Singapore-China Joint Symposium on AI & Sustainability

Day 2 (30 September 2025): Young Scientists Forum

SESSION 1

Venue: LT5	Venue: LT6	Venue: LT7	Venue: LT8	Venue: LT14	Venue: LT15
Session A: Resource Recovery Session Chair and Co-Chair: Xunchang FEI	**Session B: Membrane Technology** Session Chair and Co-Chair: Tzyy Haur CHONG & Tian LI	**Session C: Computing, Data Science & AI** Session Chair and Co-Chair: Rui TAN	**Session D: Biotechnology & Bioprocesses** Session Chair and Co-Chair: TBC	**Session E: Environmental AI & Modelling** Session Chair and Co-Chair: Xunyuan YIN & Zhe WU	**Session F: Environmental Chemistry & Materials** Session Chair and Co-Chair: TBC
Keynote Lecture A1 (09:00 to 09:20) *Reclaim, Restore, Reimagine: Circular Waste Solutions in Action* **Grzegorz LISAK** Nanyang Technological University, SG	Keynote Lecture B1 (09:00 to 09:20) *Improving Efficiency in Seawater Reverse Osmosis Desalination (SWRO) Process* **Tzyy Haur CHONG** Nanyang Technological University, SG	Keynote Lecture C1 (09:00 to 09:35) *Optimization and Acceleration of Large Generative Model Development* **Tianwei ZHANG** Nanyang Technological University, SG	Keynote Lecture D1 (09:00 to 09:20) *A Sustainable Bio-platform for High Quality Microbial Protein Production* **Yan ZHOU** Nanyang Technological University, SG	Keynote Lecture E1 (09:00 to 09:20) *Spatial-temporal Adaptive Planning of Flood Managed Aquifer Recharge Guided by Deep Reinforcement Learning* **Xiaogang HE** National University of Singapore, SG	Keynote Lecture F1 (09:00 to 09:20) *Intercalation in 2D TMDs and Membranes Fabrication for Water Purification* **Zhiyuan ZENG** City University of Hong Kong, CN
Keynote Lecture A2 (09:20 to 09:40) *Valorising Waste for Aquaculture Feed in Singapore* **Yu De CHAO** Singapore Food Agency, SG	Invited Lecture B2 (09:20 to 09:35) *Enhanced Ammonium Rejection in Thin-Film Composite Osmotic Membranes: Performance and Mechanisms* **Xian BAO** Harbin Institute of Technology, CN		Oral D2 (09:20 to 09:35) *Food Waste Valorisation via Fermentation* **Huang MIAO** Temasek Polytechnic, SG	Oral E2 (09:20 to 09:35) *A mechanism-data co-driven hybrid modeling framework for WWTPs to achieve reliable simulation at system-level* **Yi PAN** Zhejiang University, CN	Invited Lecture F2 (09:20 to 09:35) *Developing high-pressure pressure-retarded osmosis membranes for renewable osmotic energy harvesting: the critical role of membrane material design and structure optimization* **Qianhong SHE** Nanyang Technological University, SG
Oral A3 (09:40 to 09:55) *Turning Waste into Resource: Biochar Solutions for Sustainable Agriculture* **Xin YANG** Nanyang Technological University, SG	Oral B3 (09:35 to 09:50) *Membrane Structure-dependent Water and Ion Transport in Osmotic Electrodialysis* **Hong LIU** Nanyang Technological University, SG	Oral C2 (09:35 to 09:50) *Generative AI for Health* **Hung Manh PHAM** Singapore Management University, SG	Oral D3 (09:35 to 09:50) *Medium-chain fatty acid biosynthesis under high ammonia stress: Mechanisms and process optimization* **Liang ZHANG** Sun Yat-Sen University, CN	Oral E3 (09:35 to 09:50) *Spatiotemporal Patterns of Urban Flooding in Singapore and Detection via AI-Based Image Analysis* **Jingyu WANG** National Institute of Education, SG	Invited Lecture F3 (09:35 to 09:50) *Sustainable Membranes for a Circular Membrane Industry* **Bofan LI** Agency for Science, Technology, and Research (A*STAR), SG
Oral A4 (09:55 to 10:10) *Chicken Manure Ash as a Bioresource-based Material for Efficient Carbon Dioxide Capture* **Jiahui BU** Nanyang Technological University, SG	Invited Lecture B4 (09:50 to 10:05) *Modeling Dynamics of NF/RO Membrane Fouling with Collision Attachment Approach* **Tian LI** Tongji University, CN	Oral C3 (09:50 to 10:05) *Decentralized GPU Banks: Web3-Orchestrated AI Systems for Sustainability* **Linshan JIANG** National University of Singapore, SG	Oral D4 (09:50 to 10:05) *Revealing Cryptic Microbial Carbon/Nitrogen Pathways: A Novel Strategy for Sustainable Greenhouse Gas Mitigation and Resource Recovery* **Chen CAI** University of Science and Technology of China, CN	Oral E4 (09:50 to 10:05) *Transfer learning in modeling and predictive control of chemical processes* **Ming XIAO** National University of Singapore, SG	Invited Lecture F4 (09:50 to 10:05) *Distributed direct air capture by carbon nanofiber air filters* **Ronghui WU** Nanyang Technological University, SG
Oral A5 (10:10 to 10:25) *Circular manufacturing implementation, planning and control* **Marvin Carl MAY** Nanyang Technological University, SG	Oral B5 (10:05 to 10:20) *Double-Macrocycles Based COF Membranes for Seawater Lithium Extraction* **Xinkun MA** Nanyang Technological University, SG	Oral C4 (10:05 to 10:20) *GreenIntelliCPN: AI-Enabled Spatiotemporal Scheduling for Energy-Efficient Computing Power Networks* **Wen WEN** Beijing University of Posts and Telecommunications, CN	Oral D5 (10:05 to 10:20) *Carbon Emission of Straw-combined Heat and Power Generation* **Tingting QIAN** Shandong Normal University, CN	Oral E5 (10:05 to 10:20) *A Novel Perspective on Process Monitoring: Nonlinear Causal Mapping Aggregation for Key Performance Indicator* **Haoqian WANG** Beijing University of Chemical Technology, CN	Invited Lecture F5 (10:05 to 10:20) *Smart imaging for smart separation: electron microscopy and machine learning in membrane design* **Prashant KUMAR** Nanyang Technological University, SG

