

Program

The official language of the symposium is English.

■ Plenary Session (Held in conference room S with a E-J translation service)

(1) Messages of Environmental Issues from Japan

Date: 13:30 - 15:30, Tue, Dec 12 [E-J translation service available]

Vision 2050 and the Role of Japan toward the Sustainable Society
Prof. Hiroshi Komiyama (President, the University of Tokyo, Japan)

(2) EcoDesign in Asia (*Special Theme*) [E-J translation service available]

Date: 13:30 - 15:30, Tue, Dec 13

- 1) Importance of EcoDesign in Asia (tentative)
Prof. Ryoichi Yamamoto (the University of Tokyo, Japan)
- 2) Strategic Approach to Circular Economy (CE) in China (tentative)
Dr. Xia Guang (State Environmental Protection Administration, China)
- 3) International Cooperation to Create Harmonized Industry in Asia

(Panel Discussion)

Prof. Ryoichi Yamamoto (the University of Tokyo, Japan)
Dr. Xia Guang (State Environmental Protection Administration, China)
Dr. Narito Shibaike (Matsushita Electric Industrial Co. Ltd, Japan)
Mr. Chen, Panfeng Huawei Tech Co. Ltd.
Organizer: Hidetaka Hayashi (The Univ. of Tokyo)

(3) International Standardization of EcoDesign [E-J translation service available]

Date: 14:30 - 16:00, Wed, Dec 14

- 1) Global Standardization of EcoDesign (tentative) / Dr. Yoshiaki Ichikawa (Hitachi Ltd., Japan)
- 2) Standardization of EcoDesign in Japan (tentative) / Mr. Kouichi Shioda (METI, Japan)
- 3) The Standardization of EcoDesign in EU / Mr. Andrea Legnani (Italian Federation of Electrotechnical and Electronic Industries, EU)

■ Special Session (Held in conference room S)

Opening Session

Date: 14:30 - 16:00, Wed, Dec 12

Award Presentation & Closing

Date: 14:30 - 16:00, Wed, Dec 14

■ Friendship Party

A Friendship Party will be held for all participants who have registered. It give opportunities to communicate with other participants and to develop EcoDesign activities. We are expecting your join!

Date: 18:00 - 20:00, Tue, Dec 13

Place: KKR Hotel Tokyo 10F Zuiho (It takes about 3 minutes from the conference place)

2005/12/12 (Mon)

Program

■ PRESENTATION RPROGRAM

It's a program as of September 5, and there may be some changes in the future. (Only the first author affiliation is used as author affiliation in the presentation. Additionally, the 'S' means Short Paper [15mins] and the 'F' means Full Paper [25 mins].)

Topics of Sessions

- 1) EcoDesign of Social System (*Special Theme*)
 - 2) Eco Life-style
 - 3) Sustainable Businesses
 - 4) Environmentally Conscious Products and Services
 - 5) Sustainable Consumption and Recovery of Resource and Energy
- Asia) EcoDesign in Asia (*Special Theme*)

2005/12/12 (Mon)

10:30-11:50 【1A-1】 Sustainable Society and Business (*Special Theme*)

1A-1-IS **Ecodesign and Sustainable Business Practice: Insights from design-led SMEs in Wales (UK)**
F. O'Connor, I. Cox, University of Wales Institute, Cardiff, UK

1A-1-2S **A Study on the Marketability of Long Life Products**
S. Nagasawa, P. J. Tsai, Waseda University, Japan

1A-1-3F **Sustainable Cycle-Oriented Society from the Viewpoint of Diversity in Consumers' Decision Making**
T. Maeda, T. Taura, Kobe University, Japan

1A-1-4F **Decision Making of Economic Agents for Durable-Goods Recycling**
H. Nakayama, N. Nishino, S. H. Oda, K. Ueda, The University of Tokyo, Japan

14:15-15:45 【1A-2】 Consumer Modeling

1A-2-IS **A Conceptual Model for Sustainable Consumption**
M. Xu, T. Zhang, Tsinghua University, China

1A-2-2F **How Design of Products Affects User Behaviour and Vice Versa: Its Environmental Implications**
E. Rodriguez, C. Boks, Victoria University of Wellington, New Zealand

1A-2-3F **Agent-based and Term-rewriting Method for Product Upgradeability Design**
B. Zhang, S. Kato, F. Kimura, The University of Tokyo, Japan

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1A-2-4F **Consumers' Behavior and Environmental Impact of Time Use**
K. Takase, Y. Kondo, A. Washizu, Shizuoka University, Japan

