# **Conference Agenda**

Date	Time	Details	Location
	8:00 - 8:45	Registration	
	9:00 - 9:30	Opening Ceremony	Plenary Room
	9:30 - 9:40	Group Photo	Plenary Room
	9:40 - 10:10	Keynote Speech I: Zaini Bin Ujang	Plenary Room
	10:10 - 10:50	Keynote Speech II: Takizawa Satoshi	Plenary Room
	10:50 - 11:20	Coffee and Tea Break	
	11:20 - 12:35	Parallel Session 1	
		Wastewater Treatment and Resource Recovery	Room 1
		Antibiotic Resistance and Water Quality	Room 2
		Water Quality Monitoring and Analysis	Room 3
Day 1: Tuesday,	12:35 - 14:00	Lunch Break	
3 Dec 2024	14:00 - 15:20	Parallel Session 2	
		Advanced Oxidation and Membrane Technologies	Room 1
		Anaerobic Treatment and Microbial Dynamics	Room 2
		Urban Water Management	Room 3
	15:20 - 15:50	Coffee and Tea Break	
	15:50 - 17:00	Parallel Session 3	
		Bioreactor and Microbial Fuel Cells	Room 1
		Groundwater Treatment and Fluoride Removal	Room 2
		Emerging Contaminants and Water Quality	Room 3
	18:00 - 20:00	Conference Dinner	

Date	2	Tim	е	Details	Location
	9:00	-	10:20	Parallel Session 4	
				Wastewater-based Epidemiology	Room 1
				Nutrient Removal and Recovery	Room 2
				Wastewater Treatment	Room 3
	10:20	-	10:50	Coffee and Tea Break	
Day 2.	10:50	-	11:35	Flash Talk Session	
Day 2: Wednesday,				Water Quality and Treatment	Room 1
4 Dec 2024				Water Resource Management and Modeling	Room 2
				Community Engagement, Ecology, and Sanitation	Room 3
	11:35	-	11:45	Short Break	
	11:45	-	12:10	Sponsor Presentation: Eng Loo Ang, CLMO	Plenary Room
	12:10	-	13:30	Lunch Break	
	14:00	-	16:00	Technical Visit	
	9:00	-	10:30	Parallel Session 5: Nishihara Session	
				Microplastics and Antimicrobial Resistance	Room 1
				Wastewater Treatment and Circular Economy	Room 2
				Water Treatment and Technological Innovations	Room 3
	10:30	-	11:00	Coffee and Tea Break	
Day 3: Thursday,	11:00	-	12:20	Parallel Session 6: Kurita Session	
5 Dec 2024				Environmental Monitoring and Ecological Impacts	Room 1
				Water Resource Management	Room 2
				Environmental Contaminants and Climate Change	Room 3
	12:20	-	13:40	Lunch Break	
	13:40	-	14:20	Keynote Speech III: Khor Bee Chin	Plenary Room
	14:20	-	14:40	Closing Ceremony	Plenary Room

# List of Presentations

# Day 1: Tuesday, 3 December 2024

# **Parallel Session 1 (11:20 – 12:35)**

#### Room 1

	Wastewater Treatment and Resource Recovery
ID	Presentation Title / Authors
A-009	Hydrogen (H2) and volatile fatty acids (VFA) production from bread wastes in thermophilic fermentation reaction
	•Mamoru Oshiki (Hokkaido University, Japan), Genchi Yamaguchi, Kohei
	Takahashi, Satoshi Okabe, Shuichi Kawano, Junichi Nakagawa, and Toshikazu Fukushima
A-112	Nutrient recovery and refractory organic removal from palm oil mill effluent through integrated struvite precipitation and Fenton oxidation
	Yi Fen Sea, Adeline Seak May Chua, Gek Cheng Ngoh and ●Mohamad Fairus Rabuni (Universiti Malaya, Malaysia)
A-037	Integrated non-potable greywater reuse and resource recovery concept using aerobic membrane bioreactor
	Seow Wah How, Loïc Ruiz, Dongha Kim and •Di Wu (Ghent University, Belgium)
A-023	From lab-scale to pilot-scale treatment of municipal wastewater through PVA-Gel based system
	•Rajpal A (Indian Institute of Technology Roorkee, India), Bhatia A, Ukai Y and Kazmi A A
A-108	Microbial ecology of low-dissolved oxygen biological nitrogen removal in tropical sewage treatment plants
	Jia Xing Loi, •Liang Feng (Universiti Malaya, Malaysia), Faidzul Hakim Adnan, Mohamad Fairus Rabuni, Bee Chin Khor, Alijah Mohd Aris, Mamoru Oshiki, Anton Strunov, Stefan Thiele, Joana Séneca, Sarah Al-Ajeel, Ruizhe Pei, Petra Pjevac, Holger Daims, Adeline Seak May Chua

