



icRS 2024

***2024 International
Conference on
Resource
Sustainability***

November 5-8, 2024

Bangkok, Thailand

www.icrsconf.com

Thammasat University

Rajamangala University of Technology

Rattanakosin

2024 International Conference on Resource Sustainability

(icRS 2024)

Welcome to icRS 2024!

The sustainable development of human society depends on resources. Addressing critical societal challenges, such as climate change, resource depletion, and environmental protection, requires sustainable management of resources using interdisciplinary approaches.

The [International Conference on Resource Sustainability \(icRS\)](#) series serve as an international platform for researchers and practitioners around the world with diverse background and expertise to share the most recent ideas, outcomes, and practices on resource sustainability.

icRS embraces interdisciplinarity, welcoming contributions from ANY discipline including natural sciences, social sciences, and engineering on ANY aspect of resource sustainability. We define resource broadly, including physical resources, biological resources, and "misplaced" resources:

- physical resources: metals, non-metallic minerals, energy, water, etc.
- biological resources: food, forestry, land, ecological systems, etc.
- "misplaced" resources: air emissions, water pollutants, solid waste, etc.

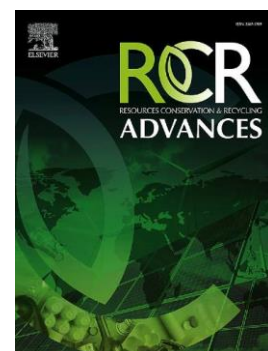
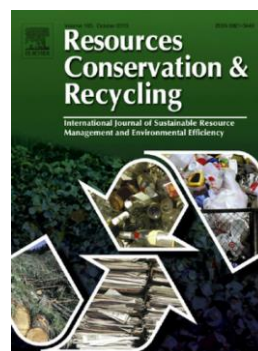
icRS 2024, co-hosted by [Thammasat University](#) and [Rajamangala University of Technology Rattanakosin](#), will include invited keynote speeches, parallel sessions, and poster presentations on a variety of topics related to resource sustainability.

icRS 2024 is sponsored by the flagship journal in sustainable resources management [Resources, Conservation & Recycling](#) (RCR; 2023 Impact Factor: 11.2) and its sister journal [Resources, Conservation & Recycling Advances](#) (RCRADV; 2023 Impact Factor: 5.4). High quality papers presented at icRS 2024 will be recommended to special issues in these journals as well as other supporting journals.

We are looking forward to meeting you.

Prof. Ming Xu

icRS Conference General Chair



2024 International Conference on Resource Sustainability

(icRS 2024)

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icRS 2024 Program

| GMT+7 (Bangkok) | Tue, November 5 | | | |
|-----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|
| 5:00pm-6:00pm | Registration (Foyer) | | | |
| GMT+7 (Bangkok) | Wed, November 6 | | | |
| 8:00-9:30am | Registration (Foyer) | | | |
| 8:00-8:10am | Opening Ceremony | Dr. Ming Xu , Tsinghua University | | |
| 8:10-8:40am | Plenary Session | Dr. René VAN BERKEL , Thammasat University Circular Economy from Ambition to Business Action: a case for science for sustainability illustrated for Southeast Asia | | |
| 8:40-9:10am | | Dr. Junbeum Kim , University of Technology of Troyes Evaluating Urban Impact: Insights from Environmental Footprint Analysis | | |
| | Room | Mandarin AB | | |
| 9:10-9:30am | Break | | | |
| | Parallel Sessions 1.1 | | | |
| | Session 1: Environmental Behaviour and Sustainable Consumption I | Special Session 2: Land Use, Water and Energy Nexus | Session 3: Carbon Emission and Carbon Neutrality I | Session 4: Artificial Intelligence and Data-driven Tools |
| Room | Mandarin A | Mandarin C | Karaked Room | Rodsukon Room |
| Chair | Do, Thi Yen | Xu, Yuan | Pacca, Sergio Almeida | Sun, Xin |
| 9:30-9:45am | Toward a comprehensive model of green adoption behavior. Unveiling the impact of perceived social responsibility and psychological benefits Paper ID: 342 | Uncertainty evaluation and compensation for reservoir's bathymetric patterns generated using conventional depth acquisition and spatial interpolation methods Paper ID: 189 | Carbon Neutrality vs. Food Security: trade-offs between agriculture and energy production Paper ID: 401 | A framework for developing a Deconstruction Information Modeling planning system for Circular Economy in the built environment Paper ID: 469 |
| | Vu, Minh Quan; Do, Thi Yen ; Wu, Wann Yih; Liao, Ying Kai | Ndou, Naledzani ; Nontongana, Nolonwabo | Chattha, Muhammad Waqas Alam ; Ancey, Tiho; Taghikhah, Firouzeh | Sanchez, Benjamin |
| 9:45-10:00am | Synergistic policy impacts: unveiling the transformation of thermal power trading strategies with energy-consuming rights trading and green certificates Paper ID: 149 | Land use and renewable energy development for carbon neutrality in the Greater Bay Area Paper ID: 190 | Commuting GHG emissions assessment for higher education institutions Paper ID: 430 | Enhancing stochastic frontier models: a Bayesian approach to multimodal error distributions Paper ID: 377 |
| | Li, Yan ; Feng, Tian-tian; Sun, Xiao-qj; Zhong, Cheng; Liu, Li-li | Cooke, Sam; Xu, Yuan | Pacca, Sergio Almeida ; Fonseca, Barbara Machado; e Aguiar, Alexandre de Oliveira | Yang, Ken ; Mogi, Gento |
| 10:00-10:15am | Effects of experience, knowledge, and preparedness on natural disaster risk perception: A comparison of environmental and non-environmental students in Vietnam Paper ID: 287 | Optimizing Thailand's regulatory framework for solar deployment and land use management Paper ID: 389 | Pathways to carbon neutrality in construction industry: knowledge spillovers from green innovation Paper ID: 215 | Application of XGBoost for Retrieving PM2.5 Concentrations from AOD and Meteorological Data in Hyderabad, Telangana Paper ID: 296 |
| | Mai, Chau Ngoc, Kato, Takaaki | Junlakarn, Siripha ; Kokchang, Phimsupha | Zhang, Wenyu; Hsu, Shu-Chien | Padimala, Shanmuka Sai Kumar ; Matti, Chandra Sekhar |
| 10:15-10:30am | A crisis hiding in plain sight – a scoping review of the rapidly growing sachet economy Paper ID: 288 | Water supply-demand index assessment for sustainable rice production in Upstream Watershed of Serayu Central Java Province Indonesia Paper ID: 330 | Spatio-temporal evolution and influencing factors of carbon deficit in Chinese cities Paper ID: 124 | Application and scenario simulation of multimodal GPT in circular economy transition: a case study of Taiwan's material flow data Paper ID: 261 |
| | Cullen, Elizabeth ; Yang, Miying; Sule, May | Yuzanni, M Yusfan; Setyawan, Chandra; Susanto, Sahid | Zhang, Yiming; He, Qi ; Ji, Han | Lin, Rui-An ; Ma, Hwong-Wen |
| 10:30-10:45am | Interprovincial transfer of Food–Energy–Water demand and supply in China using a Multi-Regional Input–Output approach Paper ID: 224 | Does urban growth boundaries control on rural communities development: Evidence from the uneven development of land in Wuhan, China Paper ID: 353 | | Large language model-driven interventions to mitigate carbon footprints of high-income groups Paper ID: 447 |
| | Yan, Ling ; Murayama, Takehiko; Nishikizawa, Shigeo; Suwanteep, Kultip; Zheng, Xiangyu; Li, Jiarui | Tu, Daihao ; Yinying, Cai | | Xia, Ziqian ; Ye, Jinquan; Zhang, Chao |
| 10:45-10:55am | Tea Break (Foyer) | | | |

