

# EcoDesign 2006 Asia Pacific Symposium Program

## [Plenary Talk and Lecture]

### Dec.11(Mon) Room A+B

Time	Session	Moderator	Time	Subject/Presenter
9:10-12:10	Opening	Shinya Nagasawa (Chair E.executive Committee)	9:10-9:30	Dr.Yuji Furukawa(Union of Ecodesigner)
	Plenary Talk 1		9:30-9:50	Hideto YOSHIDA(Ministry of Environment)
	Plenary Talk 2		9:50-10:10	Naoto TAKAHASHI(Ministry of Economy, Trade and Industry)
	Plenary Lecture1	Takeshi KOGA(Fujitsu)	10:00-10:50	Technical trend of env. and energy for automotives Prof.Yasuhiro Daisyo(Waseda Univ)
	Plenary Lecture2		10:50-11:30	Ecodesign movement in the Korean industries Prof.Kun-Mo Lee (Ajou University(Korea))
	Plenary Lecture3		11:30-12:10	On the Japan's Official Development Assistance (ODA) Prof. Toshio Watanabe(Takushoku Univ)
		Hidetaka HAYASHI(U.Tokyo)		

### Dec.12(Tue) Room A,B

15:20-17:00	Plenary Lecture4	Tadatomo SUGA(U.Tokyo)	15:20-16:00	Readiness in Industry for Circular Economy in China Prof. Wang Chengtao (Shanghai Jiao Tong Univ.(China))
	Plenary Lecture5		16:00-16:40	EcoDesign towards sustainable industrial innovation Prof.Naomasa Nakajima(AIST Japan)
	Closing	Shinya Nagasawa	16:40-17:00	Prof. Shinya Nagasawa(Executive Committee Chair)

## [Session in English]

### Dec.11(Mon) Room A

Time	Session	Chair	Time	Subject/Presenter
13:00-14:20	(MD1-4) Material design	Namie HOSODA(NIMS)	13:00-13:20	[MD-1] Effect of various surface treatments on ultra long life fatigue characteristics of aluminum alloys in rotating bending Tatsuo SAKAI (Ritsumeikan University)
			13:20-13:40	[MD-2] Giga-cycle rotating bending fatigue properties of SNCM439 steel tempered at low temperatures Tatsuo SAKAI (Ritsumeikan University)
			13:40-14:00	[MD-3] Effect of tempering temperature on Giga-cycle fatigue characteristics of SCM435 steel in rotating bending Tatsuo SAKAI (Ritsumeikan University)
			14:00-14:20	[MD-4] The self-regenerative intelligent catalyst for super-ultra-low-emission vehicle (SULEV) Hirohisa Tanaka(Daihatsu Motor Co., Ltd.)

14:20-15:20	(AM2-4) Altanative Material	Lutz Stobbe (Fraunhofer IZM), Nobuaki KONDOH(AIST)	14:40-15:00	[AM-2] Erosion protective design for lead-free wave soldering bath Tadashi Takemoto (Osaka University)
			15:00 -15:20	[AM-3] Estimation of the micromechanical characteristics of Sn-3.5Ag-0.1Co lead-free solder Feng Gao(Osaka University)
			15:20-15:40	[AM-4] Influential factors in determining the thermal conductivity of isotropic conductive adhesives Masahiro Inoue (Osaka University)
16:40-18:00	(ET1-4) Ecodesign tool and decision making	Oriol Pascual(Delft Univ), Takahiro UEMATSU(Chiba U.)	16:40-17:00	[ET-1] Design for Disassembly (DfD): A customer oriented approach in sustainable design (SD) Ali Vakili-Ardebili (The University of Liverpool,)
			17:00-17:20	[ET-2] Product LCA evaluation considering the variation in products Jahau Lewis Chen (National Cheng Kung University)
			17:20-17:40	[ET-3] Integrating Eco-Design into the university curriculum Xiaoying Zhou (University of California)
			17:40-18:00	[ET-4] Eco-MCPS, a newly developed Web-based database for eco-materials, eco-products, eco-components, and eco-services Riko Ozao (SONY Institute of Higher Education)

