



AWaRe 2025

*First International Conference on Advances in
Water Resources*



Organized by Maulana Azad National Institute of Technology (MANIT), Bhopal in Association with
Central Water Commission (CWC), Ministry of Jal Shakthi, Government of India

10 – 12th June 2025

Detailed Program Schedule

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AWaRe 2025

First International Conference on Advances in Water Resources, 10 – 12th June 2025 DETAILED PROGRAM SCHEDULE

10 JUNE 2025						
Time	Activity					
08:30 AM - 10:00 AM	Registration					
10:00 AM - 11:00 AM	Inaugural ceremony Venue: Civil Audi	Prof. K. G Ranga Raju (Distinguished Chief Guest)				
11:15 AM - 11:45 AM	High Tea					
11:45 AM - 12:15 PM	Inaugural Keynote-1 Venue: Civil Audi	Prof. Mukand S. Babel, AIT Bangkok, Thailand				
	Inaugural Keynote-2 Venue: MME Audi	Prof. T I Eldho, IIT Bombay				
12:15 PM - 12:45 PM	Inaugural Keynote-3 Venue: MME Audi	Prof. Carlo Gualtieri, University of Napoli, Italy				
	Inaugural Keynote-4 Venue: Civil Audi	Prof. Manish K Goyal, IIT Indore				
01:00 PM - 02:00 PM	Lunch					
02:00 PM - 02:30 PM	Technical keynote 1 Venue: Civil Audi	Prof. S. N. Kuiry, IIT Madras				
02:30 PM - 03:00 PM	Technical keynote 2 Venue: Civil Audi	Prof. Rajib Maity, IIT Kharagpur				
03:00 PM - 05:30 PM	Technical Sessions	TS1-1	TS1-2	TS1-3	TS1-4	
	TS1-1 to TS1-4	Civil S R	Mechanical SR	Electrical SR	Energy SR	
11 JUNE 2025						
10:00 AM - 10:30 AM	Technical Keynote 3 Venue: Civil Audi	Prof. Rajib Kumar Bhattacharjya, IIT Guwahati				
10:30 AM - 11:00 AM	Technical Keynote 4 Venue: Civil Audi	Prof. N V Umamahesh, NIT Warangal				
11:00 AM - 01:30 PM	Technical Sessions	TS2-1	TS2-2	TS2-3	TS2-4	
	TS2-1 to TS2-4	Civil S R	Mechanical SR	Electrical S R	Energy S R	
01:30 PM - 02:30 PM	Lunch					
2.30 PM - 5.30 PM	Special Events	Event 1-IDEATHON: A Panel discussion on Water and Environment Venue: Civil Audi				
		Event 2-IAHR & IAHR YPNs: Building a Global Hydro-Environmental Network Venue: MME Audi				
07:00 PM - 10:30 PM	Gala Dinner hosted by Enrise Sayaji sponsored by ETHER Engineers					
12 JUNE 2025						
10:00 AM - 10:30 AM	Technical Keynote 5 Venue: Civil Audi	Prof. Zulfequar Ahmad, IIT Roorkee				
10:30 AM - 11:00 AM	Technical Keynote 6 Venue: Civil Audi	Prof. K K Khatua, NIT Rourkela				
11:00 AM - 01:30 PM	Technical Sessions	TS3-1	TS3-2	TS3-3	TS3-4	TS3-5
	TS3-1 to TS3-5	Civil S R	Mechanical S R	Electrical SR	Energy S R	MME Audi
01:30 PM - 02:30 PM	Lunch					
02:30 PM - 04:00 PM	Special Event	Event 3 - GROW-N Panel Discussion “Building a Community” Venue: Civil Audi				
04:00 PM – 4.45 PM	Valedictory Function					
4.45 PM – 5.15 PM	High Tea					

