Grand Renewable Energy 2018

International Conference and Exhibition

Advanced Technology Paths to Global Sustainability

www.grand-re2018.org

Conference: **June 17 (Sun) – 22 (Fri),** Exhibition: **June 20 (Wed) – 22 (Fri)**

Venue: Pacifico Yokohama, Yokohama, Japan

How to accelerate Renewable Energy Integration

Chairperson's Message

The Paris Agreement in COP21 is the agreement applicable to all participants of parties for the first time in history and serves as a turning point with an eye toward a decarbonized society. Under the Agreement, the greenhouse gas emissions are to be reduced dramatically to almost zero by the end of this century. With this long-term goal in the Paris Agreement, it is important for us to accelerate strategic efforts and initiatives carbon emission reduction in energy demand and supply.

The practical challenge to achieve is low-carbonization of energy supply, energy conversion, and energy conservation including smart integration of renewable energy in maximum both in supply and demand sides. Financial strategy, policy initiatives and advanced technology development must be associated with them. Intelligence and cutting- edge technologies are indispensable in the fields of electricity, electronics, mechanics, physics, chemicals, biology, architecture, civil, mathematics, meteorology, sociology, systems, finance, and integrated management.

We have great expectation and feel glad to have discussion about these crucial issues through more than 900 papers' presentation covering 12 areas of renewable energies. Plenary session by the invited speakers, more than 15 experts, from all over the world are also programmed. International exhibition is held in parallel.

We, Organizing Committee, welcome all those participating in Grand Renewable Energy 2018 Conference, and look forward to seeing in Yokohama.

General Chair, **Prof. Kazuhiko Ogimoto** (the University of Tokyo), Deputy Chair **Dr. Yoshiro Owadano** (AIST), Oversea Rep, **Dr. Dave Renne** (ISES)

***ABSTRACT submission** on going!! through Web*

- Jan. 31, 2018: Due date of Abstract submission
- Apr. 30.2018: Early Bird end of Registration
- Jun. 17-22: Full Paper submission at onsite venue
- Sep. end 2018: Almost all Full Papers in DVD, to you

Features of Conference

- **Main CASTER**: all those presenting the paper, totaling 1000.
- **Keynotes**: Directors from NREL and Flaunhofer
- **Invited Speakers**: 15 Experts from 12 Logo Areas
- **Special Sessions and Workshop** will be programmed.
- **Exhibition**: about 40,000 visitors for 300 exhibitors

Policy & Concept | Photovoltaics | Solar Thermal Applications | Innovative Bioclimatic Architecture | Wind Energy | Biomass Utilization & Conversion | Hydrogen & Fuel Cell | Ocean Energy | Geothermal Energy & Ground-Source HP | Energy Network | Energy Conservation & Heat Pump | Small Hydro & Non-Conventional Energy

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Conference Topics

1. Policy & Integrated Concept
- Policy Instruments, e.g.FIT
- Scenario
- RE and Climate Change, toward CO2 Zero
- RE in the Context of Sustainable Development
- Mitigation Potential and Costs
- Financing and Implementation
- R&D Policy
- Energy Technology Loadmap
- International Cooperation and Collaboration

2. Photovoltaics
- Novel Materials and Concepts
- Silicon Solar Cells
- Compound Semiconductor Thin Film Solar Cells
- III-V Solar Cells, Concentrator and Space Applications
- Perovskite Solar Cells
- Organic Thin Film and Dye-sensitized Solar Cells
- Multijunction Solar Cells
- Module Reliability
- Performance Characterization Method
- PV Systems, BOS Components and Grid Integration
- Operation and Maintenance
- Forecast and Solar Resources

3. Solar Thermal Application
- Solar thermal collector
- Solar based heat pump technology
- Solar Cooling
- Solar-fired power generation
- Solar Binary Power Generation
- Thermal Energy Storage
- Solar-thermally driven chemical processes
- Solar thermal utilization for hydrogen or fuel production
- Solar desalination
- Solar cooker
- Solar thermal detoxification

4. Innovative Bioclimatic Architecture
- Vernacular Architecture / Passive Design
- Zero Energy House/ Zero Energy Building
- Zero Net Carbon
- Affordable Green Housing
- Building Stock Activation / Refinement
- Smart City / ICT
- Comfort and Indoor Climate
- Energy Management System /Commissioning
- Elements and Materials
- Building Evaluation Index/Tool

5. Wind Power
- Offshore Wind Energy
- Advanced Wind Turbine Technology
- Grid Connection and Electrical Systems
- Site Assessments and Forecasting
- Plant Design and Management
- Operation and Maintenance
- Tower and Foundation
- Measurement and Monitoring Techniques
- Acoustics and Noise Issues
- Small/Distributed Wind Power
- COE of Wind Power
- Social and Environmental Issues