16:00-18:00 【1A-3】 Ecodesign Education

1A-3-IS **EcoDesign in Asia: Are Asian Industrial Design Schools Graduating Sustainable Designers?**
M. Ramirez Jr., Univ. of New South Wales, Australia

1A-3-2S **Indigenous Innovations**
S. Mehta, National Institute of Design, India

1A-3-3S **Intellectual Property Education for Sustainable Development of the Society**
H.H. Uchida, M. Sumida, Tokai University, Japan

1A-3-4F **The Evolution of Design for Sustainability Courses**
C. Boks, S. Silvester, J. C. Diehl, Delft University of Technology, The Netherlands

1A-3-5F **Ecodesign Knowledge Transfer: How to Take the Economical and Cultural Context of the Receiver into Consideration?**
J. C. Diehl, Technical University of Delft, The Netherlands

1A-3-6F **Strategy of Environmental Communication Which Aiming Education of Consciousness and Action**
Y. Mayuzumi, I. Choh, Waseda University, Japan

10:30-11:50 【1B-1】 Eco-Product and Eco-Material in Asia (*Special Theme*)

1B-1-IS **Strategic and Practical Approach to Craft Development in Asia through EcoDesign**
P. Nahar, Faculty of Industrial Design, National Institute of Design Ahmedabad INDIA, India

1B-1-2F **Utilizing Sago (Metroxylon spp) Bark Waste for Value Added Products**
K. A. A. A. Rahman, F. Badaruddin, University Malaysia, Malaysia

1B-1-3S **The Instructional Planning and Guidelines for the Courses of Green Package Design**
C. F. Chen, C. Y. Huang, Ming Chuan University, Taiwan

1B-1-4F **Lemba (Curculigo latifolia) Leaf as a New Material for Textiles**
N. Shaari, University Malaysia, Malaysia

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14:15-15:15 【1B-2】 Biomass-Material

1B-2-IS **The Development of Bio-based Polymers for Notebook PC**
K. Kimura, K. Nihssii, T. Hashitani, FUJITSU LABORATORIES LTD., Japan

1B-2-2S **Sony's Activity for Vegetable-based Plastic**
H. Mori, H. Ooki, T. Noguchi, S. Yamada, N. Sato, T. Horie, Y. Fujihiro, Sony EMCS Corp., Japan

1B-2-3S **Thermo-reversibly Cross-linked Biomass-plastic Acting Rewritable Shape Memory**
K. Inoue, M. Yamashiro, M. Iji, NEC, Japan

1B-2-4S **Kenaf Fiber-Reinforced Biomass-Plastic Used for Electronic Products**
S. Serizawa, K. Inoue, M. Iji, NEC Corporation, Japan

15:30-17:05 【1B-3】 Eco-Material

1B-3-1F **Ecomaterial Development through Sustainability Management**
Y. Wang, R. Yamamoto, The Univ. of Tokyo, Japan

1B-3-2F **Designing Products with Recycled Plastics: Proposed Methodology for Closing the Information Gap**
F. V. Melum, C. Boks, P. Kandachar, S. Storen, Delft University of Technology, The Netherlands

1B-3-3S **The LCI Analysis for the Material Design Guideline to Promote the ABS Recycling**
M. Furuhashi, S. Yagi, Y. Inagaki, Y. Yamagiwa, T. Susuki, K. Arutami, Sony EMCS Corp., Japan

1B-3-4S **Formaldehyde Removal System with Corona Discharge and Manganese Oxide**
T. Furuhashi, A. Shiga, S. Takeuchi, Y. Fujita, Mitsubishi Electric Corporation, Japan

1B-3-5S **Effect on Reduction of Harmful Substances by Using Porous Material with Meso-pores**
O. Watanabe, H. Fukumizu, INAX Corporation, Japan

17:20-18:10 【1B-4】 Waste and Disposal

1B-4-1F **Inter-regional Waste Input-Output Linear Programming Model and Its Application to the Japanese Regions**
Y. Kondo, S. Kagawa, S. Nakamura, Waseda University, Japan

