

# EcoDesign 2017 Program

(OS)=Organized Session

**Tuesday, November 28, 2017**

Time	November 28
16:00 ~ 18:00	Registration (Front Lobby of Check-in Desk at Tayih Landis Hotel, 1F)

## Keynote and Oral Session

**Wednesday, November 29, 2017**

Time	November 29
08:00 ~ 09:00	Registration (Foyer of Banquet Hall, 5F)
09:00 ~ 09:20	Opening Ceremony (Banquet Hall A, 5F) Huey-Jen Jenny Su (President of National Cheng Kung University, Taiwan)
09:20 ~ 10:05	Keynote Speech I (Banquet Hall A, 5F) Yasushi Umeda (Professor in Department of Precision Engineering, the University of Tokyo, Japan) <b>10th Anniversary of EcoDesign: What EcoDesign was and What EcoDesign Will Be</b>
10:05 ~ 10:50	Keynote Speech II (Banquet Hall A, 5F) Daniel Vickery (Director, Battery Systems, Gogoro, Taiwan) <b>Electric Vehicle Batteries Designed for a Long Life (And Afterlife)</b>
10:50 ~ 11:15	Coffee Break (Foyer of Banquet Hall, 5F)
11:15 ~ 12:00	Keynote Speech III (Banquet Hall A, 5F) Dr. Eugene Chien (Ambassador at Large; Chairman, Taiwan Institute for Sustainable Energy (TAISE), Taiwan) <b>Sustainability and Circular Economy</b>
12:00 ~ 13:30	Lunch (Banquet Hall A, 5F)

Wednesday, November 29, 2017

Time	November 29				
13:30 ~ 14:50	Athens Room (4F)	Berlin Room (4F)	London Room (4F)	New York Room (4F)	Paris Room (4F)
	<p>Session A1 <b>EcoDesign of Products and Life Cycles (I)</b> <b>Chair: Rolf Steinhilper</b></p> <p><b>[A1-1] Design and LCA of food packaging focusing on their protective effect</b> Akihiro Izumi<sup>1</sup>, Nobutaka Nakamura<sup>2</sup>, Kiyotada Hayashi<sup>2</sup>, Koichi Shobatake<sup>3</sup>, Yoshihito Yasaka<sup>3</sup>, Makoto Shiina<sup>4</sup> (1. Plastic Waste Management Institution, Japan; 2. National Agriculture and Food Research Organization (NARO), Japan; 3. TCO2 Co. Ltd., Japan; 4. Graduate School of Horticulture, Chiba University, Japan)</p> <p><b>[A1-2] The study of Green Innovation Design Model Base on Kansei Engineering</b> Hsuan-Chu Chen<sup>1</sup>, Jui-che Tu<sup>2</sup>, Shing-Sheng Guan<sup>3</sup> (1. Department of Computer Aided Media Design, Chang Jung Christian University, Taiwan; 2. Graduate School of Design, National Yunlin University of Science and Technology, Taiwan; 3. School of Design, Fujian University of Technology, China)</p> <p><b>[A1-3] A Study on the Communication of Networking Design for Natural Dyeing Workshops in Taiwan</b> Xiuyue Zhang, Jui-che Tu (National Yunlin University of Science and Technology, Taiwan)</p> <p><b>[A1-4] The research for the eco-efficiency assessment of cosmetics containers</b> Wen-Pin Li, Chien-Chiang Chen, Cheng-Hsiu Tsai (Quality Environment Safety Dept. Plastic Industry Development Center, Taiwan)</p>	<p>Session B1 <b>Social Vision and Scenarios for EcoDesign (I)</b> <b>Chair: Yi-Chen Lan</b></p> <p><b>[B1-1] [E] Perspectives of Knowledge Translation within Sustainable Product Development</b> Harald Ernst Otto (Polytechnic University of Marche, Italy)</p> <p><b>[B1-2] Possibility of the use of agriculture of the waste water from a biological cheap ventilation deodorant device of the shield type pigpen</b> Hitoshi Ogawa (Research Institute, Tamagawa University, Japan)</p> <p><b>[B1-3] [E] Rethinking Sustainability Assessment: Incorporating the Ethical Dimension into Decision Making</b> Hui-Ting Tang (Institute of Natural Resources Management, National Taipei University, Taiwan)</p> <p><b>[B1-4] Role of future generations in deliberation: A case study of Suita city's energy workshop</b> Michinori Uwasu<sup>1,3</sup>, Yusuke Kishita<sup>2</sup>, Yutaka Nomaguchi<sup>3</sup>, Keishiro Hara<sup>3</sup> (1. Center for the Study of CO-Design, Osaka University, Japan; 2. Graduate School of Engineering, University of Tokyo; 3. Graduate School of Engineering, Osaka University, Japan)</p>	<p>Session C1 <b>Circular Economy</b> <b>Chair: Hidetaka Hayashi</b></p> <p><b>[C1-1] Circular Economy and Satoyama Capitalism under the Recent Situations of Protectionism and Populism</b> Makoto Kano (Tokyo University of Science, Japan)</p> <p><b>[C1-2] [E] Policy for Circular Economy: Prestudy for improved policy development)</b> Anna Karin Jönbrink<sup>1</sup>, Jenny Sahlin<sup>2</sup>, Åsa Moberg<sup>3</sup>, Karin Wilson<sup>1</sup>, Katja Dvali<sup>2</sup>, Lena Youhanan<sup>3</sup> (1. Swerea IVF AB, Sweden; 2. Profu AB, Sweden; 3. IVL, Swedish Environmental Institute, Sweden)</p> <p><b>[C1-3] [E] Implications of the Circular Economy for Electronic Products</b> Christian Clemm<sup>1,2</sup>, Nils F. Nissen<sup>1</sup>, Karsten Schischke<sup>1</sup>, Gergana Dimitrova<sup>1</sup>, Max Marwede<sup>1,2</sup>, Klaus-Dieter Lang<sup>1,2</sup> (1. Fraunhofer Institut für Zuverlässigkeit und Mikrointegration IZM, Germany; 2. Technische Universität Berlin, Germany)</p> <p><b>[C1-4] A Vision for the Circular Economy in Hard Disk Drives Based on Self-Management of Common Pool Resources</b> Carol Handwerker<sup>1</sup>, William Olson<sup>2</sup>, Wayne Rifer<sup>3</sup>, Colin Fitzpatrick<sup>4</sup>, Mark Schaffer<sup>2</sup>, Haley Fu<sup>3</sup> (1. Purdue University, USA; 2. Seagate, USA; 3. Green Electronics Council (Emeritus), USA; 4. University of Limerick, Ireland; 5. International Electronics Manufacturing Initiative (iNEMI), USA)</p>	<p>Session D1 <b>Industry Session</b> <b>Chair: Allen Hu</b></p> <p><b>[D1-1] Designing in the Circular Economy</b> Vivian Tai (Dell Technologies, Taiwan)</p> <p><b>[D1-2] HPE &amp; Circular Economy</b> Christine Chiang (HP and HPE, Taiwan)</p> <p><b>[D1-3] Business Transformation and Product Design for the Environment</b> Grace Liu, Richard Lai, (Acer Inc., Taiwan)</p> <p><b>[D1-4] From Ecodesign to Realize Circular Economy- Asus Case</b> J.C. Chang, T. S. Wu, (ASUS Inc., Taiwan)</p>	<p>Session E1 <b>Cyber-Physical Systems</b> <b>Chair: Takashi Iwamoto</b></p> <p><b>[E1-1] [E] Bayesian estimation for the reuse of mechanical parts using part agents</b> Yoshinori Fukunaga, Yuuki Fukumashi, Atushi Nagasawa, Hiroyuki Hiraoka (Department of Precision Mechanics, Chuo University, Japan)</p> <p><b>[E1-2] [E] Turning the CPPS of the world's largest automotive research factory ARENA2036 into a Data-Gold-Mine for eco-design</b> Daniel Wehner<sup>1</sup>, Max Hossfeld<sup>2</sup>, Michael Held<sup>3</sup> (1. University of Stuttgart, Germany; 2. ARENA2036, Germany; 3. Fraunhofer IBP, Germany)</p> <p><b>[E1-3] [E] Between the User and the Cloud: Assessing the Energy Footprint of the Access Network Devices</b> Nils F. Nissen<sup>1</sup>, Lutz Stobbe<sup>1</sup>, Hannes Zedel<sup>1</sup>, Klaus-Dieter Lang<sup>1,2</sup> (1. Fraunhofer Institute for Reliability and Microintegration IZM, Germany; 2. Technische Universität Berlin, Germany)</p> <p><b>[E1-4] An Integrated Immersive Augmented Reality Disassembly Training System with Natural User Interface</b> Shana Smith, Chia-Wei Hsu (Department of Mechanical Engineering, National Taiwan University, Taipei, Taiwan)</p>
14:50 ~ 15:30	Coffee Break (Foyer, 4F)				