Technical Session: TS1-1		Date: 10/06/2025	Time: 03:00 PM - 05:30 PM
Theme: Innovations in Hydraulics		Venue 1: Civil S R	Chair: Adithya Sharma, CWC Co-Chair: Dr. Abhijit Lade, VNIT Nagpur
S No.	Paper ID	Title	Author(s)
1	4	Hydraulics Performance of Labyrinth Weir	Praful Khobragade, Bhalchandra V. Khode
2	9	A Comparative Study on Hydraulic Jump Using Numerical and Experimental Results	Sanjay Kumar Patle, Sakshi Raje Patwardhan, Suresh Kumar Thappeta
3	29	A Comprehensive Overview of The Diverse Applications of Submerged Vanes	Anirban Mandal; Zulfequar Ahmad
4	30	Surge Analysis of Lift Irrigation System Using Bentley Hammer Software	Kiran K Devnikar; Aruna D Thube
5	37	Effect of An Upstream Circular Bridge Pier on The Scour Characteristics of Two Piers in Tandem Arrangement	Surendra Todkar; Mashrita Tabhane; Abhijit D Lade
6	40	Numerical Simulation of Flow in Sump for Multiple Pump with Baffle Walls	Ravikant Kumar; Dr. Ruchi Khare
7	44	Hydro-Pneumatic Water Supply System for a High-Rise Buildings- A Case Study	Akash Patel; Virag Bohare; Nithish Chandra Putta; Prashant Baredar; Ravindra Jilte
8	47	State of Art of Leakage Modelling in Water Distribution Systems	Gaurav And Shweta Rathi
9	56	Performance Assessment of Water Distribution Network Under Pressure-Deficient Conditions	Vaidya Deepali R; Mali Sandip T
10	58	Effect of Upstream Ramps on Flow Over of Sharp Crested Weirs	Prasad Sadan; A. D. Ghare; Shubham Tengale; Prakhar Singh; Jay Mamidwar

Technical Session: TS1-2		Date : 10/06/2025	Time: 03:00 PM - 05:30 PM
Theme: Sustainable River Engineering and River Training		Venue 2: Mechanical S R	Chair: Prof. Rajib, Maity, IIT Kharagpur Co-chair: Dr. Gaurav Misuriya, NIT Calicut
S No.	Paper ID	Title	Author(s)
1	65	Prediction Of Suspended Sediment Load By Using Deep Learning: LSTM Approach	Aamir Ganie; Litan Kumar Ray
2	108	Development Of Sediment Rating Curve and Sediment Transport in River Sakari at Goreghat, Mahanadi Basin	Syed Ahmad; Zulfequar Ahmad; Pramod Kumar Sharma
3	111	Geomorphological Change Detection in the Lower Tapi Basin (2006–2023) Using Google Earth Engine and GIS Analysis	Yempali Priyanka; P V Timbadiya
4	120	Analysis Of Hydrodynamic and Morphological Effects of Spur Dikes	Manjeet Dehraiya; M.K Chaudhary; Farooque Rahman; Rutuja Chavan
5	136	IoT Based Flood Monitoring and Prevention of Flooding Risk System	P. Naga Madhavi; K. Ajay Kumar; K. Praveen Kumar Reddy; K. Ashok Reddy; K. S V M Tilak
6	139	Anthropogenic Impacts on Flow Regimes in the Mahanadi River System Using the Range of Variability Approach	Karishma Malhotra
7	148	A Comprehensive Comparative Review of Water Quality Index (Wqi) Methods for Surface Water Quality Assessment	Avinash Kumar; T.Vijay Kumar; Kailash Chandra Tiwari
8	3	A Systematic Review on Different Labyrinth Weir	Mrs. Sumam S B; Dr. Prince Arulraj;

			Mrs.Satyanarayani
9	7	Overlay Analysis for Enhanced Flood Mapping Using Remote Sensing Data	Swati Sirsant; Siddhant Sonde
10	10	Back Water Impacts of Tentative Flow Encroachments in Neighboring Country in Seven Major Rivers of Tripura, India	Ankhi Das; Sushant K Biswal; Amlan Das

