EcoDesign2025 Poster Session

[E]: Included in the E-book published by Springer after the symposium

Presenting authors are marked with *.

Thursday, November 13, 2025: 11:40-13:40 JST (Royal Hall & Lobby)

Poster number	Title	Authors	Affiliations
[P1] OS: Circular Manufacturing			
[P-01]	Designing of DPP Data Items for Construction Machinery Remanufactured Parts Based on ESPR	*Naoki Furuya1, Etsuko Nomoto1, Tetsuro Adachi1, Jun Shibuya2, Manami Kadowaki2	1.Hitachi, Ltd., 2.Hitachi Construction Machinery Co., Ltd.
[P-02]	Carbon Reduction Potential of Circular Transition in Taiwan's Cement Value Chains Using a Waste Input-Output Model.	*Chin-Chun Liu1, Pi-Cheng Chen1	1.National Cheng Kung University
[P-03]	Carbon footprint analysis using Life Cycle Assessment(LCA) method for beverage container materials	*Yong-jin Lee1, Chan-min Gong2, Ye-jee Jeong3, Noh-hyun Lim4	1.Konkuk University, 2.with Forest, 3.LG H&H Co., Ltd., 4.Institute of Global Sustainability Certification
[P-04]	Ubiquitous Digital Re-manufacturing System with Additive Manufacturing for Promoting Component Reuse	*Toshitake Tateno1, Shinsuke Kondoh2	1.Meiji University, 2.The University of Tokyo
[P-05]	Assessing and Investigating Environmental Indicators for PBF-AM repair process	*Hirotomo ITAGAKI1, Harumichi Sato1, Dennis Jodi1, Naoko Sato1, Hisato Ogiso1, Mitsutaka Matsumoto1, Tsuneo Kurita1	1.National Institute of Advanced Industrial Science and Technology
[P2] OS: Regenerative Paradigm Shift: From Doing Less Bad to Doing Good			
[P-06]	Life cycle assessment of an industrial crane application with application of Re-X circular strategies for End-of-Life options	*Paige Nguyen1, Mariam Abdulkareem2, Mika Horttanainen2	1.Konecranes Global Corporation, 2.Lappeenranta-Lahti University of Technology
[P3] OS: Design for X toward Sustainable Communication			
[P-07] [E]	Self-Care in the Digital Age: Lessons from Danish Youth on Sustainable Information Consumption	*Ayaka Imafuji1, Kazutoshi Sakaguchi1	1.Yamaguchi University
[P4] Environmentally Conscious Design of Products and Services			
[P-08]	Voices From the Repair Bench: Exploring the Challenges and Needs of Professional Small Electronics Repairers	Wepery Assam1, *Farzaneh Fakhredin2, Irfan Mehmood2	1.Graduate of University of Bradford, 2.University of Bradford
[P-09]	Consumer Willingness to Repair Electronics: Machine Learning-Based Analysis of Consumer Survey	Ravindra Wijenayake1, *Farzaneh Fakhredin2, Irfan Mehmood3	1. Graduate, University of Bradford, 2.Lecturer in Circular Economy and Innovation, 3.Associate Professor in Business Data Analytics
[P-10] [E]	Implementing Emotional and Biophilic Design into Bin Design to Increase Recycling Rates	*Marn Ning Kong1, Jo Li Tay1	1.Curtin University
[P-11]	Sustainable Design and Development of Product-Service Systems to Improve Plastic Film Recycling Efficiency: A Case Study of the Bangkok Metropolitan Area	*Supitcha Sasawatviboon1, Suphichaya Suppipat1	1.Department of Industrial Design, Faculty of Architecture, Chulalongkorn University
[P-12]	Selective Recovery of Zinc and Manganese Precipitates fromAcid Mine Drainage by Carbonation Treatment	*Ryosuke Iwata1, Hisanori Iwai1, Chiharu Tokoro1, 2	1.WasedaUnivesity, 2.The University of Tokyo
[P-13]	Continental comparison of General Program Instruction for Environmental Product Delclaration	Chan-min Gong1, Ji-yoon Kim1, *Yong-jin Lee2, Noh-hyun Lim3	1.with Forest Co., Ltd, 2.Konkuk University, 3.Institute of Global Sustainability Certification