Wednesday, November 29, 2017

Time	November 29				
15:30 ~ 16:50	Athens Room (4F)	Berlin Room (4F)	London Room (4F)	New York Room (4F)	Paris Room (4F)
	Session A2 <b>EcoDesign of Products and Life Cycles (II)</b> <b>Chair: Shana Smith</b>	Session B2 <b>Social Vision and Scenarios for EcoDesign (II)</b> <b>Chair: Harald Ernst Otto</b>	Session C2 <b>Business Innovation</b> <b>Chair: Mitsutaka Matsumoto</b>	Session D2 <b>Sustainable Manufacturing (I)</b> <b>Chair: Christoph Herrmann</b>	Session E2 <b>Environmental Effects of Latest Technology Trends (I)</b> <b>Chair: Kiyoshi Dowaki</b>
	<p>[A2-1] <b>New Technologies for more Sustainable Automotive Services 2020</b> Rolf Steinhilper (Bayreuth University, Universitaetsstrasse 30, Germany)</p> <p>[A2-2] <b>Factor Analysis of Packaging Visual Design for Happiness on Organic—Middle-aged and Elderly as Example</b> Sheng-huei lin, Shu-bei Chen, Jui-che Tu (National Yunlin University of Science &amp; Technology, Taiwan)</p> <p>[A2-3] <b>Trust-Factor Analysis of Green Brand for Food Enterprise From Consumer Point of View</b> Yin-Hsin Chang, Yu-Ping Ku, Jui-Che Tu (National Yunlin University of Science &amp; Technology, Taiwan)</p> <p>[A2-4] <b>Eco-design methods applied the scenario analysis of lifestyle research</b> Sin-Yi Huang, Hung-Chung Hsieh, Jui-che Tu (National Yunlin University of Science &amp; Technology, Taiwan)</p>	<p>[B2-1] <b>The adverse consequence induced by swift fashion</b> I-Chun Chen<sup>1</sup>, Ching-Chu Hung<sup>2</sup>(1. Kun Shan University, Taiwan; 2. Da Yu Jin Gong, Taiwan)</p> <p>[B2-2] [E] <b>Development of an Environmental Management System Framework for Hong Kong Higher Education Institutions</b> Yi-Chen Lan, Shiu Chuen Lee (School of Business, Western Sydney University, Australia)</p> <p>[B2-3] [E] <b>Exploring the environmental movement for the preservation of big trees: a case study of urban areas in Thailand</b> Gwyntorn Satean (Department of Sociology and Anthropology, Naresuan University, Thailand)</p> <p>[B2-4] <b>From Stakeholder participation to Stakeholder Engagement, Emotion leads to Action through Eco Art Festival (EAF)</b> Soo Tyng Teh (Nets Printwork Sdn Bhd, Malaysia)</p>	<p>[C2-1] <b>Toward a sustainable business design: a problem formulation</b> Shinsuke Kondoh<sup>1</sup>, Hitoshi Komoto<sup>1</sup>, Yusuke Kishita<sup>2</sup> (1. National Institute of Advanced Industrial Science and Technology (AIST), Tsukuba, Japan; 2. The University of Tokyo, Japan)</p> <p>[C2-2] <b>A Study on the Relationship between Social Entrepreneurs' Characteristics and the Establishment of Business Models in Social Enterprises</b> Tsai Pi-Ju, Zhuang Ya Lin (Department of Business Administration, I-Shou University, Taiwan)</p> <p>[C2-3] [E] <b>Designing Sustainable Functional Economy Business Models: Takeaways from A Case Study the Small Household Equipment Industry</b> Edvin Lindgren 1, 2, Romain Allais 3, 4, Bertrand Guillaume 1(1 Research Centre for Environmental Studies and Sustainability, Université de Technologie de Troyes, Troyes, France, 2 Luleå University of Technology, Luleå, Sweden, 3 PACTE, Université Grenoble-Alpes, Grenoble, France, 4 APESA, Tarnos, France)</p> <p>[C2-4] [E] <b>Circular economy in business strategy of manufacturing company</b> Hidetaka Hayashi<sup>1</sup>, Masatsugu Kitamura<sup>2</sup>, Shin'ya Nagasawa<sup>3</sup>, Tadatomo Suga<sup>4</sup> (1. EcoDesign Promotion Network/ Shibaura Institute of Technology, Japan; 2. EcoDesign Promotion Network, Japan; 3. Graduate School of Commerce, Waseda University, Japan; 4. School of Engineering, The University of Tokyo, Japan)</p>	<p>[D2-1] [E] <b>Implementation of an energy metering system for smart production</b> Friedrich A. Halstenberg, Kai Lindow, Rainer Stark (Fraunhofer Institute for Production Systems and Design Technology, Division of Virtual Product Creation, Germany)</p> <p>[D2-2] [E] <b>Quality Assessment of Plastic Recyclates from Waste Electrical and Electronic Equipment (WEEE): A Case Study for Desktop Computers, Laptops and Tablets</b> Florian Wagner<sup>1,2*</sup>, Jef Peeters<sup>1</sup>, Jozefien De Keyzer<sup>2</sup>, Joost Duflou<sup>1</sup>, Wim Dewulf<sup>1</sup> (1. KU Leuven, Department of Mechanical Engineering, Belgium; 2. KU Leuven, Department of Chemical Engineering, Agoralaan gebouw B, Belgium)</p> <p>[D2-3] <b>Uncovering fate of carbon contained in highly-fabricated products</b> Hirokazu Sato, Hajime Ohno, Yasuhiro Fukushima (Department of Chemical Engineering, Tohoku University, Japan)</p> <p>[D2-4] <b>The Way to Corporate Sustainable Development—Green Factory</b> Yu-Chuan Lan, Chun-Yu Huang, Wei-Hao Chang (Division of Sustainable Management and Innovative Technology, Foundation of Taiwan Industry Service, Taiwan)</p>	<p>[E2-1] [E] <b>An Intelligent Robotic System for Handling and Laser Marking Fruits</b> Chih-Hsing Liu, Ta-Lun Chen, Tzu-Yang Pai, Chen-Hua Chiu, Wei-Geng Peng, Chia-Chun Weng (Department of Mechanical Engineering, National Cheng Kung University, Taiwan)</p> <p>[E2-2] [E] <b>Recent Progress on Soft Transducers for Sensor Networks</b> S. Chiba<sup>1</sup>, M. Waki<sup>2</sup>, K. Fujita<sup>3</sup>, Z. Song<sup>4</sup>, K. Ohyama<sup>4</sup>, S. Zhu<sup>4</sup>, (1. Chiba Science Institute I, Yakumo, Meguro, Japan; 2. Wits Inc., Oshiage, Sakura, Japan; 3. Japan Aerospace Exploration Agency, Japan; 4. Fukuoka Institute of Technology, Japan)</p> <p>[E2-3] <b>Simulation-based analysis of impacts of dynamic data acquisition and integration on the realization of an efficient recycling process chain for small electric and electrical equipment</b> Hitoshi Komoto, Shinsuke Kondoh, Mitsutaka Matsumoto, Keijiro Masui (Advanced Manufacturing Research Institute, National Institute of Advanced Industrial Science and Technology, Japan)</p> <p>[E2-4] [E] <b>Monitoring Energy Consumption of Individual Equipment in a Workcell using Augmented Reality Technology</b> Nicholas Ho, Chee-Kong Chui (Department of Mechanical Engineering, National University of Singapore, Singapore)</p>
18:00 ~ 20:30	Reception (Grand Ball Room, 3F)				