	Antibiotic Resistance and Water Quality
ID	Presentation Title / Authors
A-041	Using qualitative analysis, antibiotic profiling, and genotyping to prevent ESBL-E. coli transmission in a livestock farm
	•Yudith Vega Paramitadevi (Universitas Indonesia, Indonesia), Cindy Rianti Priadi, Iftita Rahmatika, Ali Budhi Kusuma, Setyo Sarwanto Moersidik, and Andriansjah Rukmana

A-127	Evaluating the influence of urban sampling locations on antibiotic resistance profiles in a tropical developing city lacking centralized wastewater treatment
	•Sulfikar (Universitas Negeri Makassar, Indonesia), Iwan Dini, Zuhrah Adminira,
	Eda Lolo Allo, Maryono
A-156	Monitoring antimicrobial resistance genes in Japan using wastewater-based
A-130	epidemiology: from Pre- to Post- COVID-19
	<ul> <li>Miaomiao Liu (The University of Tokyo, Japan), Ikuro Kasuga, Hiroyuki</li> </ul>
	Katayama, Masaaki Kitajima
A-124	Antibiotics contamination and prevalence of antibiotic resistance genes (ARGs) in
A-124	hospital wastewater and receiving river water in Bangladesh
	•Anwar Hossain (Ehime University, Japan), Ngure Kagia, Md. Shafiujjaman, Rumi
	Tanoue, Tatsuya Kunisue, and Kozo Watanabe
A-071	Industrial effluents revealed substantial carbapenem resistant bacteria carrying
A-0/1	blaKPC, blaIMP, blaVIM, and blaNDM-1 genes in Bangladesh
	•Salequl Islam (Jahangirnagar University, Bangladesh), Shomaia Yasmin Mitu,
	Sumia, Marnusa Binte Habib, Kakoli Akter, Sarower Hossen Shuvo, Mamun Al
	Asad, Shamsun Nahar

A-056	Presentation Title / Authors           Occurrence and seasonal effects on earthy and musty odor compounds in secondary effluent from a municipal wastewater treatment in Tokyo           •Viet-Dung Pham (The University of Tokyo, Japan), Kawachi Koshiro, Ogata Ei and Kato Hiroyuki
A-056	<ul><li>effluent from a municipal wastewater treatment in Tokyo</li><li>Viet-Dung Pham (The University of Tokyo, Japan), Kawachi Koshiro, Ogata Ei</li></ul>
e	•Viet-Dung Pham (The University of Tokyo, Japan), Kawachi Koshiro, Ogata Ei
	and Kato Hiroyuki
8	•
	Detection of river water contamination using excitation-emission matrix
f f	fluorescence spectroscopy and convolutional neural network
	•Cecilia Burzio (The University of Tokyo, Japan), Michael Welle, Yoshihiko
I	Kawaguchi, Koji Kosaka, Kazuhiro Komatsu, Takashi Hashimoto
A-157	Vertical distribution profiling of E. coli and salinity in the Tokyo coastal waters with
A-137 8	amenity water fronts after rainfall under various tidal conditions
	•Chomphunut Poopipattana (Chuo University, Japan), Manish Kumar, and Hiroaki
I	Furumai
A-097	Comparison of 2-methylisoborneol (MIB) removal potential of different types of
A-097 ł	biological filters used for drinking water treatment
	•Chenrun Jiang (The University of Tokyo, Japan), Naoko Tamai, Kenichi
	Yoshizawa, Futoshi Kurisu, Ikuro Kasuga
A-057	Formation and removal of earthy and musty odor compounds in a step-feed A2O
A-037	process at a municipal wastewater treatment plant in Tokyo, Japan
	•Ei Ogata (The University of Tokyo, Japan), Viet-Dung Pham and Hiroyuki Kato

# Parallel Session 2 (14:00 - 15:20)

#### Room 1

	Advanced Oxidation and Membrane Technologies
ID	Presentation Title / Authors
A-068	Fabrication of magnetic biopolymeric carbons for degradative removal of multiple emerging contaminants from wastewater
	•Nirav P. Raval (SRM University-AP, India), Laurent Duclaux and Laurence Reinert
A-028	Design and performance evaluation of advanced thin-film composite membrane for desalination application
	•Shubham Ketan Sharma (Indian Institute of Technology Roorkee, India) and
	Bhaskar Jyoti Deka
A-117	PMS-activated catalytic membrane reactor based on CuO@CeO2/PET membranes for degradation of organic pollutants in wastewater
	•Hong-Quang Luu (Chung Yuan Christian University, Taiwan), Rositasari Putri Redita, Ya-Fen Wang and Sheng-Jie You
A-045	Tannic acid exfoliated graphitic carbon nitride thin-film nanocomposite membrane for the removal of emerging pollutants in potable water reuse
	•Yan Tung Lo (The University of Tokyo, Japan), Takashi Hashimoto and Satoshi Takizawa
A-105	Roles of Fe3O4@PANI composite coating PVDF membrane in improving antifouling performance in membrane bioreactor
	•Duyen Phuc-Hanh Tran (Chung Yuan Christian University, Taiwan), Tomohiro Tobino, Fumiyuki Nakajima, Ya-Fen Wang, Sheng-Jie You

