

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

Friday, May 17, 2024 - third day of the conference

Session Electrical Networks I, II (ROOM 500), 08:00–11:30

Guarantee: **Tomáš Mičák** (VŠB - Technická univerzita Ostrava, CZ)

Chairpersons: **Zbigniew Leonowicz** (Politechnika Wroclawska, PL) and **Michał Jasiński** (Politechnika Wroclawska, PL)



Time	No	Authors	Title of paper
8:00 - 9:30	2	Lechuan Piao, Fei Xue, Xiaoliang Wang, Qigang Wu, Shaofeng Lu, Bing Han	Active Planning of Flexible and Cohesive Virtual Microgrids
	6	Huilin Zhu, Ziqian Zhang, Lothar Fickert, Guochu Chen, Yongming Zhang, Robert Schuerhuber	Impedance Measurement and Stability Analysis Based on Grid-Connected Inverter in D-Q Domain
	8	Karolina Cechova, Jaroslava Orsagova	Monitoring Level of Residual Currents in Dispatch System by New Function Embedded in Regulator of Arc-suppression Coil
	13	Jiri Dvoracek, Jiri Drapela, Jan Moravek, Martin Vojtek, Petr Mastny	In-Field Compliance Testing of an Existing Photovoltaic Power Generating Module
	19	Krzysztof Solak, Waldemar Rebizant, Frank Mieske, Klaus Boehme	ANN Stabilization of Negative-Sequence Integral Protection of Power Transformers for Turn-to-Turn Winding Faults
	37	Stanislav Kratochvil, Stanislav Rusek	Power grid security: N-1 criterion and DACF model
	32	Karel Maslo, Stanislav Macejko, Tomas Haba	Grid Forming Inverter Models for Stability Studies
9:30 - 10:00	Coffee break		
10:00 - 11:30	50	Karel Maslo, Vaclav Gromnica	Power System Dynamic Model as a Digital Twin
	51	Michal Vrana, Martin Vojtek, Jiri Drapela, Martin Kasperek	Transition of Inverter Generating Plants to Unintentional Island Operation in Part of the Distribution Network
	58	Miguel Kosmala Neto, Tomasz Okon, Kazimierz Wilkosz	Areas of Impact of Nodal Powers on Power Flows in a Power System
	59	Frantisek Margita, Lubomir Bena, Pawel Pijarski	Calculation of the ampacity of overhead power lines under the conditions of the electric power system of the Slovak Republic
	63	Matous Vrzala, Radomir Gono, Bretislav Stacho	Reliability improvement with automatic transition between grid-connected and islanded modes
	68	Tomas Mlcak, Roman Hrbac, Lukas Demel	Control of Outdoor Lighting Systems with Long-Distance Communication
	70	Tomas Gono, Lukas Vavra, Petr Krejci, Bretislav Stacho, Michal Jasinski	Harmonic Filter Design Methodology
76	Olena Rubanenko, Milan Belik, Jan Timr	Implementing European experiences of energy community strategy based on high utilisation of renewable energy sources to distributed power grids in Ukrainian conditions	