Technical Session: TS1-3		Date : 10/06/2025	Time: 03:00 PM - 05:30 PM
Theme: Catchment Hydrology and Integrated Watershed Management		Venue 3: Electrical S R	Chair: Prof. Manish K. Goyal, IIT Indore Co-Chair: Dr. Manish Pandey, IIT Kharagpur
S. No.	Paper ID	Title	Author(s)
1	12	Urban Expansion and Water Extremes: Interpreting Runoff Changes in the Iril River Basin	Pradyumna Behera; Thiyam Devi; Bimlesh Kumar
2	14	Assessing The Effects of Gridded Precipitation Resolutions on Estimation of Soil Erosion in Non-Hydrometric River Basin	Vinoth Kumar Sampath; Nisha Radhakrishnan; Rajat Kumar Sharma
3	16	Microplastics In Water Resources and Accounting	Supriya B. Shinde; Dr. Moni U. Khobragade
4	73	Changing Climate, Shrinking Resources: Global Water Stress With A Focus on Central India	Ankita Mukherjee; Vikas Poonia
5	18	A Comprehensive Review of Glacial Lake Analysis and Flash Flood Risk Assessment in Mountain Regions: Methods, Challenges, And Future Directions	Shakeel Ahmad Rather; Kanish Kapoor; Mahesh Patel
6	21	Advancements In Watershed Modeling: The Role of Geographic Information Systems and Remote Sensing Technology	Swarit Gupta; H.L. Tiwari
7	26	Flood Dynamics and Mitigation Strategies in Assam, India	Prithviraj Arora; Isha Das; Yashvi Shivhare; Vandana Rathore
8	31	Estimation of Flood Forecasting and Their Remedial Measures. A Case Study in Kadapa by Using Remote Sensing And GIS	P Kishore Kumar Reddy; Kiran Kumar. T
9	35	Statistical Evaluation of Modis Snow Satellite Data Using Sarima Model	Mohit Kumar; Kuldeep Singh Rautela
10	38	Evaluating CMIP6 GCMs For Extreme Precipitation in the Large River Basin Using Multi Criteria Approaches	Rishi Gupta; Vinay Chembolu

Technical Session: TS1-4		Date: 10/06/2025	Time: 03:00 PM - 05:30 PM
Theme: Subsurface Water Dynamics		Venue 4: Energy S R	Chair: Prof. T. I. Eldho, IIT Bombay Co-Chair: Dr. Priyank J. Sharma, IIT Indore
S No.	Paper ID	Title	Author(s)
1	34	Advanced Validation of Groundwater Potential Zones Using Geospatial Techniques: A Case Study of the Chambal River Basin, India	Priyamvada M. And M.K.Awasthi
2	45	Harnessing Ozone-Based Advanced Oxidation Processes for Efficient Hospital Wastewater Treatment	Rohit Bhongade, Prashant Y. Pawade
3	66	Groundwater Trends and Stress Zones in Kanchipuram District, Tamil Nadu: A QGIS-Based Spatio-Temporal Study	Kalaivannan R; Aurudra Adiseshaiah Krishna; Giri Ravendar M; Naresh U
4	88	A Seasonal D18o Isoscape for the Shallow Groundwater of India and Underlying Hydrogeological Processes	Amit Pandey; Virendra Padhya; Swagatika Chakra; Akash Ganguly; R.D. Deshpande
5	99	Base Flow and Base Flow Index Trend Analysis for Upper Mahanadi Basin, India	Prem Chand; Shikha Chourasiya; Nitesh Patidar

6	122	Development of an Artificial Neural Network Model for Predicting Groundwater Levels in Observation Wells of Jaipur and Alwar Districts of Rajasthan	Mahima Chouhan; Dr. Hansa Rajput; Prof. Rohit Goyal
7	138	Tracking Groundwater Pollution in Madhya Pradesh: Drivers, Consequences, and Governance Challenges	Manoj Kumar Semil, Dr. B.G. Rajeev Gandhi
8	19	Analytical Investigation on Water Quality Parameters of Different Locations Near an Industrial Area	Anwesha Gayan; Pallab Jyoti Das
9	27	Urbanization and Groundwater Quality: A Case Study from Central India	Ilma Afsar; Anjali Acharya; Akhilesh Shende
10	39	Groundwater Quality Assessment and Prediction	Rajat Kumar, Umesh Kumar Singh, Surjeet Singh, Avinash Kumar
11	154	Removal of Heavy Metals from Groundwater Using Agricultural Waste Residues Biochar: A Comprehensive Review	Shubhangi Umare, Ajay K. Thawait, Sumit H. Dhawane

