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# GUEST EDITORIAL

eNergetics Conference has been held annually since 2015, and it has been organized by Research and Development Center ALFATEC in cooperation with Mathematical Institute of the Serbian Academy of Sciences and Arts and Complex Systems Research Centre COSREC.

The Conference co-organizers are the following respectable institutions: Academy of Sciences and Arts of the Republika Srpska, Faculty of Mining and Geology, University of Belgrade, and Faculty of Technical Sciences, UKLO University St. Climent Ohridski.

The Conference is organized under the patronage of the Ministry of Education, Science and Technological Development of the Republic of Serbia.

The aim of the eNergetics Conference is to provide an opportunity for researchers to exchange and discuss their respectable work in a variety of areas including:

- Energy Management
- Energy Modeling, Planning and Policies
- Energy Efficiency and Conservation
- Energy Pricing Policies
- New Technologies for Energy Saving
- Energy and Climate Change
- Sustainable Energy Technologies
- Renewable Energy and Alternative Fuels
- Computational Methods in Energy Economics
- Energy Economics

The papers appearing in this issue are from the eNergetics 2018 – 4$^{th}$ Virtual International Conference on Science, Technology and Management in Energy held in October 25-26.

There are six refereed contributed papers in this special issue. Preliminary versions were presented at eNergetics 2018 Conference and published in the eNergetics 2018 – 4$^{th}$ Virtual International Conference on Science, Technology and Management in Energy Proceedings.

The papers included here are fully refereed revised and extended versions.

***Circuit Breaker Replacement Strategy Based on the Substation Risk Assessment*,** Dragan Stevanović, Aleksandar Janjić develops methodology based on real field data. In this paper, based on 427 circuit breakers' statistical data, Weibull probability distribution of contact resistance for circuit breakers is determined. Authors calculate substations reliability and CBs' removal costs with this methodology.

***Cloud-based SCADA Systems: Cyber Security Considerations and Future Challenges*,** Mirjana D. Stojanović, Slavica V. Boštjančič Rakas, Jasna D. Marković Petrović describes cloud-based SCADA systems, and focus on cloud service selection as well as on the analysis of benefits and risks of cloud-based SCADA applications. Authors address security threats in cloud environment and present challenges in security provisioning regarding security solutions, risk management and test environment.

***Low Cost Cup Electronic Anemometer,*** Elson Avallone, Paulo César Mioralli, Pablo Sampaio Gomes Natividade, Paulo Henrique Palota, José Ferreira da Costa describes the Cup anemometer, an easy to build and low cost device which is a great choice for small farmers, but also for evaluation of wind turbines, and especially for meteorological stations.. The Reed Switch sensor is also another advantage as it does not require a sophisticated programming, as well as the open platform Arduino. The present sensor was developed as part of the project of a meteorological station to monitor the microclimate of the city of Catanduva-SP, Brazil.

***Transformative and Disruptive Role of Local Direct Current Power Networks in Power and Transportation Sectors,*** Prahaladh Paniyil, Rajendra Singh, Amir Asif, Vishwas Powar, Guneet Bedi, John Kimsey discusses the best possible energy solution for smart community. Authors focus on decentralized power generation, storage and distribution through photovoltaic and lithium batteries. The paper encompasses the need for local direct current (DC) power and provides an example of local DC power in the surface transport sector.

***Calculation of Losses in the Distribution Grid Based on Big Data,*** Lazar Sladojević, Aleksandar Janjić, Marko Ćirković provides a new approach for calculation of losses in the electrical distribution. This is done by analyzing the data available from the distribution grid operator. The used data set is available in the Serbian distribution grid operator's report for the year 2017.

***The Influence of Nonlinear Background on the Quality of Electricity,*** *Enver Agić, Damir Šljivac, Bakir Agić* discusses the power distribution network load and analyze three-phase part of the electrical network where the $Y_gY_g$ transformer connects the non-linear circuits of a set of personal computers (PCs) through the transformer. The load is balanced at each stage.

We are truly grateful to all the authors for their contributions to this special issue.

We acknowledge the important contribution of the eNergetics 2018 Program Committee members, listed below, for their valuable comments and reviews on the contributed papers.

We also express our sincere gratitude to Prof. Ninoslav D. Stojadinovic, Editor-in-Chief, and Dr. Danijel M. Dankovic, Technical Secretary, Facta Universitatis: Electronics and Energetics Series, for their support on this special issue.

We sincerely hope that publication of these results will stimulate continued research in the field of energy.

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