

Renewable Energy 2010 International Conference Management Digest

27June - 2July .2010 Pacifico Yokohama . Yokohama, Japan

Organization

So called RE2010 International Conference was held from June 27 to July 2 in Pacifico Yokohama, Yokohama city, which was initiated by RE2010 Organizing Committee, chaired by Professor Takao Kashiwagi and composed of 400 committee members, assented by 70 industrial and academic societies. Government bodies like NEDO and AIST have also played a leading role of conference as well as JCRE, Japan Council for Renewable Energy. The Co-Organizers were eight bodies involving ISES, International Solar Energy Society. The supporting ministries sum seven, heading METI. The city of Yokohama and Tokyo was also supporter. Organizing committee pays very much appreciation to all of contributed bodies.

Conference Objective and Goal

The conference was planned with five objectives such as (1) to implement the commitment of former and first conference held in Japan in 2006 (RE2006), where we promised to meet again to share the technology solution for renewable energy, (2) to seek the materialized solution and idea for coming urgent issues such as global warming and low carbon energy society through the innovative and advanced technology to use renewable energy, (3) to cultivate excellent personnel for renewable energy deployment technology through the international conference, focusing young researchers and engineers, (4) to know about global clean and green energy policies each other through the various country participation and presentation, and (5) to create first class international conference so as to be appraised as it is.

With the precious aim of conference written above, International Exhibition was also organized as wheel of vehicle in the same venue. Bodies of PVJapan2010 and The 5th New Energy Exhibition were the organizer. Combining Conference and Exhibition, it was named virtually as Renewable Energy World Fair 2010. Both cover 12 areas; (1) Policy, (2) Photovoltaic, (3) Solar Thermal, (4) Low Energy Architecture, (5) Wind Energy, (6) Biomass, (7) Hydrogen and Fuel Cell, (8) Ocean Energy, (9) Geothermal, (10) Advanced Power System, (11) Heat Utilization and Energy Efficiency, (12) Small Hydro and Non-Conventional Energy.

Overview of Result

The conference participants counted 1,359 from 66 countries including Japan. These numbers exceeded original plan of 1,200 from more than 50 countries. The 957 abstract papers passed the program committee. Among that, the 887 papers were presented at onsite in 459 of Oral and 428 of Poster. The number of student was 297 out of 1,359, whose ratio was doubled more than the former conference, RE2006.

The 18 renown intelligent experts were invited as plenary speaker covering all 12 areas from various countries, that is, three experts from USA, two from Japan and Australia, one from Denmark, Singapore, Spain, Netherland, UK, Thailand, Norway, Swiss, Germany, China, Korea, each.

The 10 workshops with 81 presentations were held within the international conference, focusing the epoch of each specialized areas such as innovative solar cell production, advanced smart grid system, University initiative project on sustainable society, and so on. In parallel, the 8 special sessions were held in initiative of METI/NEDO, NEDO, AIST, NEF, IEA, and Yokohama city. In METI/NEDO session, representatives of IEA and IRENA were also invited.

Opening ceremony was held on June 30 morning jointly with International Exhibition in order to maximize participation. The number of 1,000 participants attended. Following the tape cut ceremony, keynote speech was held by representative from Japan and oversea. Professor Toshio Yamagata of The University of Tokyo and Dr. David Renne of NREL Principal and ISES President played such an important role.

Technical tour was implemented as scheduled for three courses such as (1) to Mitsubishi Heavy Industry Co. to see the 2.4MW wind turbine manufacturing factory and its operating site on June 28, (2) to Japan Agency for Marine-Earth Science and Technology to see earth geo climate simulator and marine science on June 29, (3) to Hokuto city to see 2MW solar cell demonstration plant on July 3.

As for Exhibition, from June 30 to July 2, the number of visitors summed 44,290 in three days. The 450 companies and associations, including 67 oversea exhibitors, displayed own booth. Epoch making was, for example, micro IT new grid system, innovative heat and power storage, advanced solar cells. In academic corner, 42 universities and academic societies exhibited own in-house researching result. Many workshops, counting 62, were also proceeded in parallel mainly at Exhibition Hall.

Through the duration of conference, none of accidental matter was happening. Everything were managed very smoothly and on schedule.

Countries of Participant

Shown below is a country distribution of 1,359 participants from 66 countries. The head number shows the number of participants.

920-Japan, 69-Republic of Korea, 55-Taiwan (R.O.C.), 42-P. R. China, 38-Thailand, 31-USA, 16-Indonesia, 14-Australia, 13-Germany, 10-Singapore, 10-UK, 9-India, 9-Iran, 8-Norway, 7-Sweden, 6-Austria, 6-Malaysia, 6-Russia, 5-Italy, 4-Brunei Darussalam, 4-Philippines, 4-Spain, 3-Brazil, 3-Canada , 3-Czech Republic, 3-Fiji, 3-Mongolia, 3-Nigeria, 3-Poland, 2-Belgium, 2-Denmark, 2-France, 2-Ghana, 2-Hong Kong, 2- Mexico, 2-N/A, 2-Nepal, 2-New Zealand, 2-Slovenia, 2- Switzerland, 2-The Netherlands, 2-Uganda, 2-Ukraine, 2-Vietnam, 1-Algeria, 1-Armenia, 1-Bangladesh, 1-Cambodia, 1-Chile, 1-Egypt, 1-El Salvador, 1-Greece, 1- Iraq, 1-Israel, 1.Kyrgyzstan, 1-Lao PDR, 1-Libya, 1-Mali, 1-Pakistan, 1-Portugal, 1-Republic of Uzbekistan, 1-Senegal, 1 -Slovak Republic, 1-South Africa, 1-Sudan, 1-Syria

Number of Paper Presentations by Area

The total 887 papers were presented and discussed. It shows below in area by area indicating Oral in parentheses.

