT	2
10:30	Róbert Rauch	Accelerating Computer Vision Tasks via Vehicular Edge Computing	KPI	2
10:35	Tomáš Adam	Detection of Significant Entities on Blockchain Network Using Machine Learning	KKUI	2
10:40	Maroš Hliboký	Lung ultrasound sign classification	KKUI	2
10:45	Zuzana Sokolová	Overview of trends in the field of detection of hate speech and offensive language on social media	KEMT	2
10:50	Dominik Vranay	Exploring Capsule Neural Networks and the Importance of Explainability	KKUI	2
10:55	Alexander Brecko	Federated Learning for Edge Computing for Industry 4.0	KKUI	2
11:00	Kristian Mičko	Computer Vision Services in Transportation	KKUI	2
11:05	Tatiana Kuchčáková	Incorporating Visual Features of Documents for Improved Information Extraction in the Legal Domain	KPI	2
11:10	Samuel Andrejčík	Modern methods of data hiding represented by QR codes in images	KEMT	2

CS SECTION - University Congress Centre, room 2, floor no. 0

TIME	AUTHOR	TITLE	DEPT	YEAR
09:30	Martin Nguyen	Exploring the correlation between solar cycles and terrestrial phenomena through machine learning analysis	KPI	1
09:35	Juliana Ivančáková	Ontology for Visualization tasks in Data-analytical processes	KKUI	4
09:40	Máté Hireš	Assessing the automated cross-dataset classification of Parkinson's disease from voice	KPI	4
09:45	Matej Gazda	Exploring the Diagnosis of Parkinson's Disease through Offline Handwriting: An Artificial Intelligence Approach	KMTI	4
09:50	Martin Havrilla	A Comparison of Machine Learning Methods for Network Traffic Classification	KPI	3
09:55	Martin Hasin	Analysis and Evaluation of Data Using Artificial Intelligence for Cybersecurity	KPI	3
10:00	Michal Kolárik	Overview: Explainability of Deep Learning Models in Medical Data	KKUI	3
10:05	Filip Gurbál	Clustering UI test cases for effective prioritization and selection	KPI	3
10:10	Michal Solanik	Update design of tool for automated optimization and parallelization in heliospheric field	KPI	3
10:15	Jakub Ivan Vanko	Graph Representation Learning	KKUI	2
10:20	Tomáš Tkáčik	Modeling and Experimental Identification of Nonlinear Dynamical Systems	KKUI	2
10:25	Dušan Herich	Architectures for Joint Vehicular Networks	KKUI	2
10:30	Maroš Krupáš	Human-Machine Collaboration in Industry 5.0	KKUI	1
10:35	Lenka Kališková	Overview of machine learning methods in the analysis of observation data	KKUI	1
10:40	Nikola Hrabovská	Overview of Energy Trilemma for Commodity Trading	KKUI / UI SAV BA	1
10:45	Lubomír Urblík	Load Distribution in Container-based Edge Computing	KKUI	1
10:50	Miroslava Pavlusová	The way to the methodological choice of explainability and interpretability methods	KKUI	1
10:55	Peter Pekarčík	Crossover of encryption algorithms	KPI	1
11:00	Norbert Zdravecký	Optimization of 64x100 Gb/s DWDM system with DQPSK modulation	KEMT	3
11:05	Maroš Lapčák	Design of an RSSI parameter prediction algorithm for hard switching methods in hybrid FSO/RF systems	KEMT	3
11:10	Maros Baumgartner	Robust Data Transmission in 5G Networks Without Infrastructure	KEMT	3