

# 2015 16th International Scientific Conference on Electric Power Engineering (EPE)

Wednesday, May 20, 2015 – first day of the conference

**Short presentations - Session III (ROOM "KAVARNA")**

Guarantee: Aleš Havel (VŠB - TU Ostrava, CZ)



Time	No	Authors	Title of paper
16:00 - 18:30	12	Vítězslav Stýskala, Dmitrii V. Kolosov, Yurii I. Zharkov, Yurii G. Semenov	The operation principles and implementation of automated system for arc disturbances control for AC and DC electrified railway lines
	13	Pavel Sobota, Stanislav Rusnok	Small-Scale Wind Power in Off-Grid and its Controlling by Variable Load
	14	Stanislav Rusnok, Pavel Sobota, Veleslav Mach, Petr Kačor, Stanislav Mišák	Possibilities of Program EMTP – ATP to Analyze the Starting Current of Induction Motor in Frequent Switching
	25	Petr Kadlec, Michal Čermák, Radek Polanský	Influence of Halloysite nanotubes in low-density polyethylene on electric polarization
	27	Stanislav Zajaczek, Stanislav Rusnok, Pavel Sobota, Lubomír Ivánek, Jitka Mohylová Jiří Cigánek	Analysis of current fields in the vicinity of railway SUDOP type of platform
	31	Michal Svoboda, Milan Valecka	Magnetic calculations using 3D FEM modeling for power transformers
	45	Jakub Souček, Jaroslav Hornák, Michal Svoboda, Miroslav Gutten	Comparison of the Electrical Properties of Canola Oil with Commercially Available Mineral Oil
	50	Ladislav Slíva, Stanislav Mišák	Optimization of the rotor part of a interior permanent magnets synchronous machine
	54	Michal Ney, Zdenek Hradilek, Daniel Minarik, Petr Moldrik	Research on Hydrogen Technologies in New Laboratory of VSB - TU Ostrava
	55	Tomáš Nazarčík, Zdeňka Benešová	Comparison of Joule's losses on transposed and non-transposed transmission line
	58	Pavel Brandstetter, Jiri Hajovsky, Ondrej Petrytl, Radek Sulak, Tomas Verner	Software Support and Data Collection System for Induction Motor Drive
	61	Vladimir Vajnar, Zdenek Vostracky, Jan Sedlacek	Analysis of breaking capability within asymmetrical short circuits
	74	Lukáš Varačka, Jozef Kúdelčík, Miroslav Gutten	Dielectric frequency response of mineral oil impregnated pressboard
	75	Jan Dudek, Roman Hrbáč, Tomáš Krenželok, Vladimír Březovský	Point Estimate of Failure Intensity and Operational Availability of Electronic Signaling Railway Equipment
	76	Milan Perný, Vladimír Šály, Miroslav Mikolášek, Michal Váry, Jozef Huran	Solar cell heterojunction a-SiC:H/c-Si structure under dark and illumination

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INVESTMENTS IN EDUCATION DEVELOPMENT

Time	No	Authors	Title of paper
16:00 - 18:30	94	Michal Váry, Thorsten Ruhnke, Vladimír Goga, Juraj Paulech, Justín Murín	Determining the Electrical Resistance of Polygonal Pole
	96	Ielyzaveta Ishkova, Ondřej Vítěk	Diagnosis of eccentricity and broken rotor bar related faults of induction motor by means of motor current signature analysis
	100	Martin Adamek, Zdenek Vostracky	Interference from transmission lines to buried pipelines
	102	Petr Bernat, Zdeněk Hytka, Petr Kačor	Indication of failures of rotor bar on induction machine with squirrel cage rotor in its external electromagnetic field
	107	Matouš Bartl, Pavel Rubáš	Artificial neural network regulator implementation for 50kW half controlled thyristor rectifier
	108	Andrej Kanovsky, Pavol Spaník, Michal Frivaldsky	Detection of electronic counterfeit components
	110	Ondrej Hock, Peter Drgona, Michal Frivaldsky, Rastislav Havrla	Simulation of manipulator positioning methodology using inverse kinematics
	111	Marek Piri, Viliam Jaros, Michal Frivaldsky	Verification of a mutual inductance calculation between two helical coils
	112	Boris Kozacek, Juraj Kostal, Michal Frivaldsky	Analysis of Figure Of Merit – power transistor's qualitative parameter
	121	Roman Hrbac, Tomas Mlcak, Jan Dudek, Stanislav Zajaczek	The development of a modern heat treatment unit with embedded control ensuring minimal retroactive effects on the supply network
	131	Martin Votava, Tomas Glasberger	Comparative study of pulse width modulation techniques for three-level voltage source based on cascaded connection of two-level inverters
	133	Martina Látková, Peter Braciník, Michal Baherník, Filip Suško	Modeling of a DC boost converter behavior in PV system using finite state machines
	151	Jaroslav Zajicek, Jan Kamenicky	Operation and maintenance of simple backup system
	160	Lukáš Lisoň, Iraida Kolcunová, Marek Pavlík	The Influence of Accelerated Ageing on the Oil Impregnated Paper
	176	Viktor Pokorný, Stanislav Mišák, Lukáš Prokop	Digitalization of Methods for Active Elimination of the Noise of Energy Equipment
	178	Abdelrahman, M., Abdellatif, O.E., Moawed, M., Eliwa, A., Stanislav Mišák	The CFD Performance Analysis for Horizontal Axes Wind Turbine with Different Blade Shapes and Tower Effect
	185	Dmitrii V. Kolosov, Yurii I. Zharkov, Jan Otýpka, Yurii G. Semenov	The principals of operation of the automated current collection diagnostic system for electrified railways
	187	Vaclav Kolar, Roman Hrbac, Tomas Mlcak	Measurement and simulation of stray currents caused by AC railway traction

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