# Program

## Wednesday, December 10, 2008

**Opening Ceremony**

Time: 10:00-10:10

Venue: Academy Common 2F Rooms A2 &A3

**Plenary Talk 1**

Time: 10:10-11:00

Venue: Academy Common 2F Rooms A2 &A3

Chair: Hiroyuki Mori, Meiji University, Japan

**Intelligent System Application in Wind Power Utilization**

*Istvan Erlich, University of Duisburg-Essen, Germany*

**Break (11:00-11:10)**

**Plenary Talk 2**

Time: 11:10-12:00

Venue: Academy Common 2F Rooms A2 &A3

Chair: Hiroyuki Mori, Meiji University, Japan

**FACTS and DFIGs of Wind Power for Smart Grid Systems: Control and Implementation**

*Chia-Chi Chu, National Tsing Hua University, Taiwan*

**Lunch Break (12:00-12:50)**

**Plenary Talk 3**

Time: 12:50-13:40

Venue: Academy Common 2F Rooms A2 &A3

Chair: ‘Teruhisa Kumano, Meiji University, Japan

**Ubiquity in Next Generation Power Systems and Some Associated Features and Challenges**

*Kithsiri M. Liyanage, University of Peradeniya, Sri Lanka*

*Akihiko Yokoyama, University of Tokyo, Japan*

**Break (13:40-13:50)**

**Invited Paper Session A (13:50-14:50)**

Venue: Academy Common 2F Rooms A2 &A3

Chair: Hiroyuki Mori, Meiji University, Japan

**Invited Paper A1(13:50-14:20)**

**Optimal Refuse Disposal Planning Considering the Environmental Load Minimization**

*Masakazu Kato, Tokyo Denki University, Japan*

*Hideo Sugahara Tokyo Denki University, Japan*

*Yoshihiro Aoyagi, Tokyo Denki University, Japan*

**Invited Paper A2 (14:20-14:50)**

**Impacts of Wind Power on a Power System - Results of Some Related Researches in Japan**

*Toshiya Nanahara, CRIEPI, Japan*

**Break (14:50-15:00)**

**Invited Paper Session B (15:00-16:30)**

Venue: Academy Common 2F Rooms A2 &A3

Chair: Teruhisa Kumano, Meiji University, Japan

**Invited Paper B1 (15:00-15:30)**

**Fast Estimation of Eigenvalues of Power Systems Using Mode Coupling Method**

*Naoyuki Uchida, Tokyo University of Science, Japan*

**Invited Talk B2 (15:30-16:00)**

**An Economic and Reliability Evaluation for the Operation of Distributed Energy Resources**

*Yutaka Sasaki, Hiroshima University, Japan*

*Naoto Yorino, Hiroshima University, Japan*

*Yoshifumi Zoka, Hiroshima University, Japan*

**Invited Paper B3 (16:00-16:30)**

**Demonstrative Research on Clustered PV Systems**

*Yusuke Miyamoto, Kandenko, Japan*

**Poster Session** [*1]

Time: 16:30-18:30

Venue: Academy Common 2F Rooms A4, A5 &A6

Chair: Hiroyuki Mori, Meiji University, Japan

Note) [*1] Complementary hors d'oevure and drinks are available.

**P1 Rule Based Intelligent Voltage Control of Hybrid Clean Energy System**

*Kensuke Inuzuka, Meiji University, Japan*
*Yu Okubo, Meiji University, Japan*
*Naoki Hosaka, Meiji University, Japan*
*Teruhisa Kumano, Meiji University, Japan*

**P2 A Fast Computing Method of Shortest Path Problems using FPGA**

*Tetsuo Araki, Meiji University, Japan*
*Teruhisa Kumano, Meiji University, Japan*

**P3 Available Transfer Capability Screening Considering Transient Stability by Support Vector Machine**

*Hiroaki Takahashi, Meiji University, Japan*
*Akihiro Wada, Meiji University, Japan*
*Teruhisa Kumano, Meiji University, Japan*

**P4 Development of Independent form Photovoltaic generation system and Evaluation of the Economy and Environment**

*Kazuaki Terao, Meiji University, Japan*
*Teruhisa Kumano, Meiji University, Japan*
*Tomonaga Otsuka, Meiji University, Japan*
*Toshihiko Nakano, Meiji University, Japan*

