**HYDRO 2024 INTERNATIONAL**
29th International Conference on Hydraulics, Water Resources, River and Coastal Engineering
18-20 December 2024
**Central Water &Power Research Station, Pune, India**
**(केन्द्रीय जल और विद्युत अनुसंधान शाला, पुणे, भारत)**

# Programme Schedule Summary

| **Day 1<br>18 December 2024 (Wednesday)** | |
|---|---|
| 09:00 AM- 10.00 AM | Registration |
| 10.00AM– 11.15AM | Inaugural Ceremony |
| 11.15 AM- 11.30 AM | Inauguration of Exhibition |
| 11.30 AM – 12.00PM | High Tea |
| **SN Gupta Memorial Lecture<br>Venue : CT hall**<br>12:00 PM-12:30PM | **Dr Richa Ojha**<br>*Associate professor, Civil Engineering Department, IIT Kanpur*<br>*Topic: Soil moisture dynamics in heterogeneous agricultural soils* |
| **Keynote Lecture<br>Venue : CT hall**<br>12: 30 PM -1:00 PM | **Shri J Chandrashekar Iyer**<br>*Former Chairman, Central Water Commission and ex-officio Secretary to Government of India*<br>*Topic: Future-proofing run-of-river hydropower projects through efficient sediment management systems* |
| 1:00PM-2:00 PM | **Lunch** |
| Technical Session 1<br>2:00PM-3:00PM | Parallel Session**1: TS1- CT Hall**<br>*Theme: Surface Hydrology and Watershed Management* |
| | Parallel Session**2: TS1- Auditorium**<br>*Theme: River Engineering and Fluvial Hydraulics* |
| | Parallel Session**3: TS1- CT2**<br>*Theme: Coastal/Harbor & Ocean Engineering* |
| | Parallel Session**4: TS1- Padmashri Dr. Z. S. Tarapore hall**<br>*Theme: Hydraulics* |
| | Parallel Session**5: TS1- CT1**<br>*Theme: Climate change Impact on Water Resources* |
| **3:00PM-3:10 PM** | **Tea Break** |
| Technical Session 2<br>3:10PM -4:10 PM | Parallel Session**1: TS2- CT Hall**<br>*Theme: Surface Hydrology and Watershed Management* |
| | Parallel Session**2: TS2- Auditorium**<br>*Theme: River Engineering and Fluvial Hydraulics* |
| | Parallel Session**3: TS2- CT2**<br>*Theme: Coastal/Harbor & Ocean Engineering* |
| | Parallel Session**4: TS2- Padmashri Dr. Z. S. Tarapore hall**<br>*Theme: Hydraulics* |
| | Parallel Session **5: TS2- CT1**<br>*Theme: Climate change Impact on Water Resources* |
| **4:10PM-4:20 PM** | **Tea Break** |
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|---|---|
| Technical Session 3<br>4:20 PM -5:45 PM | Parallel Session**1: TS3- CT Hall**<br>*Theme: Surface Hydrology and Watershed Management* |
| | Parallel Session**2: TS3- Auditorium**<br>*Theme: River Engineering and Fluvial Hydraulics* |
| | Parallel Session**3: TS3- CT2**<br>*Theme: Coastal/Harbor & Ocean Engineering* |
| | Parallel Session**4: TS3- Padmashri Dr. Z. S. Tarapore hall**<br>*Theme: Hydraulics* |
| | Parallel Session **5 : TS 3- CT1**<br>*Theme: Climate change Impact on Water Resources* |
| **Venue : Auditorium**<br>6:00PM-7:00 PM | **ISH General Body Meeting** |
| **Venue: Garden opposite Director's office**<br>7:00 PM Onwards | **Gala dinner** |

| **Day 2<br>19 December 2024 (Thursday)** | |
|---|---|
| **Keynote Lecture<br>Venue : CT hall**<br>9:30 AM- 10.00 AM | **Prof. Rao S GovindRaju**<br>*Bowen Engineering Head of Civil and Construction Engineering and Christopher B. and Susan S. Burke Distinguished Professor of Civil Engineering, Purdue University*<br>*Topic: Deep Learning using Transformers for Multivariate Applications in Hydrology* |
| **10.00 AM -10:15 AM** | **Tea Break** |
| 10.15 AM-11.05 AM | **Industry session – Venue : CT Hall** |
| 11:05AM-11:35 AM | **Talk by Springer publisher - Venue : CT Hall** |
| **11:35 AM-11:40 AM** | **Break** |
| Technical Session 4<br>11:40 AM- 1:00 PM | Parallel Session**1: TS4- CT Hall**<br>*Theme: Surface Hydrology and Watershed Management* |
| | Parallel Session**2: TS4 - Auditorium**<br>*Theme: River Engineering and Fluvial Hydraulics* |
| | Parallel Session**3: TS4 - CT2**<br>*Theme: Hydroinformatics* |
| | Parallel Session**4: TS4 - Padmashri Dr. Z. S. Tarapore hall**<br>*Theme: Hydraulics* |
| | Parallel Session**5**:**TS 4- CT1**<br>*Theme: Climate change Impact on Water Resources* |
| 11:40 AM- 1:00 PM | Model Visits |
| 1:00 PM-2:00 PM | **Lunch** |
| **Keynote Lecture<br>Venue : CT hall**<br>2:00 PM-2:30 PM | **Dr. Vinay Chembolu**<br>*Assistant Professor, Department of Civil Engineering, IIT Jammu*<br>*Topic: Efficacy of Nature-Based Solutions (NbS) for Hydro-morphological Risk Reduction in Large River Catchment* |

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| Technical Session 5<br>2:30PM-4:00 PM | Parallel Session**1**:**TS5 – CT Hall**<br>*Theme: Surface Hydrology and Watershed Management* |
| | Parallel Session**2**:**TS5 – CT1**<br>*Theme: Hydroinformatics* |
| | Parallel Session**3**:**TS5 – CT2**<br>*Theme: Coastal/Harbor & Ocean Engineering* |
| | Parallel Session**4**:**TS5 –Padmashri Dr. Z. S. Tarapore hall**<br>*Theme: Hydraulics* |
| | Parallel Session**5**:**TS5 – Room No. 12**<br>*Theme*: *Climate change Impact on Water Resources* |
| | Parallel Session **6: Auditorium**<br>***Hydro Hackathon:*** *IAHR Young Professionals Network – event Organized by IAHR Southern India YPN and IAHR India YPN collaboration with The Indian Society for Hydraulics (ISH)* |
| 2:30PM-4:00 PM | Model Visits |
| 4:00PM-4:10 PM | **Tea Break** |
| Technical Session 6<br>4:10PM-5:30 PM | Parallel Session**1**: **TS6 – CT Hall**<br>*Theme: Surface Hydrology and Watershed Management* |
| | Parallel Session **2**: **TS6 –Auditorium**<br>*Theme:Hydroinformatics* |
| | Parallel Session **3**: **TS6 – CT2**<br>*Theme: Coastal/Harbor & Ocean Engineering* |
| | Parallel Session **4**:**TS6 - Padmashri Dr. Z. S. Tarapore hall**<br>*Theme: Hydraulics* |
| | Parallel Session**5**:**TS6 – CT1**<br>*Theme:Water Resources* |