Thursday, November 30, 2017

Time	November 30				
08:40 ~ 10:00	<p data-bbox="304 204 544 236"><b>Athens Room (4F)</b></p> <p data-bbox="277 245 566 341">Session A3 <b>EcoDesign of Products and Life Cycles (III)</b> Chair: Jui-che Tu</p> <p data-bbox="277 347 566 616"><b>[A3-1] [E] Challenges when including sustainability aspects in product development at two large manufacturing companies in Sweden</b> Fredrik Paulson, Erik Sundin (Department of Management and Engineering, Division of Manufacturing Engineering, Linköping University, Sweden)</p> <p data-bbox="277 641 566 884"><b>[A3-2] [E] Integrating sustainable and design-thinking-based product design</b> Rachael K Gould, Cecilia Bratt, Patricia Lagun Mesquita, Göran I Broman ( Department of Strategic Sustainable Development, Blekinge Institute of Technology, Sweden)</p> <p data-bbox="277 909 566 1107"><b>[A3-3] [E] Design and Control of Remote Operation Devices for Remote Recycling</b> Akiho Chiba, Akihiro Oikawa, Yuta Kadowaki, Nozomu Mishima (Graduate School of Engineering Science, Akita University, Japan)</p>	<p data-bbox="647 204 887 236"><b>Berlin Room (4F)</b></p> <p data-bbox="620 245 909 341">Session B3 <b>Social Vision and Scenarios for EcoDesign (III)</b> Chair: Shinsuke Kondoh</p> <p data-bbox="593 347 936 545"><b>[B3-1] Strategies of leftover food treatment process – A case study of Convenience Store Deli-style food products in Taiwan</b> Yi-Lin Lee, Jui-Che Tu (Graduate School of Design, National Yunlin University of Science and Technology, Taiwan)</p> <p data-bbox="593 568 936 884"><b>[B3-2] Local Residents' Awareness of the Value of Regional Resources -A Case Study of Traditional Food “Heshiko” of Kutsuki District, Shiga Prefecture –</b> Asako Iwami<sup>1</sup>, Michinori Kimura<sup>2</sup>, Terukazu Kumazawa<sup>3</sup> (1. Center for Regional Research, Hosei University, Japan; 2. Department of Integrated Analysis, Lake Biwa Environmental Research Institute, Japan; 3. RIHN Center, Research Institute for Humanity and Nature, Japan)</p> <p data-bbox="593 906 936 1133"><b>[B3-3] Implementation of a novel biodiesel production system in local community</b> I-Ching Chen, Naomi Shibasaki-Kitakawa, Hajime Ohno, Yasuhiro Fukushima (Department of Chemical Engineering, Graduate School of Engineering, Tohoku University, Japan)</p> <p data-bbox="593 1155 936 1356"><b>[B3-4] A Scenario Analysis on Hydrogen Society Transition as an Analogy of Introduction of LNG to Japan in 1960's</b> Yuji Mizuno, Yuki Ishimoto, Ko Sakata (Research and Development Division, the Institute of Applied Energy, Japan)</p>	<p data-bbox="1028 204 1267 236"><b>London Room (4F)</b></p> <p data-bbox="965 245 1330 319">Session C3 <b>Sustainable Consumption</b> Chair: Pi-Ju Tsai &amp; Hsiang-Tang Chang</p> <p data-bbox="960 347 1335 469"><b>[C3-1] [E] Attributes of carbon-labelling to drive consumer purchase intentions</b> Aila Khan, Yi-Chen Lan (School of Business, Western Sydney University, Australia)</p> <p data-bbox="960 491 1335 692"><b>[C3-2] Investigating the difference of the consumer cognition and purchase intention of possessing a green message product on the viewpoint of Kansei Engineering</b> Yu-chen Huang, Min-hua Wu (Department of Creative Design and Architecture, National University of Kaohsiung, Taiwan)</p> <p data-bbox="960 715 1335 1011"><b>[C3-3] The study of the relationships between consumer's life style and green marketing</b> Jui CheTu<sup>1</sup>, Yu Yin Chen<sup>2</sup>, Shih-Chung Chen<sup>3</sup> (1. College of Design, National Yunlin University of Science and Technology, Taiwan; 2. College of Design, National Yunlin University of Science and Technology, Taiwan; 3. Department of Electrical Engineering, Southern Taiwan University of Science and Technology, Taiwan)</p> <p data-bbox="960 1034 1335 1406"><b>[C3-4] Green Product Preferences Considering Cultural Influences: Empirical Study in Indonesia</b> Ihwan Ghazali<sup>1*</sup>, Salwa Hanim Abdul-Rashid<sup>1*</sup>, Siti Zawiah Md Dawal<sup>1</sup>, Hideki Aoyama<sup>2</sup>, Alva Edy Tontowi<sup>3</sup>, Raja Arifin Raja Ghazilla<sup>1*</sup> (1. Department of Mechanical Engineering, University of Malaya, Malaysia; 2. Department of System Design Engineering, Keio University, Japan; 3. Department of Mechanical and Industrial Engineering, Universitas Gadjah Mada, Indonesia; * Centre for Product Design and Manufacturing (CPDM), University of Malaya, Malaysia)</p>	<p data-bbox="1397 204 1637 236"><b>New York Room (4F)</b></p> <p data-bbox="1370 245 1677 319">Session D3 <b>Sustainable Manufacturing (II)</b> Chair: Nils F. Nissen</p> <p data-bbox="1366 347 1709 590"><b>[D3-1] Development of a 3D-printed Device Evaluating the Aerodynamic Performance of a Rotary Wings</b> Keiichiro Takato<sup>1</sup>, Susumu Shirayama<sup>2</sup> (1. Department of Mechanical Engineering, Nishinippon Institute of Technology, Japan; 2. Department of Systems Innovation, School of Engineering, University of Tokyo, Japan)</p> <p data-bbox="1366 612 1709 839"><b>[D3-2] A Decision Supporting Tool for Critical Material Screening and Management for Sustainable Materials Management</b> Bo-Chieh Yang, Kun-Hsing Liu, Ray Reu ( Green Energy and Environmental Research Laboratories, Industrial Technology Research Institute, Taiwan)</p> <p data-bbox="1366 861 1709 1184"><b>[D3-3] [E] Life-cycle assessment-directed optimization of hydrogen sulfide removal during biomass-derived hydrogen production</b> Shohei Kuroda<sup>1</sup>, Tomoyuki Ishiyama<sup>1</sup>, Shota Kondo<sup>1</sup>, Mitsuo Kameyama<sup>2</sup>, Yuna Seo<sup>1</sup>, Kiyashi Dowaki<sup>1</sup> (1. Department of Industrial Administration, Graduate School of Science and Technology, Tokyo University of Science, Japan; Japan Blue Energy Co., Ltd., Japan)</p> <p data-bbox="1366 1206 1709 1382"><b>[D3-4] [E] Sustainable application of biopolymer</b> Shih-Chen Shi, Jhen-Yu Wu, Teng-Feng Huang, Yao-Qing Peng (Department of Mechanical Engineering, National Cheng Kung University (NCKU), Taiwan)</p>	<p data-bbox="1778 204 1973 236"><b>Paris Room (4F)</b></p> <p data-bbox="1729 245 2036 341">Session E3 <b>Environmental Effects of Latest Technology Trends (II)</b> Chair: Shinya Nagasawa</p> <p data-bbox="1724 347 2045 517"><b>[E3-1] [E] Environmental impacts of Japanese micro van electrification based on real-world use cases</b> Keita Sasaki, Tetsushi Mimuro (Akita Prefectural University, Japan)</p> <p data-bbox="1724 539 2045 740"><b>[E3-2] Evaluation of integrated agro-industrial systems considering expected frequencies of interannual weather variability</b> Ryotaro Nakamura, Hajime Ohno, Yasuhiro Fukushima (Department of Chemical Engineering, Graduate School of Engineering, Japan)</p> <p data-bbox="1724 762 2045 1107"><b>[E3-3] [E] The framework of the integration of carbon footprint and blockchain: using blockchain as a carbon emission management tool</b> Kun-Hsing Liu<sup>1</sup>, Shih-Fang Chang<sup>2</sup>, Wen-Hui Huang<sup>1</sup>, I-Ching Lu<sup>1</sup> (1. Green Energy and Environmental Research Laboratories, Industrial Technology Research Institute, Taiwan; 2. Computational Intelligence Technology Center, Industrial Technology Research Institute, Taiwan)</p> <p data-bbox="1724 1129 2045 1382"><b>[E3-4] [E] The proposal of environmental evaluation of household fuel cell considering life cycle analysis and process designing</b> Kiyofumi Sato, Yuna Seo, Kiyoshi Dowaki ( Department of Industrial Administration, Graduate School and Technology, Tokyo University of Science, Japan)</p>
10:00 ~ 10:20	Coffee Break (Foyer of Banquet Hall, 5F)				