Technical Session: TS2-1		Date : 11/06/2025	Time: 11:00 AM - 01:30 PM
Theme: Innovations in Hydraulics		Venue 1: Civil S R	Chair: Prof. S. N. Kuiry, IIT Madras Co-Chair: Dr. Swati Bhawe, VNIT Nagpur
S No.	Paper ID	Title	Author(s)
1	61	Estimation Of Two-Dimensional Velocity Distribution in Narrow Channels Using General Index Entropy	Chandradeep Bhagat, Pritam Kumar, Anurag Sharma
2	64	2D Hydraulic Modeling of Tungabhadra River Reach Using HEC-RAS	Priyanka Choudhury; Dr. Shikha Chourasiya; Aniket Sharma
3	69	Integrated Assessment of Sedimentation Impacts on Reservoir Capacity and Water Quality Using HEC-RAS And QUAL2K.	Mayuri Sanjay Deshmukh; Dr. Aruna Thube
4	76	Numerical Simulation of Velocity Distribution in Vegetated Open Channels	Dibyajyoti Nayak; Pritam Kumar; Anurag Sharma
5	147	Effect of Varying Water Levels on Concrete Gravity Dams Subjected to Sequential Ground Motion	Ashna K N
6	84	Design And Analysis of Sewage Outfall Pumping Station for Multi-Model International Hub and Airport at Nagpur, Nagpur	Akshada Mahesh Reur; Dr. M U Khobaragade
7	85	Nonlinear Behavior of KT-Joint of Offshore Jacket Structures: A Study of Tubular Members	Ram Kumar; Deepak Kumar; Terry Y.P. Yuen
8	90	Design of Sustainable Gravity Sewer Network for Socorro Town of Goa Using Sewergems	Samruddhi Suhas Ghanellu; M U Khobaragade
9	93	Discharge Prediction Model for Flow Through Trapezoidal Channel Using Central Baffle Based on Weir Theory	P. Sujith Nair; A. D. Ghare; Ankur Kapoor; Prasad Sadan
10	102	A Comparative Study Between Water Hammer and Hydraulic Jump	Pratik Jiwane; Avinash Vasudeo; Arun Kumar Singh
11	103	Experimental Studies on Semi-Cylindrical Central Baffle Flumes	Rohan Yelure; A. D. Ghare; P. Sujith Nair; Prasad Sadan

Technical Session: TS2-2		Date : 11/06/2025	Time: 11:00 AM - 01:30 PM
Theme: Sustainable River Engineering and River Training		Venue 2: Mechanical S R	Chair: Prof. S. A. Sannasiraj, IIT Madras Co-Chair: Dr. S. N. Shukla, MIT Pune
S No.	Paper ID	Title	Author(s)
1	22	Smart Water Analysis and Evaluation Using IoT a Real-Time Approach: A Study	Zow Afshan; Sherin Zafar; Safdar Tanveer
2	146	Integrating IoT Technologies in Sustainable Agriculture: A Comprehensive Review	Sajad Ansari; Dr. Vikas Kumar Vidyarthi
3	11	Numerical Simulation of Flow Patterns in A Channel Bend	Sushant Biswal; Animesh Das
4	13	A Review of RUSLE And SWAT Model Application for Erosion and Sedimentation Studies in India	Ritesh Ranjan; Srinivas Pasupuleti; Bandita Barman
5	20	A System Dynamics Modeling Approach to Sustainably Manage Water Resources in Transboundary Areas	Santosh S. Palmate; Saurav Kumar
6	36	Integrated Geo-Hydrological Assessment of the Yerala River Basin With Geospatial Tools	Abhijit M. Zende
7	52	Equilibrium Time Expression For Cohesive Channel Bed	Umesh Kumar Singh; Rajat Kumar; A. R. Senthil Kumar
8	54	Numerical Simulation of Flow Patterns Around An Impermeable Dike With Different Orientation	Rajashree Datta; Sushant K Biswal
9	60	Stage-Discharge Rating Curve and Particle-Size Distribution of Sediment of Ranikhola River, Sikkim, India	Ankit; Santosh Rangrao Yadav ; Shivam