**Dec.12(Tue) Room A**

Time	Session	Chair	Time	Subject/Presenter
8:50-10:10	(CV1-4) Consumer Value vs Environment	Jahau Lewis Chen (National Cheng Kung University), Kazuhiro AOYAMA(U.Tokyo)	8:50-9:10	[CV-1] Alternative models of sustainable consumption-morphing products and interiors" Tim Antoniuk (University of Alberta)
			9:10-9:30	[CV-2] Investigation on value increase in inverse distribution process Hidetaka HAYASHI (Ecodesign Promotion Network)
			9:30-9:50	[CV-3] Demand forecasting for green vehicles in Taiwan using conjoint analysis Li-Hsing ShihNational (Cheng Kung University)
			9:50-10:10	[CV-4] Value-Based strategies & setting priorities with Ecovalue Oriol Pascual (Delft University)
10:10-11:30	(RS1-4) Recycling and Society	Thumrongrut Mungchareon (MTEC and Kasetsart Univ), Kazuhiro AOYAMA(U.Tokyo)	10:10-10:30	[RS-1] Production of environmental friendly and quality guaranteed recycled engineering polymer products Yasuo Shimoyamada (Intertech Limited)
			10:30-10:50	RS-2] Multi-utilization of biomass as energy source and functional materials Riko Ozao (SONY Institute of Highere Education)
			10:50-11:10	[RS-3] Living on the edge: from homelessness to recycling Maria Cecilia Loschiavo dos Santos (University of Sao Paulo)
			11:10-11:30	[RS-4] Target order quantity considering environment and economy by interactive method Eri Domoto (Osaka University)

11:30-12:20	Lunch			
12:20-15:00	(GM1-8) Green Manufacturing	Hansjoerg Griese (Fraunhofer IZM), Komei HALADA(NIMS), Charuek Hengrasmee (E.E.I. Thailand)	12:20-12:40	[GM-1] Research into functional evaluation of non-slippery and ecological floor material for buses Toshiki Nishiyama (Keio University)
			12:40-13:00	[GM-2] A Study on the manufacturing of brake tube and flare nut for automobiles Kyu-Taek Han (Pukyong National University)
			13:00-13:20	[GM-3] The management outline and the current reduction status of the ozone depleting substances in Taiwan Lo Huei WeiIndustrial (Technology Research Institute)
			13:20-13:40	[GM-4] Ideality and trends of evolution in minimal manufacturing and Eco-business Jahau Lewis Chen (National Cheng Kung University)
			13:40-14:00	[GM-5] Water quality monitoring system by measuring turbidity and composition of impurity part Fumitake KATO (Ibaraki National College)
			14:00-14:20	[GM-6] A new flame-retardant for PC resin using waste plastic as a raw material Inagaki Yasuhito (sony)
			14:20-14:40	[GM-7] Creative environmental safety and R & D for Cu-PTH PWBs - As a methodology 40 years before and now.- Hideaki Kobuna (Nippon Avionics Co., Ltd.)
			14:40-15:00	[GM-8] A strategic study of chemical industry to response REACH in Non-oil-producing Area-in case of Taiwan Chun-Ta Yu (Industrial Technology Research Institute)