**Thursday, November 30, 2017**

Time	November 30
10:20 ~ 11:05	<p data-bbox="904 204 1431 236">Keynote Speech IV (Banquet Hall A, 5F)</p> <p data-bbox="293 252 2027 331">Christoph Herrmann (Full Professor – Sustainable Manufacturing and Life Cycle Engineering at Technische Universität Braunschweig, Germany)</p> <p data-bbox="730 347 1590 379"><b>Urban Factories - Identifying Products for Production in Cities</b></p>
11:05~ 11:50	<p data-bbox="904 403 1431 435">Keynote Speech V (Banquet Hall A, 5F)</p> <p data-bbox="568 451 1753 483">Chia-Wei Li(Professor, Department of Life Science, National Tsing Hua University, Taiwan)</p> <p data-bbox="875 499 1447 531"><b>Rescuing the Endangered Plant Kingdom</b></p>
11:50 ~ 12:40	<p data-bbox="981 547 1341 579">Lunch (Banquet Hall A, 5F)</p>
12:40 ~ 13:20	<p data-bbox="875 595 1447 627">Poster Session (Foyer of Banquet Hall, 5F)</p>

Thursday, November 30, 2017

Time	November 30				
13:30 ~ 14:50	Athens Room (4F)	Berlin Room (4F)	London Room (4F)	New York Room (4F)	Paris Room (4F)
	Session A4 <b>EcoDesign of Products and Life Cycles (IV)</b> Chair: Abdelghani El Asli	Session B4 <b>Sustainable Social Infrastructure Systems</b> Chair: Hitoshi Komoto	Session C4 <b>EcoDesign Policy and Regulations</b> Chair: Keijiro Masui	Session D4 <b>(OS): Energy System Design (I)</b> Chair: Yoshiyuki Shimoda	Session E4 <b>(OS): Challenges and Solutions for Implementing PSS for Sustainability</b> Chair: Tomohiko Sakao
	<p><b>[A4-1] Recycled Ocean Plastic Product Design for Local Based Remanufacturing Technology</b> Ting-Fen Ho (Sustainable Design, Plastics Industry Development Center, Taiwan)</p> <p><b>[A4-2] Study on the Attractive Factor of Environmental Bamboo Products</b> Cheng-Hsueh Yang, Jui-Che Tua (Graduate School of Design, National Yunlin University of Science and Technology, Douliou, Taiwan)</p> <p><b>[A4-3] Estimation of Lifetime Functions of Plastic Products</b> Tamon Maruyama, Jun Nakatani, Yuichi Moriguchi (Department of Urban Engineering, University of Tokyo, Japan)</p> <p><b>[A4-4] Case Study for Recycled Ocean Plastic Product Design</b> Ting-Fen Ho, Yu-Chun Chang, Yun-Chu Wang, Shang-Yu Liu (Sustainable Design Group, Quality Environment Safety Dept., Plastics Industry Development Center, Taiwan)</p>	<p><b>[B4-1] Assessment of impacts on CO2 emissions and GDP of ICT services in Japan using computable general equilibrium model</b> Takeshi Origuchi<sup>1</sup>, Machiko Shinozuka<sup>1</sup>, Xiaoxi Zhang<sup>1</sup>, Yosuke Munessue<sup>2</sup>, Yuko Kanamori<sup>3</sup>, Toshihiko Masui<sup>3</sup> (1. NTT Network Technology Laboratories, Nippon Telegraph and Telephone Corporation, Japan; 2. Tokyo Institute of Technology; 3. National Institute for Environmental Studies, Japan)</p> <p><b>[B4-2] Study on Business Models for Sustainable Infrastructure</b> Takashi Iwamoto<sup>1</sup>, Atsuko Yasuda<sup>2</sup> (1. Graduate School of Business Administration, Keio University, Japan; 2. B plus I Inc., Japan)</p> <p><b>[B4-3] [E] Residents' Reactions against Renewable Energy Facilities and Influence of Willingness of Investment</b> Nozomu Mishima, Kazuki Abe, Toru Saito (Cooperative Major in Life Cycle Design Engineering, Akita University, Japan)</p> <p><b>[B4-4] Growing environmental benefits of shifting passengers from riding vehicles to public bikes</b> Pi-Cheng Chen<sup>1</sup>, Miaojia Lu<sup>1</sup>, Shu-Chien Hsu<sup>2</sup> (1. Department of Environmental Engineering, National Cheng Kung University, Taiwan; 2. Department of Civil and Environmental Engineering, Hong Kong Polytechnic University, Hong Kong)</p>	<p><b>[C4-1] Impact of Subsidy Policies on Green Products with Consideration of Reference-dependent Preferences</b> I-Hsuan Hong, Lukas Gandajaya (National Taiwan University, Taiwan)</p> <p><b>[C4-2] [E] Diffusion Policy Assessment of Solar Energy</b> Alrashoud Khalid<sup>1</sup>, Ryoichi Nakayama<sup>2</sup> (1. Department of Transdisciplinary Science and Engineering, Tokyo Institute of Technology, Japan; 2. Department of System Design, Kogakuin University, Japan)</p> <p><b>[C4-3] [E] Sustainable Integration in Industrial Design Education - A Case Study of Japanese Universities</b> Edilson Ueda (Department of Design, Chiba University, Japan)</p> <p><b>[C4-4] [E] The Effects of Collection Promotions on Resources Efficient Utilization and Resources Sustainability of Mobile Phone Market: A System Dynamics Approach</b> Juntao Wang<sup>1</sup>, Wenhua Li<sup>1</sup>, Nozomu Mishima<sup>2</sup> (1. Graduate School of International Resource Sciences, Akita University, Japan; 2. Faculty of Engineering Science, Akita University, Japan)</p>	<p><b>[D4-1] [E] Describing Diffusion Scenarios for Low-Carbon Products Using Life Cycle Simulation</b> Saiki Kohei, Kishita Yusuke, Umeda Yasushi (Department of Precision Engineering, Graduate School of Engineering, the University of Tokyo, Japan)</p> <p><b>[D4-2] [E] Energy System Design Incorporating Socio-Technical Regimes and Sustainability in Japan: Energy Use, Knowledge and Choice in a Liberalizing Energy Market</b> Andrew John Chapman<sup>1</sup>, Nugroho Agung Pambudi<sup>1,2</sup> (1. International Institute for Carbon Neutral Energy Research, Kyushu University, Japan; 2. Mechanical Engineering Education, Universitas Negeri Sebelas Maret, Indonesia)</p> <p><b>[D4-3] [E] Study on a Model of Cost of Electricity for Biomass Including Learning Effect to Evaluate Feed-in-Tariff Pricing</b> Hiroto Takaki, Koji Tokimatsu (School of Environment and Society, Tokyo Institute of Technology, Japan)</p>	<p><b>[E4-1] Communication, Collaboration and Co-creation to Enhance Environmental Performance of PSS</b> Tomohiko Sakao (Division of Environmental Technology and Management, Department of Management and Engineering, Linköping University, Sweden)</p> <p><b>[E4-2] Maintenance scenario selection method of point of sales (POS) terminals based on life cycle simulation and risk assessment</b> Yu Murai, Shinichi Fukushige, Hideki Kobayashi (Department of Mechanical Engineering, Osaka University, Japan)</p> <p><b>[E4-3] Design for a Personalized Product Service System Utilizing Multi-Agent System</b> Chi-Shiuan Tsai, Ming-Chuan Chiu (Department of Industrial Engineering and Engineering Management, NTHU (National Tsing Hua University, Taiwan)</p>
14:50 ~ 15:30	Coffee Break (Foyer, 4F)				