| Day 3<br>20 December 2024 (Friday) | |
|---|---|
| **Keynote Lecture**<br>**Venue : CT hall**<br>9:30 AM- 10.00 AM | **Dr. Ramesh Teegavarapu**<br>*Professor and former graduate program director in the Department of Civil, Environmental, and Geomatics Department at Florida Atlantic University (FAU), Boca Raton, Florida*<br>*Topic: Disinformative Data in Hydrology: Issues, Challenges and Resolutions* |
| | |
| Technical Session 7<br>10:15 AM - 11:45 AM | Parallel Session**1**:**TS7 – CT Hall**<br>*Theme: Surface Hydrology and Watershed Management* |
| | Parallel Session**2**:**TS7–Auditorium**<br>*Theme: HydroInformatics* |
| | Parallel Session**3**:**TS7– CT2**<br>*Theme: Coastal/Harbor & Ocean Engineering* |
| | Parallel Session**4**:**TS7-Padmashri Dr. Z. S. Tarapore hall**<br>*Theme: Dam And Appurtenant Structures* |
| | Parallel Session**5**:**TS7–CT1**<br>*Theme: Water Resources* |
| 11:45 AM-11:55 PM | **Tea Break** |
| Technical Session 8<br>11:55 AM-1:00 PM | Parallel Session**1**:**TS8– CT Hall**<br>*Theme: Surface Hydrology and Watershed Management* |
| | Parallel Session**2**:**TS8–Auditorium**<br>*Theme: HydroInformatics* |
| | Parallel Session**3**:**TS8– CT2**<br>*Theme: Groundwater Hydrology* |
| | Parallel Session**4**: **TS8 - Padmashri Dr. Z. S. Tarapore hall**<br>*Theme: Dam And Appurtenant Structures* |
| | Parallel Session**5:TS8–CT1**<br>*Theme: Environmental Flows in Natural Rivers* |
| 1:00PM-2:00 PM | **Lunch** |
| Technical Session 9<br>2:00 PM-3:00 PM | Parallel Session**1**:**TS9 – CT Hall**<br>*Theme: Surface Hydrology and Watershed Management* |
| | Parallel Session**2**:**TS9–Auditorium**<br>*Theme: Hydroinformatics* |
| | Parallel Session**3**:**TS9– CT2**<br>*Theme: Groundwater Hydrology* |
| | Parallel Session**4**:**TS9 - Padmashri Dr. Z. S. Tarapore hall**<br>*Theme: Dam and Appurtenant Structures* |
| | Parallel Session**5**:**TS9–CT1**<br>*Theme: Climate Change Impact on Water Resources* |
| 3:00PM-3:10 PM | **Tea Break** |

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|---|---|
| Technical Session 10<br>3:10PM-4:00PM | Parallel Session**1**:**TS10– CT1**<br>*Theme: Surface Hydrology and Watershed Management* |
| | Parallel Session**2**:**TS10– CT2**<br>*Theme:Hydroinformatics* |
| **Venue CT Hall**<br>4:00 PM-5:00 PM | **Valedictory Session** |

NOTE:
Each paper presentation duration: 10 mins (including Q & A)
Model visits are arranged as indicated

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| **Day 1: 18 December 2024 , Time: 2.00 PM to 3.00PM, Venue : CT Hall** | | |
|---|---|---|
| **Theme: Surface Hydrology and Watershed Management (TS 1)** | | |
| **Chair: Prof. Abdul Qayoom Dhar, NIT Srinagar** | | **Co-chair: Shri Vivekanandan N., CWPRS, Pune** |
| | | |
| **Sl. No.** | **Paper ID** | **Paper Title and Authors** |
| 1 | 14 | Statistical Modifications in Non-Stationary Drought Indices: A Comprehensive Review<br>*(Pranita Joshi& Manoj Kumar Jain)* |
| 2 | 139 | Hydrodynamic Behavior of the Subansiri River in Arunachal Pradesh, India Using HEC-RAS 6.4<br>*(PranjitBorah,Ram Kailash Prasad, & Ghritartha Goswami)* |
| 3 | 198 | Drought Analyses of all Talukas in the Aurangabad District by using Standardised Precipitation Index (SPI)<br>*(Sanju R. Phulpagar, R.M. Sawant, N.K. Kad, J.R. Gaikwad, B.K. Moreye& S.N. Gaikwad)* |
| 4 | 222 | Sustainable solution with risk mitigation for run-off diversion at toe of operational Dyke-embankment<br>*(Vinod Kr Mauriya)* |
| 5 | 256 | Application of Standardised Precipitation Index (SPI) for Drought Analyses at all Talukas in the Yawatmal District<br>*(Sanju R. Phulpagar, R.M. Sawant, P.D. Alte, S.B. Dhule, J.R. Gaikwad, Y.R. Sawant& S.V. Wankhade)* |
| 6 | 274 | Enhancing Flood Mitigation in The Adyar River Catchment Through Strategic Tank Deepening: An Integrated Hydrological-Hydraulic Modelling Approach<br>*(Chaitanya J C, Soumendra Nath Kuiry, Nithilan Devi Nallasamy& Sridharan Balakrishnan)* |
| 7 | 361 | Assessment of Drought Characteristics in Eleven Agroclimatic Zones of Madhya Pradesh<br>*(R. V. Galkate, R. K. Jaiswal& S. P. Indwar)* |
| 8 | 549 | Evaluating the precision of satellite based gridded rainfall data sets in the Kosi River basin (India)<br>*(Aditya KumarSingh, Vivekanand Singh)* |

| **Day 1: 18 December 2024, Time: 2.00 PM to 3.00PM, Venue : Auditorium** | | |
|---|---|---|
| **Theme: River Engineering and Fluvial Hydraulics (TS 1)** | | |
| **Chair: Dr. K. K. Khatua, NIT Rourkela** | | **Co-chair: Shri Arun Kumar, CWPRS,Pune** |
| | | |
| **Sl. No.** | **Paper ID** | **Paper Title and Authors** |
| 1 | 578 | Study on the effect of variations in the suspended sediment concentration on the efficiency of settling basin in a hydropower project in the Himalayas<br>*(J. Chandrashekhar Iyer& E.J. James)* |
| 2 | 11 | A comparative Investigation of Local Scour around Staggered and Tandem piers<br>*(Laxmi Narayana Pasupuleti, PrafulkumarVasharambhaiTimbadiya&Prem Lal Patel)* |
| 3 | 27 | Assessment of Channel Meandering of Musi River, Telangana, India using Remote Sensing and GIS Techniques<br>*(M Ravi Naik, D. Ajay Kumar, Shyama Mohan& M.V.S.S. Giridhar)* |