<table> <tr> <th data-bbox="173 60 264 82">Program</th><th data-bbox="445 60 619 82">2005/12/12 (Mon)</th></tr> <tr> <td data-bbox="173 103 264 125">1B-4-2F</td><td data-bbox="293 103 622 159"> New Trends of Corporate Strategies of Waste Processing Business <i>S. Kurosaka, S. Nagasawa, Waseda University, Japan</i> </td></tr> <tr> <td data-bbox="173 185 264 226">10:30-11:45 1C-1-1F</td><td data-bbox="293 185 622 293"> 【1C-1】Design for Disassembly I DfR and DfD Applied to Electrical and Electronic Equipments Resulting Environmental Life Cycle Performance - A Case Study for Portugal <i>E. Santos, P. Ferrão, Scientific Investigator at IN+, IST, Portugal</i> </td></tr> <tr> <td data-bbox="173 315 264 338">1C-1-2F</td><td data-bbox="293 315 622 371"> Design for Product-Embedded Disassembly with Maximum Profit <i>S. Takeuchi, K. 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Chiou, National Cheng Kung University, Taiwan</i> </td></tr> <tr> <td data-bbox="173 1509 264 1532">1D-2-4S</td><td data-bbox="293 1509 622 1565"> Cradle to Cradle Design <i>K. Kviseth, Akershus Univ. College, Norway</i> </td></tr> <tr> <td data-bbox="173 1581 264 1621">15:30-16:45 1D-3-1F</td><td data-bbox="293 1581 622 1659"> 【1D-3】Tool/Method for DfE II Lessons Learned from the Utilization of DfE in Swedish Companies <i>M. Lindahl, J. Jilderin, E. Rilegård, H. Omberg, Linköping University, Sweden</i> </td></tr> <tr> <td data-bbox="173 1675 264 1697">1D-3-2F</td><td data-bbox="293 1675 622 1753"> What could be learned from utilization of DfE within companies - experience from Swedish companies <i>M. Lindahl, E. Sundin, O. Hjelm, L. Thuresson, Linköping University, Sweden</i> </td></tr> <tr> <td data-bbox="173 1769 264 1792">1D-3-3F</td><td data-bbox="293 1769 622 1863"> Driving Sustainability Innovation by Integrating Sustainable Product Design and Corporate Environmental Management: A Peer Survey of Benchmarks toward World-Class Systems <i>Y. Yang, J. Giard, Arizona State University, USA</i> </td></tr> <tr> <td data-bbox="173 1886 264 1926">17:00-18:00 1D-4-1S</td><td data-bbox="293 1886 622 1942"> 【1D-4】Tool/Method for DfE III Open Loops <i>T. Gulden, K. Kviseth, Akershus Univ. College, Norway</i> </td></tr> <tr> <td data-bbox="173 1957 264 1980">1D-4-2S</td><td data-bbox="293 1957 622 2036"> Measuring Environmental Performance in the Early Phases of Product Design Using Life Cycle Assessment <i>K. Shinamura, T. Takahashi, K. Ueno, K. Ishii, Y. Tanabe, H. 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Omberg, Linköping University, Sweden</i>	1D-3-2F	What could be learned from utilization of DfE within companies - experience from Swedish companies <i>M. Lindahl, E. Sundin, O. Hjelm, L. Thuresson, Linköping University, Sweden</i>	1D-3-3F	Driving Sustainability Innovation by Integrating Sustainable Product Design and Corporate Environmental Management: A Peer Survey of Benchmarks toward World-Class Systems <i>Y. Yang, J. Giard, Arizona State University, USA</i>	17:00-18:00 1D-4-1S	【1D-4】Tool/Method for DfE III Open Loops <i>T. Gulden, K. Kviseth, Akershus Univ. College, Norway</i>	1D-4-2S	Measuring Environmental Performance in the Early Phases of Product Design Using Life Cycle Assessment <i>K. Shinamura, T. Takahashi, K. Ueno, K. Ishii, Y. Tanabe, H. 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1E-2-4S	Effect of Core Design on Efficiency in Wind Power Generation <i>Y. Nishimura, H. Sakamoto, Kochi University of Technology, Japan</i>
16:00-17:40 1E-3-1F	【1E-3】 Recycling System/Technology An Experimental Study on Waste Paper Recovery System for Medium and Small-size Enterprises <i>T. Ooki, S. Watanabe, O. Uchida, H. Kanzaki, S. Okamoto, Tokyo University of Information Sciences, Japan</i>
1E-3-2S	Recycle of Inorganic Wastes by Hydrothermal Technology <i>M. Oida, H. Maenami, N. Isu, E. H. Ishida, INAX Corporation, Japan</i>
1E-3-3S	Material Recycling of Waste Plastics for Home Appliances <i>Y. Matsuo, A. Fujita, M. Mukuda, Y. Iseki, S. Ogasawara, T. Takagi, T. Ishii, Mitsubishi Electric Corp., Japan</i>
1E-3-4S	Material Recycling Technologies for Closed-Loop Recycle System of Cross Flow Fan <i>T. Takagi, S. Iwata, Y. Iseki, Mitsubishi Electric Corp., Japan</i>
1E-3-5S	Recycling of Thin Film Solar Cell modules - LCA and ECO2 Case Study <i>M. Shibasaki, N. Warburg, P. Eyerer, IKP University of Stuttgart, Germany</i>
1E-3-6S	Optimum Design of Substitute Lumbers Molded from Fiber Waste <i>W. Kitano, T. Kimura, S. Hata, K. Kadokura, Kyoto Institute of Technology, Japan</i>