| | Parallel Sessions 1.2 | | | |
|---------------|------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|
| | Session 5: Environmental Behaviour and Sustainable Consumption II | Session 6: Circular Economy I | Session 7: Carbon Emission and Carbon Neutrality II | Session 8: Sustainable Waste Management I |
| Room | Mandarin A | Mandarin C | Karaked Room | Rodsukon Room |
| Chair | Bakker, Robert R. | Tian, Xi | Negash, Yeneneh Tamirat | Tabata, Tomohiro |
| 10:55-11:10am | Combatting Food Loss and Waste along the food production to consumption chain: the role of monitoring systems | Heterogeneous multi-agent simulation and sub-regional policy analysis of the cross-regional recycling system of retired power batteries in China | Impact of water-saving technology on carbon emissions from agricultural irrigation in China | Carbon footprint of plastic packaging waste recycling systems with different collection routes |
| | Paper ID: 448 | Paper ID: 170 | Paper ID: 338 | Paper ID: 202 |
| | Bakker, Robert R. ; v.d. Stelt, Annelies J. | Tian, Xi | Wang, Jingyu ; Li, Zhihui; Deng, Xiangzheng | Tabata, Tomohiro ; Hua, Wentao; Mukoyama, Tatsuki; Ishima, Shunsuke |
| 11:10-11:25am | Revealing the synergistic effects of CO2 and air pollutants in the industrial sector of the Pearl River Delta urban agglomeration | Multi-waste daily time series prediction model with IoT-based collection bin in China | Reducing greenhouse gas emissions in livestock farms: A resource orchestration theory perspective on total resource management | Decommissioning of coal-fired power plants constrains the cement industry's decarbonization pathway |
| | Paper ID: 424 | Paper ID: 141 | Paper ID: 463 | Paper ID: 242 |
| | Zhang, Xiaorong ; Xu, Linyu | Chen, Jie Hao ; Wen, Zong Guo | Negash, Yeneneh Tamirat | Li, Huaqing ; Chen, Bin; Yu, Huajun; Wang, Yutao |
| 11:25-11:40am | Anionic and neutral per- and polyfluoroalkyl substance (PFAS) fate in simulated municipal solid waste (MSW) reactors | A multidisciplinary perspective on social dimension literature in circular economy | Assessing additional CO2 emissions caused by the propagation of drought risk through China's power sector | Life cycle carbon emissions of sewage sludge and food waste treatment in China |
| | Paper ID: 334 | Paper ID: 167 | Paper ID: 366 | Paper ID: 230 |
| | Lin, Ashley Mui ; Cerlanek, Allison Reanne ; Lott, Dreyton Jones ; Bowden, John Alfred; Townsend, Timothy Glyndon | Sharma, Vinayak | Dong, Yujie ; Xia, Yinshuang ; Zhang, Chao | Zhang, Jingjing ; Chen, Bin; Wang, Yutao |
| 11:40-11:55am | Multi-agent game analysis of agricultural catastrophe risk transfer and sustainable economic development in uncertain environments | | Low-carbon and zero-energy building exterior climate-based design strategy | Utilization of black soldier fly larvae for organic solid waste management in a landfill in Malaysia |
| | Paper ID: 216 | | Paper ID: 406 | Paper ID: 197 |
| | Fu, Guoyan ; Pu, Yongjian | | Dong, Yifan ; Wang, Zhengxi; Liu, Chunlu; Yang, Yang | Nur-Aliah, Natasha Azmi ; Ivorra, Tania; Mohsin, Hannis Fadzillah; Tabatabaei, Meisam; Heo, Chong Chin |
| 11:55-12:10am | Blending as an approach to maximizing beneficial use of waste materials while maintaining protection of human health and the environment | Evaluating recycling channels for retired electric vehicle batteries: A framework for enhancing circularity and sustainability | | Issues for recovering plastic debris from the ocean floor with fishermen: A study of fishermen's associations and municipal governments in Japan |
| | Paper ID: 289 | Paper ID: 265 | | Paper ID: 130 |
| | Weiksnaar, Kate Diane ; Townsend, Timothy G | Zhu, He ; Hu, Jiayao; Yang, Ying | | Lin, Zhaofei ; Kato, Takaaki; Endo, Aiko |
| 12:10-1:15pm | Poster Session (Foyer) Lunch and Break (Hotel Restaurant) | | | |

| | Parallel Sessions 1.3 | | | |
|-------------|------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------|
| | Special Session 9: Circularity in Manufacturing Industry | Session 10: Circular Economy II | Session 11: Clean Energy Transitions I | Session 12: Sustainable Waste Management II |
| Room | Mandarin A | Mandarin C | Karaked Room | Rodsukon Room |
| Chair | Visintin, Filippo | Yu, Chang | Ulatowski, Rafal | Heo, Chong Chin |
| 1:15-1:30pm | Exploring Circularity in Italian Textiles: Findings from the RESTART Survey | Recycling of polyester textile waste by alkaline hydrolysis under mild conditions | Shale revolution at 15th. The “energy weapon” and the great power competition. | Utilization of recycled plastics in asphalt-rubber roads: A green solution to solid waste management |
| | Paper ID: 195 | Paper ID: 316 | Paper ID: 172 | Paper ID: 445 |
| | Visintin, Filippo ; Boffelli, Albachiara; Bressanelli, Gianmarco; Colombo, Beatrice ; Horner-Bussolo, Guilherme; Saccani, Nicola | Ortuño García, Nuria , Marín, Natalia; Pérez, Antonio; Blázquez, Gabriel; Martín-Lara, María Ángeles; Calero, Mónica | Ulatowski, Rafal | Ansari, Sazid; Gopakumar, Neetu ; Biligiri, Krishna Prapoorna |
| 1:30-1:45pm | Stability and maturity of paper mill sludge aiming agricultural application | Comparative analysis of timber carbon stock flows and scenario assessment between China and North America | PIV measurement and simulating flow in solar spheres for power generation | Thermal landfill leachate evaporation: How do per- and polyfluoroalkyl (PFAS) mobilize in this emerging leachate treatment technology? |
| | Paper ID: 422 | Paper ID: 211 | Paper ID: 126 | Paper ID: 332 |
| | Carrossio Escudero, Anibal Alejandro; Rodríguez-Padrón, Richard Alberto; Mautone Rodríguez, Wilson Andrés; Martins Morita, Alice Kimie | Yu, Chang ; Xia, Erman | Abdulmouti, Hassan | Cerlanek, Allison R , Timshina, Alina S; Lin, Ashley M; Townsend, Timothy G; Bowden, John A |
| 1:45-2:00pm | Sustainable resource management towards circular supply chain in dairy industry in Vietnam: A causal interdependence approach | Sustainable hydrothermal carbonization (HTC) of yard waste using domestic wastewater as reaction medium | Global land carbon storage loss driven by mining critical metals for energy transition | Drivers of plastic waste reduction in island communities in Central Vietnam: An application of the extended theory of planned behavior |
| | Paper ID: 315 | Paper ID: 299 | Paper ID: 229 | Paper ID: 395 |
| | Bui, Tat Dat ; Tran, Thi Phuong Thuy; Ha, Hien Minh; Tseng, Ming-Lang | Uppala, Lavakumar ; Yasarapu, Ambika; Periyavaram, Sudheekar Reddy; P, Hari Prasada Reddy | Gong, Shiwen ; Chen, Bin; Yu, Huajun; Wang, Yutao | Nguyen, Hue Thi Dang ; Kaida, Naoko; Tamura, Makoto |
| 2:00-2:15pm | Operative mechanisms for industrial symbiosis initiatives in textiles: towards a new typology | Carbon footprint assessment and emission reduction strategies in urban drinking water infrastructure | Decision optimization in the multi-timescale electricity market: Integrating coupled tradable green certificates and green power trade | Feasibility assessment of municipal solid waste bottom ash in cement clinker production |
| | Paper ID: 208 | Paper ID: 320 | Paper ID: 140 | Paper ID: 306 |
| | Colombo, Beatrice ; Bressanelli, Gianmarco; Saccani, Nicola; Gaiardelli, Paolo; Visintin, Filippo | Xu, Shujie ; Cao, Ruijun; Hsu, Shu-Chien | Liu, Lili ; Feng, Tiantian; Kong, Jiajie; Cui, Mingli | Magnuson, Jordan K. ; Townsend, Timothy G. ; Ferraro, Christopher C. |
| 2:15-2:30pm | You shall not pass: how to collaborate with startups or incumbents for overcoming barriers to sustainable innovation in the textile industry | A novel process combining heat treatment and magnetic separation to recover lithium (Li) from used Li-ion batteries | How do Feed-in tariff and Renewable portfolio standards affect social welfare in China’s electricity market based on Carbon emission trading | Voluntary Behaviour Change with regard to resolving single-use plastics (SUP) problems in Vietnam |
| | Paper ID: 236 | Paper ID: 286 | Paper ID: 213 | Paper ID: 393 |
| | Pugliese, Maria Sofia ; Boffelli, Albachiara; Brumana, Mara; Kalchschmidt, Matteo | Watanabe, Ryoei ; Park, Ilhwan; Ito, Mayumi | Chen, Huanhuan | Van Hau, Pham; Nguyen, Thi Khanh Huyen ; Nguyen, Hong-Thu-Phuong |
| 2:30-2:45pm | Tea Break (Foyer) | | | |