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| 4 | 31 | Effect of Scour Depth in Designing of Bridge Pier Foundation<br>*(Prashanthi C., Devi K., Khuntia J. R.)* |
| 5 | 32 | River Sand Mining-Induced Impacts on Underwater Pipeline Systems: An Experimental Study<br>*(Mohril R.S., Lade A.D., Vasudeo A.D.)* |
| 6 | 35 | Aji River Flow Analysis and Flood Modeling Using HEC-RAS Software<br>*(Bazera Yves Patrick &Bhavna G. Thummar )* |
| 7 | 319 | Scour Around Wide Piers: A Review<br>*(Ajay Kumar, Umesh K. Singh, Z. Ahmad& Pramod K. Sharma)* |
| 8 | 327 | Estimation of Variability of Effective Discharge for the Suspended Sediment Transport in the Regulated River<br>*(Sudhanshu Dixit, P. V. Timbadiya & P. L. Patel )* |
| 9 | 519 | Advance physics based mathematical modelling methodology for development of Flood Forecasting and Early warning System in sub-basins of the Brahmaputra, India<br>*(Pranab Baruah, Geetanjali Doley, Prajna Parmita, Bhaskar Jyoti Das & Kazi Iqbal Hassan)* |

| **Day 1: 18 December 2024 , Time: 2.00 PM to 3.00PM, Venue : CT2** | | |
|---|---|---|
| **Theme: Coastal/Harbor & Ocean Engineering(TS1)** | | |
| **Chair: Prof Muni Reddy M.G., Andhra University** | | **Co-chair: Dr. Naren, CWPRS, Pune** |
| | | |
| **Sl. No.** | **Paper ID** | **Paper Title and Authors** |
| 1 | 28 | Longshore Sediment Transport along Paradeep coast, East Coast of India<br>*(Shravani Mohanty)* |
| 2 | 30 | Circular and Elliptical Hull Supporting 5MW Wind Turbine: Free Floating Analysis<br>*(Shanmukha Rao Ganta, Muthuchelvi Thangam& Balaji Ramakrishnan)* |
| 3 | 52 | Prediction of Wave Reflection from Vertical Caisson Breakwater Using Decision Tree-Based Models<br>*(Shankara Krishna A, Manu& Subba Rao)* |
| 4 | 65 | Studies on Shoreline Changes Along Cuddalore Coast of Tamilnadu<br>*(P K Suresh, Nilanjan saha , R Sundaravadivelu, Kreesa Kumaran, N Kavitha)* |
| 5 | 67 | A Review of Shoreline Trend of Karnataka Coast<br>*(Shimna P, Nasar T & Shwetha H . R)* |
| 6 | 182 | Numerical Modelling – A Reliable Technique for Sustainable Development of Waterfront Facilities at Narrow Creek Mouth<br>*(M.M. Vaidya, K.R. Karambelkar& A.A. Purohit)* |

| **Day 1: 18 December 2024 , Time: 2.00 PM to 3.00PM, Venue : Padmashri Dr. Z. S. Tarapore hall** | | |
|---|---|---|
| **Theme: Hydraulics (TS1)** | | |
| **Chair: Prof. V. L. Manekar, SVNIT, Surat** | | **Co-chair: Shri Raghuram Singh, CWPRS, Pune** |
| | | |
| **Sl. No.** | **Paper ID** | **Paper Title and Authors** |
| 1 | 73 | Numerical Study on Energy Dissipation in Stepped Spillways<br>*(Sushant K. Biswal)* |
| 2 | 79 | Flow Behaviour in Sediment Bypass Tunnels |

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|---|---|---|
| | | *(Dharmveer, Vinay Chembolu& HarishPothukuchi)* |
| 3 | 80 | Numerical Investigation of Local Scour Dynamics around Circular Bridge Pier<br>*(A Lalitha, E Sahithi, Jnana Ranjan Khuntia, Kamalini Devi, Bhabani Shankar Das)* |
| 4 | 104 | Impact of Urbanization on Ecosystem Service Value: A Spatiotemporal Analysis in National Capital Territory (NCT) – Delhi<br>*(Dasari Swetha& Manali Pal)* |
| 5 | 129 | Variation in Scour Depth with Change in Splitter Plates: A Numerical Study<br>*(A. Govil, E. Padhi& G.D. Singhal)* |
| 6 | 287 | Stilling Basin Model Design WithAppurtenances – A Review<br>*(H.L. Tiwari, & Kartikeya Mishra)* |

| **Day 1: 18 December 2024, Time: 2.00 PM to 3.00 PM, Venue :CT 1** | | |
|---|---|---|
| **Theme: Climate Change Impact on Water Resources (TS1)** | | |
| **Chair: Prof. P. L. Patel, VNIT,Nagpur** | | **Co-chair: Shri Prasad Kunjeer, CWPRS, Pune** |
| | | |
| **Sl. No.** | **Paper ID** | **Paper Title and Authors** |
| 1 | 50 | Climate Change Impact Study of Cherrapunji using CMIP6 models<br>*(A.I. Choudhury& J. Hazarika)* |
| 2 | 51 | Basin-Scale Projection of Evapotranspiration using Machine Learning<br>*(Rahul Kumar, Riya Dutta , Rajib Maity)* |
| 3 | 62 | Assessing the Hydro-meteorological Extremes of Tawi River Catchment, J&K Under Climate Change<br>*(Prem Prakash, Vinay Chembolu)* |
| 4 | 86 | Examining the Seasonal Dynamics of Surface and Rootzone Evapotranspiration Regimes at Global Scale<br>*(Sandipan Paul, Andrew F. Feldman, Karthikeyan Lanka)* |
| 5 | 322 | Evidence of climate change in coastal India: Trends in extreme precipitation and temperature extremes<br>*(Sachidanand Kumar, Kironmala Chanda& Srinivas Pasupuleti)* |

| **Day 1: 18 December 2024 , Time: 3:10 PM to 4:10PM, Venue : CT Hall** | | |
|---|---|---|
| **Theme: Surface Hydrology and Watershed Management (TS 2)** | | |
| **Chair: Dr. Ray Singh Meena,NIT, Hamirpur** | | **Co-chair:Shri Sachin Marulkar, CWPRS,Pune** |
| | | |
| **Sl. No.** | **Paper ID** | **Paper Title and Authors** |
| 1 | 44 | Flood Vulnerability Assessment Mapping and Modelling of Pagladiya River Basin in Baksa District<br>*(Sagar Basumatary& Soumen Maji)* |
| 2 | 57 | Improving Streamflow Prediction with a Model Combination Approach<br>*(Akshay Kadu*, Basudev Biswal)* |
| 3 | 74 | Simulating the rainfall-runoff process in the Wainganga River basin using HEC-HMS and GIS tool<br>*(R.K. Verma& A.B. Mirajkar)* |
| 4 | 172 | An ArcGIS Toolbox for Estimating and Mapping Soil Erosion |