**Dec.11(Mon) Room B**

Time	Session	Chair	Time	Subject/Presenter
13:00-15:00	(RC1-6) Resource Circulation in Asia	Kun-Mo Lee(Ajou Univ), Kazumi NOZAWA(IBM Japan)	13:00-13:20	[RC-1] Mobile phone market status and possibility of 3Rs activities in Indonesia Fajar Novianto
			13:20-13:40	[RC-2] Eco-Design strategies for electronics supply chains based on product material declarations Lutz Stobbe (Fraunhofer IZM,)
			13:40-14:00	[RC-3] Managing environmental based regulations-from global confusion to international obligatory guidelines Hansjoerg Griese (Fraunhofer IZM)
			14:00-14:20	[RC-4] EcoDesign of E-manufacturing system in China Zhonghua Xu(The University of Tokyo,)
			14:20-14:40	[RC-5] Current status and future direction of EcoDesign in Thailand Thumrongrut Mungcharoen (Kasetsart University)
			14:40-15:00	[RC-6] Application of quality function deployment (QFD) and analytical hierarchy process (AHP) to the Eco-Design of portable personal computers

			Yuh-Ming Lee (National Taipei University)
15:00-15:20	Break		

### [Session in Japanese]

#### Dec.11(Mon) Room B

Time	Session	Chair	Time	Subject/Presenter
15:20-16:20	Session in Japanese (LJ2-4)	Shuji OWADA(Waseda U.)	15:20-15:40	[LJ-2] On the lifestyle appropriate for sustainable society: A simulation analysis using the demand function in linear expenditure system and the environmental input-output table Miki Shinozaki (The Foundation for Earth Environment)
	Lifestyle/Consumption		15:40-16:00	[LJ-3] Universal camp leads to expanding realization and possibilities Sanae Uchiyama (NPO Universal Event Association)
			16:00-16:20	[LJ-4] The present issues & the vision of Eco-design (Ec.D) and Universal-design (Un.D) Tutomu Terazawa (Takushoku University)
16:20-16:40	Break			
16:40-18:40	Session in Japanese (RJ1-6)	Jun FUJIMOTO(U. Tokyo)	16:40-17:00	[RJ-1] Recyclability of paper sludge as raw material of board Keiichi Chikamori (Kochi Prefectural Paper Technology Center)
	Recycling Technology		17:00-17:20	[RJ-2] Material recycling of a mixture of residual plastics from waste household appliances Yuichi Matsuo (Mitsubishi Electric Corporation)
			17:20-17:40	[RJ-3] Development of electrostatic separation system for a mixture of styrene resins Endo Yasuhiro (Mitsubishi Electric Corporation)
			17:40-18:00	[RJ-4] Recycling technology development of mixture crushed plastic in home appliance Shinobu Ogasawara (Mitsubishi Electric Corporation)
			18:00-18:20	[RJ-5] Environmentally conscious and self circulation type recycling package of an electric refrigerator Hiroshi Matsumoto (Mitsubishi Electric Corporation)
			18:20-18:40	[RJ-6] Assessing the environmental burden of printed circuit board mounted electronic parts Yuzo HORIKOSHI (FUJITSU Laboratories)

#### Dec.12(Tue) Room B

Time	Session	Chair	Time	Subject/Presenter
8:50-10:10	Session in Japanese (SJ1-4) Recycling Society/ Company Issue	Kana WATANABE(IBM Japan)	8:50-9:10	[SJ-1] Verification of embodied CO2 emission intensities based on input-output tables established in 2000 Yoshiyuki Hondo (Toshiba Corp)
			9:10-9:30	[SJ-2] Survey on environmentally conscious design in Japanese electrical and electronics industry Keijiro Masui (National Institute of Advanced Industrial Science and Technology)
			9:30-9:50	[SJ-3] The Environmental load reduction effect of FTTH and mobile communication services Takashi Sawada (NTT Information Sharing Laboratory Group)
			9:50-10:10	[SJ-4] Business model for resource recycling company: Present and future Shinya Nagasawa (Waseda University)
	Session in Japanese		10:10-10:30	[EJ-1] Introduction of DFD tool considering environmental load (Third report) Katsumi Fujisaki (Mitsubishi Electric Corporation)
			10:30-10:50	[EJ-2] Integrated computer environment for supporting product life cycle design