MORNING TEA BREAK (10:20 to 10:40)

SESSION 2

Venue: LT5	Venue: LT6	Venue: LT7	Venue: LT8	Venue: LT14	Venue: LT15
Session A: Resource Recovery Session Chair and Co-Chair: Grzegorz LISAK	**Session B: Membrane Technology** Session Chair and Co-Chair: Gongping LIU & Miao TIAN	**Session C: Computing, Data Science & AI** Session Chair and Co-Chair: Rui TAN	**Session D: Biotechnology & Bioprocesses** Session Chair and Co-Chair: TBC	**Session E: Environmental AI & Modelling** Session Chair and Co-Chair: Xunyuan YIN and Zhe WU	**Session F: Environmental Chemistry & Materials** Session Chair and Co-Chair: TBC
Keynote Lecture A6 (10:40 to 11:00) *AI Technology for Smart Waste-to-Energy System* **Qunxing HUANG** Zhejiang University, CN	Keynote Lecture B6 (10:40 to 11:00) *Machine Learning Accelerates High Throughput Design of MOF-Based Membranes for Molecular Separation* **Gongping LIU** Nanjing Tech University, CN	Keynote Lecture C5 (10:40 to 11:15) *AI-Powered Robotic Systems for Sustainable Marine Ecosystem Monitoring* **Malika MEGHJANI** Singapore University of Technology & Design, SG	Keynote Lecture D6 (10:40 to 11:00) *Biological sulfur disproportionation enlightens new technology development for sustainable wastewater treatment* **Feng JIANG** Sun Yat-Sen University, CN	Keynote Lecture E6 (10:40 to 11:00) *Machine learning-enabled Koopman modeling and convex optimization-based predictive control of nonlinear systems* **Xunyuan YIN** Nanyang Technological University, SG	Keynote Lecture F6 (10:40 to 11:00) *Membranes for Carbon Capture: From Dense Polymers to Microporous Structures* **Sui ZHANG** National University of Singapore, SG
Keynote Lecture A7 (11:00 to 11:20) *Sustainable Engineering of Functional Carbon Nanotubes from Waste Using an Energy-Efficient Dual-Stage Reactor* **Wen Da OH** Universiti Sains Malaysia, MY	Invited Lecture B7 (11:00 to 11:15) *Precise Construction of Hydrogel Interlayers for Enhanced Thin-Film Composite Forward Osmosis Membranes* **Miao TIAN** Northwestern Polytechnical University, Xi'an, CN		Oral D7 (11:00 to 11:15) *Sustainable synthetic biology for carbon-negative applications* **Weiming TU** Nanyang Technological University, SG	Oral E7 (11:00 to 11:15) *Quantitative Analysis of Electrostatic Interactions in Nanofiltration for Trace Organic Contaminants Removal* **Zhiyi XIA** Zhejiang University, CN	Invited Lecture F7 (11:00 to 11:15) *Aligned macrocycle pores in ultrathin films for accurate molecular sieving* **Zhiwei JIANG** Nanyang Technological University, SG