[P5] Life Cycle Management			
[P-14] [E]	Future Regional Energy Planning Based on LCA and Multi-Objective Optimization Under the Background of Dual Carbon Target.	*Boyi Li1, Richao Cong2, Toru Matsumoto1	1.The University of Kitakyushu, 2.Shizuoka University of Art and Culture
[P-15]	Life Cycle-Based Environmental Assessment of a Public Sports Facility Rework: A Case of Bandabi Swimming Pool	*Hyun-Woo Lee1, Yong Woo Hwang1	1.Inha Univ.
[P-16] [E]	Assessing Environmental Impacts and Reducing Greenhouse Gas Emissions from Ulaanbaatar's Central Wastewater Treatment Plant Using Life Cycle Analysis	*Tumurtogtokh Oyunchimeg1, Toru Matsumoto Matsumoto1	1.The University of Kitakyushu
[P6] Sustainable Manufacturing			
[P-17]	Eco-friendly Synthesis of Electro-conductive Polyaniline Using Enzymatic Oxidation Controlled by AOT Vesicles as Templates	*Shoki Ikeno1, Keita Kashima1	1.National Institute of Technology, Oyama College (Oyama KOSEN)
[P-18]	LCA-Based Estimation of GHG Reductions in a Microwave Kiln for Magnesium Production	*Soyeong Seol1, Daeju Hwang2, Bongjae Lee1	1.Korea Testing & Research Institute, 2.Korea Institute of Limestone & Advanced Materials
[P-19]	Molecular Separation of Uncharged Oligosaccharides by Biological Polymer Membrane	*Mana Kishimoto1, Keita Kashima1	1.National Institute of Technology, Oyama College (Oyama KOSEN)
[P-20]	A Novel Biopolymer-BasedFilm Prepared from Natural EdibleMaterials for Packaging with a Highly Water-Repellent Surface due tothe Lotus Effect	*Keita Yamada1, Keita Kashima1	1.National Institute of Technology, Oyama College (Oyama KOSEN)
[P-21] [E]	Enzymatic Material Synthesis Promoted by Anionic Vesicles and Their Template Effects on Kinetic Behavior	*Masato Yoshida1, Mito Sakairi1, Keita Kashima1	1.National Institute of Technology, Oyama College (Oyama KOSEN)
[P7] EoL Management and Process Technologies			
[P-22] [E]	Prevention of deterioration of building materials by utilizing the function of rare sugars	*Ai Yokoo1, Shinichirou Okazaki1, Hidenori Yoshida1	1.kagawa university
[P-23] [E]	Affordance-Guided Dual-Armed Disassembly Teleoperation for Mating Parts	*Gen Sako1, Takuya Kiyokawa1, Kensuke Harada1, 2, Tomoki Ishikura3, Naoya Miyaji3, Genichiro Matsuda2	1.The University of Osaka, 2.Industrial Cyber - physical Systems Research Center, The National Institute of Advanced Industrial Science and Technolog, 3.Panasonic Holdings Corporation
[P-24]	Prospective LCA of Automotive Materials in Scenarios Considering Future Technologies	*Wataru Kawabe1, Norihiro Itsubo1	1.Waseda University
[P-25]	Recovery of Silicon Cells from Photovoltaic Panels by Selective Heating with Microwave Irradiation	*Tomoyuki Yonezawa1, Akiko Kubota1, Manabu Inutsuka1, Michio Kondo1, Hidehiro Kamiya1, Chiharu Tokoro1, 2	1.Waseda University, 2.The University of Tokyo
[P-26]	Hotspot characterization and disassembly feasibility of PCBs in Waste Electrical and Electronic Equipment for enhanced material recovery	*Han-Jung Hu1, Katharina Kippert1, Vera Susanne Rotter1	1.Technical University Berlin