10:10-11:30	(EJ1-4) Design Tool for EcoDesign	Keijiro MASUI(AIST)		Yasushi Umeda (Osaka University)
			10:50-11:10	[EJ-3] A standard for automating the exchange of material composition information throughout the supply chain Seigo Ito (Toshiba Corporation)
			11:10-11:30	[EJ-4] IT system approach for life-cycle Eco-design Tomoyo Sasaki (Hitachi,Ltd)
11:30-12:20	<b>Lunch</b>			
12:20-13:40	Session in Japanese (HJ1~4)  Material and Technology for RoHS	Motonobu KAWARADA(Fujitsu)	12:20-12:40	[HJ-1] Accelerated evaluation of corrosion gasses for conductive pastes corresponding to Southeast Asian environments Osamu Ikeda (Sony Corporation)
			12:40-13:00	[HJ-2] Reduction process of tin whisker (JMI process) Kyu-Taek Kouichi KAMIYAMA (Japan Victor Corporation)
			13:00-13:20	[HJ-3] Approach to environmental considered joint technology for infrastructure products Tsuyoshi Yamamoto (Fujitsu Limited)
			13:20-13:40	[HJ-4] Development of flame-retardant solder-resist ink for print circuit Katsuyoshi Ishida (Fujikura Limited)
13:40-15:00	Session in Japanese (AJ1-4) Consumer behavior/ Value for Consumer	Seiichi KURIHARA(Fujitsu)	13:40-14:00	[AJ-1] Evaluating customer requirements for Eco-value analysis KUBOKI Michiko (Tokyo Metropolitan University)
			14:00-14:20	[AJ-2] Measurement of willingness-to-pay of Japanese and Thai consumer for an environmentally conscious automobile Noriyuki HORIE (Tokyo University of Information Sciences)
			14:20-14:40	[[AJ-3] Relevancy between durable goods and a consumer behavior model Sayaka Ita (Waseda University)
			14:40-15:00	[AJ-4] Effects of the environmental information of products on the consumer behavior Tsai Pi-Ju (I-SHOU University)

**Dec.11(Mon) Room C**

Time	Session	Chair	Time	Subject/Presenter
14:20-15:40	Session in Japanese (MJ1-4)	Katsumi FUJISAKI(Mitsubishi Electric)	14:20-14:40	[MJ-1] A trend of easy disassembly methods in Japanese patents Yuta Sonoda (National Institute for Materials Science)
			14:40-15:00	[MJ-2]A product family design method considering life cycle scenari Gaku Saito (The University of Tokyo)
	Design Guide and Modular Design		15:00-15:20	[MJ-3] Application of the Eco-Design guidelines for software products Shinji Kawamoto (Fuji Xerox Co., Ltd)
			15:20-15:40	[MJ-4] Eco-Design of using MFCA(Material Flow Cost Accounting) Kyoko Tajima (Hitachi,Ltd)

**Dec.12(Tue) Room C**

Time	Session	Chair	Time	Subject/Presenter
8:50-11:30	Session in Japanese (IJ1-7)	Shiro NISHI(NTT)	9:10-9:30	[IJ-1] Promotion of resources recycling by "tele-inverse-manufacturing" Mitsutaka Matsumoto (National Institute of Advanced Industrial Science and Technology)
			9:30-9:50	[IJ-2] The development of a production information management system that checks legal compliance for batch production Takafumi SHIMIZU (Hokkaido University)
			9:50-10:10	[IJ-3] The environmental impact of using ICT in industrial sector- The effect of environmental load reduction by using SCM techniques - Takeshi Origuchi (NTT Information Sharing Laboratory Group)
	Information Technology		10:10-10:30	[IJ-4] The consumer needs for the home-energy-management system Kazuhiro FUKUYO (Yamaguchi Univ.)
	10:30-10:50		[IJ-5] Environmental factor of videoconference considering ripple effects and function/value differences Kazue Takahashi (Nippon Telegraph and Telephone Corporation)	
	10:50-11:10		[IJ-6] Sustainable navigation depending on individual's preference Masayuki Tsuda (Nippon Telegraph and Telephone Corporation)	
	11:10-11:30		[IJ-7] Environmental impact assessment on substitution of transportation traffic by telecommunication Masaru Takahashi (the University of Tokyo)	

