



International Conference on Water and
Environmental Engineering (iCWEE-2025)



WESTERN SYDNEY
UNIVERSITY



**4th International Conference on Water and Environmental Engineering
(iCWEE-2025), 19-21 Nov 2025 Sydney, Australia**

Western Sydney University, Penrith Campus (Kingswood), Sydney, Australia

Conference venue: Building P and Building O, Second Avenue, Kingswood NSW 2747, Australia

Organised by:

School of Engineering, Design and Built Environment, Western Sydney University

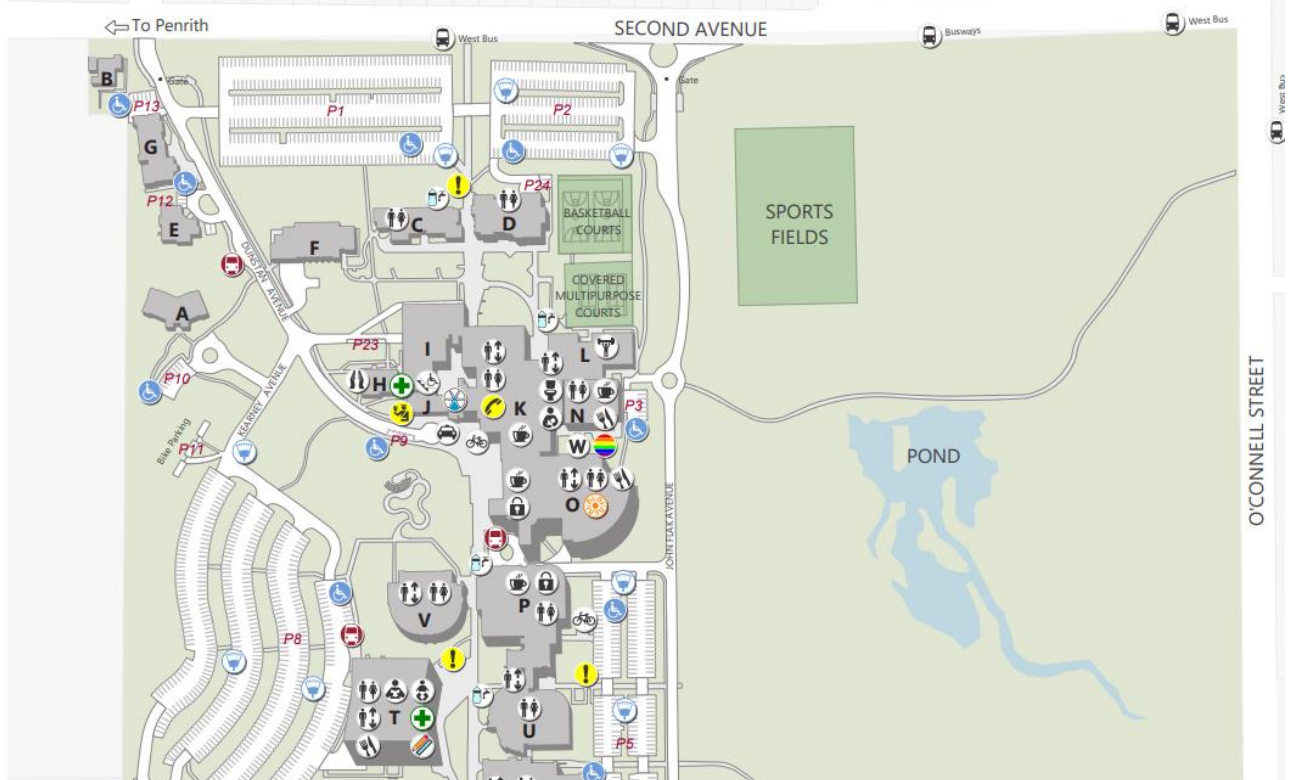
and

***Global Circle for Scientific, Technological and Management
Research (GCSTMR)***

WESTERN SYDNEY UNIVERSITY



Penrith, Kingswood campus



Conference venue: Western Sydney University: Penrith: Kingswood. It is 10 minutes' walk from Kingswood Railway Station. The conference will be held in Building P and Building O. A free shuttle bus runs from Kingswood Station to Kingswood Campus.

https://www.westernsydney.edu.au/content/dam/digital/pdf/campus-maps/Kingswood_Campus_General.pdf

Day 1– Wednesday 19 Nov 2025

Time	Event	Remark
5:30 pm - 7:30 pm	Registration, Refreshments, and Networking (Room: KW-P.1.24 & open space in building P Level 1)	Delegates will be welcomed by: Prof Ataur Rahman Prof Taha Ouarda Assoc Prof Dharma Hagare Dr Zuhaib Siddiqui