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| | | *(Aiswarya Daruan &Janhabi Meher)* |
| 5 | 173 | Review of 30 Different Equations to Estimate Evapotranspiration<br>*(Ms. S.S wagh, Dr. K.A. Patil)* |
| 6 | 257 | Meteorological Drought Analyses Using Standardized Precipitation Index (SPI) at all Talukas in the Pune District of Maharashtra, India<br>*(Sanju R. Phulpagar& Niteen R. Wawhule)* |
| 7 | 566 | Experimental study of flow field in the vicinity of piano key weir<br>*(Md Saddam Quamar, Zulfequar Ahmad)* |

| **Day 1: 18 December 2024 , Time: 3:10 PM to 4:10PM, Venue : Auditorium** | | |
|---|---|---|
| **Theme: River Engineering and Fluvial Hydraulics (TS 2)** | | |
| **Chair : Shri Chandrashekhar Iyer, Former Chairman CWC, Co-chair:Shri Prasad Kunjeer, CWPRS,Pune** | | |
| | | |
| **Sl. No.** | **Paper ID** | **Paper Title and Authors** |
| 1 | 37 | Estimating Bathymetry of a Mining Affected Straight Alluvial Channel<br>*(Ravi Kumar Mishra, Bandita Barman&Tinesh Pathania)* |
| 2 | 76 | Advance 2D Mathematical Modelling for River Erosion Management in Brahmaputra Basin, India<br>*(Geetanjali Doley, Prajna Parmita, Pranab Baruah, Bhaskar Jyoti Das & Kazi IqbalHassan )* |
| 3 | 85 | Hydrological modelling of suspended sediment load in the Krishna-Godavari River, India<br>*(L. Mohanty & B. Biswal)* |
| 4 | 89 | Velocity distribution in a narrow open channel with submerged rigid vegetation<br>*(Saundarya Narayan Kashyap, & Bandita Barman)* |
| 5 | 90 | Assessment of Temporal Changes in Runoff and Sediment Load in Chalakkudy River, Southern India<br>*(M S Niranjana& R Arunkumar)* |
| 6 | 130 | Computation of Sediment Distribution for NizamSagar Reservoir<br>*(Umesh K. Singh, A. R. Senthil Kumar, M. K. Goel, Pravin R. Patil, Harsh Upadhay and Ajay Ahirwar)* |
| 7 | 215 | Assessment of Turbulence Parameters in Natural River Bed Under Low Flow Conditions<br>*(Aryalaxmi Priyadarshini, Vikas Kumar Das&Kishanjit Kumar Khatua)* |

| **Day 1: 18 December 2024 , Time: 3:10 PM to 4:10PM, Venue : CT 2** | | |
|---|---|---|
| **Theme: Coastal/Harbor & Ocean Engineering (TS 2)** | | |
| **Chair: Dr. K.V. Thomas, Former Scientist G & Group Head, NCESS<br>Co-chair:Dr. K. M. Praveen, CWPRS, Pune** | | |
| | | |
| **Sl. No.** | **Paper ID** | **Paper Title and Authors** |
| 1 | 17 | Performance Evaluation of Porous Baffles in the TLD for reducing Dynamic Responses of Structures<br>*(Mallikarjun S. Bhandiwad& B M. Dodamani)* |
| 2 | 181 | On the Applicability of Fully Nonlinear Boussinesq Wave Model for Simulation of Ship-Borne Wake<br>*(Animesh Basu, A. A. Purohit& M. M. Vaidya)* |

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| 3 | 185 | Design of Coastal Protection Measures Proposed for Multi Purposes Utility at Puducherry, India<br>*(Kumaran V., A. V. Mahalingaiah., Uday B. Patil, Ganesh N. S)* |
| 4 | 269 | CFD Simulation of Wave Interaction with Combined Semi-Circular and Rubble Mound Breakwater<br>*(G. Bala Rajeev Sandeep Reddy, Muni Reddy.M.G, P. Vamsi Krishna)* |
| 5 | 278 | Effect of Wind information at various Latitude and Longitude on Significant Wave Height<br>*(N.T. Sawalkar, S. N. Londhe, S. G. Joshi)* |
| 6 | 432 | Assessment of beach morphodynamic changes at Aaravi, Anjarle, and Guhagar along central Maharashtra's coastline<br>*(Satheeshkumar Jeyaraj, Singh A.K & Sinha J)* |
| 7 | 508 | Long Term Analysis of Artificial Beach Nourishment of Northern Coast of Visakhapatnam Port<br>*(Kashyape P A, Shinde S J, Bagwan Jamir, Dr. M. Phani Kumar &Dr. Prabhat Chandra)* |

| **Day 1: 18 December 2024 , Time: 3:10 PM to 4:10PM, Venue : Padmashri Dr. Z. S. Tarapore hall** | | |
|---|---|---|
| **Theme: Hydraulics (TS 2)** | | |
| **Chair: Dr. P. K. Suresh,IIT Madras** | | **Co-chair:Shri Kuldeep Malik, CWPRS, Pune** |
| | | |
| **Sl. No.** | **Paper ID** | **Paper Title and Authors** |
| 1 | 126 | High Resolution Flood Inundation Modelling for South Central Kerala: A 2D modelling approach<br>*(Bhadra Devadas, Soumendra Nath Kuiry)* |
| 2 | 146 | Flood in Mekong River & Simultaneous Failure of a Dam Situated on its Tributary<br>*(Neha B. Nandiwale, Snehal A. Sutar, Ashish A. Doshi& Amey U. Kumbhar)* |
| 3 | 194 | Studies for Guide bunds for road bridge on river Yamuna at NOIDA - A Case Study<br>*(S. S. Kerimani, S. P. Hedaoo, R. G. Patil )* |
| 4 | 259 | Numerical Investigation of Hydraulic Jumps over a Negative Step with a Corrugated Bed and End Sill<br>*(Nishank Agrawal, Ellora Padhi& Gopal Das Singhal)* |
| 5 | 365 | Hydrodynamic Analysis of Submerged Spur Dikes in River Systems: Insights from Numerical Simulations<br>*(Thokala Divya, Soumendra Nath Kuiry& Law Wing Keung Adrian)* |
| 6 | 388 | Scour characteristics under steady pressure conditions<br>*(Dussa Pavan Kumar, & Gaurav Misuriya)* |
| 7 | 397 | Machine Learning Approach to Predict Discharge Magnification ratio of Triangular Labyrinth Weir<br>*(Mohammad Danish Mustafa, Talib Mansoor, Mohammad Muzzammil)* |