Thursday, November 30, 2017

Time	November 30				
15:30 ~ 16:50	Athens Room (4F)	Berlin Room (4F)	London Room (4F)	New York Room (4F)	Paris Room (4F)
	Session A5 <b>EcoDesign of Products and Life Cycles (V)</b> <b>Chair: Nozomu Mishima</b>	Session B5 <b>Green Supply Chain Management</b> <b>Chair: Tsai Chi Kuo</b>	Session C5 <b>Life Cycle Assessment (LCA) and Footprints (I)</b> <b>Chair: Yasuhiro Fukushima</b>	Session D5 <b>(OS): Energy System Design (II)</b> <b>Chair: Yusuke Kishita</b>	Session E5 <b>(OS): Eco-indicators for designers</b> <b>Chair: Bertrand Laratte</b>
	<p><b>[A5-1] Proposal of a life cycle simulation method focusing on global reuse</b>            Naoya Yokono, Hidenori Murata, Shinichi Fukushige, Hideki Kobayashi (Department of Mechanical Engineering, Osaka University, Japan)</p> <p><b>[A5-2] [E] Towards a Circular Economy : An Analysis of Innovation in Taiwanese Small and Medium-sized Enterprises</b>            Shiang-Ruei Hsu<sup>1</sup>, Kwo-Liang Chen<sup>2</sup>, Tsai-Chi Kuo<sup>3</sup> (1. Plastics Industry Development Center, Taiwan; 2. Small and Medium Enterprise Administration, Ministry of Economic Affairs, Taiwan; 3. Chung Yuan Christian University, Taiwan)</p> <p><b>[A5-3] Consumer Exposure Estimation of Chemicals of Concern from Plastic Products in Electronical and Electronic Equipment</b>            Hiroaki Takezawa<sup>1</sup>, Masakazu Sakata<sup>2</sup>, Tetsuji Kawakami<sup>1</sup> (1. Quality and Environmental Division, Panasonic Corporation, Japan; 2. Product Analysis Center, Panasonic Corporation, Japan)</p> <p><b>[A5-4] Discussion on the Sustainable Design of Healing Products</b>            Ya Chun Yang, Ming-Chyuan Ho (National Yunlin University, Taiwan)</p>	<p><b>[B5-1] [E] Effects of carbon tax on low-carbon and economic supplier selection for Asian assembly product</b>            Rena Kondo<sup>1</sup>, Yuki Kinoshita<sup>1</sup>, Tetsuo Yamada<sup>1</sup>, Norihiro Itsubo<sup>2</sup>, Masato Inoue<sup>3</sup> (1. Department of Informatics, The University of Electro-Communications, Japan; 2. Department of Environmental Management, Tokyo City University, Japan; 3. Department of Mechanical Engineering Informatics, Meiji University, Japan)</p> <p><b>[B5-2] [E] A study on specification of information system for product life cycle management in IoT era</b>            Keijiro Masui, Mitsutaka Matsumoto (Advanced Manufacturing Research Institute, National Institute of Advanced Industrial Science and Technology (AIST), Japan)</p> <p><b>[B5-3] Modeling of reverse logistics system for modular products under emission consideration</b>            Syarif Daniel Budiman, Hsin Rau (Department of Industrial and Systems Engineering, Chung Yuan Christian University, Taiwan)</p>	<p><b>[C5-1] [E] Development of a municipal waste management system from environmental and economic evaluation perspectives: A best available system methodology</b>            Hao Hu<sup>1</sup>, Ruixi Zhao<sup>2</sup>, Kenta Omura<sup>2</sup>, Hiroshi Onoda<sup>2</sup> (1. Environmental Research Institute, Waseda University, Japan; 2. Graduate School of Environment and Energy Engineering, Waseda University, Japan)</p> <p><b>[C5-2] Introduction of Carbon Footprint Calculation platform</b>            Fu-Hui Shen, Li-Han Wang, I-Ching Lu, Vespa Chu, Li-Han Wang (Industrial Technology Research Institute, Taiwan)</p> <p><b>[C5-3] Calculation of Recycled-Material Footprints Contributes to Circular Economy</b>            Wun-Hui Huang, Chin-Hung Chu (Industrial Technology Research Institute, Taiwan)</p> <p><b>[C5-4] Development of a new database for the design of efficient recycling processes: the case study of tantalum</b>            Mei Nagase<sup>1</sup>, Shinsuke Murakami<sup>1</sup>, Giuseppe Granata<sup>2</sup>, Chiharu Tokoro<sup>2</sup>, Yuichiro Kanematsu<sup>3</sup>, Yasunori Kikuchi<sup>3</sup> (1. Department of Systems Innovation, The University of Tokyo, Japan; 2. Faculty of Science and Engineering, Waseda University, Japan; 3. Presidential Endowed Chair for "Platinum Society", The University of Tokyo, Japan)</p>	<p><b>[D5-1] [E] Renewable Energy Substitution Model and Environmental Preservation</b>            Reza Nadimi*, Koji Tokimatsu (Department of Transdisciplinary Science and Engineering, School of Environment and Society, Tokyo Institute of Technology, Japan)</p> <p><b>[D5-2] Effect of Life Stage and Household Equipment in Smart Community Design</b>            Ayaka Kimura, Shimoda Yoshiyuki (Division of Sustainable Energy and Environmental Engineering, Graduate School of Engineering, Osaka University, Japan)</p> <p><b>[D5-3] Long-term evaluation of building energy efficiency by cutting edge BEMS</b>            Yuki Mataga<sup>1</sup>, Yoshiyuki Shimoda<sup>1</sup>, Koki Oshima<sup>1</sup>, Hiromasa Tanaka<sup>2</sup>, Shingo Tanabe<sup>2</sup>, Kaori Shiraishi<sup>2</sup> (1. Department of Sustainable Energy and Environmental Engineering, Osaka University, Japan; 2. Nikken Sekkei Ltd., Japan)</p>	<p><b>[[E5-1] [E] How to Develop Indicators to Assess the Sustainability of Recycling Processes?</b>            Guilhem Grimaud<sup>1,2</sup>, Bertrand Laratte<sup>2,3</sup>, Nicolas Perry<sup>2</sup> (1. MTB Recycling, France; 2. Arts et Métiers ParisTech, France; 3. APESA-Innovation, France)</p> <p><b>[E5-2] [E] A Proposal of the LCA index consideration of environmental burden and health information</b>            Yasuko Watanabe, Yuna Seo, Kiyoshi Dowaki (1. Department of Industrial Administration, Tokyo University of Science, Japan)</p> <p><b>[E5-3] [E] How to create a business relevant LCA</b>            Xiaobo Chen, Jacqueline Lee (Centre for Environmental Strategy, University of Surrey, UK)</p>
18:00 ~ 21:30	Banquet (Grand Ball Room A, 3F)				