Day 2 – Thursday 20 November 2025	
Time	Session
8:00 – 9:00 am	Registration WSU Penrith Campus (Kingswood), Building P, Room: KW-P.1.24 Desk in charge: Ms Jenis Islam
9:00 – 9:30 am	Conference Opening: Room KW-O.1.20, Penrith Campus (Kingswood) Moderator: Prof Ataur Rahman, Chair, GCSTMR, Acknowledgment of Indigenous People Speech: Prof Yang Xiang (School Dean) Speech: Prof James Ball (Lead Editor, ARR) Speech: Mayor Todd Carney, Penrith City Council Speech: Prof Taha Ouarda Speech: Assoc Prof Dharma Hagare Speech: Prof Basant Maheshwari
9.30-10.00 am	Keynote Speech 1- Chair: Prof Ataur Rahman (Room: KW-O.1.20) Speech Title: Sustaining Groundwater Resources in the Face of Climate Change Speaker: Distinguished Prof Basant Maheshwari, Western Sydney University, Australia
10.00-10.30 am	Keynote Speech 2- Chair: Prof Ataur Rahman (Room: KW-O.1.20) Speech Title: Impact of climate change on hydrology Speaker: Prof Ashish Sharma, University of New South Wales, Australia.
10:30-11:00 am	Morning Tea (Room: P.1.24.(LT) and open space)
11:00-11:30 am	Keynote Speech 3- Chair: Assoc Prof Rehana Shaik (Room: KW-O.1.20) Speech Title: Evaluating the generation of microplastics from an unlikely source: The unintentional consequence of plastic recycling Speaker: Prof Faisal Hai, University of Wollongong, Australia

11:30-12:00 pm	Keynote Speech 4- Chair: Dr Khaled Haddad (Room: KW-O.1.20) Speech Title: Unconventional Water Sources and Water Resources Management Speaker: Prof Professor Taha Ouarda, National Institute for Scientific Research (INRS-ETE), Canada
12:00-12:30 pm	Keynote Speech 5 - Chair: Assoc Prof Guna Hewa (Room: KW-O.1.20) Speech Title: Incorporating climate change into design flood estimation: practical challenges for floodplain managers Speaker: Dr Tony Ladson, Victoria University, Australia
12:30 -1:30 pm	Lunch (Room: P.1.24.(LT) and open space)
1:30-2:00 pm	Keynote Speech 6 - Chair: Prof Ataur Rahman (Room: KW-O.1.20) Speech Title: Social Business Models as Tools for Equitable Water Access: Bangladesh and Beyond Speaker: Professor Abdul Hannan Chowdhury, North South University, Dhaka, Bangladesh
2:00-2:30 pm	Keynote Speech 7- Chair: Prof Taha Ouarda (Room: KW-O.1.20) Speech Title: Safe Water Atlas for Sustainable Drinking Water Supply in Bangladesh: Challenges, Consequences, and Sustainable Solutions Speaker: Professor Md. Jakariya, North South University, Dhaka, Bangladesh
2:30-2:50 pm	Technical paper (Chair: Prof Taha Ouarda (Room: KW-O.1.20) <i>Paper ID: 13, Presentation title:</i> Uncertainty analysis of Artificial Neural Network based Regional Flood Modelling in New South Wales, Australia, <i>Authors:</i> Nilufa Afrin, Sadia T. Mim, Ataur Rahman, Khaled Haddad
2:50-3:10	Technical paper (Chair: Prof Taha Ouarda (Room: KW-O.1.20) <i>Paper ID 14, Presentation title:</i> Univariate vs. Multivariate Long-Short Term Memory for Daily Rainfall Forecasting at a Coastal Station in New South Wales <i>Authors:</i> Xiao Pan, Gokhan Yildirim, Ataur Rahman
3:10-3:30	Technical paper, Paper ID 19, Presentation title: Explainable Machine Learning Framework for Predicting Total Dissolved Solids in Residential Groundwater Using RF, MLP, and SHAP Authors: Sani I. Abba1, Saidur Rahman Chowdhury
3:30-4:00 pm	Afternoon Tea break (Room: P.1.24.(LT) and open space)