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2005/12/13 (Tue) **Program**

9:00-10:15 2A-1-1F	【2A-1】 Eco-SCM I Supplier Chain Management in Ecodesigning: A View from Strategic Environmental Cost Management <i>H. Kurunsaari, H. Okano, Osaka City University, Japan</i>
2A-1-2F	Environment-Conscious Production Planning Mechanism for Supply Chain Management <i>E. Domoto, K. Okuhara, N. Ueno, H. Ishii, Prefectural University of Hiroshima, Japan</i>
2A-1-3F	A Multi-Objective Reconfiguration Method of Supply Chain through Discrete Event Simulation <i>H. Komoto, T. Tomiyama, M. Nagel, S. Silvester, H. Brezet, Delft University of Technology, The Netherlands</i>
10:30-12:00 2A-2-1F	【2A-2】 Eco-SCM II Adaptive Production Planning by Information Sharing for Reverse Supply Chain <i>T. Murayama, M. Yoda, T. Eguchi, F. Oba, Hiroshima University, Japan</i>
2A-2-2F	Identification of Problems Associated with Exchanging Information Across a Chemical Product Chain <i>T. Ohashi, K. Kasagi, T. Niihara, Hitachi, Ltd. (Formerly NEDO), Japan</i>
2A-2-3F	Global Activity of Surveying Controlled Chemical Substances in Products as Green Procurement <i>K. Masuzawa, SEIKO EPSON CO., Japan</i>
2A-2-4S	The Environmental Impact of Using ICT in Industrial Sector -The Effect of Environmental Load Reduction by Using SCM Techniques - <i>T.Origuchi, A. Ichikawa, S. Nishi, J. Fujimoto, NTT, Japan</i>
15:45-17:25 2A-3-1F	【2A-3】 Life Cycle Design Integration of Life Cycle Design in Industrial Practice: Problems and Solutions <i>U. Hermenau, Institute of Production Management, Technology and Machine Tools (PTW), Germany</i>
2A-3-2F	Environmental Assessment and Life Cycle Collaboration Integrated in E-Business Solutions <i>B. Kuhrke, S. Feickert, F. D. Clesle, Darmstadt University of Technology, Germany</i>

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Program **2005/12/13 (Tue)**

2A-3-3F	An Integrated Approach for the Development and Management of Environmentally Conscious Products <i>M. Fargnoli, University of Rome "La Sapienza", Italy</i>
2A-3-4F	Product Life Cycle Design: A Model of Integrating Environmental Aspects into Product Design and Development Process at a Swedish Industry - Adaptive Feedback Approach <i>J. Jeganova, Lund Institute of Technology, Sweden</i>
9:00-10:15 2B-1-1F	【2B-1】 Service Engineering I Design for Functional Sales - A Case Study of Forklift Trucks at BT Sweden <i>E. Sundin, M. Lindahl, Linköping University, Sweden</i>
2B-1-2F	Life Cycle Simulation for Analysing Product Service Systems <i>H. Komoto, T. Tomiyama, M. Nagel, S. Silvester, H. Brezet, Delft University of Technology, The Netherlands</i>
2B-1-3F	MVC (Model for Balancing Values and Costs): A Fundamental Model to Design Environmentally Conscious Services <i>T. Sakao, Y. Shimomura, Mitsubishi Research Institute, Inc., Japan</i>
10:30-12:00 2B-2-1F	【2B-2】 Service Engineering II Service Engineering: A Novel Engineering Discipline for Producers toward Sustainable Production and Consumption <i>T. Sakao, Y. Shimomura, Mitsubishi Research Institute, Inc, Japan</i>
2B-2-2F	Methodic Eco-design Considering Consumer Needs and Requirements - Case Study with Computer Mouse <i>H. Yim, C. Herrmann, M. Stachura, Technical University of Braunschweig, Germany</i>
2B-2-3F	Desirable Sustainability <i>T. Gulden, K. Kviseth, Akershus Univ. College, Norway</i>
2B-2-4S	The Evaluation Model for the Package Design of Green Products Based on Integrating the Consumer's Viewpoint <i>C. F. Chen, H. Yi Wang, Ming Chuan University, Taiwan</i>