Oral A8 (11:20 to 11:35) *Catalytic Conversion of Municipal Sewage Sludge and Animal Manure into Biogenic Multi-Walled Carbon Nanotubes and Hydrogen via Pyrolysis-CVD: Analysis of Catalyst Performance* **Jintao LU** Nanyang Technological University, SG	Oral B8 (11:15 to 11:30) *Rotary-actuated Hollow Fiber Membrane Contactor for Bubble-free Bioreactor Aeration* **Daniel NG Yee Fan** Nanyang Technological University, SG	Oral C6 (11:15 to 11:30) *Physics and Knowledge-based Cognitive Digital Twin for Advanced Battery Analytics* **Wei ZHANG** Singapore Institute of Technology, SG	Oral D8 (11:15 to 11:30) *Harnessing Methanotroph–Microalgae Synergy for Carbon-Neutral Biogas Purification and High-Value Biomass Production* **Yuanxu SONG** University of Science and Technology of China, CN	Oral E8 (11:15 to 11:30) *Machine learning forecasts of global daily CO2 emissions in near-real-time* **Zhu DENG** The University of Hong Kong, CN	Invited Lecture F8 (11:15 to 11:30) *Membrane Solutions for Low-Energy and Sustainable Resource Recovery* **Zhe YANG** The University of Queensland, AU
Oral A9 (11:35 to 11:50) *Resource recovery of Al and P from gasification sewage sludge slag via a multi-step wet-extraction system* **MZBM. AMRAD** Nanyang Technological University, SG	Oral B9 (11:30 to 11:45) *Machine learning in GO membrane design: stability mechanisms and water ballistic transport* **Quan LIU** Anhui University of Science and Technology, CN	Oral C7 (11:30 to 11:45) *Adversarially Trained Dynamic Ensemble: A Moving Target Defense Strategy for Robust Semantic Segmentation in Autonomous Vehicles* **Yanghui MO** Singapore Institute of Technology, SG	Oral D9 (11:30 to 11:45) *Mining high-value bioproducts from sludge: Potential for MCFAs production without exogenous electron donors* **Lei LI** Nanyang Technological University, SG	Oral E9 (11:30 to 11:45) *Fast Machine Learning-based Model Predictive Control of Nonlinear Processes* **Wenlong WANG** National University of Singapore, SG	Oral F9 (11:30 to 11:45) *Lactic-Acid-based Deep Eutectic Solvent for Sustainable Recovery of Critical Metals from Spent Lithium-ion Batteries under Mild Conditions* **Zhe'an YUAN** Nanyang Technological University, SG
Oral A10 (11:50 to 12:05) *Reclaimed seawater discharge: An electrolytic approach to brine utilization and treatment* **Wei Han TU** Nanyang Technological University, SG	Oral B10 (11:45 to 12:00) *2-inch PAN/HMO Nanofibrous Membrane Scaffold Module for Lithium Recovery from Simulate SWRO Brine* **Yejing LIANG** Nanyang Technological University, SG	Oral C8 (11:45 to 12:00) *Data-Driven Control for Three-Phase AC-DC Power Converters Modeled by Switched Affine Systems* **Xiaozeng XU** Shandong University of Science and Technology, CN	Oral D10 (11:45 to 12:00) *Reduction of refractory Maillard reaction products by Fe3+ during thermal hydrolysis pretreatment and enhanced sludge biodegradability* **Yikun GENG** Nanyang Technological University, SG	Oral E10 (11:45 to 12:00) *Data-Driven Moving Horizon Estimation Using Machine Learning: Application to Membrane Bioreactor Processes* **Xiaojie LI** Nanyang Technological University, SG	Oral F10 (11:45 to 12:00) *High-Performance Lithium Extraction from Salt Lakes with designing nano-materials and device* **Guangqiang MA** Xi'an University of Architecture and Technology, CN

LUNCH & POSTER SESSION (12:00 to 14:00)