4:00-4:30 pm	Keynote Speech 8- Chair: Dr Tony Ladson (Room: KW-O.1.20) Speech Title: Unlocking the Future of Flood Risk Reduction through Integrated Research and Practice Speaker: Associate Professor Dr Guna Hewa, University of South Australia, Australia
4:30- 5:00 pm	Keynote Speech 9- Chair: Assoc Prof Michael Leonard (Room: KW-O.1.20) Speech Title: Water Allocation -from scarcity to security Speaker: Dr Shahadat Chowdhury, Water Group of the Government of New South Wales, Australia
5:00-5:30 pm	Keynote Speech 10- Chair: Prof Ataur Rahman (Room: KW-O.1.20) Speech title: Bioretention system as a component of Water Sensitive Urban Design, Speaker: Mark Liebman, Blacktown City Council, Australia
5:30-6:00 pm	Keynote Speech 11- Chair: Mark Liebman (Room: KW-O.1.20) Speech title: Application of Bayesian Methods in Hydrology Research Speaker: Dr Khaled Haddad, Western Sydney University, Australia
	Technical Session 1a (Room: KW-O.1.20)
6:00-6:20 pm	<i>Paper ID 57, Presentation title:</i> Elucidating biofouling in photothermal membrane distillation with localised heating, <i>Authors:</i> Rasikh Habib, Mai Phuong Do, Muhammad Bilal Asif, Guangming Jiang and Muttucumaru Sivakumar
6:20-6:40 pm	<i>Paper ID 138: Presentation title:</i> Assessing the Potentiality of Rainwater Harvesting Systems as a Source of Drinking Water in the Coastal Regions of Bangladesh <i>Authors:</i> Mohammed Fahim Murshed, Md. Abdul Ahad Badhon, Md Saifur Rahman Sayeef, Ataur Rahman, Md. Jakariya
	Technical Session 1b (Room:KW-O.1.07)
6:00-6:20 pm	<i>Paper ID 133, Presentation title:</i> Design Rainfall Estimation in Bangladesh: Towards Developing a National Portal <i>Authors:</i> Sammy M Haque, Ataur Rahman, Mohammad A Alim, Nasreen Jahan, S M Mahbubur Rahman, Hasan Zobeyer and A H M Kausher
6:20-6:40 pm	<i>Paper ID 135, Presentation title:</i> Multi-Criteria Geospatial Analysis of Rainwater Harvesting Potential Zones and Susceptibility of Built-up Regions in Hyderabad City, India, <i>Authors:</i> Gangothri, Rehana Shaik, Ataur Rahman, Satish Kumar Mummidiarapu , K S Rajan
7:30-9:30 pm	Conference Dinner at Kingswood Bawling Club, Second Avenue, Kingswood (300m away from the conference venue)

		Day 3 – Friday 21 November 2025			
Time		Session			
8:00 – 9:00 am		Registration Penrith Campus (Kingswood), Building Room: P.1.24 (LT)			
		Technical session 2 (parallel)			
	Technical Session 2a (Room: P.1.29) Chair: Dr Khaled Haddad	Technical Session 2b (Room: P.1.33) Chair: Assoc Prof Rehana Shaik	Technical Session 2c (Room: P.1.36) Chair: Dr Iqbal Hossain	Technical Session 2d (Zoom) (Room: P.1.49): Chair: Dr Ali Ahmed Meeting ID: 812 4746 0667 Password: 281144	Technical Session 2e (Zoom) (Room: P.1.51): Chair: Dr Zuhaib Siddiqui Meeting ID: 841 636 2688 Password: 1234
9:00-9:20 am	<i>Paper ID: 9, Presentation title: An Exploratory Field Investigation of the Stormwater Quality Improvement Devices at Western Sydney</i> Authors: Sesugh Yua , Ataur Rahman, Blake Allingham, Brad Dalrymple, M A Alim	<i>Paper ID 114, Presentation title: Feasibility of Integrating Pressure Retarded Osmosis Technology within Desalination Facility in Sydney, Australia.</i> Authors: Lamia Ahmed, Mariam Darestani and Terry Chilcott	<i>Paper ID 36. Presentation title: Fuzzy Logic-Based Drought Index: A Case Study of Goulburn Basin in Victoria, Australia</i> Authors: Abdullah Gokhan Yilmaz, Serter Atabay, Monzur Imteaz, Mhamd Saifaldeen Oyounalsoud and Mohamed Abdallah	<i>Paper ID 52, Presentation title: Management and Control in the Disposal of Used Tyres: The Brazilian experience</i> Authors: Liseane Padilha Thives, Igor Catão Martins Vaz, Lucas Niehuns Antunes and EneDir Ghisi	<i>Paper ID 68, Presentation title: Assessment of groundwater potential in Dubbo Regional using Remote Sensing, Geographic Information System and Analytical Hierarchy Process</i> Authors: Ashish Tiwari and M. Ashiqur Rahman
9:20-9:40 am	<i>Paper ID 81, Presentation title: Vegetation Health in Bioretention Systems: A Case Study of Basin F6.1 in The Ponds, New South Wales</i> Authors: Arham Soomro , Md Mahmudul Haque, M A. Alim, and Ataur Rahman	<i>Paper ID 131, Presentation title: Floodplain Inundation Mapping and Modelling: A Case Study for the Daly Catchment in Northern Australia</i> Authors: Porni Mollick , Fazlul Karim, Kaline de Mello, Dylan J. Irvine, Erica A. Garcia, Malak Malak Rangers, Peter S. Waugh and Renaud Hostache	<i>Paper ID 37, Presentation title: Spatio-temporal Trend Analysis of Groundwater Quality Data: A Case Study for Sharjah, UAE</i> Authors: Abdullah G. Yilmaz, Abdallah Shanableh, Rami I. Al-Ruzouq, AlaEldin Idris ,Naseraldin F. Kayemah and Serter Atabay	<i>Paper ID 53, Presentation title: Climate Change Assessment of Rainwater Harvesting in a Residential Building in Southern Brazil</i>	<i>Paper ID 88, Presentation title: A simulation analysis on the performance of Rainwater Harvesting Systems in three selected suburbs in NSW</i> Authors: Deepak Pulami and M. Ashiqur Rahman