| | Parallel Sessions1.4 | | | |
|-------------|------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|
| | Session 13: Environmental Monitoring and Impact Assessment | Session 14: Circular Economy III | Session 15: Clean Energy Transitions II | Session 16: Sustainable Waste Management III |
| Room | Mandarin A | Mandarin C | Karaked Room | Rodsukon Room |
| Chair | Ahmed, Ash | Anshassi, Malak | Ren, Kaipeng | Abdulmouti, Hassan |
| 2:45-3:00pm | Structural evolution of the global ICT multinational enterprise network and CO2 emission outsourcing | Resource sustainability in the tourism industry: A critical review of waste generation and management considering the shift toward a circular economy | Optimization of China's wind-power and PV development pathways considering the availability of metal resources | The influence of particle shape on the particle motion during jig pulsation and its reduction using modified water pulsation |
| | Paper ID: 129 | Paper ID: 307 | Paper ID: 385 | Paper ID: 360 |
| | Feng, Hao; Yuan, Rong | Sackles, Hannah M.; Anshassi, Malak; Townsend, Timothy G. | Ren, Kaipeng; Tang, Xu; Höök, Mikael; Willerström, Jakob | Phengsaart, Theerayut, Azuma, Arisa; Kitayama, Daiki; Tabelin, Carlito Baltazar; Hiroyoshi, Naoki; Ito, Mayumi |
| 3:00-3:15pm | Enhancing soil and crop health: impact of nZVI-biochar on chromium bioavailability and uptake in rice | Towards a circular economy for mixed waste plastics: A comprehensive evaluation and multi-objective decision-making framework for recycling technologies | Bulk materials on the transition to net-zero emissions: analysis of opportunities for including resource and infrastructure requirements in the National Energy and Climate Plans (NECPs) | Evaluation of municipal organic waste management practices in contributing to the UN SDGs |
| | Paper ID: 270 | Paper ID: 450 | Paper ID: 328 | Paper ID: 139 |
| | Mondal, Gourav; Bhattacharyya, Pradip | Zhang, Chi; Dong, Yuecen; Ji, Yuan; Xu, Xingkun; Song, Yueyao; Liu, Jianguo | Schütze, Carlos; Gast, Lukas | Palad, Christian Louie Torres; Salcedo, Katrina Anne Balatbat; Sadie, Noriza Tibon |
| 3:15-3:30pm | Mining and social responsibility: assessing the role of community investment | An investigation into factors influencing the adoption of technical solutions to resolve resource dilemmas. | From coal to clean: A novel energy system for transforming critical material production | E-waste in Indonesia: an overview on generation and collection, policies, recycling practices, challenges and current trend |
| | Paper ID: 452 | Paper ID: 407 | Paper ID: 423 | Paper ID: 251 |
| | Araya-Ibarra, Constanza; Castillo, Emilio | Fitzgerald, David John | Shen, Bo; Luo, Tao; Zhou, Nan | Kurniawan, Kurniawan; Nababan, Deddy Chandra; Soefihara, Muhammad Dzikri Ahira; Soefihara, Muhammad Dzikra Ulya; Purnama, Farrel Alvian |
| 3:30-3:45pm | Data based environmental evaluation model utilizing internet of things in agricultural product cultivation | Managing challenges associated with beneficial reuse of wastes and industrial byproducts in roadway construction | Linked data-driven decision support for intelligent electric vehicle charging in urban energy management | Enhancing Sharjah Campus Aquaponics's performance for sustainable food security |
| | Paper ID: 355 | Paper ID: 335 | Paper ID: 281 | Paper ID: 125 |
| | Jeon, Seungjun; Junbeum Kim | Laux, Steven James; Townsend, Timothy; Weiksnar, Kate | Liu, Xuan; Yang, Dujuan; de Vries, Bauke | Abdulmouti, Hassan |
| 3:45-4:00pm | Preliminary Study of Heavy Metal Pollution on the Western Side of the Madura Strait, Indonesia | Footprint analysis of circular economy practices in the steel industry | How does China's Renewable Portfolio Standard promote renewable energy development? Empirical evidence based on spatial spillover effect and pressure perspective | Robust assessments of lithium mining impacts embodied in global supply chain require spatially explicit analyses |
| | Paper ID: 455 | Paper ID: 181 | Paper ID: 291 | Paper ID: 206 |
| | Afifudin, Alfin Fatwa Mei; Affandi, Moch; Soegianto, Agoes | Teklit Gebregiorgis Ambaye | Yu, Zhengsheng; Lu, Chengze; Qi, Ye | Sun, Xin |
| 4:00-4:15pm | Critical review of the whole life carbon impact of large-scale residential retrofit at a national scale | | | Evaluating the potential for resource recycling efficiency in urban municipal solid waste management in China |
| | Paper ID: 433 | | | Paper ID: 376 |
| | Sajadirad, Fahimehsadat; O'Hegarty, Richard; Kinnane, Oliver | | | Yuan, Ji |

