

Tentative Program ver. 2

ZERO CARBON ENERGY KYOTO 2009 – Parallel Session 21st August 2009

| Scenario/Socio-Economics Session (Meeting Room 4) | |
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| Chairman: Satoshi Konishi (Professor, Institute of Advanced Energy, Kyoto University) | |
| 10:00 - 10:30 | <i>Invited Speaker</i> <i>Shinichi Ichikawa (Chief Market Strategist of Credit Suisse Securities. Limited, Japan)</i> |
| 10:30 - 11:00 | <i>Seiji Ikkatai (Professor, Institute of Economic Research, Kyoto University)</i> A Study on Factors to Approach Low Carbon Society |
| 11:00 - 11:30 | <i>Invited Speaker</i> <i>Rinaldy Dalimi (Professor IVD/Member of national Energy Council, The Republic of Indonesia)</i> |
| 11:30 - 12:00 | <i>Invited Speaker</i> <i>Soonil Lee (Director, Division of energy System Research, Graduate School, Ajou University, Korea)</i> “Application of the Nanotechnology to the Next-Generation Solar Cell Development” |
| 12:00 – 13:30 | Lunch |
| Scenario/Socio-Economics Session | |
| Chairperson: Tetsuo Tezuka (Professor, Graduate School of Energy Science, Kyoto University) | |
| 13:30 - 14:00 | <i>Invited Speaker</i> <i>Suduk Kim (Associate Professor, Department of Energy Studies, Graduate School, Ajou University, Korea)</i> Energy Economics Model |
| 14:00 – 14:10 | <i>Keiichi N. Ishihara (Professor, Graduate School of Energy Science, Kyoto University)</i> Brief Introduction of Activities on Research and Planning Zero CO2 Emission Scenarios |
| 14:10 - 14:40 | <i>Zhan Qi (G-COE P. D., Graduate School of Energy Science, Kyoto University)</i> Study on a Long-term Scenario Analysis Model for Zero CO2 Energy System and It's Tentative Application for Japan |
| 14:40 - 14:50 | Coffee Break |
| 14:50 - 15:20 | <i>Nuki Agya Utama (JST P. D., Graduate School of energy Science, Kyoto University)</i> 2050 ASEAN electricity demand: Income-electricity causality test as a reference information |
| 15:20 - 15:50 | <i>Yoshiyuki Watanabe (G-COE P. D. Graduate School of Energy Science, Kyoto University)</i> Modeling for CO2 emission and absorption in local region in Japan |
| 15:50 -16:00 | Discussion |

| Solar Energy Session 1 (International Exchange hall 1) | |
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| 10:00 - 10:30 | <i>Yoshikazu Suzuki (Assist. Professor, Institute of Advanced Energy, Kyoto University)</i> Morphology Control of TiO ₂ -Based Nanomaterials for Sustainable Energy Applications - A Short Review |
| 10:30 - 10:50 | <i>Taro Sonobe (G-COE Assist. Professor, Graduate School of Energy Science, Kyoto University)</i> Investigation of the Effects of MIR-FEL Irradiation on the Optical Properties in Titanium Dioxides |
| 10:50 - 11:20 | <i>Mitsuhiro Hibino (Assoc. Professor, Graduate School of Energy Science, Kyoto University)</i> γ -Ferric Oxide/Carbon Composite Synthesized by Aqueous Solution Method as a Cathode for Lithium-Ion Batteries |
| 11:20 - 12:00 | <i>Invited Speaker</i> <i>Minoru Taya (Director, Boeing Pennell Professor of Engineering Center for Intelligent Materials and Systems, University of Washington, USA)</i> Energy harvesting and storage system(EHSS) for future airplanes |
| 12:00 – 13:30 | Lunch |
| 13:30 - 13:50 | <i>Masatora Fukuda (G-COE Assist. Professor, Graduate School of Energy Science, Kyoto University)</i> Construction of the functional biomolecules with the covalently linked ribonucleopeptide complexes |
| 13:50 - 14:20 | <i>Toshiyuki Nohira (Assoc. Professor, Graduate School of Energy Science, Kyoto University)</i> Electrolytic reduction of SiO ₂ in molten CaCl ₂ for the production of solar-grade silicon |
| 14:20 - 14:50 | <i>Hideo Ohkita (Professor, Graduate School of Engineering, Kyoto University, Kyoto, Japan)</i> Near-IR Dye Modification and Spectroscopic Study of Polymer-Based Solar Cells |
| 14:50 - 15:00 | Break |
| 15:00 - 15:30 | <i>Tetsuo Sakka (Assoc. Professor, Institute of Advanced Energy, Kyoto University)</i> Fabrication and characterization of solid surfaces modified for the application to photo-energy conversion processes |
| 15:30 - 16:00 | <i>Tomokazu Umeyama (Professor, Graduate School of Engineering, Kyoto University)</i> Photoelectrochemical Devices Using Composite Materials of Functionalized Carbon Nanotubes and Fullerenes |