Technical Session: TS2-3		Date : 11/06/2025	Time: 11:00 AM - 01:30 PM
Theme: Catchment Hydrology and Integrated Watershed Management		Venue 3: Electrical S R	Chair: Prof. N. V. Umamahesh, NIT Warangal Co:Chair: Shwetha Rathi, NIT Kurukshetra
S No.	Paper ID	Title	Author(s)
1	123	Performance Evaluation of ANN for Rainfall Runoff Modelling in the Sher Basin Using CAMELS-INDIA and India-WRIS Data	Alok Singh Dr. Ajay Kumar Thawait
2	49	Development of an Integrated Water Resources Management Tool for Sustainable Water Management	Rupam Gaur; Binit Kumar; R.C. Vaishya
3	83	Rainfall Forecasting and Trend Analysis Across Kanpur City of India	Pranjul Katiyar; A.D. Vasudeo; Swati Bhawe
4	51	Development of Future Idf Curves for Urban Vadodara Using Multi-Model Climate Projections	Chirayu V. Pandit; Dr. Sanskriti S. Mujumdar
5	55	GIS-Driven Strategies for Sustainable and Smart Water Resource Management and Climate Adaptation	Abhay Mahajan; Dr. Suparna Mullick; Ravi Lavudiya; Shweta Katte
6	63	Performance Evaluation of Lumped Conceptual Models for Hydrological Simulation	Vidushi Sharma; Siddik Barbhuiya; Vivek Gupta
7	41	From Selection to Integration of Global Climate Models: A Review	Ankit Balvanshi; Rashmi Patil; Jayakumar K.V.; Venkapayya R. Desai
8	74	Comparison Of Markov Chain Models for Annual Streamflow Generation	Shilpa L S; Srinivasan K
9	75	Examining The Influence of Global Climate Drivers on Rainfall Extremes in Chennai	Vishnu Priya M S
10	105	Innovative Trend Analysis of Rainfall pattern over Tamirabarani Basin	Ajisha S. Manjula R.

Technical Session: TS2-4		Date : 11/06/2025	Time: 11:00 AM - 01:30 PM
Theme: Hydro-informatics and Advanced Data Analytics		Venue 4: Energy S R	Chair: Prof. Rajib K. Bhattacharjya, IIT Guwahati Co-Chair: Dr. Gaurav Talukdar, IIT Delhi
S No.	Paper ID	Title	Author(s)
1	43	Optimized Machine Learning Framework for Water Quality Classification	Aniruddha Bohra; Ghanshyam Singh Thakur; Jay Kumar Jain
2	5	Use of Meteorological and Remote Sensing Indices to Monitor Drought in Right Bank Main Canal Command area of Dharoi Reservoir	Rajat Mishra; Yogesh Patel
3	57	Applications of SAR Imagery in Flood Mapping and Monitoring: A Bibliometric Analysis	Adarsh Agrawal, Purnima Borikar
4	62	Flood Hazard Mapping Using Machine Learning: A Dual Approach to Model Selection and Feature Ranking	Kashish Sadhwani; T. I. Eldho
5	67	Streamflow Prediction Using Hybrid Deep Learning Algorithms in a Climate Change Framework	Rishith Kumar Vogeti; Rahul Jauhari; Bhavesh Rahul Mishra; Pratyush Pandey
6	68	Modelling water quality dynamics in distribution pipes: An ML-based approach	Vikas Singh Narwariya; Gopinathan R. Abhijith
7	70	Water Quality Prediction System Using Machine Learning for Civil Construction Work	Garima Chandel; Justin Lugonzibwa Babala; Amitpal Singh; Meswinla Adrian Afekefenui; Jigmit Norbu; Geoffrey Makur De-Chagai
8	71	Land Degradation and Drought Risk Assessment for Central India: A Geospatial Analysis of Madhya Pradesh and Chhattisgarh Districts	Vijay Jain; Manish Kumar Goyal
9	72	Employing Spatio-Temporal Meteorological Data for Heatwave Prediction Using ML Models	Srikanth Bhoopathi; Manali Pal
10	115	Spatial Correlation of Land Surface Temperature and Normalized Difference Vegetation Index: A Case Study of Nagpur Division	Tulshidas M. Jibhakate; Yashwant B. Katpatal
11	126	Deployment of IOT Architectures for Intelligent Water and Sewage Infrastructure: Design, Implementation, and Performance Insights	Zow Afshan; Sherin Zafar; Safdar Tanweer .