SESSION 3

Venue: LT5	Venue: LT6	Venue: LT7	Venue: LT8	Venue: LT14	Venue: LT15
Session A: Resource Recovery Session Chair and Co-Chair: Qunxing HUANG	**Session B: Membrane Technology** Session Chair and Co-Chair: Haiqing LIN & Yumeng ZHAO	**Session C: Computing, Data Science & AI** Session Chair and Co-Chair: Rui TAN	**Session D: Biotechnology & Bioprocesses** Session Chair and Co-Chair: TBC	**Session E: Environmental AI & Modelling** Session Chair and Co-Chair: Xunyuan YIN and Zhe WU	**Session F: Environmental Chemistry & Materials** Session Chair and Co-Chair: TBC
Keynote Lecture A11 (14:00 to 14:20) *Status, Global Trends and Perspectives for Chemical Recycling* **M. GRAEBNER** TU Bergakademie Freiberg, Fraunhofer Institute for Ceramic Technologies and System IKTS, DE	Keynote Lecture B11 (14:00 to 14:20) *Sabatier principle on highly CO_2-philic yet rejective membranes for hydrogen purification* **Haiqing LIN** University at Buffalo, USA	Keynote Lecture C9 (14:00 to 14:35) *Efficient Multi-agent Path Planning via Graph Potential Field* **Ivor W. TSANG** A*STAR Centre for Frontier AI Research, SG	Keynote Lecture D11 (14:00 to 14:20) *AI for Toxicology - An Case Study on Deep Learning-enabled Morphometric Analysis (DLMA) for High Throughput Toxicity Screening* **Sijia LIN** Tongji University, CN	Keynote Lecture E11 (14:00 to 14:20) *Robust BFMHE and Robust Data-driven MHE for Lithium-ion Battery* **Xiaodong XU** Central South University, CN	Keynote Lecture F11 (14:00 to 14:20) *Food as a source of disinfection byproducts: Detection, formation, and control in processing and cooking* **Yang PAN** Nanjing University, CN
Oral A12 (14:20 to 14:35) *Development and Application of High-Performance Biochar Catalysts for Waste Pyrolysis–Steam Reforming* **Jiali GUO** Nanyang Technological University, SG	Invited Lecture B12 (14:20 to 14:35) *Biomimetic Catalytic Membrane Enables Sustainable Water Purification through Direct-Electron-Transfer Pathway* **Yumeng ZHAO** Harbin Institute of Technology, CN		Oral D12 (14:20 to 14:35) *TBC* **Le Boucher RICHARD** Temasek Life Sciences Laboratory, SG	Keynote Lecture E12 (14:20 to 14:40) *Machine Learning in Model Predictive Control of Chemical Processes* **Zhe WU** National University of Singapore, SG	Invited Lecture F12 (14:20 to 14:35) *Powering chemicals production with renewable electricity* **Wan Ru LEOW** Nanyang Technological University, SG
Oral A13 (14:35 to 14:50) *Incorporating CO_2 capture-utilization with municipal solid waste upcycling through isothermal sorbent looping-reforming* **Guicai LIU** Nanyang Technological University, SG	Oral B13 (14:35 to 14:50) *Lithium recovery from seawater desalination brines using ion-sieve electrospun nanofibrous membranes: the role of nanofiber design* **Naeem NADZRI** Nanyang Technological University, SG	Oral C10 (14:35 to 14:50) *Towards Fair Concurrent Training of Privacy Preserving AI* **Marie SIEW** Singapore University of Technology & Design, SG	Oral D13 (14:35 to 14:50) *Elucidating the EPS-Biofouling Nexus in Electrochemical Anaerobic Membrane Bioreactor via Explainable AI Approaches* **Chengxin NIU** Nanyang Technological University, SG	Oral E13 (14:40 to 14:55) *Large Language Model–Assisted Machine Learning for the Design and Validation of Deep Eutectic Solvent–Porous Organic Cage Membranes in CO_2/N_2 Separation* **Jie ZHAO** Kunming University of Science and Technology, CN	Invited Lecture F13 (14:35 to 14:50) *Hydrogen embrittlement in steels – a roadblock against sustainable hydrogen economy* **Eason CHEN** Nanyang Technological University, SG
Oral A14 (14:50 to 15:05) *Carbon black dispersions in conductive cementitious composites: Mechanistic insights into the interrelationship between dispersion behaviour, electrical properties and microstructures* **Kevin Matthew MANURUNG** Nanyang Technological University, SG	Oral B14 (14:50 to 15:05) *Polyphenylsulfone-Based Membranes for Gas Separation* **Fan FENG** National University of Singapore, SG	Oral C11 (14:50 to 15:05) *Certified Robustness against Sensor Heterogeneity in Acoustic Sensing* **Phuc Duc NGUYEN** Nanyang Technological University, SG	Oral D14 (14:50 to 15:05) *Machine Learning Optimization of Waste Salt Pyrolysis: Predicting Organic Pollutant Removal and Mass Loss* **Run ZHOU** Nanyang Technological University, SG	Oral E14 (14:55 to 15:10) *Distributed Fault-Tolerant Game-Theoretic Control for Sustainable Multi-Agent Systems with Actuator Faults* **Wenjing HOU** Beijing University of Chemical Technology, CN	Oral F14 (14:50 to 15:05) *Artificial Intelligence-Assisted Online Sensor for Environmental Monitoring* **Xuanhao LIN** National University of Singapore, SG
Oral A15 (15:05 to 15:20) *Utilizing Polyethylene Terephthalate (PET) as a Sustainable Additive in Cementitious Mortar Composites: Plastic Modification and binary additive-cement system* **Zijian WANG** Nanyang Technological University, SG	Oral B15 (15:05 to 15:20) *Chemically Robust Hollow Fiber Thin-film Composite Membranes Based on Polyurea Selective Layers for Nanofiltration under Extreme pH Conditions* **Qiang XUE** Nanyang Technological University, SG	Oral C12 (15:05 to 15:20) *Slim-SC: Thought Pruning for Efficient Scaling with Self-Consistency* **Colin HONG** Nanyang Technological University, SG	Oral D15 (15:05 to 15:20) *Towards Explainable Hybrid Model for Multi-Hour Ahead Wastewater Effluent Prediction* **Yijie WANG** Nanyang Technological University, SG	Oral E15 (15:10 to 15:25) *Evaluating and Advancing Large Language Models for Nanofiltration Membrane Knowledge Tasks* **Xinchen XIANG** Zhejiang University, CN	Oral F15 (15:05 to 15:20) *Temperature effects on ozonation: Impacts on kinetics of organic amines abatement, bromate formation and disinfection* **Zhuangsong HUANG** Harbin Institute of Technology, CN