| GMT+7 (Bangkok) | Thu, November 7 | | | |
|-----------------|---------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 8:00-9:20am | Registration (Foyer) | | | |
| 8:00-8:30am | Plenary Session | Dr. Tamar Makov , Ben-Gurion University Expected vs. actual environmental benefits of alternative provisioning systems | | |
| 8:30-9:00am | | Dr. Chaiyod Bunyagidj , Vice President Thai SCP Association SCP Towards SD: Thailand Experiences | | |
| | Room | Mandarin C | | |
| 9:00-9:20am | Break | | | |
| | Parallel Sessions 2.1 | | | |
| | Special Session 17: Circular Economy for Climate Mitigation and Sustainability | Session 18: Life Cycle Assessment I | Session 19: Carbon Capture, Usage and Storage (CCUS) | Session 20: Sustainable Materials and Technologies I |
| Room | Mandarin C | Kannika Room | Karaked Room | Rodsukon Room |
| Chair | Lima, Ana Teresa | Huang, Wei | Waribam, Preeti | Tanikawa, Daisuke |
| 9:20-9:35am | Green and low-carbon recovery of critical metal resources in energy materials: a comprehensive technology and evaluation system | Life cycle carbon footprint analysis and exploration of low-carbon strategies for footwear products | Upcycling solid wastes: synthesis of Zn/Fe bimetallic MOF from electroplating sludges and PET waste bottles for CO2 capture | Two-Step Procedure to Synthesize Carbon Microspheres with High Yields and Monodispersity from Biomass |
| | Paper ID: 154 | Paper ID: 200 | Paper ID: 293 | Paper ID: 182 |
| | Gao, Wenfang | Zhang, Bingqian; Tian, Jinping; Chen, Lyujun | Waribam, Preeti; Katugampalage, Thilina Rajeandre; Chooaksorn, Wanida; Sreearunothai, Paiboon | Correcher, Ruben; Marchelli, Filippo; Fullana, Andres; Fiori, Luca |
| 9:35-9:50am | How far can circular economy practices contribute to a carbon-neutral Europe? The case of flat glass production in the construction sector | Is plastic ban a clear solution? A comparative Eco-efficiency analysis of cup usage scenario in Hong Kong | Economic and environmental assessment of plant-level decarbonization in waste-to-energy industry with CCUS technology: Evidence from China | Lactic fermentation of thermoplastic starch (TPS) |
| | Paper ID: 238 | Paper ID: 237 | Paper ID: 235 | Paper ID: 187 |
| | Barbosa, Juliana; Simoes, Sofia; Aloini, Davide; Zerbino, Pierluigi; Mabroum, Safaa; Montalbano, Giammarco; Lima, Ana Teresa | Ying, Lebing; Liu, Xiaoyi; Anmaria, Alice; Hsu, Shu-Chien | Xv, Mao; Zhang, Jiayue; Wen, Zongguo | Oliver Ramirez, Inés; García Quesada, Juan Carlos; Ghisays Silva, Juan Pablo; Valdés Barceló, Francisco Javier; Conesa Ferrer, Juan Antonio; Fullana Font, Andrés |
| 9:50-10:05am | Evaluation of PAHs in diverse recycled plastics | Life cycle assessment of cultivated unagi | Assessment and application of carbon absorption in urban green environment | Effective utilization of oyster industrial wastes for aquaponics system as source of alkalinity and minerals |
| | Paper ID: 252 | Paper ID: 247 | Paper ID: 354 | Paper ID: 246 |
| | Martin Luna, José Carlos; Moltó Berenguer, Julia; Ortuño Garcia, Nuria; Fullana Font, Andrés; Conesa Ferrer, Juan Antonio | Shabtai, Shira; Meshulam, Tamar; Makov, Tamar | Oh, Young Jin | Tanikawa, Daisuke; Ishihara, Chisa; Yamashita, Ryoga |
| 10:05-10:20am | Reusing smartphones in sustainable building automation: A life cycle assessment | Tracing environmental footprints of urban food consumption along global supply chains and mitigation strategies—a case study in China | Estimation of soil organic carbon stock in Darjeeling using RothC model | Development of a constructed wetlands-based system for the treatment of landfill leachate |
| | Paper ID: 325 | Paper ID: 276 | Paper ID: 359 | Paper ID: 305 |
| | Bendiek Laranjo, Ana; Schwander, Marvin; Beloin-Saint-Pierre, Didier; De Wolf, Catherine; Cai, Hanmin | Huang, Wei; Shenghui, Cui | Gajulapalli, Suryanarayana; Chinthala, Sumanth; Pradhan, Kritika | Lott, Dreyton Jones; Laux, Steve; Townsend, Timothy |
| 10:20-10:35am | "Circular Economy strategies in the Cement industry" | Understanding critical data needs in waste LCA tools for climate change mitigation | Facile synthesis of Fe:Co bimetallic metal organic framework (MOF) for highly selective CO2 capture | Parametric BIM-based environmental and economic performance of high-strength steel grades in high-rise building designs |
| | Paper ID: 331 | Paper ID: 277 | Paper ID: 292 | Paper ID: 345 |
| | Mabroum, Safaa; Aloini, Davide; Ambaye, Teklit Gebregiorgis; Kunther, Wolfgang; Lima, Ana Teresa; Mao, Ruichang; Zerbino, Pierluigi | Anshassi, Malak | Katugampalage, Thilina Rajeandre; Waribam, Preeti; Chooaksorn, Wanida; Sreearunothai, Paiboon | Hussain, Mudasir; Ye, Zhongnan |
| 10:35-10:45am | Tea Break (Foyer) | | | |

| | Parallel Sessions 2.2 | | | |
|---------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|
| | Session 21: Advanced Waste Treatment I | Session 22: Life Cycle Assessment II | Session 23: Resource and Energy Recovery I | Session 24: Sustainable Materials and Technologies II |
| Room | Mandarin C | Kannika Room | Karaked Room | Rodsukon Room |
| Chair | Behera, Anindita | Tian, Jinping | Petras, Dusan | Tapase, Anand Bajarang |
| 10:45-11:00am | Comprehensive evaluation with technical, economic and environmental perspectives-A case study of MBR technology in rural domestic wastewater treatment processes | Material flow analysis, life-cycle assessment, and net cost analysis help determine environmental and economic benefits of zero-waste strategy of industrial park | Hydrothermal carbonization of food waste in digestate as reaction media : process optimization and thermal kinetics | Comprehensive study on development of sustainable pavement quality concrete for rural road utilizing coal bottom ash |
| | Paper ID: 143 | Paper ID: 233 | Paper ID: 138 | Paper ID: 312 |
| | Wang, Yuting ; Zeng, Xianju; Zhang, Guangming; Gao, Wenfang | Liao, Kailingli ; Tian, Jinping ; Chen, Lyujun | Uppala, Lavakumar ; Zeeshan, Sk Huzaifah; Periyavaram, Sudheekar Reddy; P, Hari Prasada Reddy | Pradhan, Siddharth Shankar ; Pal, Abinash Chandra; Das, Aditya Kumar; Panda, Mahabir; Sarkar, Pradip |
| 11:00-11:15am | Impact of bioplastic design on anaerobic biodigestion treatments | Life cycle assessment of polyethylene and alternative packaging materials in the United States | Recovery of fluorine from rare-earth wastewater with high contents of fluorine and chlorine through crystallization of cryolite | Sustainable biowaste based self-regenerative multifunctional superhydrophobic film |
| | Paper ID: 188 | Paper ID: 278 | Paper ID: 207 | Paper ID: 362 |
| | Oliver Ramírez, Inés ; Martínez Pérez, Noelia; Conesa Ferrer, Juan Antonio; Fullana Font, Andrés | Avery, Elizabeth; Nduagu, Experience ; Vozzola, Eric; Roux, Timothee ; Auras, Rafael | Xu, Kangning ; Zhang, Ruirong; Zhu, Lixuan; Wang, Xianghui; Lan, Ruorui; Dou, Xiaomin; Zheng, Min | Pathak, Prateek ; Grewal, H.S |
| 11:15-11:30am | Antioxidant, hypoglycemic and efficient degradation of organic dye pollutants in water systems by selenium nanoparticles of hesperidin | A comparative life cycle assessment of semi-prefabricated houses from cradle to site | The future of recycling rigid polyurethane foams | VR-based training system for welding safety training |
| | Paper ID: 199 | Paper ID: 300 | Paper ID: 217 | Paper ID: 372 |
| | Behera, Anindita ; Sa, Nishigandha; Jena, Bijayee Bishnupriya | Suppipat, Suphichaya ; Tetiranont, Suppapon; Prasittisopin, Lapyote | Porters, Matthew ; Billen, Pieter; Vande Velde, Christophe; Peleman, Steven; Hicks, Denis; Adeel, Muhammad | Li, Shixian ; Wei, Hsi-Hsien |
| 11:30-11:45am | Fabrication of Z-scheme Fe ₂ O ₃ /ZnS/CNTs nanohybrid for efficient photoelectrochemical and enhancing degradation of sulfamethoxazole Pollutants: Mechanism and degradation pathways | Carbon emission reduction potential of nature-based solutions on upgrading wastewater treatment plants in China: A comparative study of advanced treatment processes and constructed wetlands | Debonding on demand of additively manufactured sandwich structures – a multi-domain index calculation | Unravel alternatives to conventional resources for sustainable infrastructural development- A review and critical assessment |
| | Paper ID: 231 | Paper ID: 322 | Paper ID: 223 | Paper ID: 410 |
| | Arshad, Muhammed ; Chen, Linjer; Chen, Chiu-Wen; Dong, Cheng-Di | Cao, Yuanyu ; Zhang, Peng; Jong, Mui-Choo; Zhang, Wenjing; Zuo, Jiane | Nagengast, Niko David ; Neuber, Christian; Schmidt, Hans-Werner; Usma-Mansfield, Clara; Fuss, Franz Konstantin | Kadam, Digvijaysingh Bhaskarrao; Katdare, Amey Deepak; Tapase, Anand Bajarang |
| 11:45-12:00am | Is multi-source solid waste co-disposal practices in waste-to-energy plants sustainable? A comparative life cycle assessment | Comprehensive benefit evaluation of carbon reduction and renovation model for existing residential facades based on the whole life cycle: a case study of Shenzhen | Nearly zero energy buildings with low-exergy radiant heating/cooling systems using RES | Application of rice husk-derived zeolites for green roadway production for enhanced resource sustainability & reduced environmental impact |
| | Paper ID: 234 | Paper ID: 388 | Paper ID: 301 | Paper ID: 444 |
| | Zhang, Jiayue ; Fei, Fan; Jiang, Zixuan; Wen, Zongguo | Lu, Lu Xi | Petras, Dusan ; Predajnianska, Anna; Simko, Martin | Gummadi, Yeronika; Mattaparthi, Sri Gangadhar ; Biligiri, Krishna Prapoorna |
| 12:00-1:15pm | Lunch and Break (Hotel Restaurant) | | | |