	Anaerobic Treatment and Microbial Dynamics
ID	Presentation Title / Authors
A-029	Enhancement of anaerobic degradation of acetone in an UASB system by feeding 2-propanol
	<ul> <li>Hong Dao Nguyen Pham (Nagaoka University of Technology, Japan), Kazuaki</li> <li>Syutsubo, Masataka Aoki, Akinori Iguchi and Takashi Yamaguchi</li> </ul>
A-079	Effect of long-term ammonia deficiency on nitrification performance and microbial dynamics in Downflow Sponge Biofilm (DSB) reactor
	<ul> <li>Loi Jia Xing (Universiti Malaya, Malaysia), Masataka Aoki, Mohamad Fairus Rabuni, Yasuyuki Takemura, Kazuaki Syutsubo, and Adeline Seak May Chua</li> </ul>
A-131	Anaerobic treatment of isopropyl alcohol-containing wastewater: feasibility and the microbial community
	•Yen-Chen Chen (National Cheng Kung University, Taiwan), Hai-Hsuan Cheng, Jia-Lin Chen and Liang-Ming Whang

A-049	<ul> <li>Enhancing microbial detection in engineered anaerobic systems: improved efficiency of hybridization chain reaction fluorescence in situ hybridization (HCR-FISH) with cell wall treat</li> <li>Nasrul Hudayah (King Mongkut's University of Technology Thonburi, Thailand),</li> </ul>
	Wantanasak Suksong, Nimaradee Boonapatcharoen, Varunee Kongduan, Duanganong Phalaphol, Janphen Ainthakhlai, Naruemon Aekkawatchai, Onamon
	Laopitinan, Chaiwat Waewsak, and Benjaphon Suraraksa
A-161	The role of comammox microorganism in the three full-scale municipal wastewater treatment plants
	•Yi-Ju Wu (National Cheng Kung University, Taiwan), Chih-Chieh Lin, Ting-Yin Chen, Jhao-Ning Cai, and Liang-Ming Whang

	Urban Water Management
ID	Presentation Title / Authors
A-121	Flood risk assessment under Nature-based Solutions (NbS) design scenario using PCSWMM model in Pathum Thani agrihood model, informal housing resettlement community Thailand
	Kim Irvine, •Sunantana Nuanla-or (Thammasat University, Thailand), Stuti Shakya, Chayut Sansabay, Sameera Sandaruwan Yakdehi Kankanamge
A-031	Research on operational efficiency improvement through PPP introduction in Japanese WWTPs
	•Shuhei Murakami (The University of Tokyo, Japan) and Hiroyuki Kato
A-061	A comparative study of non-revenue water management strategies between the Nairobi City Water and Sewage Company and the Phnom Penh water supply authority
	•Kilonzi Peter Muindi (Nagasaki University, Japan) and Hironori Hamasaki
A-063	Waters of Buddhistscape: A political industrial ecology of water in Bodh Gaya, India
	•Ritika Rajput (The United Nations University, Japan) and Jian Pu
A-066	Evaluating schedule delays and cost overruns in major water supply projects in Nepal: Implications for sustainable water management Nawa Raj Khatiwada, Tara Nidhi Bhattarai and •Situ Sainju (Urban Water Supply and Sanitation (Sector) Project, Nepal)

# Parallel Session 3 (15:50 - 17:00)

Room 1

	Bioreactor and Microbial Fuel Cells
ID	Presentation Title / Authors
A-103	Impact of high-frequency, low-intensity alternating electric fields on single species biofilm development processes and activated sludge characteristics
	•Patthranit Kunlasubpreedee (The University of Tokyo, Japan), Tomohiro Tobino and Fumiyuki Nakajima
A-136	Effect of heat treatment temperature of pre-air activation on structure of N-doped activated carbon catalysts and cathode performance in microbial fuel cells
	•Kizuku Mori (Gifu University, Japan) and Kayako Hirooka
A-087	Development of an energy self-sufficient hybrid electrochemical membrane bioreactor (H-eMBR) equipped with low-voltage booster (LVB)
	•Tomoaki Tamura (Hokkaido University, Japan), Hiroshi Yamamura and Satoshi Okabe
A-048	Data-driven membrane bioreactor monitoring for greywater reuse
	•Siyuan Wang (Ghent University, Belgium), Seow Wah How, Mariane Y. Schneider, Eveline I.P. Volcke and Di Wu