| Bioenergy Session (International Exchange Hall 2) | |
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| 10:00 – 10:40 | <i>Shiro Saka (Graduate School of Energy Science, Kyoto University)</i> Bioenergy research in the Global COE program on second generation biofuels technologies |
| 10:40 – 11:10 | <i>Tsutomu Kodaki (Institute of Advanced Energy, Kyoto University)</i> Development of highly efficient bioethanol production yeast using protein engineering |
| 11:10 – 11:55 | <i>Invited Speaker</i> <i>Luis F. Razon (Department of Chemical Engineering, De La Salle University, the Philippines)</i> Alternative crops for biodiesel feedstock: A review of recent progress and recommendations for future research |
| 11:55 – 13:30 | Lunch |
| 13:30 – 14:15 | <i>Invited Speaker</i> <i>Masato Kouzu (Research Center of Fine Particle Science and Technology, Doshisha University)</i> Eco-friendly production of biodiesel by utilizing solid base catalysis of calcium oxide for reaction to convert vegetable oil into its methyl esters |
| 14:15 – 14:45 | <i>Masahiro Shioji (Graduate School of Energy Science, Kyoto University)</i> Ignition and combustion characteristics in various kinds of biodiesel fuels |
| 14:45 – 15:00 | Break |
| 15:00 – 15:30 | <i>Haruo Kawamoto (Graduate School of Energy Science, Kyoto University)</i> Production of biofuels and biomaterials by pyrolysis |
| 15:30 – 16:00 | <i>Hisashi Miyafuji (Graduate School of Energy Science, Kyoto University)</i> Biofuels and biomaterial production by ionic liquid treatment |
| 16:00 – 16:30 | <i>Tetsuo Tezuka (Graduate School of Energy Science, Kyoto University)</i> Autonomous decentralized energy supply-demand system with renewable energy introduction |
| 16:30 – 16:40 | <i>Masahiro Shioji</i> Closing |

| Advanced Nuclear Energy (International Exchange hall 3) | |
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| 10:00 -10:20 | <i>Ken Nakajima (Professor, Research Reactor Institute, Kyoto University)</i> Outline of Advanced Nuclear Energy Research: K. Nakajima (Kyoto Univ.) |
| 10:20-11:20 | <i>Invited Speaker</i> <i>Masakazu Murakami (Director, Office of Strategy Research, Policy Planning and Administration Department, Japan Atomic Energy Agency)</i> |
| 11:20-12:00 | <i>Satoshi Konishi (Professor, Institute of Advanced Energy, Kyoto University)</i> Comments on “Nuclear Energy Vision 2100”: S. Konishi (Kyoto Univ.) |
| 12:00 – 13:30 | Lunch |
| 13:30-14:30 | <i>Invited Speaker</i> <i>Alexander Stanculescu (IAEA Scientific Head, the Department of Nuclear Energy, IAEA)</i> International Status of Research and Technology Development in the Field of Accelerator Driven Systems (ADS): A. Stanculescu (IAEA) |
| 14:30-15:20 | <i>Invited Speaker</i> <i>Kenji Nishihara (Engineering researcher, Japan Atomic Energy Agency (Integration of institutes))</i> JAEA’s Activity on the Accelerator-Driven System: K. Nishihara (JAEA) |
| 15:20-16:00 | <i>Jae Yong Lim (G-COE Assist. Professor, Research Reactor Institute, Kyoto University)</i> Current Status of Accelerator-Driven System with High-Energy Protons in Kyoto University Critical Assembly |