IEEJ PES – IEEE PES Thailand

Joint Symposium 2023

– Advanced Technology in Power Systems –

March 24, 2023

The Lapis 1, 10th Floor, I-Residence Hotel Silom

Symposium registration
https://forms.gle/fYk9PtjG6YDMCQyC9

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---------- Technical Program ----------

08:00-08:15	**Registration**
08:15-08:30	**Opening address**
08:30-09:00	**Keynote Speaker** **Battery Storage System Applications in Thailand Power System** *Jiravan Mongkoltanatas* *National Energy Technology Center (ENTEC),* *National Science and Technology Development Agency*
Session I	
09:00-09:20*	**Proposal of a novel method for selecting a power factor of an inverter in a power system with high penetration of inverter-interfaced generations** *Yasuaki Yamada, Toshiya Nanahara, Kazuto Yukita (Aichi Institute of Technology)*
09:20-09:40*	**Adaptive MPC-Based Load Frequency Control for Microgrids Considering High Penetration of Renewable Energy** *Weichao Wang, Yutaka Sasaki, Yoshifumi Zoka (Hiroshima University),* *Naoto Yorino (Hiroshima University, National Institute of Technology (KOSEN)),* *Ahmed Bedawy (Hiroshima University)*
09:40-10:00	**Weekly Power Generation Forecasting of a 1.5 MWp Floating PV Power Plant using Deep Learning Techniques** *Nonthawat Khotsirwong, Terapong Boonraksa, Promphak Boonraksa,* *Thipwan Fangsuwannarak, Asada Boonsrirat, Boonruang Marungsri* *(Suranaree University of Technology)*
10:00-10:20	**Break**
Session II	
10:20-10:40*	**Quaternion Analysis of Transient Phenomena in Matrix Converter without Zero-Sequence Component** *Kazuo Nakamura, Yifan Zhang, Takumi Onchi, Hiroshi Idei, Makoto Hasegawa, Kazutoshi Tokunaga, Kazuaki Hanada, Takeshi Ido, Ryuya Ikezoe (Kyushu University), Osamu Mitarai (Tokai University), Shoji Kawasaki, Aki Higashijima, Takahiro Nagata, Shun Shimabukuro (Kyushu University)*

10:40-11:00	**A Comprehensive Analysis of the Role of Innovative Technologies for Achieving Green Transformation with Optimal Power Generation Mix Model** *Ryoichi Komiyama (The University of Tokyo)*
11:00-11:20	**Determination of Incentive Prices for End-User Provision of Voltage Grid Services** *Arnon Teawnarong, Pikkanate Angaphiwatchawal, Surachai Chaitusaney (Chulalongkorn University)*
11:20-11:40	**Distributed Optimization for P2P energy trading considering network fees** *Surapad larbwisuthisaroj, Surachai Chaitusaney (Chulalongkorn University)*
11:40-12:00	**A matching model for P2P energy market considering each participant's unique set of preferences** *Chuppawit Sompoh, Pikkanate Angaphiwatchawal, Surachai Chaitusaney (Chulalongkorn University)*
12:00-13:00	**Lunch**
Session III	
13:00-13:20	**Economic Analysis and Optimal Capacity of Lead-Acid and Lithium-Ion Batteries in Stand-alone Microgrid** *Promphak Boonraksa, Terapong Boonraksa, Waranyu Sarapan, Nonthawat Khotsriwong, Pinit Wongdet, Boonruang Marungsri (Suranaree University of Technology)*
13:20-13:40	**Multi-Purpose Use of Storage Battery Indispensable for Making Renewable Energy the Major Power Source** *Kenji Iba (Meisei University)*
13:40-14:00	**Enhancing Grid Frequency Stability through Virtual Inertia-Controlled Battery Energy Storage Systems** *Suphicha Punyakunlaset, Komsan Hongesombut (Kasetsart University)*
14:00-14:20	**Optimal PV Sizing of the PV-Based Battery Swapping Stations using Whale Optimization on the Radial Power Distribution System** *Terapong Boonraksa, Promphak Boonraksa, Waranyu Sarapan, Boonruang Marungsri (Suranaree University of Technology)*

14:20-14:40 **Applying Metaheuristic Optimization Techniques for Optimal Energy Management in Smart House**

Waranyu Sarapan, Nonthakorn Boonrakchat, Ashok Paudel, Terapong Boonraksa, Promphak Boonraksa, Boonruang Marungsri (Suranaree University of Technology)

14:40-15:00 **Break**

Session IV

15:00-15:20 **Efficient Clustering of Regional-Scale Distribution Network Data Using a Multi-Core Depth First Search Algorithm**

Thunwa Boonlert, Komsan Hongesombut (Kasetsart University)

15:20-15:40 **Development of Grid Protection Relays for Off-Grid Power Network Mostly Using Inverter-Based Power Source**

Yoshiinobu Ueda (Meidensha Corporation), Kazuhiro Yoshiyama (Tokyo Electric Power Company Holdings, Inc.), Kenjito Mori (TEPCO Power Grid, Inc.)

15:40-16:00 **A Study on AI Based Techniques for Fault Localization in a Distribution System**

Kumari Nanda, Channarong Banmongkol (Chulalongkorn University)

Venue Map

https://goo.gl/maps/vtD3TriuXQ4dt4BK8