**P5 A Verification of the Advantage of Hourly Data Consideration in Hours Ahead Demand Forecast**

*Naoki Kojima, Meiji University, Japan*
*Teruhisa Kumano, Meiji University, Japan*

**P6 A Simulation of Voltage Stabilization by Rule Base Control**

*Yu Ookubo, Meiji University, Japan*
*Teruhisa Kumano, Meiji University, Japan*
*Hiroaki Takahashi, Meiji University, Japan*
*Naoki Hosaka, Meiji University, Japan*
*Yoshiro Tokuda, Meiji University, Japan*

**P7 A Simulation of Thermal Conductivity and Joule-heat of Superconducting Y-Ba-Cu-O**

*Takayuki Taguchi, Meiji University, Japan*
*'Teruhisa Kumano, Meiji University, Japan*

**P8 A Fundamental Study on the Voltage Collapse by Group Behavior of On-Load Tap Changers**

*Yoshiro Tokuda, Meiji University, Japan*
*'Teruhisa Kumano, Meiji University, Japan*

**P9 Voltage Control of Power System with Large Wind Power Generation**

*Naoki Hosaka, Meiji University, Japan*
*Teruhisa Kumano, Meiji University, Japan*

**P10 The Impacts of Superconducting Generator upon Power Systems with Wind Power Plants**

*Masashi Ogura, Meiji University, Japan*
*Teruhisa Kumano, Meiji University, Japan*

**P11 Evolutionary Programming Incorporating Neural Network for Transient Stability Constrained Optimal Power Flow**

*Kritsana Tangpatiphan, University of Tokyo, Japan*
*Akihiko Yokoyama, University of Tokyo, Japan*

**P12 Stochastic Estimation of Voltage Sags in Power Systems**

*Le Viet Tien, University of Tokyo, Japan*
*Akihiko Yokoyama, University of Tokyo, Japan*

**P13 Risk-Based TTC Calculation in a Power System with Wind Generation Systems**

*Nattawut Paensuwan, University of Tokyo, Japan*
*Akihiko Yokoyama, University of Tokyo, Japan*

**P14 A Frequency Domain Approach to Coordinating Resources of Load Frequency Control of a Power System**

*Yuta Hamada, Tokyo Institute of Technology, Japan*
*Yoshihiko Kataoka, Tokyo Institute of Technology, Japan*

**P15 Performance Evaluations of AR, CPS, MAC as LFC Indices**

*Naoto Yorino, Hiroshima University, Japan*
*Yoshifumi Zoka, Hiroshima University, Japan*
*H. Nakayama, Hiroshima University, Japan*
*Yuji Ohnishi, Hiroshima University, Japan*
*Yutaka Sasaki, Hiroshima University, Japan*
*Mohd Hafiz Habi Buddin, Hiroshima University, Japan*

**P16 Optimal VAR Allocation by Means of Heuristic Technique**

*Mehdi Eghbal, Hiroshima University, Japan*
*Naoto Yorino, Hiroshima University, Japan*
*Yoshifumi Zoka, Hiroshima University, Japan*
*Yutaka Sasaki, Hiroshima University, Japan*
*E.E. El-Araby, Suez Canal University, Egypt*
*Rony Seto Wibowo Hiroshima University, Japan*

**P17 Particle Swarm Optimization with Convergence Control**

*Naoya Nakagawa, Osaka Prefecture University, Japan*
*Atsushi Ishigame, Osaka Prefecture University, Japan*

**P18 Time Series VQC Approach Considering Time Lag of Voltage Control Device**

*Yasuo Shigemori, Osaka Prefecture University, Japan*
*Atsushi Ishigame, Osaka Prefecture University, Japan*
*Osamu Yasubo, Kansai Electric Power Company, Japan*
*Takeshi Kawaguchi, Kansai Electric Power Company, Japan*

**P19 Typical Fuel Cell technology for Dispersed Generation**

*Nguyen Duc Tuyen, Shibaura Institute of Technology, Japan*
*Goro Fujita, Shibaura Institute of Technology, Japan*