Technical Session: TS3-1		Date : 12/06/2025	Time: 11:00 AM - 01:30 PM
Theme: Innovations in Hydraulics		Venue 1: Civil S R	Chair: Prof. K. K. Khatua, NIT Rourkela Co-Chair: Dr. Mahesh Patel, NIT Jalandhar
S No.	Paper ID	Title	Author(s)
1	106	Flow Behavior Over Trapezoidal Piano Key Weirs	Anil Kumar; Padmini Behera; Dheeraj Kumar
2	109	A Comparative Study of Offset Linear Rectangular Side Weir And Side Piano Key Weir	Sabir Hussain; Md Saddam Quamar; Zulfequar Ahmad
3	110	Numerical Analysis of Three-Dimensional Characterization of Turbulent Flow Structures Around Bridge Pier	Suniti Kumari; H. L. Tiware; Rutuja Chavan
4	114	Hydraulic Performance of Trenchweir	Ansuman Acharya; Swati Bhave
5	117	Advancing Water Quality Index (Wqi) Models for Surface Water Assessment: A Critical Review of Methodological Innovations And Gaps	Nihala Basheer Kc; Anagha P; Sanjay Singh
6	118	Assessment of The Relative Effectiveness of Different Scour Mitigation Techniques	Aparna P Nambiar; Suchitra K; Adyasha

			Swayam Siddha Amanta; Gaurav Misuriya
7	133	Aeration Aspects of Non-Linear Weirs: A Review	Veena R; Muhammed Hashid
8	124	Numerical Modeling of Flow And Sediment Dynamics Around An Isolated Submerged Flexible Vegetation	Hariom Gautam; Zulfequar Ahmad; Pramod Kumar Sharma
9	127	Flow Characteristics and Scour Pattern Downstream of Turbulent Wall Jets – A Comprehensive Review	Md Shaheer Ali;Zulfequar Ahmad
10	119	Data-Driven Modelling of Bridge Pier Scour Using Ensemble Learning Algorithms	Farooque Rahman; Manjeet Dehariya; Rutuja Chavan
11	152	A Comparative Study on the Performance of a Pump in Steady and Transient States	Shyam Shukla; Vishnu Prasad; Ruchi Khare