AFTERNOON TEA BREAK (15:20 to 15:40)

SESSION 4

Venue: LT5	Venue: LT6	Venue: LT7	Venue: LT8	Venue: LT14	Venue: LT15
Session A: Resource Recovery Session Chair and Co-Chair: Wen Da OH	**Session B: Membrane Technology** Session Chair and Co-Chair: Xiaoying ZHU & Lei YAO	**Session C: Computing, Data Science & AI** Session Chair and Co-Chair: Rui TAN	**Session D: Biotechnology & Bioprocesses** Session Chair and Co-Chair: TBC	**Session E: Environmental AI & Modelling** Session Chair and Co-Chair: Xunyuan YIN and Zhe WU	**Session F: Environmental Chemistry & Materials** Session Chair and Co-Chair: TBC
Keynote Lecture A16 (15:40 to 16:00) *"Waste-to-Products" for the Sustainability Transformation of Megacities: Impacts of Public Knowledge & Perception on Chemical Recycling Deployments in Singapore* **Roh Pin LEE** Brandenburg University of Technology, DE	Keynote Lecture B16 (15:40 to 16:00) *Interface-Engineered Functional Membranes for Emerging Pollutant Removal* **Xiaoying ZHU** Zhejiang University, CN	Keynote Lecture C13 (15:40 to 16:15) *Being Small in the Era of Large Models* **Anthony K. H. TUNG** National University of Singapore, SG	Keynote Lecture D16 (15:40 to 16:00) *Emerging Pollutants: Antibiotic Resistance Genes -- Transmission in the Environment* **Xiaole YIN** Nanyang Technological University, SG	Keynote Lecture E16 (15:40 to 16:00) *AI4S for Sustainable Innovation: Building High-Quality Datasets for Coal-Based New Materials* **Yang DONG** National Institute of Clean-and-Low-Carbon Energy, CN	Keynote Lecture F16 (15:40 to 16:00) *Artificially Confined Sub-Nanoscale Channels for Molecular Separation* **Jie SHEN** Nanyang Technological University, SG
Oral A17 (16:00 to 16:15) *Inequality in Air Pollution-Attributable Mortality by Income Level between and within Countries* **Hongliang ZHANG** University of Shanghai for Science and Technology, CN	Invited Lecture B17 (16:00 to 16:15) *Machine-learning-guided design and performance prediction of membrane processes for PFAS removal* **Lei YAO** Wuhan Institute of Technology,CN		Oral D17 (16:00 to 16:15) *Simultaneous Vanadium(V) Removal and Toxicity Response Mechanisms in Settleable Algae Systems* **Siling REN** Nanyang Technological University, SG	Oral E17 (16:00 to 16:15) *Mamba-neural ordinary equation Koopman approach for modeling and optimal control of membrane water treatment system* **Zhaoyang LI** Nanyang Technological University, SG	Oral F17 (16:00 to 16:15) *Noncovalent Complex Modulated Fabrication of COF Membrane for Organic Solvent Nanofiltration* **Baoyu WANG** Joint School of NUS and TJU, CN
