

Scientific program of the conference

1st Regular International Conference

“Green Energy and Smart Grids” to be held on July 29 – August 2 2018,
Baikal Dunes Lodge, Irkutsk, Russia.



Power & Energy Society®

**Russian (Siberian)
Chapter**

CONFERENCE ORGANIZERS



Melentiev Energy Systems Institute SB RAS
(Irkutsk, Russia)



National Central University (Taiwan)

TECHNICAL PARTNER



Irkutsk National Research Technical University
(Irkutsk, Russia)

VENUE

The conference will be held in a picturesque bay on the shore of Lake Baikal. This bay is located about 100 km from the city of Irkutsk and the international airport. Lake Baikal is a unique place on Earth. It is the deepest, oldest and largest lake on the planet. Its fresh, almost distilled water is saturated with oxygen. The lake is full of life from surface to bottom. Baikal is called the "well" of the planet, because about 20% of the world's freshwater is concentrated here.

Day 1
30.07.2018

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|----|---|---------------|---|
| 1 | Faa-Jeng Lin
Jin-Kuan Chang | Taiwan | Intelligent wind power smoothing control using recurrent fuzzy neural network |
| 2 | Novitsky Nikolay
Alekseev Alexander | Russia | The concept and technologies of the organization of a single information space as a necessary condition for the intellectualization of TPS |
| 3 | Massel Liudmila | Russia | Intelligent support tools for strategic decision-making on smart grid development |
| 4 | Novitsky Nikolay
Shalaginova Zoya
Tokarev Vyacheslav
Grebneva Oksana
Vanteeva Olga
Lutsenko Alexander
Alekseev Alexander | Russia | The concept and technologies of the organization of a single information space as a necessary condition for the intellectualization of TPS |
| 5 | Chao Yuan Lai
Yu-Chi Lin
Tien-Yen Yang
Chih Wen Liu | Taiwan | Performance of Implementing Smart DFT in Micro Phasor Measurement Unit |
| 6 | Boris Lukutin, Violetta
Kiushkina | Russia | Intellectual energy security monitoring of decentralized systems of electricity with renewable energy sources |
| 7 | Kolosok Irina
Korkina Elena | Russia | Analysis of State Estimation Software Resilience under cyber attacks to SCADA and WAMS |
| 8 | Robert Lis | Poland | Integration of algorithmic and heuristic techniques for reactive power compensation in smart microgrids |
| 9 | T.-F. Wu
Y.-H. Huang
T.-H. Lin | Taiwan | Multi-Function High-Power Converters for Smart-Grid Applications |
| 10 | Stennikov Valery
Edeleva Olga | Russia | Optimization energy sources structure taking into account the minimal atmosphere pollution |

Chairman - Nikolai Voropai, President of MESI SB RAS, Corresponding Member of RAS

Scientific Secretary - Dmitriy Karamov, PhD, MESI SB RAS

Day 2
31.07.2018

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|----|--|------------------------------------|---|
| 1 | Zoryna Tatyana
Shershunovich Evgeniya | Belarus | RES usage in the context of sustainable energy development:
countries of the Eurasian Economic Union |
| 2 | Chih-Feng Yen
He-Yen Hsieh
Kuan-Wu Su
Min-Chieh Yu
Jenq-Shiou Leu | Taiwan | Solar Power Prediction Via Support Vector Regression and
Random Forest |
| 3 | Butkhuyag Sodovin | Mongolia | Smart and microgrid in Mongolia |
| 4 | Kaganovich Boris
Stennikov Valery
Zarodnyuk Maksim
Yakshin Sergey | Russia | Application of conventional hydraulic circuits in the analysis of
environmental problems |
| 5 | Lombardi Pio
Suslov Konstantin
Pantaleo Antonio
Komarnicki Przemyslaw | Italy
Russia
Poland | Optimal sizing of electric and thermal storage units for a
Siberian net zero energy rural system |
| 6 | Karamov Dmitriy | Russia | Mathematical modelling of weather conditions using long-term
meteorological observation data |
| 7 | Stepanova Elena
Maksimov Alexey | Russia | Influence of internal relative efficiency of steam turbine
compartments on the performance of steam turbine
cogeneration plant |
| 8 | Glazunova Anna
Semshchikov Evgenii | Russia | Dynamic state estimation of electric power system including
wind power generation |
| 9 | G. Ayvazyan, S. Minasyan,
R. Barseghyan | Armenia | Optimization of Surface Reflectance for Silicon Solar Cell |
| 10 | Pham Trung Son | Vietnam | Objective trends in the expansion of development green energy
in Vietnam |
| 11 | Zhukov Aleksei
Muftahov Ildar
Sidorov Denis | Russia | Application of Volterra Equations to Solve Load Leveling
Problem |

Chairman - Faa-Jeng Lin, National Central
University, Department of Electrical
Engineering, Professor
Scientific Secretary - Dmitriy Karamov,
PhD, MESI SB RAS

Day 3
01.08.2018

1	Podkovalnikov Sergey Chudinova Liudmila	Russia	Peculiarities of formation and operating modes of interstate power grid in Northeast Asia under the large-scale expansion of renewables
2	Drachev Pavel Trufanov Victor	Russia	Method for long-term transmission systems expansion in current conditions
3	Boloev Evgeniy Golub Irina	Russia	Comparison of three phase distribution system state estimation methods
4	Yu-Jen Liu Gary Chang Yi-Feng	Taiwan	Analysis of Residential Electricity Saving on a DC-Coupled Hybrid Microgrid by the Real-Time Simulation
5	Panasetsky Danil Osak Alexander	Russia	Calculation and optimization of large scale multi-terminal AC-DC power systems
6	Cheng-I Chen Yeong-Chin Chen Chung-Hsien Chen	Taiwan	Rule-Based Technique for Monitoring of Voltage Events in Power Systems
7	Mednikov Aleksandr Maksimov Alexey Tyurina Elina	Russia	Mathematical modeling of mini-CHP based on biomass
8	Jian-Tang Liao Po-Yi Chen Hong-Tzer Yang	Taiwan	Optimal Sizing and Operating Strategies for VSG Based BESS in Ancillary Service Market
9	Tyurina Elina Mednikov Aleksandr Svetlana Sushko	Russia	Competitiveness of advanced technologies for production of electricity and alternative liquid fuel
10	Rong-Jong Wai Yu Wang	Taiwan	New Power Decoupling Strategy for Grid-Connected Inverter Under Weak Power Grid
11	Tzung-Lin Lee	Taiwan	A Decentralized Control of PV Inverters to Mitigate Voltage Rise in a Resistive Feeder
12	Popov Sergey Baldynov Oleg	Russia	Hydrogen energy technology development in Japan and Republic of Korea

Chairman - Suslov Konstantin, Irkutsk National Research Technical University, Department of Power Supply and Electrical Engineering, Associate Professor
Member of the Academic Council **Scientific Secretary** - Dmitriy Karamov, PhD, MESI SB RAS