**Project Session(Japanese) & Organizing Session(English & Japanese)**

**Dec.11(Mon) Room C**

**Project Session AE**

Time	Session	Chair	Time	Subject/Presenter
13:00-14:20	(AE) Project Session on Automotive Engineering	Yasuhiro DAISYO(Waseda U.)	13:00-13:20	(AE-1) Toyota's technologies for Fuel Economy Improvement Eishi Ohno(Toyota Motor Corp)
			13:20-13:40	(AE-2) Introduction to the SKY project Michinori Hachiya (Nissan Motor Co., Ltd.)
			13:40-14:00	(AE-3) The approach to development and introduction of a clean diesel for a heavy-duty commercial vehicle Isami KANAYA and Akinori MIURA(Nissan Diesel Motor Co., Ltd.)
			14:00-14:20	(AE-4) Honda's environmental technologies Hiroshi YAMASHITA(Honda Motor Co., Ltd.)

**Project Session MT**

**(Japanese and English Session)**

			16:00-16:20	(MT-1) Ubiquitous device(Japanese) Masayoshi MATSUYAMA, Takashi KORENAGA(Tokyo MetropolitanUniversity)
			16:20-16:40	Japanese (MT-2) Appealing MEMS business and development MEMS device Koji HONMA (MEMS-CORE Co. Ltd.)

16:00-18:40	(MT) Project Session on Monotsukuri (Production Design)	Masayoshi MATSUYAMA(Tokyo Metropolitan U.)	16:40-17:00	Japanese (MT-3) Nano-tweezers for $\lambda$ -DNA manipulation Momoko KUMEMURA, Naoyoshi SASAKI, Christophe YAMAHATA (University of Tokyo), Gen HASHIGUCHI(Kanagawa University), Dominique COLLARD, Hiroyuki FUJITA(University of Tokyo)
			17:00-17:20	Japanese (MT-4) Total cleanize of minute processing Koichi HARITA(Soken Industries Co. Ltd.)
			17:20-17:40	Japanese (MT-5) Environmental measurement using micro fluidic pretreatment device Hiroyuki MASAKI , Takashi KORENAGA (Tokyo Metropolitan University)
			17:40-18:00	Japanese (MT-6) A downsized Time of Flight Mass Spectrometer Rieki SUDO(On-site Research), Takashi Korenaga(Tokyo Metropolitan University)
			18:00-18:20	English (MT-7) Miniaturization of Pressure Control Interface: Synthesis and Property of Monolithic Silica in Capillary and Micro-channel Wei Chang, Takashi KORENAGA(Tokyo Metropolitan University)
			18:20-18:40	Japanese (MT-8) EcoDesign for advanced handy Mass Spectrometer Hiroshi YANAZAWA, Shokichi MATSUNAMI(MEMS-CORE Co. Ltd.)