Oral A18 (16:15 to 16:30) *Green Synthesis of Binder-Free Waste-Derived adsorbent for H2S Removal at Ambient Temperature* **Wenying LI** Shanghai University CN, Nanyang Technological University SG	Oral B18 (16:15 to 16:30) *Quantifying the potential of high-performance RO membranes for seawater and hypersaline brine desalination: from module-scale modelling to experimental evaluation* **Yu Jie LIM** Nanyang Technological University, SG	Oral C14 (16:15 to 16:30) *DiTMoS: Delving into Diverse Tiny-Model Selection on Microcontrollers* **Xiao MA** Singapore Management University, SG	Oral D18 (16:15 to 16:30) *The plastisphere: A hazard or solution?* **Sakcham BAIROLIYA** Nanyang Technological University, SG	Oral E18 (16:15 to 16:30) *Data-Efficient Modelling of Integrated Chemical Plants with Recycles using a Graph Convolutional LSTM Approach* **Wanlu WU** National University of Singapore, SG	Oral F18 (16:15 to 16:30) *When polymers meet 2D materials: Innovations in nanochannel membrane design* **Hao ZHANG** The University of Queensland, AU
Oral A19 (16:30 to 16:45) *Innovative MOF-Based Membrane Technologies for Metal Recovery from E-Waste* **Bo HAN** Nanyang Technological University, SG	Oral B19 (16:30 to 16:45) *Effects of 3D Printed Support Pore Size, Porosity and Geometry on Performance Efficiency of Vacuum Membrane Distillation* **Bao Lam NGUYEN** Nanyang Technological University, SG	Oral C15 (16:30 to 16:45) *Efficient Continuous-Time Neural Networks Sustainable Edge AI* **Yimin DAI** Nanyang Technological University, SG	Oral D19 (16:30 to 16:45) *A Synergistic Strategy of NH3 Stripping and HNAD Pathway for Enhanced Nitrogen Removal and Resource Recovery from Anaerobically Treated Leachate* **Facai AN** Beijing Forest University, CN	Oral E19 (16:30 to 16:45) *Mechanism-Informed Machine Learning for Predicting Water Treatment Performance: Application to Membrane Fouling* **Matteo TAGLIAVINI** Nanyang Technological University, SG	Oral F19 (16:30 to 16:45) *Cellular toxicities of disinfection byproducts of 6PPD – a comparison between UV-NH2Cl disinfection and conventional disinfection methods* **Caixia LI** Nanyang Technological University, SG
Oral A20 (16:45 to 17:00) *AI-Enhanced Sorting and Tailored Processing for High-Yield Recovery of Critical Metals from Complex E-Waste* **Dong XIA** Nanyang Technological University, SG	Oral B20 (16:45 to 17:00) *Centrifugal Reverse Osmosis (CRO) for energy-efficient desalination: Modelling and Validation* **Vinh Hien TRUONG** Nanyang Technological University, SG	Oral C16 (16:45 to 17:00) *LR-Auth: Towards Practical Implementation of Implicit User Authentication on Earbuds* **Changshuo HU** Singapore Management University, SG	Oral D20 (16:45 to 17:00) *Artificial electron snorkels for reducing methane emission decrease microbial community complexity but increase its stability in lake sediment* **Nan SHEN** Nanjing Normal University, CN	Oral E20 (16:45 to 17:00) *Event-Triggered Data-Driven Control of Multi-Agent Systems under Sequential Scaling Attacks* **Haixin MA** Beijing University of Chemical Technology, CN	Oral F20 (16:45 to 17:00) *Robust and Ordered Ultra-Thin MXene Composite Film for Electromagnetic Shielding and Thermal Camouflage* **Changan LU** South China University of Technology, CN

TRANSFER TO CONFERENCE DINNER (17:00 to 18:00)

CONFERENCE DINNER & AWARD CEREMONY (18:00 onwards)