| | Parallel Sessions 2.3 | | | |
|-------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|
| | Session 25: Advanced Waste Treatment II | Session 26: Life Cycle Assessment III | Session 27: Resource and Energy Recovery II | Speical Session 28: Sustainable Ecosystem |
| Room | Mandarin C | Kannika Room | Karaked Room | Rodsukon Room |
| Chair | Ortuño Garcia, Nuria | Park, Jonghun | Zhou, Wenwen | Morales, Manuel |
| 1:15-1:30pm | Liquefaction of different industrial lignins as a method to generate renewable chemicals | Analyzing the environmental impact of composting livestock manure in south korea using life cycle assessment | Evaluating recycling efficacy: a statistical entropy analysis of mattress disposal methods | Socio-Ecological Impacts of Oil Spills on the Niger Delta Ecosystems: A review |
| | Paper ID: 273 | Paper ID: 339 | Paper ID: 259 | Paper ID: 106 |
| | Lui, Matthew ; Lui, Yuen Wai ;Chan, Bun | Kang, Hee Yeon ; Lee, Jae Young ;Kim, Geon Yong; Hwang, Yong Woo; Park, Kwang Ho; Lee, Dong Jun | Moyaert, Cristina ; Nimmegeers, Philippe; Voordeckers, Dimitri; De Meulenaere, Paul; Billen, Pieter | Orjiocha, Oliveth Anichebe |
| 1:30-1:45pm | "Unconventional High-Value Utilization of Boron Industrial Solid Waste in the Field of Shielding" Materials | Valorization of egg white from discarded eggs as additives for sustainable mudbrick manufacturing: A comprehensive technical and environmental evaluation | Efficient valorization of sewage sludge via phytohormones production: A short-cycle, low-energy, high-value process. | Agroforestry waste management for biopolymer production following sustainability and green chemistry criteria. |
| | Paper ID: 282 | Paper ID: 343 | Paper ID: 284 | Paper ID: 111 |
| | Dong, Mengge ; Zhou, Suying; Yang, He; XUE, Xiangxin; HSU, Shu-chien | Hussain, Mudasir ; Shahida, Shahida; Ye, Zhongnan | Chen, Shuxian ; Hua, Yu; Dai, Xiaohu | Arias Calvo, Ana; Feijoo Costa, Gumersindo ; Moreira Vilar, Maria Teresa |
| 1:45-2:00pm | Elevated methane production and microbial community shifts through the removal of phenolic compounds from palm oil mill effluent | LCA to estimate CO2 emissions related to the installation of a solar photovoltaic system | Comprehensive study of polyethylene-based packaging and its substitutes on the European market – focus on GWP, water scarcity and fossil energy | An evaluation framework for carbon metabolism at community scale: a case in China |
| | Paper ID: 295 | Paper ID: 380 | Paper ID: 285 | Paper ID: 404 |
| | Woraruthai, Thamonwan; Supawatkon, Cheerapat; Rungjaroenchaiwat, Sasithorn; Wongnate, Thanyaporn | dos Santos, Carolina Monica; Pacca, Sergio Almeida | Tacker, Manfred; Hafner-Kuhn, Tasja; Gstöhl, Andrin; Nduagu, Experience I. ; Vozzola, Eric; Roux, Timothee W. ; Auras, Rafael | Zhang, Jiashu ; Yuan, Jingfeng |
| 2:00-2:15pm | Depolymerization of difficult-to-recycle PET waste using solvents in an alkaline medium | A life cycle assessment on fast food meal packaging: A case study on burger combo packages in Canada | The effect of various collectors and conditions on selective flotation of copper from copper, nickel, and cobalt sulfide matte | How innovation ecosystems facilitate circular economy implementation? System dynamics drivers in the European textile ecosystem |
| | Paper ID: 317 | Paper ID: 470 | Paper ID: 308 | Paper ID: 183 |
| | Ortuño Garcia, Nuria ; Santoro, Jazmín; Garcia-García, Guillermo; Blázquez, Gabriel; Martín-Lara, María Ángeles; Calero, Mónica ; Pérez, Antonio | Nayrouz, Michel; To, Grace; Park, Jonghun | Sato, Katsuya ; Nishi, Keisuke; Inoue, Mayumi; Takahashi, Tatsuru; Tanaka, Yoshiyuki; Takasaki, Yasushi; Haga, Kazutoshi | Morales, Manuel |
| 2:15-2:30pm | The enhancement of microplastic removal via agglomeration-micro-flotation using UV-irradiation as a pretreatment | Biofuels for air and maritime transport: sustainable alternatives from the valorization of black liquor | Analysis of the Impact of Different Subsidy Modes on the Recycling of Retired Power Batteries | Blockchain for inclusive forest-carbon markets: struggles and opportunities |
| | Paper ID: 361 | Paper ID: 112 | Paper ID: 458 | Paper ID: 435 |
| | Srichonphaisarn, Palot ; Julapong, Pongsiri; Tabelin, Carlito Baltazar; Janjaroen, Dao; Phengsaart, Theerayut | Arias Calvo, Ana; Nika, Chrysanthi-Elisabeth; Feijoo Costa, Gumersindo ; Katsou, Evina; Moreira, Maria Teresa | Zhou, Wenwen ; Shi, Yu; Jiao, Ao; Song, Xiaobo | Liu, Wenman |
| 2:30-2:45pm | Break | | | |