Friday, December 1, 2017

Time	December 01				
08:40 ~ 10:00	Athens Room (4F)	Berlin Room (4F)	London Room (4F)	New York Room (4F)	Paris Room (4F)
	<p>Session A6 <b>EcoDesign of Products and Life Cycles (VI)</b> Chair: Hiroyuki Hiraoka</p> <p><b>[A6-1] Remote Operating Experiment towards Realization of Remote Recycling</b> Akihiro Oikawa, Nozomu Mishima (Graduate School of Engineering Science, Akita University, Japan)</p> <p><b>[A6-2] [E] Modeling and analysis of material flow towards establishment of e-waste recycling system in Malaysia</b> Mohamad Afnan Haziq, Nozomu Mishima (Cooperative Major in Life Cycle Design Engineering, Akita University, Japan)</p> <p><b>[A6-3] [E] Examination of Effectiveness of Remote Recycling through Material Composition Measurement of Used Small Electronics</b> Kenta Hirose, Akihiro Oikawa, Jun Oki, Kenta Torihara, Nozomu Mishima (Graduate School of Engineering Science, Akita University, Japan)</p> <p><b>[A6-4] [E] Constructed Wetlands as an Environmental Friendly System for Wastewater Treatment in Al Akhaway University</b> Hala Ghali, Abdelghani El Asli (School of science and engineering, Al Akhawayn University, Morocco)</p>	<p>Session B6 <b>Ecodesign Indicators</b> Chair: Hideki Kobayashi</p> <p><b>[B6-1] A proposal of Bio-H2 production through the sewage sludge</b> Shota Kondo<sup>1</sup>, Tomoyuki Ishiyama<sup>1</sup>, Shohei Kuroda<sup>1</sup>, Mitsuo Kameyama<sup>2</sup>, Yuna Seo<sup>1</sup>, Kiyoshi Dowaki<sup>1</sup> (1. Department of Industrial Administration, Tokyo University of science, Japan; 2. Japan Blue Energy Co., Ltd., Japan)</p> <p><b>[B6-2] Scope Definition on End-of-Life Chain Performance Assessment: Recycling Rate and French E-Waste Chain Case Study</b> Rachel Horta Arduin<sup>1</sup>, Jorge Martinez Leal<sup>1</sup>, Guilhem Grimaud<sup>1,2</sup>, Carole Charbuillet<sup>3</sup>, Stéphane Pompidou<sup>4</sup>, Bertrand Laratte<sup>1,5</sup>, Nicolas Perry<sup>1</sup> (1. Arts et Métiers ParisTech, France; 2. MTB Recycling, France; 3. Institut Arts et Métiers Chambéry, CNRS, France; 4. Université de Bordeaux, France; 5. APESA-Innovation, France)</p> <p><b>[B6-3] Research on Ecological Aesthetics Design Strategy of Campus Landscape</b> Jui-Che Tu<sup>1</sup>, Ye, Xu<sup>2</sup> (1. National Yunlin University of Science and Technology, Taiwan; 2. Department of Design, National Yunlin University of Science and Technology, Taiwan)</p> <p><b>[B6-4] [E] Towards the creation of an impact seriousness indicator to assist the designer</b> Florian Bratec<sup>1</sup>, Nadege Troussier<sup>1</sup>, Rene Diaz-Pichardo<sup>2</sup> (1. University of Technology of Troyes, France; 2. Groupe ESC Troyes, France)</p>	<p>Session C6 <b>Life Cycle Assessment (LCA) and Footprints (II)</b> Chair: Ying-Hsien Yang</p> <p><b>[C6-1] Life cycle assessment in fused deposition modeling (FDM) 3D printer</b> Cheng-Jung Yang, Yu-Hsun Lai (Department of Mechanical Engineering, National Pingtung University of Science and Technology, Taiwan)</p> <p><b>[C6-2] Key Findings on Potential Environmental Impacts of Tablet PC</b> Dongsik Shin, Youngchai Heo, Daesik Bae, Chiyoung Oh, Youngjin Suh ( Samsung Electronics, Korea)</p> <p><b>[C6-3] Instant Water Footprint Assessment on Electronic Products</b> Hsiang-Tang Chang<sup>1</sup>, Wen-Kuei Wu<sup>2</sup> (1. Department of Innovation Design Engineering, National Kaohsiung First University of Science and Technology, Taiwan; 2. Graduate Program of Industrial Design, National Kaohsiung First University of Science and Technology, Taiwan)</p> <p><b>[C6-4] Environmental Impact Assessment of Semiconductors Packaging technologies-A Case Study of a Semiconductor Company in Taiwan</b> Allen H. Hu<sup>1</sup>, Chien-Hung Kuo<sup>1</sup>, Ching-Yao Huang<sup>1</sup>, Wei-Yi Tang<sup>1</sup>, Chen-Hua Wu<sup>2</sup>, Te-Jung Hsu<sup>2</sup>, Kung-Chih Fan<sup>2</sup> (1. Institute of Environmental Engineering and Management, National Taipei University of Technology, Taiwan; 2. Advanced Semiconductor Engineering Group (ASE), Taiwan)</p>	<p>Session D6 <b>Rare Metal Issue &amp; 3R Technologies</b> Chair: Wu-Hsun Chung</p> <p><b>[D6-1] [E] Metal Recovery from Printed Circuit Board Using CRT glass by Reduction Melting</b> Hiroyuki Inano<sup>1</sup>, Keiichi Tomita<sup>1</sup>, Naoki Hiroyoshi<sup>2</sup>, Tatsumi Tada<sup>1</sup> (1. Industrial Research Institute, Hokkaido Research Organization, Japan; 2. Graduate school of engineering, Hokkaido University, Japan)</p> <p><b>[D6-2] Recovery of Critical Metals as a Service - Advanced Treatment of E-waste as a Model for Emerging Economies</b> Bernd Kopacek<sup>1</sup>, Stefan Salhofer<sup>2</sup>, Aleksander Jandric<sup>2</sup>, Peter Beigl<sup>2</sup>, Mariekie Gericke<sup>3</sup> (1. ISL-Kopacek KG, Austria; 2. Institute of Waste Management, University of Natural Resources and Life Sciences (BOKU), Austria; 3. Mintek, South Africa)</p> <p><b>[D6-3] [E] Disassembly support for reuse of mechanical products based on a part agent system</b> Atsushi Nagasawa, Yuuki Fukumashi, Yoshinori Fukunaga, Hiroyuki Hiraoka (Department of Precision Mechanics, Chuo University, Japan)</p> <p><b>[D6-4] Selective Zinc Chlorination Volatilization for Iron Recycling from Zinc Contaminated Sludge</b> Changzhi Liu<sup>1</sup>, Granata Giuseppe<sup>2</sup>, Chiharu Tokoro<sup>2</sup>, Satoshi Kawakami<sup>3</sup> (1. Graduate School of Creative Science and Engineering, Waseda University, Japan; 2. Faculty of Science and Engineering, Waseda University, Japan; 3. DOWA HOLDINGS Co., Ltd., Japan)</p>	<p>Session E6 <b>(OS): Sustainable Consumption and Production in the context of Asia (I)</b> Chair: Yasushi Umeda</p> <p><b>[E6-1] Creating Visions of Asian Sustainable Consumption and Production in 2050</b> Yusuke Kishita<sup>1</sup>, Shogo Kuroyama<sup>1</sup>, Mitsutaka Matsumoto<sup>2</sup>, Michikazu Kojima<sup>1,3</sup>, Yasushi Umeda<sup>1</sup> (1. University of Tokyo, Japan; 2. National Institute of Advanced Industrial Science and Technology, Japan; 3. Institute of Developing Economies, Japan External Trade Organization, Japan)</p> <p><b>[E6-2] [E] Solar photovoltaic market adoption: Dilemma of technological exploitation vs technological exploration</b> Ranaporn Tantiwechwuttikul<sup>1</sup>, Masaru Yarime<sup>2</sup>, Kohzo Ito<sup>3</sup> (1. Graduate Program in Sustainability Science – Global Leadership Initiative (GPSS-GLI), The University of Tokyo, Japan; 2. School of Energy and Environment, City University of Hong Kong, Hong Kong; 3. Department of Advanced Materials Science, University of Tokyo, Japan)</p> <p><b>[E6-3] Trade Restriction and Extending Product Life Time</b> Michikazu Kojima (Institute of Developing Economics, JETRO, Japan)</p> <p><b>[E6-4] A Virtualized Reality Environment for the Immersive Evaluation of Locally Oriented Product Design</b> Shinichi Fukushige, Rieko Miyata, Hideki Kobayashi (Department of Mechanical Engineering, Osaka University, Japan)</p>
10:00 ~ 10:20	Coffee Break (Foyer, 4F)				