	Groundwater Treatment and Fluoride Removal
ID	Presentation Title / Authors
A-010	Ion exchange membrane bioreactor for treating nitrate contaminated ground water: a pilot scale study
	•Akshaya Kumar Verma (Siksha 'O' Anusandhan University, India), Zeev Ronen,
	Yoram Oren and Jack Gilron
A-017	Comprehensive assessment of electrocoagulation technology for arsenic and fluoride removal from groundwater: Scale-up, Life cycle assessment, and Economic analysis
	•Hemant Goyal (Indian Institute of Technology Roorkee, India) and Prasenjit
	Mondal
A-019	Fluoride removal from groundwater by using natural organic adsorbents such as rice grain and rice powde
	•Benyapa Sawangjang (The University of Tokyo, Japan) and Satoshi Takizawa
A-137	Fluoride removal from wastewater by coagulation method
	•Hwang Sheng Lee (Universiti Tunku Abdul Rahman, Malaysia) and Sin Yee Ko

Room	3
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	Emerging Contaminants and Water Quality
ID	Presentation Title / Authors
A-129	Temporal trends of per- and polyalkyl substances (PFAS) levels in the ambient
11 127	waters of Yorkshire County, United Kingdom
	Manish Kumar, •Kanika Dogra (UPES, Dehradun, India), Deepa Lalwani, Jurgen
	Mahlknecht, and Vivek Agrawal
A 120	Seasonal dynamics of antimicrobial resistance in the Himalayan urban wastewater:
A-130	the urbanization, lifestyle, pandemic, and treatment influences
	Shiwangi Dogra and  Manish Kumar (Tecnológico de Monterrey, Mexico)
A-138	Evaluation of acute toxicity with tropical crustacean in sucralose-contaminated water treated by UV-based advanced oxidation process
	•Surapong Rattanakul (King Mongkut's University of Technology Thonburi,
	Thailand), Chutikarn Kaewpradit and Ananya Pumphuk
A-092	Target and suspect screening of multicomponent contaminants of emerging concerns
A-092	in beach plastic debris by LC-QTOF/MS: surveys on two different beaches in Japan
	•Moe Hane (Gifu University, Japan), Yuji Suzuki, Yusuke Suzuki, Shin Furui,
	Toshiyuki Nakamura, Daiki Inui and Tatsunori Kimura

## Day 2: Wednesday, 4 December 2024

# Parallel Session 4 (09:00 - 10:20)

	Wastewater-based Epidemiology
ID	Presentation Title / Authors
A-151	Treatment reduction of SARS-CoV-2 and gastroenteritis viruses in municipal wastewater treatment revealed by the EPISENS-M method
	Hiroki Ando, Satoshi Okabe, •Masaaki Kitajima (The University of Tokyo, Japan)
A-038	Assessing the applicability of a wastewater-based epidemiology model for norovirus in a Japanese city
	•Kanji Watanabe (The University of Tokyo, Japan), Kiyo Kurisu, Daisuke Sano, Kensuke Fukushi
A-149	Future Research Prospect of Wastewater-based Epidemiology in Indonesia: Identification of Pathogenic Bacteria at Wastewater Treatment Plant in Bandung City •Made Sandhyana Angga (The University of Tokyo, Japan), Annisa Andarini Ruti, Aulia Fajar Rahmani, Ahmad Soleh Setiyawan, Tjandra Setiadi, Masaaki Kitajima,
A-133	and Eiji Haramoto Application of Kalman filter for estimation and forecast of epidemic trends in
I	wastewater-based epidemiology on COVID-19

	•Abbas Normsars (Kanazawa University, Japan), Daisuke Murakami, Hiroe Hara- Yamamura and Ryo Honda
A-070	Assessing nontuberculous mycobacteria in household and hospital water sources
	•Kamila Nurhusna (Universitas Indonesia , Indonesia), Fakhira Nur Ramadhani, Iftita Rahmatika, Ikuro Kasuga