				Authors: Igor Catão Martins Vaz, Lucas Niehuns Antunes, Liseane Padilha Thives and Enedir Ghisi	
9:40-10:00 am	<i>Paper ID: 70, Presentation title:</i> Assessment of Bioretention Systems Authors: Md Mahmudul Haque, Arham Soomroo, Ataur Rahman, M A. Alim	<i>Paper ID 5, Presentation title:</i> Regional vs. At-Site Probabilistic Wind Forecasting in NSW and QLD: A Comparative Study of Bayesian Adaptive Regression Trees, Gaussian Process Regression, and Quantile Random Forests Authors: Khaled Haddad, Ataur Rahman	<i>Paper ID 38, Presentation title:</i> Kriging of Generalised Extreme Value Distribution Parameters for Regional Flood Frequency Analysis in New South Wales Authors: Laura Rima, Khaled Haddad and Ataur Rahman	<i>Paper ID 54, Presentation title:</i> Impact of Stormwater Pollutant Removal by Permeable Pavements on Eutrophication and Freshwater Ecotoxicity in Urban Environments Authors: Lucas Niehuns Antunes, Igor Catão Martins Vaz, Liseane Padilha Thives and Enedir Ghisi	<i>Paper ID 91, Presentation title:</i> Assessment of water quality in three selected estuaries in New South Wales Authors: William Maung and M. Ashiqur Rahman
10:00-10:20 am	<i>Paper ID 39, Presentation title:</i> Integrating Machine Learning with Hydrological Modelling for Event-Based Streamflow Prediction: A Case Study of Bulimba Creek Catchment, South East Queensland, Authors: Achini Colambage, Zhongzheng Wang, Buddhi Wijesiri, Jayaram Pudashine and Prasanna Egodawatta	<i>Paper ID 95, Presentation Title:</i> Coupled 1D-2D tidal inundation modelling of the Sundarbans in the Ganges delta Authors: Fazlul Karim, Shaikh Nahiduzzaman, Raju Ahmmad, Mohammed Mainuddin, Shahriar Wahid and Rubayat Alam	<i>Paper ID 89, Presentation title:</i> Sustainable Microalgae-Driven Municipal Wastewater Treatment: Evaluating Operational Condition Authors: Thinojah Thiruchchelvam and Sathasivan Arumugam	<i>Paper ID 108, Presentation title:</i> Status of soil chemical properties at various depths and slope positions under different land uses in hill forests of Chattogram Authors: Runa Akter, M. M. Abdullah Al Mamun, Mohammed Jashimuddin, and Muhammad Muhitur Rahman	<i>Paper ID: 47, Presentation Title:</i> Seasonal Sensitivity Analysis of Ensemble Machine Learning Based Water Quality Predictions to Streamflow Variations: A case study of Toowoomba, Queensland, Australia. Authors: Syeda Zehan Farzana, Dev Raj Paudyal, Sreeni Chadalavada and Jahangir Alam
10:20 – 11:00 am		Morning Tea (Room: P.1.24 (LT) & Open area)			