| | Parallel Sessions 2.4 | | | |
|--------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | Session 29: Advanced Waste Treatment III | Session 30: Environment Regulation, Governance, and Policy | Session 31: Resource and Energy Recovery III | Session 32: Built Environment |
| Room | Mandarin C | Kannika Room | Karaked Room | Rodsukon Room |
| Chair | Martins Morita, Alice Kimie | Endo, Aiko | Kim, Young-Deuk | Yeo, Owen Thian Seng |
| 2:45-3:00pm | Mitigation potential of CO2 emissions by catalytic upcycling waste plastics into CNTs-based composites worldwide | The effects and new insights of industrial transformation demonstration zones on environmental pollution in Resource-based cities: Quasi-experimental evidence from China | Experimental and theoretical investigation of drying characteristics of manganese sulfate monohydrate with a fluidized bed dryer | Integrating circular construction and digital technologies for enhanced resource sustainability |
| | Paper ID: 415 Zheng, Saina ; Cao, Qi; Ji, Xin; Xia, Kunlun; Wen, Yutong | Paper ID: 186 Zhang, Hanyu ; Gao, Wen; Yan, Taihua; Zhang, Ming | Paper ID: 144 Ham, Min-Gyu; Lim, Yeon-Gyu; Im, Jun-Ho; Kim, Young-Deuk | Paper ID: 121 De Wolf, Catherine |
| 3:00-3:15pm | Using inert waste as support material for the development of biological barriers | Does technological progress mode affect just energy transition? A seemingly unrelated regression analysis based on Chinese provincial panel data | Development of an automatic operation process for a continuous jig separator -Appropriate heavy/light particle layer boundary measurement and upwelling velocity measurement- | Main CE practices in the Construction industry for the six carbon-intensive materials |
| | Paper ID: 421 Martins Morita, Alice Kimie ; Regadio Garcia, Mercedes | Paper ID: 192 Zhang, Wenqing ; Dong, Jingrong; Chen, Yuhe; Li, Tingting | Paper ID: 290 Yoda, Masashi ; Ito, Mayumi; Park, Ilhwan; Hiroyoshi, Naoki | Paper ID: 271 Lima, Ana Teresa ; Kirkelund, Gunvor M; Lu, Zheng; Mao, Ruichang; Kunther, Wolfgang; Rode, Carsten; Ambaye, Teklit G.; Slabik, Simon; Hafner, Annette; Sameer, Husam; Dürr, Hans H.; Flörke, Martina; Lowe, Benjamin H; Aloini, David; Zerbino, Pierluigi; Simoes, Sofia |
| 3:15-3:30pm | Application of hydrothermal alkaline treatment to sewage sludge: degradation of PFAS, modification of solid-liquid distribution and simultaneous production of bio-crude | The exploration of advanced decarbonization of China's low-carbon industrial parks driven by scope 3 carbon emissions | Performance comparison of Ocean Thermal Energy Conversion(OTEC) plant performance for equatorial applications. | Step-by-step guides on green infrastructure connectivity provision in kuala lumpur, malaysia |
| | Paper ID: 459 Guo, Yiqun ; Dai, Xiaohu | Paper ID: 203 Yan, Kun ; Tian, Jinping ; Chen, Lyujun | Paper ID: 348 Moon, Jung Hyun ; Kim, Hyeon Ju; Jeon, Woo Jin; Ji, Ho | Paper ID: 364 Yeo, Owen, Thian Seng ; Mohd Yusof, Mohd Johari; Maruthaveeran, Sreetheran; Saito, Kei |
| 3:30-3:45pm | Performance Evaluation and degradation assessment of Photovoltaic (PV) modules- A State-of-the-Art Review | An analysis to motivate fishermen in benthic plastic debris removal | Enhanced lithium phosphate granulation and separation from industrial lithium-impacted wastewater by continuous fluidized-bed crystallization process | Shenzhen's investigation and optimization strategies for construction and demolition waste recycling mechanisms |
| | Paper ID: 465 Tapase, Rajashre Bajarang; Mahadik, Shamala R.; Tapase, Anand Bajarang | Paper ID: 218 Endo, Aiko ; Kato, Takaaki ; Lin, Zhaofei | Paper ID: 468 Nguyen, Ai Quynh; Luu, The Anh; Nguyen, Gia Cuong; Le, Van Giang | Paper ID: 427 Gao, Xuan |
| 3:45-4:00pm | Trend analysis of climate variables– A case of Mbaka catchment in lake Nyasa basin | The Product-Level Impacts of the EU CBAM on Welfare and Carbon Emissions | Refuse-derived fuel (RDF) in the world and Brazilian context: a bibliometric and systematic review | Potential of utilizing recycled PET fibres and agricultural waste as sustainable & economical Alternative in fibre reinforced concrete |
| | Paper ID: 329 Shao, Magdalena Edes ; Kirway, Joel Nobert; Mabhuye, Edmund | Paper ID: 264 Zhang, Lanxin ; Wen, Zongguo | Paper ID: 466 Veloso, Maria Cecília Ramos de Araújo ; Correia, Anna Julia Brunheroto; Cruz, Carolina Marques da; Scalice, Ana, Paula; Yamaji, Fabio Minoru | Paper ID: 467 Ahmed, Ash ; Nadir, Hafiz |
| 7:00-10:00pm | Conference Dinner (Mandarin AB) | | | |

