

2024 24th International Scientific Conference on Electric Power Engineering (EPE)

Thursday, May 16, 2024 - second day of the conference

Session Electrotechnology I, II (ROOM 400), 08:45–12:00

Guarantee: **Petr Kačor** (VŠB - Technická univerzita Ostrava, CZ)

Chairpersons: **Vladimír Šály** (Slovenská technická univerzita v Bratislavě, SK) and **Alexandru Băloi** (Universitatea Politehnica Timișoara, RO)



Time	No	Authors	Title of paper
8:45 - 10:15	25	Roman Hrbac, Vaclav Kolar, Stanislav Kocman, Lukas Demel, Libor Hrdina, Kamil Slany	Analysis of Power Flows in a Building with Non-linear Loads and a Hybrid Photovoltaic Power Plant with Battery Storage
	15	Jozef Kudelcik, Stefan Hardon, Alexey Gunya	Dielectric Analysis of a Polyurethane Enhanced by MgO or AlN Particles for an Application in Chemical Power Module Case
	18	Jozef Bendik, Matej Cenky, Levent Racz, Balint Nemeth	Static Line Rating of Overhead Power Lines in Various European Countries
	23	Illia Lazarenko, Matej Cenky, Jozef Bendik	A Simplified Urban-Scale Rooftop Photovoltaic Potential Estimation
	26	Lukasz Rokicki, Mirosław Parol, Piotr Palka, Marcin Kopyt, Pawel Piotrowski	Real-Time Electrical Energy Balancing and Limiting the Peak Power Demand of an Industrial Facility Using a Multi-Agent System - Early Solutions of the DIEGO Project
	31	Alexandru Baloi, Adrian Pana, Florin Molnar-Matei, Damian Cerbu, Ionut Popa	LabVIEW Virtual Instrument for the Command of an Adaptive Balancing Capacitive Compensator
	34	Aleksandra Pluzek, Lukasz Nagi, Michal Koziol, Ondrej Kabot	Analysis of selected parameters of Midel 7131 ester with addition of aluminum oxide Al ₂ O ₃
10:15 - 10:30	Coffee break		
10:30 - 12:00	41	Zaneta Eleschova, Boris Cintula, Anton Belan, Matej Cenky, Jozef Bendik	Positive Impact of the OLTC Blocking on the Voltage Stability
	43	Juraj Packa, Vladimir Saly, Peter Cubon, Milan Perny	Influence of Water on Selected Dielectric Properties of Impregnants in the Cured State
	45	Zaneta Eleschova, Matus Ludva, Boris Cintula, Anton Belan, Matej Cenky, Jozef Bendik	Two-Winding Transformer in Symmetrical Components
	46	Johannes Buberger, Wolfgang Grupp, Tobias Hogerl, Andreas Wiedenmann, Julian Estaller, Thomas Weyh, Manuel Kuder	Optimizing Bidirectional AC Charging Efficiency of Multilevel Batteries: A Simulation Approach
	28	Conor Healy, John G. Hayes	An Efficiency Optimized Gear-Shift Map to Maximise the Performance of a Modular E-Axle
	48	Conor Healy, John G. Hayes	Speed Vectoring Algorithms for Drivelines with Multiple Modular E-Axles
	55	Nina Sorokina, Wolfgang Bliemetsrieder, Julian Estaller, Dominic Karnehm, Thomas Weyh, Manuel Kuder	Performance Analysis of Reconfigurable Inverter Battery Systems for Aircraft Applications