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2005/12/13 (Tue) **Program**

15:45-17:45 2B-3-1S	【2B-3】 LCA for EcoDesign Integrated Hybrid Tool of LCA and LCC: Application to EcoDesign <i>S. Nakamura, Y. Kondo, Waseda University, Japan</i>
2B-3-2S	Development of LCA Database Based on An Economic Input-Output Table <i>Y. Kobayashi, N. Oyasato, M. Yamamoto, H. Kobayashi, Toshiba Corporation, Japan</i>
2B-3-3S	Strategy and Value Oriented Life Cycle Assessment: The Case of Samsung Techwin Co. <i>M. H. Kang, J. H. Park, Eco-Frontier Co., Korea</i>
2B-3-4F	Making LCA A More Useful Policy-making Tool for A Lower-impact Society: Insights from Energy-economy System Modelling <i>Y. Ogushi, University of British Columbia, Canada</i>
2B-3-5F	Sustainable Product Design by Using Fuzzy Theory and QFD <i>T. C. Ku, H. H. Wu, Ming Hsin University of Science and Technology, Taiwan</i>
2B-3-6F	Integrated Product Policy and Distributed Supplier Structures: SMEs and Sound LCA Data in Conflict <i>H. E. Otto, F. Mandorli, M. Germani, The University of Tokyo, Japan</i>
9:00-10:15 2C-1-1F	【2C-1】 Remanufacturing I On REUSE Program - Implementation of IEC 62309(2004): Dependability of Products Containing Reused Parts - Requirements for Functionality and Tests <i>T. Natsume, Bunkyo University, Japan</i>
2C-1-2F	Network Agent's Advice for Promoting the Reuse of Mechanical Parts <i>Hi. Hiraoka, Norishige Iwanami, Chuo University, Japan</i>
2C-1-3F	A Closed-loop Manufacturing System Focusing on Reuse of Components <i>S. Kondoh, Y. Nishikiori, Y. Umeda, National Institute of Advanced Industrial Science and Technology, Japan</i>
10:30-11:45 2C-2-1F	【2C-2】 Remanufacturing II Case Study Analysis of Three Toner Cartridge Remanufacturers <i>E. Sundin, J. Östlin, Linköping University, Sweden</i>

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Program	2005/12/13 (Tue)	2005/12/13 (Tue)	Program
2C-2-2F	Design for Recycling and Remanufacturing of Fuel Cells <i>S. Freiburger, R. Steinhilper, Bernd Rosemann, Bayreuth Univ., Germany</i>	2D-1-2F	Factor Decomposition Analysis of 1985-90-95 Environmental Household Accounts Using Input-output Table <i>A. Washizu, M. Shinozaki, S. Nakano, Waseda university, Japan</i>
2C-2-3F	A Robust Description and Tool for Remanufacturing: A Resource and Energy Recovery Strategy <i>W. L. Ijomah, S. Childe, G. P. Hammond, C. McMahon, University of Bath, UK</i>	2D-1-3F	Developmental Research for the Monitoring System of Spatial Distribution of Impurity Particle in the Water <i>F. Kato, T. Kassai, I. Shimizu, Ibaraki College of Technology, Japan</i>
15:45-17:35	【2C-3】Energy Conservation	2D-1-4S	"Bio-Cycle" System of AJINOMOTO Group Environmentally-conscious Production Process of Amino Acids <i>K. Kunita, AJINOMOTO CO., INC., Japan</i>
2C-3-1S	Energy Saving Refrigeration System for Supermarket <i>F. Unezaki, Youichi Anzai, Takashi Ikeda, Fumio Matsuoka, Mitsubishi Electric Corporation, Japan</i>	10:35-12:00	【2D-2】Design for Environment in Asia (<i>Special Theme</i>)
2C-3-2S	Energy Conservation and CO2 Reduction by Conversion of Paper Document to Electronic Document Using High Speed Color Multifunction Device with Document Flow Software <i>A. Inoue, K. Masuda,, Fuji Xerox Co. Ltd., Japan</i>	2D-2-1F	The Environmental Design Review towards the International Regulations <i>M. Fargnoli, T. Sakao, University of Rome "La Sapienza", Italy</i>
2C-3-3S	The Development of a Decision Making Strategy to Reduce Business Greenhouse Gas Emissions <i>P. Eagan, R. Meissen, Baxter International, Inc., USA</i>	2D-2-2S	The Study of Designing for Environment on Liquid Crystal Display <i>C. C. Lin, M. H. Chung, Z. Wang, Industrial Technology Research Institute, Taiwan</i>
2C-3-4S	A Study of Soft-Switching PWM DC/DC Converter for Efficiency Improvement <i>K. Tamura, H. Kisaichi, S. Nagai, Mitsubishi Electric Corp., Japan</i>	2D-2-3S	International Green Purchasing: A Strategy for Sustainable Development <i>S. Sundstrom, Kyoto University, Japan</i>
2C-3-5F	Prospects for An Environmentally Sustainable ICT Society <i>M. Matsumoto, T. Tamura, J. Fujimoto, NEC Corporation, Japan</i>	2D-2-4S	Product Life Cycle Simulation System for EcoDesigners <i>K. Sakita, Soka University, Japan</i>
2C-3-6F	Usage Patterns and Life Cycle Energy Demand of Computers in Japan <i>E. Williams, T. Hatanaka, United Nations University, Japan</i>	2D-2-5S	Environmental Impact Evaluation of Zero Emission System for Cement Production <i>K. Morimoto, R. Yamamoto, T. Honda, Y. Wang, H. X. Nguyen, The University of Tokyo, Japan</i>
9:00-10:20	【2D-1】Environmental Load Reduction in Asia (<i>Special Theme</i>)	15:45-17:25	【2D-3】Recycling in Asia I (<i>Special Theme</i>)
2D-1-1S	The Study of Greenhouse Gases Reduction in Residential and Commercial Sector in Taiwan <i>F. C. Yang, N. H. Chen, C. H. Lee, H. W. Lo, Industrial Technology Research Institute, Taiwan</i>	2D-3-1F	WEEE & RoHS Challenge to Chinese Industry <i>C. Panfeng, V. W. Luk, H. Marianne, Huawei Tech. Co. Ltd., China</i>
		2D-3-2F	Eco-design Activities in Taiwan <i>J. L. Chen, L. H. Shih, J. S. Yang, T. Chen, National Cheng Kung University, Taiwan</i>