**Dec.12(Tue) Room C**

**Session organized by JSME&JSPE**

**(Japanese Session)**

Time	Session	Chair	Time	Subject/Presenter
12:20-15:00	(PM) Evaluation of Product Life Cycle  Session organized by JSME&JSPE	Yasushi UMEDA(Osaka U.)	12:20-12:40	(PM-1) Basic Framework and Issues of Integrated Evaluation of Product Life Cycles Yasushi Umeda (Osaka Univ.)
			12:40-13:00	(PM-2) Methods for Value Estimation - Value Estimation Index for Environmental Consciousness and More Added Value Yoshiki Shimomura (Tokyo Metropolitan Univ.)
			13:00-13:20	(PM-3) Total performance analysis of product life cycle considering the deterioration and obsolescence of product value SHINSUKE KOBAYASHI (AIST, Japan), KEIJIRO MASUI (AIST, Japan), ISOZUMI MITSUUMA (AIST Japan), MITSUAKA MATSUMOTO (AIST Japan)
			13:20-13:40	(PM-4) Eco-efficiency for ICT - Quantification of Environmental Load and Value Yasunari Matsuno (the Univ. of Tokyo), Kazue Takahashi (NTT Corporation), Masayuki Tsuda (NTT Corporation), Jiro Nakamura (NTT Corporation), Shiro Nishi(NTT Corporation)
			13:40-14:00	(PM-5) Product and Service Development Using Factor T Hideki Kobayashi (Toshiba)

		14:00-14:20	(PM-6) Deployment of Factor X in Matsushita Electric Narito Shibaie (Matsushita), Taeko Aoe (Matsushita), Akira Nakamura (Matsushita)
		14:20-14:40	(PM-7) Introduction of Factor X and its Deployment for Sustainable Society Katsumi Fujisaki (Mitsubishi Electric), Tetsuya Takahashi (Mitsubishi Electric), Kiyoshi Ueno (Mitsubishi Electric)
		14:40-15:00	(PM-8) Approach and Effects of Eco-efficiency in Canon Akiyoshi Ishizuka (Canon)

Dec.11(Mon) Room D

**Project Session LD**

**(Japanese Session)**

Time	Session	Chair	Time	Subject/Presenter
13:00-15:40	(LD) Project Session Ecodesign to stimulate local development	Seiichi KURIHARA(Fujitsu)	13:00-13:20	(LD-1) A trial production of boat with hydrogen gas engine toward environment conscious and the prospects in the future Satoru EZOE( National Fisheries University),Hukuta MATSUURA(Nihon Kaiyo Sangyo Co. Ltd.)  Makoto NAKAMURA( National Fisheries University),Minoru TSUDA( National Fisheries University),  Junji KAWASAKI( National Fisheries University)
			13:20-13:40	(LD-2) Pre-study about co-generation and hydrogen supply by biomass gasification in Malaysia Mitsuo KAMEYAMA(Japan Planning Organization Inc.)
			(LD-3) Business inspired by environment issue	
			13:40-14:00	(LD-3-1) Introduction to Gifu Plastics Industry and her products Toshiyuki OOMATSU (Gifu Plastics Industry Co. Ltd.)
			14:00-14:20	(LD-3-2) "Eco-Design" for Monozukuri Takehisa KABETANI (METI(Chubu))
			14:20-14:40	(LD-3-3) Environment & Recycling Business Activity at Kosaka Smelter Nobuo YAMAZAKI( Kosaka Smelting Co.Ltd.)
			14:40-15:00	(LD-3-4) Recycle to Products Ichiro YAMBE(METI(Tohoku))
			15:00-15:40	(LD-4) Discussion in summary Hidetaka HAYASHI( University of Tokyo(Moderator))

**Session Organized by JIEP**

**(English and Japanese Session)**

Time	Session	Chair	Time	Subject/Presenter
	(JI) Jisso(Electronic Packaging) and Ecodesign Session	Yasuhiro YONEDA(Fujitsu Lab.)	16:00-16:10	(JI-1) Introduction to Green Jisso Technology for Sustainable Evolution Hidetaka HAYASHI (Eco-Design & Jisso Workshop/ Director JIEP)
			16:10-16:40	(JI-2) One proposal of oil secession Kanji OTSUKA (Meisei University: President JIEP)
			16:40-17:10	(JI-3) Application of nano-structural self alignment effect for printed circuits Tetsuya OSAKA (Waseda University)