Room 2

	Nutrient Removal and Recovery
ID	Presentation Title / Authors
A-060	Additional nutrient removal from treated effluent of SBR based STP by using
11 000	graphene-like biochar adsorbent: Column experiment study
	•Muntjeer Ali (Indian Institute of Technology Roorkee, India), Nehaun, Mandeep
	Singh, Gaurav Goyal, Absar Ahmad Kazmi
A-036	An influence model of extracellular polymeric substances on crystal growth and
A-030	morphology of vivianite
	Tingting Yang, •Weihua Li (Anhui Jianzhu University, China), Ping Zhang, Zhihao
	Chen, Yixin Liu
A-141	Feasibility analysis of treating low nitrogen loading wastewater using Anammox
A-141	process
	•Ting-Yu Yeh (National Cheng Kung University, Taiwan), Tzu-Ya Weng, Yi-Ju
	Wu and Liang-Ming Whang
A-135	Application of digester effluent from food waste for the cultivation of a haptophyte
A-155	Tisochrysis lutea
	Akiko Inoue, Kohei Yoneda, Yoshiaki Maeda and •Iwane Suzuki (University of
	Tsukuba, Japan)
A-113	Recovery of sulphuric acid from high-concentration acid liquid waste through air
A-115	gap membrane distillation
	•Dian Qoriati (Chung Yuan Christian University, Taiwan), Sheng-Jie You, and Ya-
	Fen Wang

	Wastewater Treatment
ID	Presentation Title / Authors
A-059	Optimization of operational parameters for enhanced dyeing wastewater treatment and fouling control in integrated HF-sAnMBR-DHS system
	Syed Saquib, Helen Julian, Sri Harjati Suhardi, ●Tjandra Setiadi (Institut Teknologi
	Bandung, Indonesia)
A-099	Optimization of an advanced Johkasou system for on-site treatment of domestic wastewater under various conditions
	Rajpal A, Bhatia A, Tomar A and •Kazmi A A (Indian Institute of Technology
	Roorkee, India)

A-111	Enhancing water quality in Malaysia: a study on the lab-scale bioball integrated DHS-G3 reactor's efficiency in wastewater treatment
	Han Chuan Hau, •Ying Hui Ong (MILA University, Malaysia), Woon Chan Chong,
	Li Wan Yoon, Kean Long Lim
A-100	Integration of electrochemical oxidation and adsorption for colour and cod removal from leachate landfill treatment
	Sean F. T. Hin, M. H. Che Harun, Roslaini Abd Ghani, and •Sofiah Hamzah
	(Universiti Malaysia Terengganu, Malaysia)
A-016	Application of hydrogen-based denitrification: simultaneous removal of nitrate and reactive black 5 dye from textile wastewater containing organic matter
	•Tippawan Singhopon (Khon Kaen University, Thailand) and Futaba Kazama

#### Flash Talk Session (10:50 – 11:35)

	Water Quality and Treatment
ID	Presentation Title / Authors
A-033	Innovative water remediation: utilizing maize stems to extract manganese
	Yahaya Yahaya Kassimu, Shubham Ketan Sharma, ●Samriddhi Sharma (Indian Institute of Technology Roorkee, India) and Bhaskar Jyoti Deka
A-062	Influence of pore size and material on ultrafiltration membrane performance as pre- treatment of SWRO
	•Abdillah Winata (Universitas Indonesia, Indonesia) and Sucipta Laksono
A-082	Reuse of fly ash as a catalyst for the heterogenous Fenton process in a hybrid oxidation membrane reactor: wastewater treatment in winery industry Fadhila Malahayati Kamal, •Sucipta Laksono (Universitas Indonesia, Indonesia), Sandyanto Adityosulindro
A-083	<ul> <li>Fenton-like treatment for dyes degradation: Effect of radical and catalyst and cost comparison</li> <li>Guntur Adisurya Ismail (Institute Technology Bandung, Indonesia) and Hiroshi Sakai</li> </ul>
A-106	Food and beverage wastewater treatment through microalgae cultivation •Pavithira Sathinathan (Universiti Malaya, Malaysia), Ngoh Gek Cheng and Rozita Yusoff C
A-102	Sustainable acid mine drainage remediation via eggshell waste and microalgae Chlorella Pyrenoidosa cultivation •Susmit Chitransh (Indian Institute of Technology Roorkee, India) and Prasenjit Mondal

A-128 Interaction of primary microplastics during sand filtration and possibility of cake filtration and its consequences on filtration performance Mariha Feroz and •Khalid Muzamil Gani (National Institute of Technology, Srinagar, India)