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Program	2005/12/13 (Tue)	2005/12/13 (Tue)	Program
2D-3-3F	Recycling of Cable Plastics - A Life Cycle Assessment of Several Different Alternatives <i>M. Lindahl, M. Winsnes, Linköping University, Sweden</i>	15:45-17:25	【JIEP】JIEP Workshop <i>An additional workshop organized by JIEP(Japan Institute of Electronics Packaging)</i>
2D-3-4F	EcoDesign of Multilateral Recycling Systems in Asia - 1st Report: Concept - <i>J. Fujimoto, Y. Umeda, S. Kondoh, Z. D. Li, K. Nakamura, M. Kuwatani, The University of Tokyo, Japan</i>	JIEP-1	An Ultra -Thin Decoupling Capacitor with SrTiO3 thin film on polyimide <i>Yamamichi, NEC</i>
9:00-9:50	【2E-1】Soldering Technology I	JIEP-2	Study on Lead-Free Electro-ceramics - Piezoelectric Materials Focusing on Crystalline Orientation - <i>F. Uchikoba, Nihon University</i>
2E-1-1F	Closed Material Recycling for Plastics from Wasted Appliances <i>Y. Kawaguchi, Y. Sumida, Y. Fukushima, H. Kohsaka, SHARP Corporation, Japan</i>	JIEP-3	New inspection technology of electronic components and circuit board assembly for RoHS directive <i>Noguchi, Fujitsu Laboratory</i>
2E-1-2F	Lifetime Estimation for Bond Interconnections Using Life-Cycle Information Modules with Implemented Models <i>A. Middendorf, H. Reichl, H. Griese, Fraunhofer IZM, Germany</i>	JIEP-4	Minimal manufacturing process by using a super fine inkjet system <i>K. Murata Advanced Industrial Science and Technology</i>
10:00-12:00	【2E-2】Soldering Technology II (IMS-PJ)	JIEP-5	Drastic reduction of chemical consumption in wet cleaning process for semiconductor manufacturing by using functional water <i>Kurobe, Kurita Kogyo</i>
2E-2-1F	Summary of the Final Results of IMS Project EFSOT <i>M. Okamoto, K. Serizawa, Hitachi Ltd., Japan</i>	JIEP-6	A Novel Approach to Disassembly of Joined Interface <i>N. Hosoda, NIMS</i>
2E-2-2F	An Estimate of the Transaction of Environmental Impacts as a Result of Switching to Pb-free Solder <i>N. Itsubo, T. Kubo, J. Noh, A. Inaba, Musashi Institute of Technology, Japan</i>		
2E-2-3F	Influences of Impurities on Wave Soldering Properties for Sn-9Zn Solders <i>M. Miyazaki, S. Ogata, A. Yoshida, Y. Nishiyama, H. Tanaka, M. Akanuma, N. Katayama, Nagano OKI Electric Co., Ltd., Japan</i>		
2E-2-4S	Considerations on Printed Wiring Board Design for Fatigue Reliability of Pb-free Soldered Leadless Packages <i>S. Kikuchi, O. Higashi, M. Yamada, N. Ozaki, FUJITSU LIMITED, Japan</i>		
2E-2-5F	Thermal Fatigue Life of Sn-2Ag Solder Bump with Small Al Addition <i>K. Serizawa, K. Yoshimi, M. Okamoto, T. Narita, J. Tanaka, Hitachi Ltd., Japan</i>		