Technical Session: TS3-2		Date : 12/06/2025	Time: 11:00 AM - 01:30 PM
Theme: Catchment Hydrology and Integrated Watershed Management		Venue 2: Mechanical S R	Chair: Dr. Ravi Galkate, CIHRC, NIH Bhopal Co-Chair: Dr. Chandan Pradhan, NIT Karnataka
S No.	Paper ID	Title	Author(s)
1	78	Prospective Altitude-Precipitation Dynamics in the Indus River Basin Based on Climate Pathways	Amit Dubey; Deepak Swami; Vivek Gupta; Siddik Barbhuiya
2	79	Innovative Strategies for Sustainable Water Management in Agriculture: Enhancing Efficiency and Resilience	Sattyani Kabi; Pimanshu Rao; Vipin Jain
3	80	Trends and Patterns of Temperature and Rainfall Extremes in Vidarbha: A Climate Change Perspective	Aniket Adole; Swati Bhawe
4	81	Flood Recovery: Governance Challenge in Flood Management	Anup Shirhatti; Ravi Pavedappagol; Veena Pavedappagol
5	50	Comprehending Flood-Drought Situation, Mutually Mitigated Through Surplus-Deficit Method – A Case of Banaskantha District, Gujarat, India	Divya S. Agarwal; Alka Bharat
6	87	Assessing Rainfall Trends in the Era of Climate Change: Insights from Raipur City	Deepti Tandel, Mani Kant Verma
7	89	Quantifying the Intensification of Meteorological Droughts in Central India: Insights from SPEI And GRACE Observations	Ruchir Patidar; M. Santosh Pingale; Suhas D. Khobragade; Ravi Galkate
8	92	Land Surface Temperature Response to LULC Changes: A Spatio-Temporal Analysis of Raipur District	Sanskriti Pandey
9	100	Modeling Streamflow Variability in Data-Scarce Semi-Arid Regions Using SWAT: Insights from the Upper Sabarmati Basin	Anish Chandra
10	151	Spatiotemporal Analysis of 1-Day and 15-Days Extreme Rainfall Events in the Narmada River Basin	Ashutosh Chaturvedi; Manoj Kumar Diwakar; Mahesh Kumar Jat

Technical Session: TS3-3		Date : 12/06/2025	Time: 11:00 AM - 01:30 PM
Theme: Catchment Hydrology and Integrated Watershed Management		Venue 3: Electrical S R	Chair: Prof. Basudev Biswal, IIT Bombay Co-Chair:Dr. Vinay Chembolu, IIT Jammu
S No.	Paper ID	Title	Author(s)
1	107	A Stable Isotope-Hydrochemical Approach to Assess Groundwater Chemistry and Recharge Dynamics in Southwest Delhi, India	Mamta Bisht

2	112	Improving Streamflow Prediction with A Model Combination Approach	Akshay Kadu; Basudev Biswal
3	113	Improved Flood Peak Prediction Using an Iterative Routing Framework	Ekant Sarkar; Akshay Kadu; SI Kesav Unnithan; Vijay Katari; Basudev Biswal; Subashisa Dutta
4	46	Identifying The Physical Controls of Soil Moisture in a Diverse, Feature-Rich Himalayan Watershed	Sahil Sharma; Chandni Thakur; Amenjor Senagarh; Amit Dubey; Kanwarpreet Singh; Abhishek Sharma
5	128	Downscaling of CMIP6 GCM and Projection of Precipitation Extremes Using Deep Neural Network in Tiruppur District, Tamil Nadu, India	Hemanandhini Shanmugam; Vignesh Rajkumar Lakshmanan
6	134	Flood Prediction Using Ai: A Machine Learning-Based Hydrological Modeling Framework	Ajitesh Thawait; Dharendra Pratap Singh
7	77	Evaluating Drought Dynamics in the Krishna Basin: A Nonstationary Approach	Jatoth Mounika; Vemula Neerajakshi; Litan Kumar Ray
8	104	Understanding Hydrological Extremes in a Changing Climate: A Modeling Approach for Drought Forecasting	Siddhi Sandip Mandre; Dr. Arpit Chouksey; Dr. Praveen K. Thakur
9	150	Flood Prediction Of Upper Krishna River Basin Using Machine Learning Approaches	Dharm Raj Bairwa Dr. Manoj Kumar Diwakar
10	155	A New Climatic Threat: Spatiotemporal Analysis of Intensified Drought across Indian River Basins	Vikas Poonia