6. Biomass
- Biofuels (Bioethanol, BDF including BTL)
- Biomaterials
- Gasification and combustion
- Biomass Refinery
- Marine Biomass including freshwater biomass
- Pyrolysis and carbonization including torrefaction
- Anaerobic Digestion
- Carbon Neutrality
- Forestry
- Hydrothermal Technology
- Sustainability

7. Hydrogen & Fuel Cell
- Hydrogen Energy Systems
- Hydrogen Production
- Hydrogen Transportation and Storage
- Hydrogen End-Use Technology
- Technology and Fabrication
- Fuel Cell for Transportation
- Fuel Cell Power Plants
- Fuel Cell for Co-generation

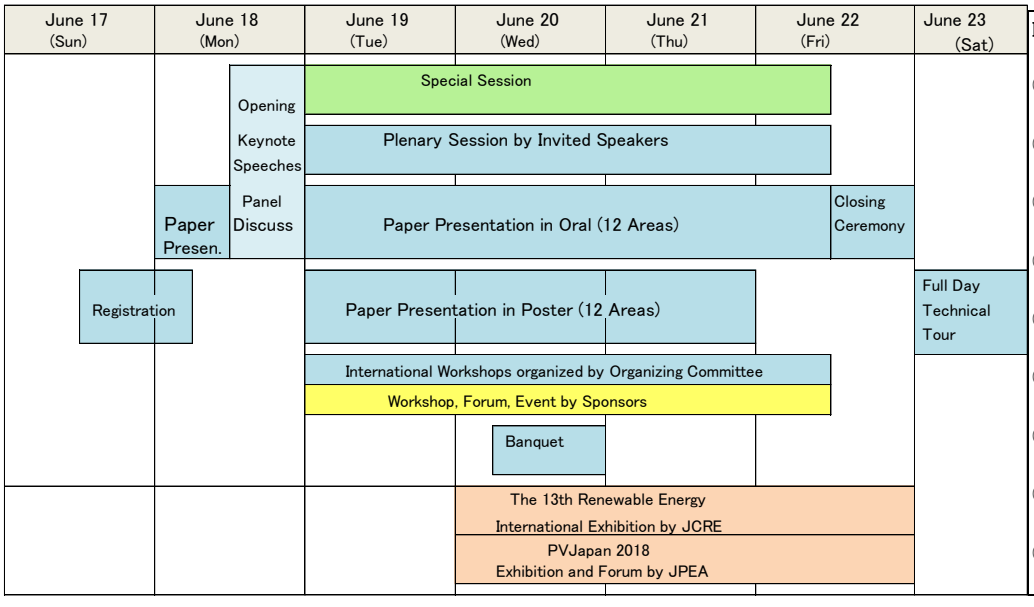
8. Ocean Energy
- Wave Energy
- Tidal Current Energy
- Ocean Current Energy
- OTEC
- Offshore Wind Energy
- Utilization with Aquaculture
- Resource Assessment and Monitoring
- Economic Assessment
- Ocean Resources for Energy
- Ocean Marine Biomass
- Deep Sea Water Application

9. Geothermal Energy & Ground-Source Heat Pump System
- Exploration
- Geothermal Field
- Reservoir Engineering
- EGS
- Power Generation
- Public Acceptance
- Geochemistry
- Environmental Aspects
- Geo-Heat
- Ground-Source Heat Pump
- Direct Use
- Geothermal Frontier

10. Energy Network
- Smart Grid
- Micro-grid
- Energy Network
- Distributed Energy Resources
- Power Storage and System
- Vehicle to Grid
- Demand Response
- Power Electronics
- Superconductor and System
- Advanced Electric Car

11. Energy Conservation & Heat Pump
- Air-conditioning/Heat Pump
- Area Energy and Environmental Management
- Combined Heat and Power Utilization
- Energy Conservation and Assessment
- Gobal Warming/Heat Island and Other Environmental Issues
- Net Zero Energy Building/House
- Refrigeration and Refrigerants
- Renewable Energy Utilization
- Thermal Energy Technology and Storage
- Thermodynamics and Energy Management

12. Small Hydro & Non-Conventional Energy
- Hydropower Development and Utilization
- Practical Examples and Field (Model) Tests
- Micro & Pico System
- Undeveloped Energy for Human Life
- Unused Energy Recovery



Manuscript Procedures

① Abstract Submission
- 2 Pages, Due Jan.31

②Abstract peer review
- February

③Acceptance Notice
- march

④Detail Presen. Notice
- May (When, Where)

⑤Full Paper submission
- June 17-22 at Onsite

⑥Presentation at Venue
- June 17-22 at Onsite

⑦J-Stage Option
- June 17-22 at Onsite

⑧Full Papers Compiling
- Complete by Sep 31

⑨DVD to all participants