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Program **2005/12/14 (Wed)**

2005/12/14 (Wed)

9:00-9:40	【3A-1】Life Cycle Scenario
3A-1-1S	Development of Life Cycle Scenario Description Support Tool <i>T. Torii, Y. Umeda, S. Kondoh, Tokyo Metropolitan University, Japan</i>
3A-1-2F	Scenario Techniques in Eco-design <i>T. Gulden, K. Kviseth, Akershus Univ. College, Norway</i>
10:00-11:30	【3A-2】Life Cycle Simulation / Lifetime Estimation
3A-2-1F	A Simulation-based Decision Support Methodology for Reuse Business <i>H. Kobayashi, T. Kumazawa, TOSHIBA Corporation, Japan</i>
3A-2-2F	Proposal of Decision Support Method for Life Cycle Strategy by Estimating Value and Physical Lifetimes - Case Study - <i>Y. Umeda, S. Kondoh, T. Daimon, Osaka University, Japan</i>
3A-2-3F	Reliability in Product Reuse <i>H. Kaebnick, M. Anityasari, The University of New South Wales, Australia</i>
3A-2-4S	Reliability Prediction of Re-used Electronics Circuit Boards <i>S. Ohta, T. Sato, RICOH COMPANY, LTD, Japan</i>
13:00-14:05	【3A-3】End of Life Product
3A-3-1S	Calculation of Amount of Discarded EOL Products by Using Multi-regression Analysis <i>K. Masui, National Institute of Advanced Industrial Science and Technology, Japan</i>
3A-3-2F	Is the End-of-Life Vehicle Recycling Law Steering Business and Society toward Sustainability? A Study on Effects of Take-back Legislation in the Japanese Automobile Market <i>Y. Ogushi, M. Kandlikar, University of British Columbia, Canada</i>
3A-3-3F	Product Architect, a new approach for transparency and controlling of the End-of-Life performance <i>A. Frad, C. Herrmann, I. Revnic, T. Luger, Technical University Braunschweig, Germany</i>

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9:00-9:50	【3B-1】Tool/Method for DfE IV
3B-1-1F	The Directive on Energy Using Products - An Approach for An Efficient Implementation in Industry <i>J. Grossmann, S. Hansen, E. Abele, H. Birkhofer, Darmstadt University of Technology, Germany</i>
3B-1-2F	Complexity of Eco-Building Design <i>A. V. Ardebili, A. H. Boussabaine, The university of Liverpool, UK</i>
10:00-12:05	【3B-2】EcoDesign Tool
3B-2-1F	An Integrated Manufacturing and Product Services System (IMPSS) Concept for Sustainable Product Development <i>L. H. Mien, L. W. Feng, R. G. K. Leng, Nanyang Technological University, Singapore</i>
3B-2-2F	The Study of Integrating Su-Field Analysis Modeling with Eco-Innovative Concept for Product Design <i>H. T. Chang, Shu-Te University, Taiwan</i>
3B-2-3F	ECODESIGN in the Electronics Industry - Achieving Legal Compliance with the EU-Directives and Environmentally Improving Products by Using the New EEE-PILOT <i>W. Wimmer, R. Grab, M. Stachura, Vienna University of Technology, Austria</i>
3B-2-4F	An Eco-Innovative Tool by Integrating FMEA and TRIZ Methods <i>J. L. Chen, S. B. Yen, National Cheng Kung University, Taiwan</i>
3B-2-5F	An Integrated Framework for Implementing Sustainable Product Development <i>H. Kaebnick, S. Kara, I. Honke, The University of New South Wales, Australia</i>
13:00-13:50	【3B-3】Tool/Method for DfE V
3B-3-1F	A Method of Evaluating Artifacts' Possibility for Sustainable Society <i>K. Hashimoto, T. Taura, Kobe University, Japan</i>
3B-3-2F	Sustainable Design Method Focusing on Latent Function <i>K. Minami, Y. Nagai, T. Taura, Japan Advanced Institute of Science and Technology, Japan</i>