| GMT+7 (Bangkok) | Fri, November 8 | | | |
|-----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|
| 8:00-9:20am | Registration (Foyer) | | | |
| 8:00-8:30am | Plenary Session | Dr. Yutao Wang , Fudan University Global Bioeconomy Assessment: Coordinated Efforts of Policy, Innovation, and Sustainability for a Greener Future | | |
| 8:30-9:00am | | Dr. Krishna Prapoorna Biligiri , Indian Institute of Technology Tirupati Plastic-Rubber Conglomerates for Green Road Infrastructure Applications: A Multidimensional Solution for Resourceful Consumption | | |
| | Room | Mandarin C | | |
| 9:00-9:20am | Break | | | |
| | Parallel Sessions 3.1 | | | |
| | Special Session 33: AI for Climate Change and Sustainability | Session 34: Sustainable Transportation System | Session 35: Material Flow Analysis (MFA) | Session 36: Water-Food-Energy Nexus |
| Room | Mandarin C | Kannika Room | Karaked Room | Rodsukon Room |
| Chair | Tseng, Ming-Lang | Fu, Chenling | Steuer, Benjamin | Ali, Tariq |
| 9:20-9:35am | Estimating carbon emissions in data centres: a comparison of top-down and bottom-up approaches | Circular economy for post-hazard infrastructure restoration: strategies for resilience and resource efficiency | Assessing the Fate of End-of-Life Solar Panels: Quantification, Forecasting, and the Imperative for Circular Economy Strategies | Characteristics of gluten-free dry noodles from arrowroot tuber flour with added hydrocolloid Carboxymethyl Cellulose (CMC) |
| | Paper ID: 336 | Paper ID: 460 | Paper ID: 442 | Paper ID: 412 |
| | Son, Minhee ; EE, Alvin; Chew, Leanne; Jimenez, Christian Allen Espanol | Byers, Brandon ; Bomp, Dan; Jin, Qingxu; De Wolf, Catherine | Gómez Soto, Moisés ; Li, Jinhui; Zeng, Xianlai | Luxsyana, Mona ; Kusumaningtyas, Maharani ; Triwitono, Priyanto ; Saputra, Wahyu Dwi |
| 9:35-9:50am | Evaluating the semiconductor supply chain impact on carbon neutrality in the AI Era: a hybrid approach | Spatial dispersion of road eco-environmental impacts: A fishbone theory | The Circular Economy of WEEE in Hong Kong: MFA, LCA and future prospects for circular management | Application of fruit tree pruning residues and sweet potato shochu lees in edible mushroom cultivation |
| | Paper ID: 244 | Paper ID: 262 | Paper ID: 381 | Paper ID: 196 |
| | Qiu, Hailing ; Wu, Kuo-Jui; Tseng, Ming-Lang ; Chiu, Anthony S.F.; Huang, Caiyan | Zheng, Xincheng ; Xu, Linyu | Oo, May Soe ; Steuer, Benjamin | Uchizono, Shota ; Miyahara, Shinnosuke; Yagi, Fumio ; Katahira, Tomohito; Sakamoto, Mariko; Yamauchi, Masahito |
| 9:50-10:05am | Bridging artificial intelligence and the circular supply chain achieves the socio-technical synergy for the fast fashion industry: An integrative influential model | Hidden delay of emission mitigation benefits for deploying photovoltaic systems in electric vehicle charging stations | A substocks-driven model for examining key factors determining carbon reduction in the new technology penetration process | Cascading effects of mechanization on agricultural carbon productivity |
| | Paper ID: 245 | Paper ID: 275 | Paper ID: 249 | Paper ID: 390 |
| | Huang, Caiyan ; Wu, Kuo-Jui; Tseng, Ming-Lang ; Qiu, Hailing | Kang, Zixuan; Hsu, Shu-chien | Gong, Wenjing T ; Daigo, Ichiro | Zhang, Qin ; Ali, Tariq ; Zhang, Liguao |
| 10:05-10:20am | Substitution of automobile shredder residue (ASR) for coal in smelting furnace fuel: Application of jig separation for the removal of glass and metallic components from ASR | | Tracking iron and carbon flows in multi-regional steel industry chain: an energy-material-economy nexus analysis | Water competition between food and energy production in china: a high spatiotemporal resolution analysis |
| | Paper ID: 403 | | Paper ID: 417 | Paper ID: 326 |
| | Takeuchi, Taisei ; Aikawa, Kosei; Park, Ilhwan; Kitaoka, Syunnichi; Kawamura, Shigeru; Ito, Mayumi | | Yuan, Yuan ; Ma, Linwei; Li, Zheng | Xia, Yinshuang ; Wang, Jiao; Zhang, Chao; Zhong, Lijin; Dong, Yujie ; Liang, Xirui |
| 10:20-10:35am | | Thermodynamic simulation of WPCBs-smelting: effect of feed composition and smelting condition | Carbon Nutrient and Water Wasted via Food Loss and Food Waste in a tourist City | Improving food systems sustainability through the development of effective temperature-control strategies |
| | | Paper ID: 267 | Paper ID: 440 | Paper ID: 392 |
| | | Yap, Wilbert ; Kurniawan, Kurniawan; Nababan, Deddy Chandra; Zulhan, Zulfiadi; Hidayat, Taufiq; Soefihara, Muhammad Dziki Ahira | Jareanthanakul, Wutthichai ; Jakrawatana, Napat | Chen, Wan Chiao ; Rau, Hsin |

| | | | | |
|---------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|
| 10:35-10:45am | Tea Break (Foyer) | | | |
| | Parallel Sessions 3.2 | | | |
| | Session 37: Sustainable Supply Chain | Session 38: ESG and Resource Sustainability | Session 39: Sustainable Business Model | Session 40: Sustainable Manufacturing |
| Room | Mandarin C | Kannika Room | Karaked Room | Rodsukon Room |
| Chair | Chen, Chih-Cheng | Kato, Takaaki | Martusewicz, Joanna | Wu, Kuo-Jui |
| 10:45-11:00am | Never let a good crisis go to waste: Greenwashing and the fallacy of critical minerals Paper ID: 104 | Quality and Transparency in Sustainability Reports: Insights from the Chilean Copper Industry Paper ID: 453 | Implementing circular economy models in industrial plants: A case study of integrated technological systems Paper ID: 434 | Acceptance of UAVs in agriculture: An empirical study of China's Jiangxi Province Paper ID: 409 |
| | Hitch, Michael William; Barakos, George | Araya-Ibarra, Constanza; Herrera, Belen | Ulanowski, Zbigniew; Rebas, Justyna; Martusewicz, Joanna; Łukaszewicz, Marcin | Zhou, Bo; Xie, Kuopeng; Iqbal, Muhammad Azhar; Ali, Tariq |
| 11:00-11:15am | Global water scarcity threatens two hundred million employments Paper ID: 173 | From Ratings to Reality: ESG's Influence on Corporate Misconduct and Rater Disagreement in the Construction Industry Paper ID: 369 | Investigating evolution and viability of circular business models for plastics in Hong Kong Paper ID: 428 | |
| | Wang, Chenglong; Shuai, Chenyang; Chen, Xi | Lan, Yuxuan; Zhang, Wenyu; Hsu, Shu-Chien; Wei, Hsi-Hsien | Steuer, Benjamin | |
| 11:15-11:30am | A hierarchical circular supply chain management performance assessment: Improvement from firms' eco-innovation and technological performance Paper ID: 310 | The role of industry structure and firm performance in determining entry timing for energy service companies Paper ID: 418 | Challenges and strategies in achieving sustainability in the automotive industry: A case study using the EFQM Model Paper ID: 414 | Data-driven approaches promotes sustainable industry-city development Paper ID: 266 |
| | Chen, Chih-Cheng; Kurrahman, Taufik; Tsai, Feng Ming; Sethanan, Kanchana; Tseng, Ming-Lang | WEN, Yutong; Zheng, Saina; Chen, Peize; Yuan, Jingfeng | Martusewicz, Joanna; Szewczyk, Karol; Łukaszewicz, Marcin | Xiao, Hao; Tian, Jinping; Chen, Lyujun |
| 11:30-11:45am | Global productivity-weighted agricultural land use driven by human consumption Paper ID: 255 | Harnessing calcium precipitation for sustainable biogas slurry management Paper ID: 283 | Proposing a framework for assessing sustainability reports by Victorian universities in Australia Paper ID: 391 | Modification of silica precipitation filterability by ionic and nanoform silica Paper ID: 383 |
| | Sun, Zhongxiao; Zhang, Qian; Bruckner, Martin; Behrens, Paul | Yang, Junwei | Cheng, Yu; Karunasena, Gayani; Hu, Xin; Liu, Chunlu | Owada, Midori; Takasaki, Yasushi; Haga, Kazutoshi |
| 11:45-12:00am | An investigation into factors influencing the adoption of technical solutions to resolve resource dilemmas Paper ID: 407 | | The broken promise of triple bottom line approach in circular economy Paper ID: 148 | The impact of UV radiation, a consequence of climate change on phenotypic and molecular changes of wheat (<i>Triticum durum</i>) Paper ID: 476 |
| | Fitzgerald, David John | | Sharma, Vinayak | Al Khateeb, Wesam Mohd |
| 12:00-12:30pm | Closing Ceremony (Mandarin C) | | | |
| 12:30-2:00pm | Lunch (Hotel Restaurant) | | | |