Technical Session: TS3-4		Date : 12/06/2025	Time: 11:00 AM - 01:30 PM
Theme: Hydro-informatics and Advanced Data Analytics		Venue 4: Energy S R	Chair: Prof. Amlandas, NIT Dhurgapur Co-Chair: Dr. S N Mishra, CSIR AMPRI Bhopal
S No.	Paper ID	Title	Author(s)
1	94	Reservoir Operation Optimization: An Analytical Review of Methods, Models, and Algorithmic Enhancements	Kundan Kumar Sahu; Vishnu Prasad; Vishal Jain
2	95	A Systematic Review of Machine Learning-Based Approaches in Water Distribution Networks	Vishal Jain; Ruchi Khare; Kundan Kumar Sahu
3	96	Response of Rainfall Pattern over India and Nagpur Division to Climate Variability: ENSO and IOD Impact	Tulshidas Jibhakate; Yashwant B. Katpatal
4	98	Land Use Transformation and Hydrological Consequences: Remote Sensing-Based Study of Groundwater Dynamics in Ahmedabad District, India	Aaditya Aaryan; Ajaat Kaushikya; Rohan Kar
5	101	Soil Mapping of Jia Bharali River Basin, India Using GIS	Anand Kumar; Prabeer Parhi; Shikha Chourasiya
6	86	Web-GIS Applications in Water Resource Management: A Bibliometric and Narrative Review	Vasanthi Rayapati; Sunil Kumar Katiyar
7	53	Physical Models for Smart Drainage and Sustainable Urban Water Management	Mohd Aamir Mumtaz
8	130	Centrality Based Sensor Placement for Leak Localization in Water Pipelines	Priyanshu Jain; Manne Janga Reddy
9	137	Using Random Forest with Gradient Boosting and Deepfm, Agroadvisor with Deep -Green-Harvestcraft A Crop Yield Prediction and Crop and Fertilizer Recommendation System for Accurate Agriculture.	Reshma Begum; Dr. Mrutyunjaya; S. Yalawar
10	17	Streamflow Prediction Using Machine Learning Models in	Renjima N; Rajat Kr

		Hydrologically Similar Catchments in Southern Peninsular River Basins	Sharma
11	6	Hydrological Drought Index Based on Reservoir Capacity – A Case Study of Dharoi Reservoir, Gujarat India	Rajat Mishra; Yogesh Patel

Technical Session: TS3-5		Date : 12 JUNE 2025	Time: 11:00 AM - 01:30 PM
Theme: Green and Blue Nexus		Venue 5: MME Audi	Chair: Dr. Subbarao Pichuka, IIT Madras Co-Chair: Dr. Umesh Kumar Singh, NIH Roorkee
S No.	Paper ID	Title	Author(s)
1	25	Water Circularity as Engine of Blue Economy	Ms. Dasgupta Shweta; Dr. Banerji Amit; Dr. Rokade Varsha
2	59	The Role of Remote Sensing in Coastal Water Sustainability: A Bibliometric Analysis	Purnima Borikar Adarsh Agrawal
3	82	Sustainable Dye Removal from Industrial Wastewater Using Agricultural Waste-Derived Adsorbents	Vishal R Khandagale; Roopa M; Nandeeshha
4	91	Climate-Resilient Infrastructure for Water and Thermal Security: An Integrated Rainwater Harvesting and Solar Energy Approach in Nagpur	Akash Kusram; Nilesh Mankar; Amol Wankar
5	116	Study on the Effect of Riparian Vegetation on the Health of Upper Lake Bhopal	Vivek Shrivastav; Muhammed Hashid; Rajeev Gandhi Bg
6	121	Effect of Mass-Damping Parameter and Force Coefficient on Energy Extraction Capacity of an Elastically Supported Rigid Cylinder Subjected to Vortex-Induced Vibration	Divya; Vibha Asok ; Kirandas K M; R. Prethiv Kumar
7	125	Numerical Study on Array of two Oscillating Water Columns Integrated with Semicircular Breakwater	Sandana Socrates S; Sriram V; Sundar V
8	129	Role of Kelp Forests and Mangroves in Reducing Wave Runup	Ananth Wuppukondur
9	135	Hydrokinetic Turbines: A Review	Upkar Singh; Vishnu Prasad
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