| Day 1: 18 December 2024 , Time: 3:10 PM to 4:10PM, Venue : CT 1 | | |
|---|---|---|
| **Theme: Climate Change Impact on Water Resources (TS 2)** | | |
| **Chair: Prof. Manasa Ranjan Behera, IIT Bombay Co-chair: Shri Vivekanandan N., CWPRS, Pune** | | |
| | | |
| **Sl. No.** | **Paper ID** | **Paper Title and Authors** |
| 1 | 168 | Statistical and Trend Analysis of Rainfall Variability in Sambalpur District of Odisha State<br>*(Kirtisuta Bhoi, Prof. Anil Kumar Kar , Former Prof. Prakash Chandra Swain)* |
| 2 | 170 | Trends in snow cover area from 1980-2023 at various elevation zones and its correlation with climatic parameters over the Indus River Basin using ERA5-Land dataset<br>*(Palai Manoj Kumar, C.Sai Krishna, B.Simhadri Rao, K.Abdul Hakeem)* |
| 3 | 190 | Water Scarcity Assessment for Narmada River Basin under Changing Climate using Web-Enabled Hydrologic Unit Model for India (HUMID)<br>*(Amrutha Suresh, Annie Maria Issac, Sangeetha K., JebaPrincy R., Santosh KumarS., Bhagyasree S., Yogesh Palanivel V., Satya Raj B., (Abdul Hakeem K., Venkat Raju P., & Balaji Narasimhan)* |
| 4 | 196 | Comparison of statistical downscaling methods for CMIP6 daily precipitation dataset over catchment area of Koyna reservoir, Maharashtra, India<br>*(S. U. Dumbre, P. R. Dixit& S. N. Londhe)* |
| 5 | 249 | Water Stress in a Changing Climate: Global Perspectives and a Case Study of Central India<br>*(Ankita Mukherjee, & Vikas Poonia)* |
| 6 | 265 | Mitigating Climate Change through Innovative Jalkupa Irrigation: Enhancing Water Efficiency for Sustainable Agriculture<br>*(Uttamkumar Vyas, Kishanlal Darji, Dhruvesh Patel& Vinay Vakharia)* |
| 7 | 283 | Comparative Analysis of GCM Selection Approaches for Climate Change Impact Assessment in India<br>*(Sachin Kumar, M. K. Choudhary& T. Thomas)* |

| Day 1: 18 December 2024, Time: 4:20 PM to 5:45PM, Venue : CT Hall | | |
|---|---|---|
| **Theme: Surface Hydrology and Watershed Management (TS 3)** | | |
| **Chair: Prof. Raaj Ramsankaran, IIT Bombay Co-chair:Shri Sachin Marulkar, CWPRS,Pune** | | |
| | | |
| **Sl. No.** | **Paper ID** | **Paper Title and Authors** |
| 1 | 60 | Nature-Based Solutions for Flood Mitigation: Impact of Wetland Management in the Brahmaputra River Basin<br>*(Rishi Gupta, &Vinay Chembolu)* |
| 2 | 66 | Soil Erosion Dynamics in India: A Review of RUSLE-Based Studies<br>*(Gayatri N. Mawale, Dr. Arun W. Dhawale)* |
| 3 | 87 | Flash Drought: A Growing Climate Threat, Global Case Studies and Future Research Implications<br>*(Himanshu Jhariya, Vikas Pooniaand A. K. Thawait)* |
| 4 | 96 | Analysis of Climate Change Impact on Runoff Characteristics in Manimala River Basin, Kerala<br>*(S Renu, R Arun kumar& SK Pramada)* |
| 5 | 169 | Evaluation of SWAT Model Performance in Hydrological Simulation of Nagavali River Basin<br>*(Jyotirmoy Saha)* |

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|---|---|---|
| 6 | 220 | Comparative study on machine learning algorithm based evapotranspiration evaluation model<br>*(Ms. S.S wagh & Dr. K. A. Patil)* |
| 7 | 258 | Drought Analyses with Standardised Precipitation Index (SPI) for all Talukas in the Beed District, Maharashtra, India<br>*(Sanju R. Phulpagar, R.M. Sawant, J.R. Gaikwad, A.G. Awasthi, P.D. Alte, V.R. Rautray& P.B. Chavan)* |
| 8 | 260 | Meteorological drought analysis using Standardized Precipitation Index over all Talukas in the Parbhani District, Maharashtra, India<br>*(Sanju R. Phulpagar, P.D. Alte, R.M. Sawant, A.S. Pande, J.R. Gaikwad, N.K. Kad& P.V. Bansode)* |

| **Day 1: 18 December 2024 , Time: 4:20 PM to 5:45PM, Venue : Auditorium** | | |
|---|---|---|
| **Theme: River Engineering and Fluvial Hydraulics (TS 3)** | | |
| **Chair: Shri Ranjit Deka,Brahmaputra Board** | | **Co-chair:Shri Parag Patil, CWPRS, Pune** |
| | | |
| **Sl. No.** | **Paper ID** | **Paper Title and Authors** |
| 1 | 238 | Modelling of Bridge pier scour depth by using HEC-RAS<br>*(Sinha, S.,Baranwal, A., Das, B.S.Kumar, R., Khuntia, J. R. & Devi, K.)* |
| 2 | 248 | Sediment Exclusion in Hydro-Power Projects<br>*(S.K. Mazumder)* |
| 3 | 276 | Flood risk management through river interlinking between Bagmati and Ganga Rivers-mathematical modelling study for selection of a suitable link canal option<br>*(S.Ankita, S.Rajat, R.Abhishek, KPrashant, H Kazi)* |
| 4 | 291 | Estimation of Reservoir Sedimentation Using Satellite Images<br>*(Kartikeya Mishra, & H.L. Tiwari)* |
| 5 | 299 | Vertical Plate Effectiveness in Protecting Scour Around Bridge Piers<br>*(Yudhveer Singh, Vikas Garg, Kanchan & Nitin Kumar)* |
| 6 | 315 | Deriving Rate of Sedimentation of the Basins of Maharashtra State Based on Reservoir Capacity Assessment Surveys<br>*(Pragati Mhasal,Sunil Gaikwad, Chandrakant Mali, Pramod Mandade)* |
| 7 | 411 | Numerical Modelling of Sediment Transport Dynamics in Braided Rivers: A Comprehensive Review<br>*(Rozy Kumari,Bandita Barman)* |
| 8 | 525 | Gene Expression Programming Approach for Evaluating Local Scour Around Cylindrical Bridge Pier<br>*(Geeta Devi, Ainal Hoque Gazi and Munendrakumar)* |