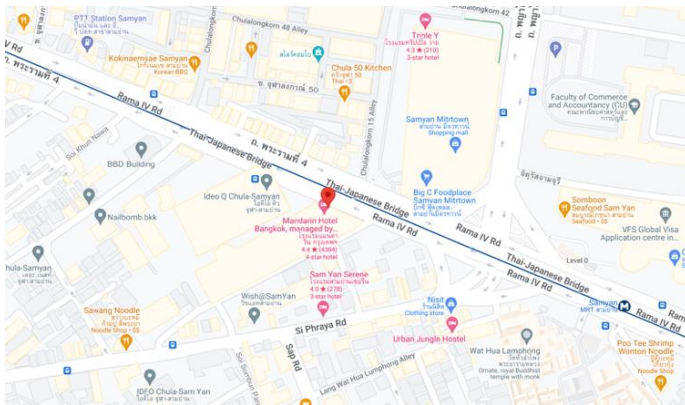
| | |
|------------------------|-------------------------------|
| GMT+7 (Bangkok) | Wed, November 6 |
| 12:10pm-1:15pm | Poster Session (Foyer) |

| Author | Title |
|----------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Radziemska, Maja; Mazur, Zbigniew; Klik, Barbara | Opportunities and Challenges for the Application of Composts from Food Processing Wastes in Environmentally Friendly Techniques |
| Klik, Barbara; Majewski, Grzegorz; Radziemska, Maja | Deep eutectic solvents as essential washing agents in remediation of Cd-contaminated soil |
| Pereira, L.; Solis, R.R.; Blázquez, G.; Pérez, A.; Calero, M.; Martín-Lara, M.A. | Citric acid-enhanced activated carbon from plastic waste char for contaminants adsorption in water |
| Calero, Mónica; Muñoz, Mario J.; Blázquez, Gabriel; Rodríguez-Solis, Rafael; Pérez, Antonio; Martín-Lara, M.A. | Toward the optimization of hydrogen production using a combined thermal cracking/steam reforming system and Ru-RuO ₂ containing catalysts |
| Rob Bakker, Frank de Bont, Marc Zitzen, Carola Löh, Rik Buiting | Investigating environmental benefits of casein produced by way of precision-fermentation and LCA |
| Kang, Hye Jeong; Kim, Da Yeon; Kim, Junbeum; Hwang, Yong Woo | Analysis of greenhouse gas reduction effects through the apparel products' second-hand trading |
| Li, Guanlin; Iqbal, Babar; Zhao, Xin | Enhanced heavy metal adsorption using biochar derived from <i>Solidago canadensis</i> and agricultural residues: Mechanistic insights and application potential |

Venue

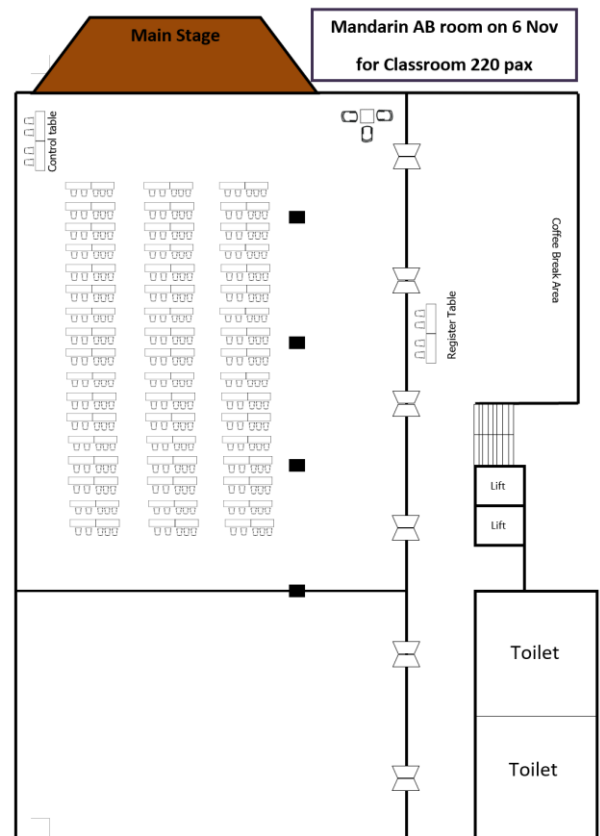
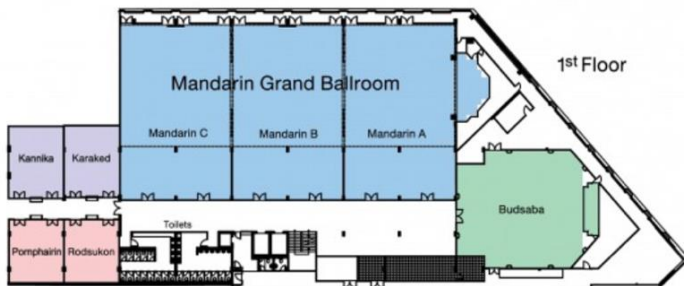
Mandarin Hotel

The Mandarin Hotel is situated in the heart of Metro Bangkok (662 Rama IV Rd., Bang Rak, Bangkok 10500) closed to the MRT subway and the BTS Skytrain. All the Plenary and Parallel Sessions will be hold at the 1st floor of Mandarin Hotel (Mandarin Grand Ballroom, Mandarin A, B, C room, Karaked room, Rodsukon room, and Kannika room). The Coffee Break will be hold at the Foyer, the Lunch will be at the Hotel Restaurant, and the Dinner will be at the Mandarin AB.



FLOOR PLAN & FUNCTION ROOM CAPACITY

FLOOR PLAN:



Travel, Accommodation and Visa

International Flights to Bangkok

Bangkok has two main international airports: Suvarnabhumi Airport (BKK) and Don Mueang Airport (DMK). Suvarnabhumi Airport (BKK) is about 22mile (36km) away from the Mandarin Hotel. You can take the Airport Rail Link (ARL) from Suvarnabhumi Airport to Phaya Thai station and then transfer to the BTS Skytrain (Sukhumvit Line) to reach the hotel (Ideo Q Samyan station). The trip is about 45-55 min. You can also choose to take the shuttle bus, taxi or rideshare (Uber and Grab) based on your schedule or location of the hotel. Don Mueang Airport (DMK) is about 16mile (26km) away from the Mandarin Hotel. You can choose to take the SRT Red Line commuter train from the airport to the city terminates in the northern part of the city and then transfer to the MRT, which could be time consuming. Taking one of Don Mueang Airport shuttle buses would be a better option if you are willing to use public transportation for getting into the city from DMK Airport. Similarly, you could also get to the hotel through taxi or rideshare.

Accommodation

Mandarin Hotel

The Mandarin Hotel is ideally situated in the heart of Metro Bangkok within easy proximity to all major attractions such as the popular MBK Shopping Center, Siam Paragon, Central World, Thaniya Plaza and famous entertainment center like Patpong. The Grand Palace and Chinatown are just a few minutes away. You will be able to travel around Bangkok via the MRT subway and the BTS Skytrain.

Contact

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Website: <https://www.mandarin-bkk.com/en>

Address: 662 Rama IV Road, Bang Rak, Bangkok, 10500 Thailand

Other hotels nearby

- **Samyan Serene Hotel** (0.1 miles/0.2km from the Mandarin Hotel), 38, Sri Phra Ya, Maha Phruetharam, Bangrak, Bang Rak, 10500 Bangkok, Thailand
- **Triple Y Hotel** (0.3 mile/0.5km from the Mandarin Hotel), 948 Rama IV Road, Wangmai Pathumwan, Pathumwan, 10330 Bangkok, Thailand
- **Bed By City Hotel** (0.3 mile/0.5km from the Mandarin Hotel), 59/1-5, Suksan Alley, Sap road, Khwaeng Si Phraya, Khet Bang Rak, Bang Rak, 10500 Bangkok, Thailand
- **duSiD2 Samyan Bangkok** (0.4 miles/0.6km from the Mandarin Hotel), 333 Si Phraya Road, Si Phraya, Bang Rak, Bang Rak, 10500 Bangkok, Thailand
- **iSanook Bangkok** (0.5 miles/0.8km from the Mandarin Hotel), 118, 118/8 Soi Songpra, Siphaya Road, Mahapruttaram, Bangrak, Bang Rak, 10500 Bangkok, Thailand
- **Mercure Bangkok Surawong** (0.7 miles/1km from the Mandarin Hotel), 222 Surawong Road Si Phraya Bangrak District, Bang Rak, 10500 Bangkok, Thailand

Visa

Visa invitation letter will be available for download in the registration system after you complete the online registration.