[P8] Life Cycle Evaluation			
[P-27]	Assessment of the Impact of War-related Damages on Biodiversity in Ukraine	*Fuyuki Hayashi1, Zhiwei Liu2, Hiroaki Shirakawa2, Hiroki Tanikawa2, Asahi Sakuma3, Runya Liu1, Norihiro Itsubo1	1.Waseda University, 2.Nagoya University, 3.National Institute of Technology, Kisarazu College
[P-28]	Waste Footprint in Japan using the Waste Input-Output Table	*Atsushi Fukada1, Yasushi Kondo1, Yuki Ichisugi2, Norihiro Itsubo1	1.Waseda University, 2.National Institute of Advanced Industrial Science and Technology
[P-29]	Optimizing Carbon Recycling in Agriculture: A Life Cycle Assessment of Four Crops Using Smart CO2 and DAC-U Technologies	*Yina Xu1, Andrew Chapman1	1.Kyushu University
[P-30]	Methodological Comparison of Carbon Footprint Estimation for Feed in Pork Production: Average versus Marginal Perspective	*Yoosung Park1, Sung-Mo Yeon1, Kyu-Hyun Park 2	1.H.I.Pathway Co., Ltd., 2.Kangwon National University
[P-31]	Environmental Impact Assessment of Perovskite / Silicon tandem PV	*Ryuta Hamaguchi1, Ryosuke Ishikawa2, Norihiro Itsubo1	1.Waseda University, 2.Tokyo City University
[P-32]	Trade-off analysis between air pollution and climate change by Stratospheric Aerosol Injection	*Yuko Mochida1, Tatsuya Nagashima2, Longlong Tang3, Norihiro Itsubo1	1.Waseda University, 2.National Institute for Environmental Studies, 3.National Agriculture and Food Research Organization
[P-33]	Life cycle Assessment of Interior Materials Using Early-Ripening Paulownia	*Miyu Yamaguchi1, Osawa Yu2, Shigeki Naito2, Norihiro Itsubo1	1.Waseda University, 2.Panasonic Housing Solutions Co., Ltd.
[P-34]	Creation of Bill of Materials by Disassembly and Life Cycle Assessment of Electronic Device using ICP Analysis	*Ayana Matsunaga1, Minatake Kashio2, Nirihiro Itsubo1	1.Waseda University, 2.Fomalhaut Techno Solutions
[P-35]	Life Cycle-Based Environmental Assessment of Esports Events: Applying EN 15804 Standards	*Myong-seob Jeong1, Yong Woo Hwang1	1.Inha University
[P-36]	Extinction Risk of Terrestrial Species under Climate Change	*Ruri Hashimoto1, Akiko Hirata2, Haruka Ohashi2, Longlong Tang3, Runya Liu1, Norihiro Itsubo1	1.Waseda University, 2.Forestry and Forest Products Research Institute, 3.National Agriculture and Food Research Organization
[P-37] [E]	Integrated Environmental and Social Impact Assessment of Vehicles Using Conjoint Analysis	*Sayaka Kakiuchi1, Kayo Murakami2, Shutaro Takeda3, Koichi Kuriyama4, Norihiro Itsubo1	1.Waseda university, 2.Kwansei Gakuin University, 3.Keio University, 4.Kyoto University
[P-38]	Environmental Impact Assessment for the Remanufacturing of Automotive Parts	*Naoki Ichizawa1, Keijiro Masui2, Yoshiyuki Furukawa2, Norihiko Itsubo1	1.WASEDA University, 2.National Institute of Advanced Industrial Science and Technology
[P-39]	Environmental and Fire Risk Assessment of Flammable Refrigerant for Air Conditioner	*Ibuki Ando1, Norihiro Itsubo1	1.Waseda University
[P-40]	Integrated Assessment of GHG Emissions and Economic Costs of Hydrogen Utilization in Japan	*Ren Akami1, Norihiro Itsubo1	1.Waseda University
[P-41]	Life Cycle Assessment of Dynamic Wireless Power Transfer Systems for Electric Vehicles	*Jiang Tianai1, Shoki Kosai1, Shunsuke Kashiwakura1, Eiji Yamasue1	1.Ritsumeikan University
[P-42]	Environmental Impact Assessment Focusedon Lithium-Ion Battery Recycling	*Teruya Suzuki1, Norihiro Itsubo1	1.Waseda University