16:00-18:40	Organized by JIEP	17:10-17:40	(JI-4) Surface Modification of Insulation Resin for Build-up Process Using TiO <sub>2</sub> as a Photocatalyst Hideo HONMA (Kanto Gakuin University)
		17:40-18:00	(JI-5) Recycle of reused Si wafers to solar cells (Japanese) Asako MIYAKAWA(Osaka University), Mariko KIHARA(Osaka University(NTTDoCoMo Kansai,Inc)), Keisuke UENISHI, Takehiko SATO(Osaka University),Masakazu SATO(TAK Materials Corporation)
		18:00-18:20	(JI-6) The standardized voluntary emission criteria for the emission rate and test method for PC (Japanese) Seiichi Kurihara (Fujitsu Ltd), Yasuharu Satou(NEC Personal Products, Ltd.), Kazunaga Kawate ( Japan Electronics & Information Technology Industries Association)
		18:20-18:40	(JI-7) Development of Dye-sensitized Solar Cells (Japanese) Takayuki KITAMURA, Hiroshi MATSUI, Ken-ichi OKADA(Fujikura Ltd)

**Dec.12(Tue) Room D**

**Session Organized by AIJ (Japanese Session)**

Time	Session	Chair	Time	Subject/Presenter
8:50-10:15	(AT) Re-design of Material Flow Session Organized by AIJ	Tomonari Yashiro (U. of Tokyo)	8:50-9:10	[AT-1] Evolution of EcoDesign in building related area Tomonari Yashiro (Institute of Industrial Science Unive)
			9:10-9:30	[AT-2] Design of Supply/Demand Chain System for Domestic Reforestation Hiroyuki Nakamura (Demand Chain Management Corporation)
			9:30-9:50	[AT-3] Design of exchangeable infill system used for servicing of building Hiroyuki Shida (Institute of Industrial Science University of Tokyo)
			9:50-10:10	[AT-4] Design of the Monitoring System for Construction by-products to Improve resource productivity Masami Shiraishi (Institute of Technology, Shimizu Corporation)
			10:10-10:15	[AT-5] Concluding comment Tomonari Yashiro (Institute of Industrial Science University of Tokyo)

**Session Organized by JSAP (English and Japanese Session)**

Time	Session	Chair	Time	Subject/Presenter
	(RE) Application of Renewable energy and Extreme improvement of the Energy efficiency  Session organized by the Study Group on Energy and Environment, The Japan Society of Applied Physics:	Syunji KISHIDA (NEC)	10:20~10:25	(RE-1) Opening (English) Haru-Hisa Uchida(Tokai University)
			10:25~11:10	(RE-2) One proposal of oil secession (English) Yoichi KAYA (Research Institute of Innovative Technology for the Earth (RITE))
			11:10~11:40	(RE-3) Present Status and Future Prospect of Wind Energy in Japan(Invited Lecture) (English) Izumi USHIYAMA(Vice President, Graduate School of Engineering, Ashikaga Institute of Technology)
			11:40~12:20	lunch time  (Japanese)

10:15-15:00	JSAP	Haruhisa UCHIDA (Tokai U.)	12:20~12:50	(RE-4) Direction to sustainable society by development of high efficient and low cost fuel cell and storage battery(Invited Lecture) Yoshiteru SATO(New Energy and Industrial Technology Development Organization)
			12:50~13:20	(RE-5) New Application and Development of Solar Power Generation (Invited Lecture) (Japanese) Shunji Kishimura(Kishimura Industry Co.)
			13:20~13:50	(RE-6) Regional Activation and Hydrogen Utilization in City Saijo (Invited Lecture ) (Japanese) Manabu HAMADA(Planning and Economic Department, Saijo City)
			13:50~15:00	(RE-7) Panel Discussion (Renewable energy realizes the sustainable society ? (Japanese) Coordinator: Haru-Hisa UCHIDA Panelists: Izumi USHIYAMA, Yoshiteru SATO, Shunji KiSHIMURA, Manabu HAMADA,Shunji KISHIDA(NEC)