	Water Resource Management and Modeling
ID	Presentation Title / Authors
A-002	Indicators for resilience assessment of urban water supply sources and urban waterways due to climate change and extreme events
	•Maria Anjelica P. Ancheta (Asian Institute of Technology, Thailand), S. Shrestha, T. Koottatep, M. S. Shanmugam
A-077	Multi-sectoral pollution reduction strategies: WASP-based modeling for water quality assessment of Citarik River, Indonesia
	•Zahrani Imtyaz (Bandung Institute of Technology, Indonesia) and Miftah Firdaus
A-078	Navigating flood risks in a rapidly changing tropical watershed: a comparative assessment of HEC-HMS and SWAT in Indonesia's Citarik Sub-watershed
	•Miftah Firdaus (Institut Teknologi Bandung, Indonesia) and Zahrani Imtyaz
A-081	Discharge forecasting in rapidly changing tropical watershed (case study: Citarik Sub-watershed, Indonesia)
	•Miftah Firdaus (Institut Teknologi Bandung, Indonesia) and Zahrani Imtyaz
A-146	Electrocoagulation for sustainable water treatment: role of computational fluid dynamics simulation towards energy transition
	•Amina Tahreen (International Islamic University Malaysia, Malaysia) and Mohammed Saedi J
A-050	Emerging lithium pollution in surface and ground water - A futuristic approach using Artificial intelligence
	•S. Anuradha (Anna University, India), R. Manimegalai, and Devasena M
A-086	Water governance and hydropolitics in the Mekong River Basin
	Hironori Hamasaki, •Kilonzi Peter Muindi (Nagasaki University, Japan), and Nguyen Dieu

Room	3
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	Community Engagement, Ecology, and Sanitation
ID	Presentation Title / Authors
A-030	Elevated methane production and microbial community shifts through the removal of phenolic compounds from palm oil mill effluent
	Thamonwan Woraruthai, Cheerapat Supawatkon, Sasithorn Rungjaroenchaiwat, •Thanyaporn Wongnate (Vidyasirimedhi Institute of Science and Technology, Thailand)
A-122	Enhancing community resilience to climate change: A case of urban flood mitigation in Dhaka Bangladesh
	•Bushra Shahriar (Indian Institute of Technology Roorkee, India), Uttam K. Roy
A-132	Survey of recent progress in analysing wastewater treatment microbial communities using genome-resolved metagenome sequencing: with application to tropical climate domestic and industrial WWTP
	•Rohan B. H. Williams (National University of Singapore, Singapore)
A-144	Strengthening of public data systems for sanitation - Bangladesh case
	•Sichu Shrestha (Asian Institute of Technology, Thailand), Makfie Farah, Bussakorn Krittanusarn, Santosh Dhungana, Kavinda Gunasekara, Sangam Shrestha, Thammarat Koottatep
A-139	Identifying non-point sources of surface water contamination in Laguna Lake Basin, Philippines Mozo Michael Jason L, Gigantone Catherine, Gapan Emmanuel Zeus S, Lomod Jay-
	ann Q, Sanchez Patrica Ann J, Sevilla-Nastor Janice B, •Abejero Alma Lorelei DJ (University of the Philippines Los Baños, Philippines), Villanueva-Peyraube Jessica D.
A-013	Development of a watershed health assessment framework integrating ecological, social, cultural, economic and policy attributes
	•Shella I. Talampas (Asian Institute of Technology, Thailand) and Sangam Shrestha
A-125	Wastewater surveillance of human bocavirus and streptococcus pneumoniae in Japan
	Vu Duc Canh, Motoki Kawashima, Akihiro Kawaguchi, Miaomiao Liu, Hiroyuki Katayama, Satoshi Okabe and ●Masaaki Kitajima (University of Tokyo, Japan)

## Day 3: Thursday, 5 December 2024

# Parallel Session 5 (09:00 – 10:30): Sponsored by Nishihara Cultural Foundation

# Room 1

	Microplastics and Antimicrobial Resistance
ID	Presentation Title / Authors
A-021	Deciphering the source contribution of microplastics in the glacial environments of North-Western Himalayas
	•Shahid Ahmad Dar (National institute of Technology Srinagar, India) and Khalid Muzamil Gani
A-075	Elimination of Microplastics in Urban Decentralized Wastewater Treatment: A Case Study in the Bangkok Metropolitan Region, Thailand
	•Mutita Wattanasuk (Asian Institute of Technology, Thailand) and Wenchao Xue
A-126	Impact of Microplastics on Lab-scale Constructed Wetland Treatment Performance
	•Saurabh Dwivedi (CSIR Institute of Minerals and Materials Technology, India), Ashmita Patro and Asheesh Kumar Yadav
A-152	Transport and retention of microplastics in subsurface environment: Impact of different hydrological conditions and particle characteristics
	•Jaswant Singh (Indian Institute of Technology Roorkee, India), Uwe Schneidewind, Reza Dehbandi, Neeraj Chauhan, Brijesh Kumar Yadav, and Stefan Krause
A-069	Profiling antibiotic resistance genes in small-scale wastewater treatment facilities using high-throughput qPCR: A case study from Jakarta, Indonesia
	•Iftita Rahmatika (Universitas Indonesia, Indonesia), Isravani Valencia, Shafa
	Amusyah, Farah Chairunnisa, Immanuela Karina, Cindy Rianti Priadia, Windi
	Muziasari, Ikuro Kasuga
A-052	Environmental dissemination of blaCTX-M-15 gene and the fate of $\beta$ -lactam antibiotics
	<ul> <li>Marnusa Binte Habib (Jahangirnagar University, Bangladesh), Kakoli Akter,</li> </ul>
	Sarower Hossen Shuvo, Shomaia Yasmin Mitu, Sumia, Mamun Al Asad, Shamsun
	Nahar, Salequl Islam