[P9] Sustainability Indices			
[P-43]	Evaluating the Circular Economy Performance of Construction and Demolition Waste Management in Taiwan Using Data Envelopment Analysis	*Yu-Wei Lee1, YUH-MING LEE1	1.National Taipei University
[P10] Sustainable Social Infrastructure			
[P-44]	Study on Characteristics of the Darrieus-type Vertical-axis Turbine in the Reciprocating Airflow Generator Simulating the OWC-type Wave Power Generation	*Kosuke Hamada1, Kentaro Tsuji1, Mitsuhiro Shiono1	1.Nihon University
[P-45]	Towards Sustainable Mobility: A Review of the Socio-Economic and Environmental Suitability of Hydrogen Fuel Cell Bus Deployment	*Jingxuan Zhang1, Andrew Chapman1	1.Kyushu University
[P-46] [E]	Estimation of Direct and Indirect CO2 Emissions by Municipality in Fukushima Prefecture	*Yujiro Hirano1, Takuya Togawa1, Satoshi Ohnishi1, Kei Gomi1, Seiya Maki1, Takuro Kobashi2, Yukiko Yoshida3	1.National Institute for Environmental Studies, 2.Tohoku University, 3.CTI Engineering Co. Ltd.
[P11] Sustainable Consumption and Production			
[P-47]	Study on Scientific Validity and Improvement Measures for Microplastic-Free Certification Criteria	Kiwoong Jung1, *Noh-hyun Lim1, Seonghun Bae1	1.Institute of Global Sustainability Certification (IGSC Inc)
[P-48]	The Influence of Conservation Awareness and Climate Change Perception on Consumer Rice Waste Behavior——Empirical Evidence from a Survey of Tokyo Consumers in Japan	*Caixia Li1, Zengjin Liu1	1.Shanghai Academy of Agricultural Sciences
[P-49]	Exploring Factors in Food Ingredients Procurement and Menu Development in Restaurants for Sustainability: Case of 14 Restaurants in Tokyo and Nagano	Eri Amasawa1, *Tomoko Suzuki1, Yinglei Wu2, Kiyo Kurisu2	1.Waseda University, 2.The University of Tokyo
[P-50] [E]	Private-Sector-Driven Decarbonization and RCE Development -An Analysis of the Cooperative Model of SAGA COLLECTIVE-	*Masatomo Yamaguchi1, Shunichi Ohmori2	1.SAGA COLLECTIVE Cooperative, 2.Waseda University
[P-51]	Guideline for Products to Help Promote Upcycling	*Kyoko Ohkubo1, Hiroyuki Inano1, 2, Tomohito Takagi1, Akira Manjome1	1.Local Indepedent Administrative Agency Hokkaido Research Organization, 2.The Center for Rare Earths Research, Muroran Institute of Technology
[P-52]	Visualizing the Relation between Characteristics of Plastic Products and Consumer Preferences using Correspondence Analysis	*Atsushi Fujiyama1, Aiko Iwasaki1, Toru Matsumoto1	1.The University of Kitakyushu
[P-53]	Comparison of the Carbon Footprints of Cotton and Polyester T-shirts over Their Life Cycles	*Toshiro Semba1, Atsuo Yoshida2, Masakazu Saika2, Masaaki Okayama3, Tomonori Goto3, Ryuzo Furukawa4, Norihiro Itsubo5	1. National Institute of Technology, Tokyo College, 2.Yoshidasenko Co., Ltd., 3.Kishigawakogyo Co., Ltd., 4.Tokyo City University, 5.Waseda University
[P12] Policy, Legislation and Social Activities			
[P-54]	The Influence of Human Activities on Water Quality Changes in the Taihu Basin: A Study on Management Strategy Optimization	*Xianfeng Yang1, Helmut Yabar1, Takeshi Mizunoya1	1.University of Tsukuba
[P-55]	Development of SDGs Training and Grading Certification in Higher Education – A System Designed by a High Impact University	*Wei-Yu Hsu1, Pi-Cheng Chen1	1. National Cheng Kung University
[P-56]	A Review of Private Power Plant Application Procedures and an Exploration of Liberalization Mechanisms for Thermal Power Plants in Taiwan	*Hao Yun Chen1, Yuh-Ming Lee1	1.National Taipei University,Institute of Natural Resource Management
[P-57] [E]	Toward Sustainable Local Textile Circulation: A Social Impact Evaluation of a Children's Clothing Reuse Project in Toyonaka, Japan	*Aya Yoshida1, Yamato Hosoi 2, Shingo Kanezawa2, Toshiya Kayama2, Masafumi Hagiwara2	1.National Institute for Environmental Studies, 2.Mitsubishi UFJ Research and Consulting

[P13] Circular Business Model			
[P-58]	Environmental and Economic Analysis of the Biological Treatment Process of Public Wastewater Treatment Facilities Using Methanol/Food Wastewater as Carbon Sourcele	*cheolson Im1, Yong Woo Hwang1	1.Inha Univ.
[P-59]	Circular Economy for Medical Intravenous Infusion Bags	*Shu-Mei Chien1, Cho-chun Chou2	1.Department of Nuclear Engineer , Pacific Engineers & Constructors Ltd., Taiwan, 2.Green Hung Enterprise Co.,Ltd, Taiwan
[P-60]	Life Cycle Evaluation of the Resource Consumption of Passenger Vehicles Using TMR and CSI	*Takuya Horimoto1, Hidenori Murata1, Hideki Kobayashi1	1.The University of Osaka
[P-61] [E]	Spatiotemporal Assessment of Provincial Vehicle-to-Grid Potential under China's Carbon Neutrality Scenario	*Yajie Hu1, Richao Cong2, Toru Matsumoto1	1.The University of Kitakyushu, 2.Shizuoka University of Art and Culture
[P14] Finance and Investment for Sustainability			
[P-62]	Comparison of Corporate Carbon Assets and Carbon Liabilities	*CHENG-MEI MIAO1, Yuh-Ming Lee1	1.Institute of Natural Resource Management, National Taipei University
[P-63]	Assessing GHG Emission’s Impact on Corporate ESG Performance by Applying Data Envelopment Analysis	*Nien-Jung Wu1, Yuh-Ming Lee1	1.National Taipei University
[P-64]	Life Cycle Assessment Aimed at Enhancing the Effectiveness of Engagement by Financial Institutions	*Riku Isawa1, Masahiro Kato2, Norihiro Itsubo1	1.Waseda University, 2.Mitsubishi UFJ Trust and Banking Corporation
[P15] Digital Technologies for Sustainability			
[P-65]	Designing SDG-Oriented Learning Applications: Insightsfrom Cross-Cultural User Perceptions in Japan and China	*Hao Xiaomin1, Ueda Edilson1	1.Chiba university