| Day 1: 18 December 2024 , Time: 4:20 PM to 5:45PM, Venue : CT 2 | | |
|---|---|---|
| **Theme: Coastal/Harbor & Ocean Engineering (TS 3)** | | |
| **Chair: Prof M. C. Deo, IIT Bombay** | | **Co-chair: M. M. Vaidya, CWPRS, Pune** |
| | | |
| **Sl. No.** | **Paper ID** | **Paper Title and Authors** |
| 1 | 186 | Design of Breakwater Using Xbloc&Xbloc Plus Armour Units for the Development of Greenfield Port at AP, India<br>*(A.V. Mahalingaiah.,Kumaran V.,Uday B. Patil., Ganesh N. S )* |
| 2 | 187 | Design & Restoration of Existing Training Walls at Varsoli Creek, Alibag, District Raigad, Maharashtra, India<br>*(Uday B. Patil, A. V. Mahalingaiah., Kumaran V., Ganesh N. S)* |
| 3 | 202 | Hydraulic model studies to assess the wave conditions near the spillway of Kalpasar Dyke under the extreme climate<br>*(Dr. Prabhat Chandra, R.K. Chaudhari, S.K. Kori)* |
| 4 | 312 | Numerical modeling of flow through a Perforated Chambered breakwater<br>*(K Aiswaria, Ramakrishnan Balaji)* |
| 5 | 348 | Numerical Modelling of Solitary wave diffraction around V-shaped breakwater<br>*(Shaik Firoj& Mohammad Saud Afzal)* |
| 6 | 511 | Adaptation of Random Sea Wave Generation System Over Regular Wave Generation System for Conducting Wave Tranquillity Studies- Case Study<br>*(Jamir Bagwan, Ashok Chalawadi Parag Kashyape,Dr. M Phani Kumar Dr Prabhat Chandra)* |
| 7 | 513 | Comprehensive Mathematical ModelingAnd Hydrodynamic Analysis For Jetty Expansion At Salaya, Gujarat: A Case Study<br>*(Naval S Jagatap, A K Singh, Dr. J. Sinha)* |
| 8 | 557 | Numerical Investigation of tsunami – like flow interacting with vegetation belt<br>*(N. Hari Ram& V. Sriram)* |

| Day 1: 18 December 2024 , Time: 4:20 PM to 5:45 PM, Venue : Padmashri Dr. Z. S. Tarapore hall | | |
|---|---|---|
| **Theme: Hydraulics (TS 3)** | | |
| **Chair: Dr. H. L. Tiwari, MANIT, Bhopal** | | **Co-chair: Shri V.S. Ramarao, CWPRS, Pune** |
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| **Sl. No.** | **Paper ID** | **Paper Title and Authors** |
| 1 | 192 | Studies for the Location of Intake and its Hydraulic Design in Chambal River for Water Supply to Morena City, Madhya Pradesh<br>*(Kuldeep Malik, Mrs.K.V. Katte &Dr. R.G. Patil)* |
| 2 | 193 | Hydraulic Model Studies for the Proposed Barrage across River Kamla at Jaynagar, Dist. Madhubani, Bihar<br>*(Kuldeep Malik, N. A. Sonawane, Mrs. K.V.Katte, Dr.R.G.Patil)* |
| 3 | 317 | Estimation and Comparison of Sequent Depth Ratio of Hydraulic Jump in Trapezoidal Channel<br>*(Rohan Yelure, Aniruddha.D. Ghare & Ankur Kapoor)* |
| 4 | 328 | Enhancing Flow Efficiency of The Vellamalai Tunnel Exit Channel: A Case Study On Geometric Profile Optimization<br>*(C. Balaji, Soumendra Nath Kuiry, D. Damodaran, D. Diwakar &R.Nandhakumar)* |
| 5 | 478 | Optimization of flow distribution for Sequencing Batch Reactor in Sewage Treatment Plant using CFD modelling |

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|---|---|---|
| | | *(Gupta K., Desai R.&Kalaskar A.)* |
| 6 | 530 | Coupled numerical model for fluvial flooding: A simplified framework<br>*(Ravi Shukla, Gourabananda Pahar)* |
| 7 | 594 | Investigating the Flow Hydroynamics in A Compound Channel with Flexible Vegetated Floodplains<br>*(Laxman V Rathod , P V Timbaidya& Bandita Barman)* |

| **Day 1: 18 December 2024 , Time: 4:20 PM to 5:45PM, Venue : CT 1** | | |
|---|---|---|
| **Theme: Climate Change Impact on Water Resources (TS 3)** | | |
| **Chair: Prof. Manish Pandey, IIT Kharkpur,** | | **Co-chair: Smt. Sangeeta Patnaik, CWPRS, Pune** |
| | | |
| **Sl. No.** | **Paper ID** | **Paper Title and Authors** |
| 1 | 316 | Investigation of coincidental compound extremes for a Himalayan River basin<br>*(SinghA., Barbhuiya S.A., Sharma P.J., GuptaV., Sharma A.)* |
| 2 | 340 | A novel framework to quantify the risk index of extreme rainfall for Ramsar wetlands surrounding smart cities in India<br>*(Shivukumar Rakkasagi& Manish Kumar Goyal)* |
| 3 | 354 | Global Detection and Analysis of Aerosol Atmospheric Rivers<br>*(Kuldeep Singh Rautela, Manish Kumar Goyal)* |
| 4 | 377 | Protection of urban coastal infrastructure against beach erosion at Aksa Beach, Mumbai<br>*(NareshKGLakku, Sankalp Shevale, Monalisa Das&ManasaRBehera)* |
| 5 | 392 | Have the Rainfall Patterns Evolved over Madhya Pradesh in the Recent Period?<br>*(Vikas S. Gore, Priyank J. Sharma)* |
| 6 | 417 | Changes in Magnitude and Timing of Peak Floods in the Narmada River Basin<br>*(Shukla S., Sharma P.J)* |

| Day 2: 19 December 2024 , Time: 11:40 AM to 1:00PM, Venue : CT Hall | | |
|---|---|---|
| **Theme: Surface Hydrology and Watershed Management (TS4)** | | |
| **Chair: Dr. R. V.Galkate, NIH Bhopal** | | **Co-chair: Dr. Vikas Poonia, MANIT, Bhopal** |
| | | |
| **Sl. No.** | **Paper ID** | **Paper Title and Authors** |
| 1 | 100 | Development of a Combined Drought Index for a Comprehensive Drought Assessment in Maharashtra, India<br>*(Manoj Pavan Kumar Kolla, Manali Pal& Hussain Palagiri)* |
| 2 | 106 | Modelling of Stage Discharge Relationship for Major Gauging Sites of Jhelum River Basin, Kashmir<br>*(Waseem Rashid Taley, Mohd Arbin Bilal, Prof. A. Q. Dar)* |
| 3 | 108 | Mapping Spatial Patterns of Drought Hazard, Exposure and Vulnerability for Maharashtra, India<br>*(Yaswanth Aragonda, Hussain Palagiri & Manali Pal)* |
| 4 | 113 | Development of Unit Hydrograph for River Jhelum Basin J&K India: A Case Study<br>*(Waseem Rashid Taley, Jitender Kushwaha, Madiha Farooq, Reyaz Hussain & Prof. Abdul Qayoom Dar)* |
| 5 | 115 | Hydrodynamic Flood Modelling and Geospatial Mapping of the Netravati River Basin, India<br>*(Vamshi Krishna, Manish Singh, & Varija. K)* |
| 6 | 155 | A Calibration-Free Dynamic Budyko Model for Streamflow Prediction In Data-Scarce Regions<br>*(Prashant Istalkar& Basudev Biswal)* |
| 7 | 268 | Drought Analyzing Technique Using Standardized Precipitation Index at all Talukas in Ahmednagar District, Maharashtra, India<br>*(Sanju R. Phulpagar, S.B. Dhule, R.M. Sawant, A.S. Pande, A.R. Thorat, P.A. Paikrao& A.A. Chavan)* |
| 8 | 314 | Performance Assessment of SRTM and FABDEM in 2D Hydrodynamic Modelling using HEC-RAS<br>*(Sandip Rajput, P. V. Timbadiya & P. L. Patel)* |
| 9 | 380 | Identification of Critical Watersheds for Potential Soil Erosion in Reservoir Catchment<br>*(Dr. Santosh Wagh, Dr. Vivek Manekar)* |