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9:00-9:45	【3C-1】Eco-Product II
3C-1-1S	Development of Thermal Stress Free SMC for Prefabricated Bathroom -Thermo floor- <i>S. Yamaguchi, M. Ueno, Y. Sugioka, INAX Corporation, Japan</i>
3C-1-2S	Micro-Sheath Heated Secateurs for Prevention of Contagious Plant Diseases <i>T. Morita, H. Oouchi, Nakajima Doko Corporation, Japan</i>
3C-1-3S	High Efficient Motor Drive Technology for Refrigerator <i>M. Yabe, K. Sakanobe, M. Kawakubo, Mitsubishi Electric Co., Japan</i>
10:00-11:45	【3C-2】Life Cycle Cost and Management
3C-2-1S	Evaluating Green Design Projects with 3D-QFDE Method and Life Cycle Cost Estimation <i>L. H. Shih, B. S. Liu, National Cheng Kung Univ., Taiwan</i>
3C-2-2F	The Eco-Value-Analysis- Systematic Product and Process Analysis Using Environmental, Economical and Technological Aspects <i>C. Oberender, H. Birkhofer, Darmstadt University of Technology, Germany</i>
3C-2-3S	Strategies to Reduce Climate Impact Addressing Material Consumption in the Health Care Sector - Case Study Region Scania <i>M. Karlsson, D. P. Öhman, Lund University, Sweden</i>
3C-2-4F	Modeling the Effects of Maintenance on Product Life Cycle Management <i>T. Hata, F. Kimura, Environmental Management for Sustainability, Inc., Japan</i>
3C-2-5F	Simulation-based Evaluation of Maintenance System Design <i>T. Hata, F. Kimura, Environmental Management for Sustainability, Inc., Japan</i>
13:00-14:20	【3C-3】Soldering Technology III
3C-3-1S	An Eco-Design Study on the Sidings for Hous?ing <i>N. Kimata, K. Takata, Tottori University of Environmental Studies, Japan</i>
3C-3-2S	Product-Oriented Green Technology Roadmap: In Case of PCBs Industry <i>T. J. M. Chen, Industry Technology Research Institute, Taiwan</i>

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3C-3-3F	Sustainable Use and Substitution of Metals in Electronics <i>O. Deubzer, H. Reichl, TU Berlin, Germany</i>
3C-3-4F	Global Sustainable Development of Technological Innovations - First Approximation of Lead-free Transition Process - <i>L. Stobbe, H. Griesse, J. Mueller, O. Deubzer, Fraunhofer Institut für Zuverlässigkeit und Mikrointegration, Germany</i>
9:00-9:40	【3D-1】Ecological Footprint
3D-1-1F	Modified Ecological Footprint Evaluation to Include Resource Depletion <i>H. X. NGUYEN, K. Morimoto, Y. Wang, R. Yamamoto, The University of Tokyo, Japan</i>
3D-1-2S	Applying Ecological Footprint (EF) and Environmental Burden (EB) to Establish a Framework for Evaluating Environmental Impact of A Product-A Case Study of LCD <i>A. H. Hu, C. W. Hsu, C. Y. Chen, National Taipei University of Technology, Taiwan</i>
10:00-12:00	【3D-2】Eco-Efficiency / EcoDesign Impact I
3D-2-1S	Conflicts between Eco-design and Usability of Refrigerators <i>K. Fukuyo, N. Hamachi, Yamaguchi Univ., Japan</i>
3D-2-2S	Examining the Importance of Standards in Evaluating Eco-efficiency on Electrical and Electronic Equipment <i>T. Aoe, S. Kurihara, T. Takahashi, O. Namikawa, C. Nakaniwa, Japan Environmental Management Association for Industry, Japan</i>
3D-2-3S	Measuring ICT Benefits and Environmental Impact (Joint Project Exploring Development of Common Eco-efficiency Indicators on ICT) <i>Y. Matsuno, S. Miyamoto, M. Suda, T. Hashitani, S. Nishi, T. Sawada, T. Origuchi, Y. Itoh, H. Kobayashi, T. Aoe, T. Nishi, M. Tani, S. Ebata, N. Mochizuki, C. Nakaniwa, University of Tokyo, Japan</i>
3D-2-4F	Evaluation Methods and Applications of Factor X Indicator for Realization of A Sustainable Society <i>T. Takahashi, K. Ueno, K. Ishii, Mitsubishi Electric Corporation, Japan</i>

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