**P20 Development of Vehicle Power System Friendly to the Environment**

*Ryuta Ochiai Shibaura Institute of Technology, Japan*
*Norio Nagashima, Shibaura Institute of Technology, Japan*
*Goro Fujita, Shibaura Institute of Technology, Japan*
*Takafumi Fukada, Isuzu Advanced Engineering Center, Ltd*

**P21 How to Use Battery Which Is Effective for Power Supply**

*Yoshihiro Kusaba, Shibaura Institute of Technology, Japan*
*Goro Fujita, Shibaura Institute of Technology, Japan*
*Toshihisa Funabashi, Meidensha Corporation, Japan*
*N. Nomura, Meidensha Corporation, Japan*
*Ryuichi Yokoyama, Waseda University, Japan*

**P22 Network Reconfiguration and Capacitor Control for Loss Minimization in Distribution Systems with Multi-objective Meta-heuristics**

*Kojiro Shimomugi, Meiji University, Japan*
*Hiroyuki Mori, Meiji University, Japan*

**P23 Application of Relevance Vector Machine to Temperature Forecasting for Short-term Load Forecasting**

*Daisuke Kanaoka, Meiji University, Japan*
*Hiroyuki Mori, Meiji University, Japan*

**P24 Continuation Power Flow for Voltage Stability Analysis in Three-phase Unbalanced Distribution Systems**

*Koutaro Seki, Meiji University, Japan*
*Hiroyuki Mori, Meiji University, Japan*

**P25 Development of Distribution System Service Restoration Algorithm with Probabilistic TS**

*Takayuki Muroi,, Meiji University, Japan*
*Hiroyuki Mori, Meiji University, Japan*

**P26 Application of EPSO to Determination of Non-Gaussian Probabilistic Density Function for Probabilistic Load Flow**

*Wenjun Jiang, Meiji University, Japan*
*Hiroyuki Mori, Meiji University, Japan*

**P27 Application of SPEA2 with VLS to Multi-objective Distribution Network Expansion Planning**

*Takafumi Yoshida, Meiji University, Japan*
*Hiroyuki Mori, Meiji University, Japan*

**P28 Short Term Unit Commitment Scheduling with Priority List Limit Based Hybrid Meta-Heuristics**

*Kenta Okawa, Meiji University, Japan*
*Hiroyuki Mori, Meiji University, Japan*

**P29 A Data Mining Method for Selecting Meteorological Variables in Wind Speed Prediction**

*Yasushi Umezawa, Meiji University, Japan*
*Hiroyuki Mori, Meiji University, Japan*

**P30 Quantitative Estimation of Reduction of $CO_2$ Emission by NAS Battery**

*Y. Hida,, Waseda University, Japan*
*R. Yokoyama,, Waseda University, Japan*
*K. Iba, Meisei University*
*K. Tanaka, K. Yabe, Tokyo Electric Power Co. Inc.*

**P31 Contribution for $CO_2$ Emission Reduction by Microgrid Including Sustainable Energy and Battery**

*N. Saito, Waseda University, Japan*
*T. Niimura,, Waseda University, Japan*
*K. Koyanagi,, Waseda University, Japan*
*R. Yokoyama,, Waseda University, Japan*

**P32 Noise Level Reduction in Outdoor Substations by Pseudo-Inverse Matrix**

*D. Yamashita, Waseda University, Japan*
*H. Tanaka,, Waseda University, Japan*
*T. Niimura, Waseda University, Japan*
*R. Yokoyama,, Waseda University, Japan*

**P33 Operation of Micro Grid with Renewal Sources**

*Y. Chiba,, Waseda University, Japan*
*R. Yokoyama, Waseda University, Japan*
*K. Koyanagi, Waseda University, Japan*
*G. Fujita, Shibaura, Institute of Technology, Japan*
*Toshihisa Funabashi, Meidensha Corporation, Japan*
*N. Nomura, Meidensha Corporation, Japan*

**P34 Practical SVC Allocation to Regulate Probabilistic Voltage Changes in Distribution Networks**

*Y. Sano, Waseda University, Japan*
*K. Sato, Tokyo Electric Power Company, Japan*
*M. Taki, Tokyo Metropolitan University, Japan*
*R. Yokoyama, Waseda University, Japan*