

# 2019 20th International Scientific Conference on Electric Power Engineering (EPE)

Thursday, May 16, 2019 - second day of the conference

Session Electrical Networks I, II (ROOM 500)

Chairmans: **Petr Toman** (VUT Brno, CZ) and **Robert Schuerhuber** (TU Graz, AT)

Guarantee: **Jiří Gurecký** (VŠB - TU Ostrava, CZ)



| Time          | No           | Authors   | Title of paper   |
|---------------|--------------|---|--|
| 8:00 - 9:30   | 3            | Zbigniew Soljan, Grzegorz Hołdyński, Maciej Zajkowski                                   | Decomposition of the load's current supplied from a sinusoidal and asymmetrical voltage source in accordance with the Currents' Physical Components (CPC) Theory |
|               | 4            | Grzegorz Hołdyński, Zbigniew Soljan, Maciej Zajkowski                                   | CPC-based reactive compensation at three-phase four-wire systems powered from asymmetric sinusoidal voltage source   |
|               | 9            | Michael Barrett   | An Approach to the Determination of the Harmonic Content of a Waveform by Analysis of its DC Component.  |
|               | 37           | Vaclav Kolar, Roman Hrbac, Tomas Mlcak, Jiri Placek                                     | Energy harvesting systems for anticorrosive protection device  |
|               | 39           | Lavr Vetoshkin, Jan Votava, Jan Kyncl, Zdenek Müller                                    | Improvement of transient stability using STATCOM combined with optimization  |
|               | 43           | Michal Krbal, Ludek Pelikan, Jaroslav Stepanek, Vojtech Wasserbauer, Jaroslava Orsagova | Improving the Operating Parameters of the 300 kV AC Test System  |
|               | 44           | Martin Kurfirt, Martin Kaspirek, Jan Hlavnicka  | E-mobility Impact on Supply in Distribution Grid   |
| 9:30 - 10:00  | Coffee break |   |  |
| 10:00 - 11:30 | 50           | Piotr Sylwestrzak, Jerzy Szkutnik   | Augmented Reality as a Crucial Element in Modern Electric Distribution Company   |
|               | 60           | Ziqian Zhang, Robert Schürhuber, Lothar Fickert, Xu Liu, Qian Chen, Yongming Zhang      | Hardware-in-the-loop Based Grid Compatibility Test for Power Electronics Interface   |
|               | 75           | Waldemar Dolega   | Selected aspects of the electric energy supply security assessment – case study Poland   |
|               | 84           | Zsolt Čonka, Michal Kolcun, Karel Máslo   | Dynamic Simulation of Black Start Capability   |
|               | 85           | Karel Máslo, Jan Koudelka, Branislav Batora, Petr Toman                                 | Methods for Dynamic Stability Assessment   |
|               | 115          | Jozef Bendík, Matej Cenky, Žaneta Eleschová, Anton Beláň, Boris Cintula, Peter Janiga   | Influence of the Angle Between Two Power Systems on Electromagnetic Fields of Overhead Double Circuit Power Line   |
|               | 163          | Subba Reddy B, Gaurav Mitra   | Performance Analysis on High Temperature Low Sag (HTLS) and Conductors used for Rail Traction  |