11:00 -11:30 am		Keynote Speech 14- Chair: Prof Ataur Rahman (Room: P.1.60) Topic: Secure and Smart: AI-Driven Cyber Resilience in Water Engineering Speaker: Assoc Prof Rafiqul Islam, Charles Sturt University			
11:30-12:00		Keynote Speech 15- Chair: Prof Ataur Rahman (via Zoom) Meeting ID: 822 0769 9247, Password: 843600 Speech Title: Operating Cost Reduction for Water Utilities by Electricity Profiling and Demand Management Speaker: Dr Kazi Hasan, RMIT University, Australia			
		Technical session 3 (parallel)			
	Technical Session 3a (Room: P.1.29) Chair: Assoc Prof Rafiqul Islam	Technical Session 3b (Room: P.1.33): Chair: Assoc Prof Michael Leonard	Technical Session 3c (Room: P.1.36): Chair: Dr Gokhan Yilmaz	Technical Session 3d (Zoom) (Room P.1.49) Chair: Nilufa Afrin Meeting ID: 869 7473 8807 Password: 675337	Technical Session 3e (Zoom) (Room: P.1.51): Chair: Laura Rima Meeting ID: 868 4467 0996 Password: 869831
12:00-12:20 pm	Paper ID 10, Presentation title: Regional Flood Frequency Analysis Using Basin Proximity Concept Authors: Maryam Warraich , Laura Rima, Khaled Haddad, M A Alim and Ataur Rahman	Paper ID 49, Presentation title: Is Vacuum Membrane Distillation a Sustainable Solution for High-Quality Water Reuse? Unpacking Key Factors Governing VMD Sustainability Authors: Mai Phuong Do, Rasikh Habib, Guangming Jiang, Muttucumaru Sivakumar	Paper ID 59, Presentation title: Critical Review of Mini Hydropower Generation Potential and Barriers in South-East Australia Authors: Md Abu Raihan, Ataur Rahman, Mohammad A Alim, Ali Hellany and Kazi N. Hasan	Paper ID 97, Presentation title: A Software Application to Evaluate Rainwater Harvesting System in an Eleven Story Building in Bangladesh Authors: Nadia Afrin, Hasan Abidur Rahaman, Sadia T. Mim, Ridwan S.M.H. Rafi, Monisha Anindita, Ataur Rahman	Paper ID 76, Presentation title: Hybrid Geostatistical Machine-Learning of Precipitation Isoscapes in the Australian Tropics, Authors: Candida M Duff, Dylan Irvine, Clément Duvert, Catherine Hughes and Carol V. Tadros
12:20-12:40 pm	Paper ID 93, Presentation title: Dry Anaerobic Digestion of Municipal FOGO Waste: Reactor Acclimatisation and Bioenergy Potential in a Circular Economy Framework Authors: Ayesha Rafique, Dharmappa Hagare and Zuhaib Siddiqui	Paper ID 130, Presentation title: Regional Skew Map for New South Wales in Australia for Flood Frequency Analysis Authors: S M Anwar Hossain and Ataur Rahman	Paper ID 84, Presentation title: Enhancing Long-Term Precipitation Forecasts with a Machine Learning Approach Using CMIP6 Decadal Prediction Liangjing Zhang, Ashish Sharma and Ze Jiang	Paper ID 98, Presentation title: Water and Sanitation at Rohingya Refugee Camps in Bangladesh: A Risk Assessment Authors: Hasan Abidur Rahaman, Nadia Afrin, Sadia T. Mim, Ridwan S.M.H. Rafi, Pramjit Pu-rajit Suhas, Monisha Anindita, Ataur Rahman	Paper ID 116, Presentation title: A Hybrid 1D-2D dynamic fast urban flood model using Cellular Automata Authors: Aashish Chaudhary , Ana Deletic and Maziar Gholami Korzani

12:40-1:00 pm	<i>Paper ID: 137, Presentation title: A Comparative Overview of Urban Stormwater Management in Australia and India</i> <i>Authors: Satish Kumar Mummdivarapu, Shaik Rehana, Gangothri C.J. 1, K. S. Rajan, Anthony Ladson, Aatur Rahman</i>	<i>Paper ID 87, Presentation title: Spatial Pooling of River Catchments to Assess Hydropower Reliability, Resilience, and Vulnerability</i> <i>Authors: Mirza Kurniawan, Fiona Johnson, Ashish Sharma</i>	<i>Paper ID 86, Presentation title: Enhancing Hydroclimate Extreme Prediction Through Continuous Wavelet-Based Predictor Refinement</i> <i>Authors: Sunil Thapa, Ashish Sharma, and Ze Jiang</i>	<i>Paper ID 104: Presentation title: Climate Change Effects on Flood Mapping Analysis of Talar Watershed (Northern Iran) using the Canadian Earth System Model</i> <i>Authors: Sajjad Mirzaei, Mehdi Vafakhah, G Francesco Cesare Lama, Giovanni Battista Chirico and Stefano Papirio</i>	<i>Paper ID 90, Presentation title: Mitigating Data Scarcity: Transfer Learning for Assessing Heavy Metal Pollution in Seaport Sediments</i> <i>Authors: Tin Lai, Farnaz Farid, Yueyang Kuan, Xintian Zhang, Sayka Jahan</i>
1:00 pm -2:00 pm		Lunch (Room: P.1.24 (LT) & Open area)			
		Technical Session 4 (parallel)			
	Technical Session 4a (Room: P.1.29) Chair: Dr Fariza Sabrina	Technical Session 4b (Room: P.1.33) Chair: Dr Farnaz Farid	Technical Session 4c (Zoom) Room: P.1.36 Chair: Mohammad Ataul Morshed Meeting ID: 819 4257 3981 Password: 292947	Technical Session 4d (Zoom) (Room: P.1.49) Chair: Xiao Pan Meeting ID: 864 0979 2518 Password: 250730	Technical Session 4e (Zoom) Room: P.1.51 Chair: Shafiq Shuvo Meeting ID: 878 1388 2034 Password: 105820
2:00-2:20 pm	<i>Paper ID 32: Presentation title: Hydrological Models and Equations for Green Roof Performance in Australia: A Comprehensive Evaluation</i> <i>Authors: Mohammad Rahman, David Stone, Aatur Rahman and M A Alim</i>	<i>Presentation title: A Comparison of Rainfall Runoff Models for Australia</i> <i>Authors: Huda Zain, Aatur Rahman, M A Alim and David Kemp</i>	<i>Paper ID 80, Presentation title: High-Resolution CDOM Mapping in the Bay of Bengal Using Bayesian-Optimized Ensemble ML and Sentinel-3 Imagery</i> <i>Authors: Mohammed Sakib Uddin, Bijoy Mitra, Khaled Mahmud, Syed Masiur Rahman, Muhammad Muhitir Rahman, Mohammad</i>	<i>Paper ID: 20, Presentation title: Abundance and characteristics of microplastics in urban drainage canals of Dhaka city, Bangladesh</i> <i>Authors: Md. Rezaul Karim, Md Atif Arham, Md. Fahamidun Nabi, Fahad Rahman, and Aatur Rahman</i>	<i>Paper ID 45, Presentation title: Performance Evaluation of ANN and LSTM Combined with Orangutan Algorithm for Enhanced Prediction of Streamflow</i> <i>Authors: Md. Jobayer Parvez Ratul, Sajal Kumar Adhikary, Usmi Akter, M. Mubtasim Fuad Dip and Hrithik Nath</i>