Friday, December 1, 2017

Time	December 01				
10:20 ~ 11:20	Athens Room (4F)	Berlin Room (4F)	London Room (4F)	New York Room (4F)	Paris Room (4F)
	Session A7 <b>EcoDesign of Products and Life Cycles (VII)</b> Chair: Shinichi Fukushima	Session B7 <b>Global Issues in EcoDesign</b> Chair: Ming-Chuan Chiu	Session C7 <b>Life Cycle Assessment (LCA) and Footprints (III)</b> Chair: Pi-Cheng Chen	Session D7 <b>Eco-label and Footprints</b> Chair: Bernd Kopacek	Session E7 <b>(OS): Sustainable Consumption and Production in the context of Asia (II)</b> Chair: Yasushi Umeda
	<p><b>[A7-1] [E] Environmental Impact Assessment of Functional and Visual Design Features of Smartphones</b> Tsubasa Naito, Nozomu Mishima (Graduate School of Engineering Science, Akita University, Japan)</p> <p><b>[A7-2] [E] Exchange of modules among robot manipulators using part agents</b> Yuuki Fukumashi, Atsushi Nagasawa, Yoshinori Fukunaga, Hiroyuki Hiraoka (Department of Precision Mechanics, Chuo University, Japan)</p> <p><b>[A7-3] [E] Component Recoverability Analysis in Product Design Using System Dynamics Modelling</b> Sakundarini, N<sup>1</sup>, Riwayat, N.S<sup>1</sup>, Chin, C.M.M<sup>1</sup>, Yap, E.H<sup>1</sup>, Raja Ghazilla, R.A<sup>2</sup>, and Abdul-Rashid, S. H<sup>2</sup>(1. Department of Mechanical, Materials and Manufacturing Engineering, University of Nottingham, Malaysia; 2. Center for Product Design and Manufacturing, Faculty Engineering, University of Malaya, Malaysia)</p>	<p><b>[B7-1] Pb-free Die Attach Material For High Temperature and Harsh Environment Applications</b> Lim Sze Pei<sup>1</sup>, BingHua Pan<sup>2</sup>, Masahiro Tsuruya<sup>3</sup> (1. Indium Corp., Singapore/ USA; 2. Delphi Automotive Systems Singapore Pte. Ltd., Singapore; 3. iNEMI (International Electronics Manufacturing Initiative Inc.), Japan)</p> <p><b>[B7-2] [E] Integration of sustainability targets into the product creation process of German manufacturing companies</b> Tom Buchert<sup>1</sup>, Rainer Starkl<sup>2</sup> (1. Department of Industrial Information Technology, Technische Universität Berlin, Germany; 2. Fraunhofer Institute for Production Systems and Design Technology, Germany)</p> <p><b>[B7-3] AIS Base Station Location Optimization for the Prevention of Maritime Environmental Disasters</b> Meng-Hui Shyu, Wu-Hsun Chung, Sheng-Long Kao (Department of Transportation Science, National Taiwan Ocean University, Taiwan)</p>	<p><b>[C7-1] Mitigation and adaptation strategy to climate change based on life cycle thinking: a case study of electric vehicle in Japan</b> Katsuyuki Nakano, Ken Yamagishi, Yoriko Saeki ( LCA center, Japan Environmental Management Association for Industry (JEMAI), Japan)</p> <p><b>[C7-2] The Low-carbon Air Cleaner Product Development by Low-carbon Decision Making System</b> Ying-Hsien Yang<sup>1</sup>, Yu-En Hsieh<sup>1</sup>, Tunliang Li<sup>2</sup>, Yu-Hsiu Chen<sup>3</sup> (1. Dept. of Environmental Resources Management, Chia-Nan University of Pharmacy &amp; Science, Taiwan; 2. ST&amp;T Electric Corporation; 3. Dept. of Resources Engineering, National Cheng Kung University, Taiwan)</p> <p><b>[C7-3] Wastewater Treatment Ponds in the Moroccan Water Energy Nexus: Life Cycle Assessment &amp; Energy Recovery Potentials</b> Samir Rouini<sup>1</sup>, Michael Knaus<sup>2</sup> (1. School of Science &amp; Engineering, Al Akhawayn University, Morocco; 2. Environmental Campus of Birkenfeld, Trier University of Applied Sciences, Germany)</p>	<p><b>[D7-1] Environmental Labels: Characterization beyond the ISO 14020-Series</b> Nikolay Minkov, Annekatrin Lehmann, Matthias Finkbeiner (Chair of Sustainable Engineering, Technische Universität Berlin, Germany)</p> <p><b>[D7-2] Uncertainty Analysis of a GHG Emission Model Output Using the Monte Carlo Simulation and Block Bootstrap Method</b> Min Hyeok Lee, Kun Mo Lee (Ajou University, Korea)</p> <p><b>[D7-3] Uncertainty analysis of the water scarcity footprint based on the AWARE model</b> Jong Seok Lee, Min Hyeok Lee, Joo Young Lee, Yoon Ha Kim, Kun Mo Lee (Ajou University, Korea)</p>	<p><b>[E7-1] A study on product refurbishment and remanufacturing in Asian region</b> Mitsutaka Matsumoto<sup>1</sup>, Yasushi Umeda<sup>2</sup>, Michikazu Kojima<sup>2</sup>, Keijiro Masui<sup>1</sup>, Yusuke Kishita<sup>2</sup> (1. Advanced Manufacturing Research Institute, National Institute of Advanced Industrial Science and Technology (AIST), Japan; 2. Department of Precision Engineering, The University of Tokyo, Japan)</p> <p><b>[E7-2] Cross-cultural Lifecycle Evaluation for Locally Oriented Design</b> Shota Arai, Shinichi Fukushima, Hideki Kobayashi (Department of Mechanical Engineering, Osaka University, Japan)</p> <p><b>[E7-3] On the circularity of remanufactured products in Asia – their market competitiveness</b> Yasushi Umeda<sup>1</sup>, Kazuma Ishizuka<sup>1</sup>, Mitsutaka Matsumoto<sup>2</sup>, Michikazu Kojima<sup>3</sup>, Yusuke Kishita<sup>1</sup> (1. The University of Tokyo, Japan; 2. Advanced Manufacturing Research Institute, National Institute of Advanced Industrial Science and Technology (AIST), Japan; 3. Institute of Developing Economies, Japan External Trade Organization (JETRO), Japan)</p>
11:40~ 12:10	Closing & Award (Banquet Hall A, 5F)				
12:10 ~ 13:00	Lunch (Banquet Hall A, 5F)				
13:00 ~ 17:00	Tainan city Tours				