	Wastewater Treatment and Circular Economy
ID	Presentation Title / Authors
A-046	Development and cultivation of Euglena gracilis in different types of wastewater
	nature
	•Nurlydia Mohd Azmil (MJIIT Universiti Teknologi Malaysia, Malaysia), Norhayati
	Abdullah, Ali Yuzir, Shaza Eva Mohamad and Mostafa El Sheekh
A-163	Hydrothermal conversion of waste human hair as a biomaterial for wastewater
	treatment

	•Yan Ying Tan (Universiti Malaya, Malaysia), Archina Buthiyappan, Mohd Izzudin
	Izzat Zainal Abidin, and Abdul Aziz Abdul Raman
A-110	Extracellular polymeric substances (EPS) from industrial glycerin pitch: Production
A-110	and application as bio-flocculants for wastewater treatment
	•Wai Lun Ng (Sunway University, Malaysia), Li Wan Yoon, Jiun Hor Low, and
	Adeline Seak May Chua
A-025	Feasibility of independent water circulatory system with inexpensive nutrient recycling
A-023	using spirulina: case study in Malaysia
	•Azalea Dyah Maysarah Satya (University of Nottingham, Malaysia), Sara Kazemi
	Yazdi, Awalina Satya, Tjandra Chrismadha, and Show Pau-Loke
A 142	Driving investments in the sanitation sector to support the SDG 6.2 agenda in the
A-143	South and Southeast Asian region
	•Kimberly Tupaz (Asian Institute of Technology, Thailand), Isha Basyal, Kavinda
	Gunasekara, Thammarat Koottatep, Sangam Shrestha

	Water Treatment and Technological Innovations
ID	Presentation Title / Authors
A-053	Modified graphene oxide-ZrO2/TiO2 ceramic membrane for organic and inorganic
A-033	substances removal in seawater
	•Brilly.Najmussabah (Universitas Indonesia, Indonesia), R.A.Kusumadewi,
	S.Laksono, A.F. Madsuha, S.Adityosulindro, I.Rahmatika
A-085	Development of high salinity resistant biofilm for pilot-scale application of anaerobic
A-005	hybrid reactor (AHR) treating high salinity wastewater
	<ul> <li>Wantanasak Suksong (King Mongkut's University of Technology Thonburi,</li> </ul>
	Thailand), Varunee Kongduan, Duanganong Phalaphol, Janphen Ainthakhlai,
	Naruemon Aekkawatchai, Nimaradee Boonapatcharoen, Nasrul Hudayah, Chaiwat
	Waewsak, Onamon Laopitinan, and Benjaphon Suraraksa
A-047	Innovative pyrite-based Constructed Wetland-Microbial Fuel Cell for enhancing
A-0+7	nutrients removal and bioelectricity generation
	•Houyun Yang (Anhui Jianzhu University, China), Shu Feng, Wei-Hua Li and Xian-
	Huai Huang
A-015	A critical review of the use of smartphone cameras as part of water quality analysis
A-015	methods
	<ul> <li>Chotiwat Jantarakasem (Chulabhorn Royal Academy/Imperial College London,</li> </ul>
	Thailand), Laure Sioné and Michael R. Templeton
A-101	Evolution of manganese mitigation in LMTP 1 and 2
11 101	Evolution of manganese mitigation in ENTITY 1 and 2
	Geronimo A. and •Publico G. (Maynilad Water Services, Inc., Philippines)
	Seroninio II. una el ucheo S. (mayiniae Water Services, inc., i imppines)
A-148	Adsorption of iodinated trihalomethanes (i-thms) onto hkust-1(cu)-derived carbons
	•Alongorn Siri (Chulalongkorn University, Thailand), Aunnop Wongrueng,
	Pharkphum Rakruam and Patiparn Punyapalakul
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# Parallel Session 6 (11:00 – 12:20): Sponsored by Kurita Water and Environment Foundation