			Shahedur Rahman		
2:20-2:40 pm	<i>Paper ID 6, Presentation title: AI-Based Cost Forecasting for Climate-Resilient Infrastructure: A Hybrid Deep Learning Approach for Australia</i> <i>Authors: Md Nahid Tanjum, Iqbal Hossain, Md Morshed Alam and Monzur Imteaz</i>	<i>Paper ID 118, Presentation title: Construction Environmental Management of SSTOM works of the Sydney Metro – Western Sydney Airport project: Environmental Management for a Critical State Significant Infrastructure project in NSW, Australia</i> <i>Author: Imtiaz Risha</i>	<i>Paper ID 79, Presentation title: Assessment of Microplastic Exposure and Ingestion by Pelagic Zooplankton in the Lower Meghna Estuary, Bangladesh.</i> <i>Authors: Jaber Bin Abdul Bari, Sanjida Akter Nisa, Md. Maeen Uddin</i>	<i>Paper ID 21, Presentation title: Abundance and characteristics of microplastics in urban drainage canals of Dhaka city, Bangladesh</i> <i>Authors: Md. Rezaul Karim, Md Atif Arham, Md. Fahamidun Nabi, Fahad Rahman, and Ataur Rahman</i>	<i>Paper ID 46: Presentation title: Enhanced Prediction of Reference Evapotranspiration Using an Innovative Metaheuristic Optimization Approach</i> <i>Authors: Usmi Akter, Sajal Kumar Adhikary, Md. Jobayer Parvez Ratul, M. Mubtasim Fuad Dip and Hrithik Nath</i>
2:40-3:00 pm	<i>Paper ID 15, Presentation schedule: Dynamic Life Cycle Assessment of Polylactic Acid in the Context of Energy Transition: A Machine Learning-Enhanced Sustainability Approach</i> <i>Authors: Md Monjurul Islam, Nahid Tanjum, Nawshad Haque, Muhammed Bhuiyan, Biplob Kumar</i>	<i>Paper ID 92, Presentation title: From distribution to premise plumbing: Investigation of chlorine decay dynamics under stagnation and variable residuals</i> <i>Authors: Mohamed Fawaz Fawzer and Arumugam Sathasivan</i>	<i>Paper ID 78, Presentation title: Development of Quantile Regression Technique for Queensland for Regional Flood Estimation</i> <i>Authors: Ridwan S.M.H. Rafi, Sadia T. Mim, Hasan A. Rahaman, Nadia Afrin, Monisha Anindita, Ataur Rahman</i>	<i>Paper ID 1, Presentation title: Detection and Quantification of Microplastics in Three Commonly Consumed Vegetables of Khulna in Bangladesh</i> <i>Authors: Sheikh Eyalid Hossain, Sadhon Chandra Swarnokar, Ataur Rahman and Salma Begum</i>	<i>Paper ID 48, Presentation title: Evaluation of Advanced Preprocessing Techniques in Hybrid with PSO-SVM for Enhanced Prediction of River Water Level – A Case Study,</i> <i>Authors: M. Mubtasim Fuad Dip, Sajal Kumar Adhikary, Shuvendu Pal Shuvo, Md. Jobayer Parvez Ratul and Usmi Akter</i>
3:20-3:40 pm		<i>Paper ID 96, Presentation title: High-Rate Activated Sludge (HRAS) process in an SBR setup for carbon recovery</i> <i>Authors: Varuni Gunasekera1 and A. Sathasivan</i>	<i>Paper ID 74, Presentation title: Assessment and Forecasting of Water Pollution in the Upper Meghna River</i> <i>Authors: Ismat Ara Pervin, Md Mahmudul Haque and Rafiuzzaman Khan</i>	<i>Paper ID 2, Presentation title: Quantification of Microplastics in a Mangrove-Linked Coastal River in Southwest Bangladesh</i> <i>Authors: S M Shahed, Sadhon Chandra Swarnokar, Ataur Rahman and Salma Begum</i>	<i>Paper ID 111, Presentation title: Capturing Seasonal Dynamics through Time-Varying Alluvial Resistance: A Hydro-Morphological Model of the Jamuna River</i> <i>Authors: Imran Khan, Md Musfequzzaman, Muhammad Anowar Saadat and Sarwat</i>