## Poster Session

**Thursday, November 30, 2017; 12:40 ~ 13:20 (Foyer of Banquet Hall, 5F)**

<p><b>[P1] Case Studies of Innovative EcoDesign-focusing on Development Background, Technical Features and Sustainable</b> Young Do Jung, Hyunjung Im (KEITI (Korea Environmental Industry &amp; Technology Institute), Korea)</p>
<p><b>[P2] Persuasive Design for More Energy Saving Behavior Considering Users Psychological Factors</b> Li-hsing Shih, Cheng-han Lee, Jun-yen Zhuang (Department of Resources Eng., National Cheng Kung University, Taiwan)</p>
<p><b>[P3] Design for LOHAS Products with Persuasive Technology and Gamification</b> Li-hsing Shih, Jeng-Jay Chang, Jau-Yu Chen, Chung-Kai Zhou (Department of Resources Eng., National Cheng Kung University, Taiwan)</p>
<p><b>[P4] An Eco-Innovative design method of Machinery for Energy Conservation and Carbon Reduction by using TRIZ method</b> Sheng-Hsin Huang, Jahau Lewis Chen (Department of Mechanical Engineering, National Cheng Kung University, Taiwan)</p>
<p><b>[P5] An Eco-innovation Design Method by Integrating New TRIZ Eco-matrix with Biomimetic Concepts</b> Pei-Chi Wang, Jahau Lewis Chen (Department of Mechanical Engineering, National Cheng Kung University, Taiwan)</p>
<p><b>[P6] Recycling of plastic trays: Consumers' habits and acceptance of new recycling techniques)</b> Takaaki Kato<sup>1</sup>, Yui Nakamura<sup>2</sup> (1. Faculty of Environmental Engineering, University of Kitakyushu, Japan; 2. Nippon Paper Industries Co., Ltd, Japan)</p>
<p><b>[P7] Effect of Fuel Consumption Information - A Methods on Fuel Consumption Reduction</b> Yunjui Li, Edilson Shindi Ueda, Kouichi Hayashi (Department of Design Science, Chiba University, Japan)</p>
<p><b>[P8] The Development Trends of International Green Certification and the Experience to Assist Taiwanese Corporations</b> Hsin-Ju Lin, Wen-Ning Liang (Green Energy and Environmental Research Laboratories, Industrial Technology Research Institute, Taiwan)</p>
<p><b>[P9] Economic analysis of indoor air quality management service</b> Hong Seok Jin, Kim Jong Min, Park Soon Chul, Han Kyoung Hoon, (Korea National Cleaner Production Center, Korea Institute of Industrial Technology, Korea)</p>
<p><b>[P10] Eco-design methodology suitable for display module industry</b> Byung Hee Choi, Dae Geon Kim (Global Standard Team, LG Display, Korea)</p>
<p><b>[P11] Product Carbon Footprint Standard Calculation Procedure for Display Industry</b> Hao-Jhang Huang<sup>1</sup>, Jahau Lewis Chen<sup>1</sup>, Li-Hsing Shih<sup>2</sup>, Yi-Lin Wei<sup>3</sup>, Hui-Chi Liu<sup>3</sup> (1. Department of Mechanical Engineering, National Cheng Kung University, Taiwan; 2. Department of Resources Engineering, National Cheng Kung University, Taiwan; 3. CSR &amp; ESH Div., AU Optronics Corp.(AUO), Taiwan)</p>
<p><b>[P12] Application of environmental monitoring techniques for K-IPPC (Korea-Integrated Pollution and Prevention Control)</b> Jong Min Kim, Seok Jin Hong, Kyoung Hoon Han, Jin Ho Kim, Kyi Ho Lee (KNCPC in KITECH(Korea National Cleaner Production Center in Korea Institute of Industrial Technology), Korea)</p>
<p><b>[P13] Development of Recycling System of Gold from WEEEs Using "Organic Aqua Regius" – Propylene Carbonate Solvent Containing CuBr<sub>2</sub></b> Takuki Komenami<sup>1</sup>, Tomoko Mineo<sup>1</sup>, Akihiro Yoshimura<sup>1</sup>, Yasunari Matsuno<sup>1</sup>, Yuki Nagase<sup>2</sup>, Ryuji Nagoya<sup>2</sup>, Kennichi Sakurai<sup>2</sup>, Kazumi Otabe<sup>3</sup> (1. Department of Urban Environment Systems, Chiba University, Japan; Tokyotekko Co.,Ltd, Japan, 3 Econergy Co., Ltd, Japan)</p>
<p><b>[P14] Eco-innovation by integrating Technologies for the Future with TRIZ</b> Jahau Lewis Chen, Che-Wei Chen (Department of Mechanical Engineering, National Cheng Kung University, Taiwan)</p>
<p><b>[P15] The study of environmental footprint to support the Eco Design</b> Tsai Chi Kuo, Yirah Lee, Kuan Jui Chen (Chung Yuan Cristian University, Taiwan)</p>
<p><b>[P16] Organizational Life Cycle Assessment OLCA of Kogakuin University</b> Kaname Yamada, Kiyotaka Tahara, Chiharu Fujii, Atsushi Inaba (Kogakuin University, Japan)</p>
<p><b>[[P17] E] An Approach for Establishing Eco-Product Value Indicators</b> Chen-Fu Chen (Department of Product Design, Ming Chuan University, Taiwan)</p>