Room 1

	Environmental Monitoring and Ecological Impacts
ID	Presentation Title / Authors
A-040	Environmental influences on microbial dynamics in urban waters of Southern Sri Lanka
	•S. Shaseevarajan (University of Ruhuna, Sri Lanka), Mohomed Shayan,
	W.M.K.R.T.W. Bandara, G.G. Chaminda Tushara and Hisashi Satoh
A-098	Wastewater surveillance to track the Influenza dynamics in Tropical climate
	•Sunita Samantarat (Chulalongkorn University, Thailand) and Jatuwat Sangsanont
A-014	Seasonal changes of bacterial communities in water, losses deposits and biofilms of municipal drinking water pipelines during hydraulic control in Southeast China
	•Yu Liu (Fuzhou University, China), Jia Niu, Liang Xiao and Xiaochen Chen
A-054	Cadmium concentration in small-eyed squillid mantis shrimp (Miyakea nepa, Latreille, 1828) from Manila Bay, Philippines: Potential bioaccumulation and health risks
	•Rizaldy A. David (University of the Philippines Los Baños, Philippines), Janice B. Sevilla-Nastor, Jessica D. Villanueva-Peyraube, and Loucel E. Cui
A-026	Climate change impacts on flood hazards and surface-subsurface water interactions in the Lancang Mekong River basin
	•Salik Bhusal (Department of Water Resources and Irrigation, Nepal), Sangam Shrestha, Tilasmi Aryal

Water Resource Management	
ID	Presentation Title / Authors
A-018	A novel approach for river discharge prediction in Lancang Mekong River basin: Incorporation of multisource remote sensing and LSTM model
	•Tilasmi Aryal (Department of Water Resources and Irrigation, Nepal) and Sangam Shrestha, Salik Bhusal
A-011	Navigating groundwater stresses: An outlook for future groundwater availability in Khon Kaen, Thailand, under SSP scenarios
	•Saurav K C (Center of Research for Environment, Energy and Water, Nepal) and Sangam Shrestha
A-032	<ul> <li>Assessment of groundwater governance in the Transboundary Cambodia-Mekong River Delta Aquifer System: Framework formulation and application</li> <li>Tungish Uprety (Asian Institute of Technology, Thailand), Sangam Shrestha, Saurav KC, Mohana Sundaram Shanmugam, and Natthachet Tangdamrongsub</li> </ul>

A-096	Institutional Challenges for a Sustainable Management of Selected Philippine Watersheds
	Patricia Ann J. Sanchez, Marisa J. Sobremisana, •Alma Lorelei de Jesus-Abejero
	(University of the Philippines Los Baños, Philippines), Antonio P. Sobremisana,
	Catherine B. Gigantone, Michael Jason L. Mozo, Emmanuel Zeus S. Gapan, Jay Ann
	Q. Lomod, Denise Kamyll M. Navarro, and Ralden F. Lozada
A-094	Humanity bond with water: empowering indigenous STEM education using water
A-094	inspired artscience approach
	•Sithi V Muniandy (Universiti Malaya, Malaysia), Norlidah Alias, Dorothy Dewitt,
	Mohd Razip Bajuri, Mohd Nazri Abdul Rahman, MohD Shahril Nizam Shaharom,
	Roslina Ismail and Dzul Afiq Zakaria

	Environmental Contaminants and Climate Change
ID	Presentation Title / Authors
A-012	Watershed vulnerability assessment in the context of climate change, land use change, and water use change in the Nan River Basin, Northern Thailand
	•Shella I. Talampas (Asian Institute of Technology, Thailand) and Sangam Shrestha
A-027	Adsorption of organic substances in seawater and brine using corncob, oil palm shell, and graphite adsorbents
	•Riana Ayu Kusumadewi (Universitas Indonesia, Indonesia), Firdaus Ali, Sucipta
	Laksono, Nandy Putra, Adya Dipta Amari, Febi Azizah Permata Sari, and
	Muhammad Kafka Alghifari
A-116	Vulnerability of urban waters in Sri Lanka to Pharmaceutical Contaminants in the development of Antibacterial Resistance
	<ul> <li>Tushara Chaminda GG (University of Ruhuna, Sri Lanka), Ryo Honda, Manish</li> </ul>
	Kumar, Yurina Otaki and Masahiro Otaki
A-055	The combined effect of rising temperature and increased nutrients on the growth and toxin production of Microcystis aeruginosa
	•Li Yu (Anhui Jianzhu University, China), Fan Chen, Wei Hua Li, Hou-Yun Yang
A-039	Evaluating the environmental impact of diaper-derived super absorbent polymers on Carbendazim contamination in water bodies Mavra Farooq, Saheem Rasool, and •Khalid Muzamil Gani (National Institute of Technology Srinagar, India)