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3:40-4:00 pm		Afternoon tea (Room: P.1.24 (LT) & Open area)			
4:00-4:30 pm		Keynote Speech 16- Chair: Dr Khaled Haddad (Room: KW-P.160) Title: Application of AI to water resources engineering Speaker: Assoc Prof Rehana Shaik, IIT Hyderabad, India			
		Technical Session 5 (parallel)			
	Technical Session 5a (Room: P.1.29) Chair: Dr Amir Zalnezhad and Mr Sasan Kordrostami	Technical Session 5b (Room: P.1.33) Chair: Dr Farhad Ahamed	Technical session 5c (Zoom) (Room P.1.36) Chair: Sajeeve Latif and Dr Muhammad Zain Bin Riaz Meeting ID: 742 506 6278 Password: 925286	Technical session 5d (Zoom) (Room: P.1.49) Chair: Arham Soomro Meeting ID: 840 4635 7225 Password: 904416	Technical session 5e (Zoom) (Room P.1.51) Chair: Dr Adnan Munir Zoom ID: 813 4352 5425 Password: 034022
4:30-4:50 pm	<i>Paper ID 105, Presentation title: Hydrolysis Study of Food Organics and Garden Organics (FOGO) Using Anaerobic Digester (AD) Batch Experiment</i> <i>Authors: Pynthamil Kajanan, Zuhaib Siddiqui, Dharmappa Hagare, and Ayesha Rafique</i>	<i>Paper ID 112: Presentation title: A Case Study of 2022 Lismore Flood in Australia: Social impacts and Frequency Analysis</i> <i>Authors: Daniel Bonatti, Ataur Rahman, Ee Loon Tan, Sameera Pathirana and Alan Todhunter</i>	<i>Paper ID 61, Presentation title: Brahmaputra river basin commission: Integrated water management for sustainable development and regional stability</i> <i>Author: Muhammad Mizanur Rahaman</i>	<i>Paper ID 4, Presentation title: Identification of Problems of Open Dump Practices in Khulna City of Bangladesh and Hence Incorporation in the Model for Conversion into Sanitary Landfill</i> <i>Authors: Sarmista Nandi Satu and Islam M. Rafizul</i>	<i>Paper ID 113, Presentation title: Identification of Climate Risk Hotspots Based on Flooding and Temperature Predictions: A Geospatial Case Study of the Dhaka-Chattogram Rail Corridor,</i> <i>Authors: Asker Rajin Rahman, Md. Jahir Uddin Babor, Imran Khan, Sarwat Jahan</i>
4:50-5:10 pm	<i>Paper ID 110, Presentation title: Chlorinated Water and Its Hidden Risks: A Study of Chlorine Disinfection By-Products</i> <i>Authors: Sajeeve Latif, Ataur Rahman, Mohammad A Alim</i>	<i>Paper ID 122, Presentation title: Rainfall Forecasting: A Review of Current Practice</i> <i>Authors: Shafiq Shuvo, Nilufa Afrin, Xiao Pan, Gokhan Yildirim, Ataur Rahman</i>	<i>Paper ID 83, Presentation title: Identification of Homogeneous Regions by Cluster Analysis in New South Wales Australia for Regional Flood Frequency Analysis</i> <i>Authors: Sadia T. Mim, Hasan Abidur Rahaman, Nadia Afrin, Ridwan S.M.H. Rafi</i>	<i>Paper ID 3, Presentation title: Assessment of Carrying Capacity for Promoting Ecotourism in the Sundarbans Ecosystem, Bangladesh</i> <i>Authors: Salma Begum, S.M. Rubaiot Abdullah, Ataur Rahman and Salma Begum</i>	<i>Paper ID 75, Presentation title: Unveiling Bangladesh's Groundwater Health: A WQI Driven Evaluation</i> <i>Authors: Rafiuzzaman Khan, Md Mahmudul Haque and Ismat Ara Pervin</i>