| Day 2: 19 December 2024 , Time: 11:40AM to 1:00PM, Venue : Auditorium | | |
|---|---|---|
| **Theme: River Engineering and Fluvial Hydraulics (TS4)** | | |
| **Chair: Prof P. V. Timbadiya, SVNIT** | | **Co-chair:Shri Arun Kumar, CWPRS, Pune** |
| | | |
| **Sl. No.** | **Paper ID** | **Paper Title and Authors** |
| 1 | 135 | Advancements and Challenges in Sediment Bypass Tunnels for Reservoir Sedimentation Management<br>*(Faisal Ahmad&Zulfequar Ahmad)* |
| 2 | 355 | Development of Regional Monthly Model for Assessment of Water Availability in Chambal Basin of Ganga River System<br>*(R. K. Jaiswal, R. V. Galkate, Pushpanjali Kumari, H. L. Tiwari, A. K. Lohani)* |
| 3 | 480 | Study of Flow Field Around Abutment Under Injection Seepage<br>*(Panchali Chakraborty & A.K Barbhuiya*) |
| 4 | 489 | Experimental Study on Local Scour around the Bridge Pier in Cohesive Soil |

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| | | *(Divya Shree T P, Sanjay Kumar D,Mohammed Furqan, Sreedhara B M)* |
| 5 | 531 | Experimental Study on Scour Mitigation Work Around Bridge Abutment by Using Spur Dikes<br>*(Nagendra Babu Thota,Reshma Tabassum, Nanduri V. Umamahesh& Manish Pandey)* |
| 6 | 551 | Pier protection from Scouring with Collar<br>*(Dr.Khaple Shivakumar, Dr. Sumant Choudhari, Dr. Rahul Karale, Dr. G. A. Hinge &Dr.Khandekar Sachin Dadu)* |
| 7 | 563 | Scour Protection using Circular Pipe in upstream of Vertical Wall Bridge Abutment<br>*(DamodarLalMeena, VikasGarg)* |
| 8 | 591 | Assessing Velocity Variations Due to Flexible Vegetation in Compound Channels with Converging Floodplains<br>*(Noopur Awasthi &DrRitu Raj)* |

| **Day 2: 19 December 2024 , Time: 11:40AM to 1:00PM, Venue : CT 2** | | |
|---|---|---|
| **Theme: Hydroinformatics(TS4)** | | |
| **Chair: Prof S. N. Kuiry, IIT, Madras** | | **Co-chair: Shri S. J. Pillai, CWPRS, Pune** |
| | | |
| **Sl. No.** | **Paper ID** | **Paper Title and Authors** |
| 1 | 8 | The Utilization of Remote Sensing in Disaster Management<br>*(Pritee Krishna Das ,Dr.Vivek Singh &Dr. Rajiv Lochan Sahu)* |
| 2 | 10 | Integrating Quantitative Morphometric Analysis and Land Use Assessment of Sina River Basin, Maharashtra, India<br>*(Dr. Sahil Salvi, Dr. HarishTiwari, Dr. Sudarshan Bobade, Mr. Ranjeet Sabale, Dr.ArunDhawale&Mrs. Anuja Rajgopalan)* |
| 3 | 197 | ML-Based Prediction of streamflow using GRACE<br>*(Diksha Gupta & C.T. Dhanya)* |
| 4 | 298 | Significance of inputs selection in soft computing Techniques for forecasting Runoff<br>*(Aparna Deulkar, Dr. Pradnya R. Dixit, Dr.Shreenivas N. Londhe&Dr. Rakesh K. Jain)* |
| 5 | 338 | Water Availability Assessment of Krishna River Using SWAT-Model<br>*(Sakshi Kshirsagar, Ranjeet Sabale, Sandhya Somwanshi, KrushnkantMulge, Pankaj Varma, Dr. Sudarshan Bobade, Dr. Sahil Salvi)* |
| 6 | 353 | Evolution and Roadblocks in Water Quality Assessment via Remote Sensing: A Comprehensive Review<br>*(Abhishek Kumar Tripathi, Sudhir Kumar& Mahesh Kumar Jat)* |
| 7 | 403 | Multi-Product Assessment of the Precipitation Extremes during the Indian Summer Monsoon<br>*(Sandipan Paul, Priyank J. Sharma, Ramesh S.V. Teegavarapu)* |

| Day 2: 19 December 2024 , Time: 11:40AM to 1:00PM, Venue : Padmashri Dr. Z. S. Tarapore hall | | |
|---|---|---|
| **Theme: Hydraulics (TS4)** | | |
| **Chair: Dr. M. Selvabalan,CWPRS,Pune** | | **Co-chair: Shri B .S. Sundarlal, CWPRS, Pune** |
| | | |
| **Sl. No.** | **Paper ID** | **Paper Title and Authors** |
| 1 | 200 | Studies to assess the afflux due to modification of waterway arising out of strengthening the railway bridge piers<br>*(Jotsana G. Ambekar, B. Raghuram Singh &Dr. R. G. Patil)* |
| 2 | 229 | Performance of headrace channel -a case study<br>*(Dr. K. C. Sahu)* |
| 3 | 346 | A Robust Framework for Simulating Flow Through Rigid Obstacles Using Areal Averaged Shallow Water Equations<br>*(Alok Kumar &Gourabananda Pahar)* |
| 4 | 356 | Numerical simulation of flow hydrodynamics at multiple water intake structures<br>*(Muhammed Hashid)* |
| 5 | 422 | Physical and mathematical Transient analysis for adequacy of surge tunnel of water conductor system<br>*(Sushma Vyas, M. K. Verma &Dr. R. G. Patil)* |
| 6 | 438 | Thermodynamic Test- A Non Invasive Technique for Efficiency Measurement of Hydraulic Machines<br>*(T.K.Swain, K.Kumar,M.F.Rahman)* |
| 7 | 454 | Optimization of layout of Spillway Approach Channel by numerical model studies<br>*(Vankayalapati S. Ramarao, M. G. Muni Reddy, K. C. Sahu)* |