I. Policy 44 (28), II. Photovoltaic 171(55), III. Solar Thermal Utilization 77(39), IV. Low Energy Architecture 60(30), V. Wind Energy 143(79), VI. Biomass 126(70), VII. Hydrogen & Fuel Cell 54(26), VIII. Ocean Energy 36(22), IX. Geothermal 47(27), X. Advanced Power System 43(25), XI. Heat Utilization and Energy Efficiency 56(35), XII. Small Hydro and Non-Conventional Energy. 30(23)

Presented Category by Area

The followings show what category was presented how many by area. These information is useful when considering programming in detail. The analysis was done utilizing passed 957 abstracts for paper presentation. Figure indicates percentage.

I. Policy

Policy Instruments (36), Scenario (20), National Actions (14), CDM (10), Energy Technology & Load Map (10), R&D Policy (6), Financing, Regulatory Issues (4)

II. Photovoltaic

Novel Materials and Devices (21), Thin Film Silicon Solar(14), System/Grid/Inverter (12), Application and Reliability (11), Crystal Silicon Solar (10), Fundamentals (9), II-IV Thin Film Solar (7), Terrestrial Systems (7), III-V Solar Cell (5), Module and Space Applications (3)

III. Solar Thermal Utilization

Solar Thermal Collection (44), Thermal energy storage (15), Solar-fired Power Generation (10), Solar based heat pump (9), Solar-thermally driven Chemical Processes (9), Solar desalination (9), Solar thermal utilization (5)

IX. Low Energy Architecture

Passive Bioclimatic Architecture (19), Elements and Materials (19), Simulation (17), Green Building(10), Comfort and Indoor Climate (10), Zero Energy Building (9), Evaluation (9), Improvement and Activation (7)

X. Wind Energy

Technology and Development (35), Planning, Wind Resources and Forecasting (18), Small and Hybrid Wind System (16), Offshore Wind Power (12), Environmental Issues (8), Wind Power National Program and Overview (5), Grid Connection (4), Marketing and Social (2)

VI. Biomass

Biofuel (33), Gasification (19), Bioethanol (16), Anaerobic Digestion (7), BTL,Forestry,Carbon Neutrality (7), Biomaterials (7), BDF (6), Pyrolysis (6)

VII. Hydrogen & Fuel Cell

Hydrogen Supply and Storage (28), Hydrogen Production (24), Technology and Fabrication (22), Hydrogen Energy System (16), Fuel Cell for Transportation (9), Fuel Cell for Co-generation (2)

VIII. Ocean Energy

Wave Energy (44), Ocean Thermal Energy (22), Tidal Energy (17), Ocean Wind (7), Ocean Resource for Energy (5), Economic Assessment and Ocean Bio (5)

IX. Geothermal

Heat Pump (21), Geothermal Field (17), Reservoir Engineering (17), Exploration (13), Power Generation (13), Enhanced Geothermal System (10), Environmental Aspect, Direct Use, Frontier (10)

X. Advanced Power System

Distributed Energy Resources (26), Smart Grid, Intelligent Grid (24), Power Electronics (21), Micro-Grid (17), Battery (7), Advanced Electric Car (5)

XI. Heat Utilization and Energy Efficiency

Effective Energy Utilization (37), Heat Pump (15), Air-Conditioning (12), Energy Conservation and Management (12), Environmental Issue & Heat Island (8), Combined Heat and Power (7), Thermal Energy (5), Community Energy System (3)

XII. Small Hydro and Non-Conventional Energy

Micro & Pico Hydro System (34), Hydropower Development and Utilization (31), Practical Examples and Field Test (19), Undeveloped Energy (16)

Paper Award

By means of checks by program leaders, co-leaders and session chairmen, 28 papers were selected as excellent papers enough to have value of award. Organizing Committee had decided the rule of award such as one from each area both in Oral and Poster presentations, plus three papers in maximum even at the area with large amount of papers like Photovoltaic. As that result, 15 papers from Oral and 13 papers from Poster were selected. Award ceremony was held in the closing session of final day, July 2. Co-authors are also honored. Certification papers will be sent later for all stakeholders.

Awarded papers are described below in the registration number.

Award in Oral

O-Po-2-2, O-Pv-2-4, OP-14-14, O-Pv-9-1, O-TH-6-7, O-At-4-3, O-Wd-3-5, O-Wd-9-2, O-Bm-1-12, O-Hf-5-4, O-Oc-1-3, O-Ge-1-3, O-Ps-3-4, O-He-4-3, O-Sh-3-3

Award in Poster

P-Po-14, P-Pv-79, P-Th-23, P-At-27, P-Wd-10, P-Wd-15, P-Bm-14, P-Hf-19, P-Oc-12, P-Ge-1, P-Ps-11, P-He-21, P-Sh-7