			and Ataur Rahman		
5:10-5:30 pm	<i>Paper ID 28, Presentation title: Short-Duration Rainfall Analysis for Bangladesh</i> <i>Authors: Afiya Saiara, Ataur Rahman, Mohammad A Alim, Nasreen Jahan, S M Mahbubur Rahman, Hasan Zobeyer and A H M Kausher</i>	<i>Paper ID 124, Presentation title: Health Impacts of Arsenic Contamination of the Groundwater in Bangladesh</i> <i>Authors: Shirazul Islam, Ataur Rahman</i>	<i>Paper ID 73, Presentation title: Developing a Sustainable and Eco-friendly Solution to Neutralize Red Mud with Seawater</i> <i>Author: Sayeed Rushd</i>	<i>Paper ID 30, Presentation title: Spatiotemporal Analysis of Flash Drought Events in Queensland's Darling Downs Region Using SPEI</i> <i>Authors: Gokhan Yildirim, Xiao Pan, Ataur Rahman</i>	<i>Paper ID 121, Presentation title: Confluence dynamics and their effect at the downstream reach: Padma-Upper Meghna</i> <i>Authors: Sudipta Kumar Hore, Mohammad Imran Hasan, A H M Kausher and Feroze Ahmed Kanak</i>
5:30-5:50 pm	<i>Presentation title: Comparison of Best and Poor Performing Catchments in Regional Flood Frequency Analysis in Southeastern Australia</i> <i>Authors: Ali Ahmed, Zaved Khan and Ataur Rahman</i>	<i>Paper ID 106, Presentation title: Role of Plants in Removing Pollutants from Stormwater Runoff: A Review</i> <i>Authors: Munny Chowdury and Nilufa Afrin</i>	<i>Paper ID 72, Presentation title: Sustainable CO₂ Mitigation Using Seaweed in a Transparent Cultivation System</i> <i>Author: Sayeed Rushd</i>	<i>Paper ID 40, Presentation title: Analysis of Temporal Variation in Rainfall Using High-Resolution Dataset in a Coastal Basin of Eastern India</i> <i>Authors: Subhankar Ghosh, Madan Kumar Jha and Ataur Rahman</i>	<i>Paper ID 66, Presentation title: Assessment of the Impacts of Sea Level Rise-Induced Salinity Intrusion in the Coastal Zone of Bangladesh and A Study of Major Rivers Salinity Levels in South-western Coastal Districts of Bangladesh</i> <i>Authors: Ahmad Salman Haider, Md Raqubul Hasib, Upal Mahamud</i>
5:50-6:10 pm	<i>Paper ID 103, Presentation title: Flood Frequency and Trend Analysis for Williams River at Tillegra in Hunter Basin New South Wales Australia</i> <i>Authors: Arfan M. Zaman, Sumya Rahman, Amira Rahman, Ataur Rahman</i>	<i>Paper ID 136, Presentation title: Historical Evolution of Flood Forecasting: From Ancient Observations to AI and Citizen Science-Driven Systems</i> <i>Authors: Mohammad Ataul Morshed, M A Alim, and Ataur Rahman</i>	<i>Paper ID 67, Presentation title: Sustainable Development Focusing Water Resources with Artificial Intelligence and How Spectrum of Inequality Ensures Economic Development</i> <i>Authors: Syed Abu Sadat, Syed Abu Shoaib, and Muhammad Muhitur Rahman</i>	<i>Paper ID 43, Presentation title: Evaluating Data-Driven and Physically-Based Models for Streamflow Forecasting in a Himalayan Catchment</i> <i>Authors: Shyam Sundar Bhardwaj, Madan Kumar Jha and Ataur Rahman</i>	<i>Paper ID 32, Presentation title: Salinity-Induced Water Insecurity in Coastal Bangladesh</i> <i>Mahin Al Nahian, Tanvir Ahmad, Ashraful Alam Siddique, Peter Kim Streatfield, Ali Ahmed, Ataur Rahman</i>

6:10-6:30	<i>Paper ID 126, Presentation title: Quality Assessment of Harvested Rainwater in a Rural Catchment: A One-Month Case Study from Grose Wold, NSW Authors: Monisha Anindita, Ataur Rahman, Md Abdul Alim</i>	<i>Paper ID 127, Presentation title: Moribund Delta Management in a Changing Climate: The Case of the South-Western Delta in Bangladesh, Authors: A H M Kausher, Ataur Rahman, Monisha Anindita</i>	<i>Paper ID 127, Presentation title: Moribund Delta Management in a Changing Climate: The Case of the South-Western Delta in Bangladesh, Authors: A H M Kausher¹, Ataur Rahman², Monisha Anindita</i>	<i>Paper ID 130, Presentation title: Smart Water Allocation System for Urban Municipalities, Authors: B.Perumal, K. Bala Gopi, D. V. M. S. Reddy, S. Sreenath Reddy</i>	<i>Paper ID 119, Presentation title: Post Project Evaluation and Impact Assessment of Water-logging Mitigation Project for Kobadak River Authors: Sanjib Sarker Shawon, Sudipta Kumar Hore, A H M Kausher and Jakia Akter</i>
6:30-6:50					<i>Paper ID 18. Presentation title: Multi-Step Groundwater Level Prediction with PCA and Ensemble Models: Supporting Sustainable Water Resource Management in Markham, Ontario, Canada Authors: Sani I. Abba¹, Saidur Rahman Chowdhury</i>
6:50 pm		Conference closing and best papers awarding (Room P.1.29)			