| Day 2: 19 December 2024 , Time: 11:40AM to 1:00PM, Venue : CT 1 | | |
|---|---|---|
| **Theme: Climate Change Impact on Water Resources (TS4)** | | |
| **Chair: Dr. Ray sing Meena, NIT, Hamirpur** | | **Co-chair:Shri Vivekanandan N., CWPRS,Pune** |
| | | |
| Sl. No. | Paper ID | Paper Title and Authors |
| 1 | 404 | Modelling the LULC & Climate Change Impacts on Surface Water Runoff in Pamba River Basin<br>*(Mohammad Shikaf Ali S& Vineetha Basil)* |
| 2 | 433 | Spatio-temporal variation of turbulent kinetic energy and its dissipation in Arabian Sea: A modelling study<br>*(Rajesh Chauhan,Manasa Behera & Sridhar Balasubramanian)* |
| 3 | 453 | Assessing climate variability influences on hydroclimatic extremes in a semi-arid basin<br>*(Alka Sharma,Priyank J. Sharma, P. L. Patel & Anish Chandra)* |
| 4 | 467 | Assessment of flood based on CMIP5 climate modelsforBisalpur dam area in Banas river basin using RCP4.5 & RCP 8.5 scenarios<br>*(Vineet Kumar Sharma, Archana Sarkar & Rohit Goyal)* |
| 5 | 477 | Meteorological Behaviour at Kalingapatnam Coastal Site, Andhra Pradesh-- A Case Study Based On Relative Humidity and Air Temperature<br>*(Vivek Saxena, Y. R. Bhagat, G. V. Ramana Rao, N. Vivekanandan)* |

| Day 2: 19 December 2024 , Time: 2:30 PM to 4:00PM, Venue: CT Hall | | |
|---|---|---|
| **Theme: Surface Hydrology and Watershed Management (TS 5)** | | |
| **Chair: Prof. Sanju R. Phulpagar, PES College, Aurangabad Co-chair: Shri Somil Swarnkar, IISER Bhopal** | | |
| | | |
| **Sl. No.** | **Paper ID** | **Paper Title and Authors** |
| 1 | 162 | Estimating the Impact of Soil Erosion on Agricultural Productivity using the RMMF Model and Local Perception in Eastern India.<br>*(Laxmipriya Pati,and Janhabi Meher)* |
| 2 | 166 | Flood Frequency Analysis of Panchaganga River Catchment, Kolhapur, Maharashtra<br>*(U. A. Mahadik , S. S. Shahapure & P. W. Gajghate)* |
| 3 | 214 | Modeling of Surface runoff for Indian River Basin: A Review<br>*(Annapurna Patra, Azharuddin G. Golandaj, Ujjal Chowdhry, C.Srishailam, R.G. Patil)* |
| 4 | 219 | Assessment of Water Distribution System for SGGSIE&T, Nanded Campus using EPANET 2.0<br>*(Vaishnavi Ghadbale, Kiran Gajbhiye&Dr. Pranita N. Balve)* |
| 5 | 223 | Flood protection measures on River Swan from Santokhgarh Bridge to Anandpur Sahib in Punjab region<br>*(B. Raghuram Singh, V. K. Barodiya & Dr. R. G. Patil)* |
| 6 | 242 | Enhancement of Water level for Intake well in River Pravara using Mathematical model Study<br>*(Keerthana H, Shivanand Siddappa Kerimani, Dr. Shivakumar J Nyamathi , Dr. R. G. Patil)* |
| 7 | 245 | An Integrated Watershed Management Modeling Using Generic Optimization Model (GOM): A Case of Pawana River Basin, Maharashtra, India<br>*(Dr. Sudarshan Bobade , Dr. Harish Tiwari , Dr. Arun Dhawale , Ranjeet Sabale, Dr. Sahil Salvi , Rohit Deshmukh)* |
| 8 | 472 | Neighbourhood based population forecasting for infrastructure planning in extended urban city<br>*(Arjun Vishwakarma, Sanjaykumar M. Yadav)* |
| 9 | 503 | Temporal Evolution of Meteorological Droughts over the Upper Chambal River basin<br>*(Solanki H., Sharma P.J.)* |

| Day 2: 19 December 2024 , Time: 2:30 PM to 4:00PM, Venue: CT1 | | |
|---|---|---|
| **Theme: Hydroinformatics (TS 5)** | | |
| **Chair: Prof. V. Jothiprakash, IIT Bombay** | | **Co-chair:Shri. S. J. Pillai, CWPRS,Pune** |
| | | |
| Sl. No. | Paper ID | Paper Title and Authors |
| 1 | 18 | Land Use and Land Cover Change Detection Using GIS to determine Change in Hydrological Parameters of Thiruvananthapuram District<br>*(Joel Shajee, Sidharth Babu, Simjesh S G, Snehal Sabu &Dr. Alice Thomas, Dr. Minu Ann Peter)* |
| 2 | 34 | Experimental Investigations and AI Modelling of Scouring Depths for Improved Structural Integrity<br>*(Cherishma. P, Sreeya. M, K. Devi, J. R. Khuntia, Ramanarayana. S & B.S.Das)* |
| 3 | 55 | Application of Remote Sensing and GIS for Studying the Impact of LULC Changes on Runoff: A Review<br>*(Mr. A.H. Raheja, Dr. A.W. Dhawale)* |

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| 4 | 61 | Sustainable Urban Development in Karnataka: Addressing the Challenges of Rising Land Surface Temperatures and Water Scarcity<br>*(ChandanaA.& Shwetha HR)* |
| 5 | 71 | Development and Evaluation of Hybrid Statistical Downscaling Models for Precipitation Prediction in India Using Machine Learning Techniques<br>*(Abrol N., Arora H., Bashita N.K. and Gupta T.)* |
| 6 | 77 | Evaluating Soil Moisture: A Comparison of Satellite and In-Situ Observations<br>*(Harshita Rani Ahirwar , M.K. Nema & A.K. Nema)* |
| 7 | 159 | Evaluation of GCMs from CMIP5 and CMIP6 for Indian Precipitation<br>*(Varun Matolia, Himanshu Arora, Tanvi Gupta & Manisha Kumari Khardia)* |
| 8 | 167 | Google Earth Engine for Rooftop Rain-water harvesting potential mapping: A Random Forest Classification Using Spectral Information<br>*(Saravanan Subbarayan, Ramanarayan S, N R Dakshinamurthy, Divya R, Arivoli E , Niraimathi J)* |
| 9 | 452 | Discharge prediction in a compound channel having converging and diverging flood plains using XgBoost, SVM & PSO-SVM<br>*(Kumar A., Sandilya S.S., Das B.S.)* |

| **Day 2: 19 December 2024, Time: 2:30 PM to 4:00PM, Venue: CT 2** | | |
|---|---|---|
| **Theme: Coastal/Harbor & Ocean Engineering (TS 5)** | | |
| **Chair: Dr. Prabhat Chandra, CWPRS, Pune** | | **Co-chair: Shri B. R. Tayade, CWPRS, Pune** |
| | | |
| **Sl. No.** | **Paper ID** | **Paper Title and Authors** |
| 1 | 58 | River Mouth change due to Coastal Dynamic: A case study on Kollidam River, Tamil Nadu – using Remote Sensing and DSAS software<br>*(S. Prasanna Venkatesh,V. R. Koushik Jayaram, M. S. Rishidhar, V. Subhanesh, & S. E. Saranaathan)* |
| 2 | 273 | Innovative Approaches to Cochin Tide Prediction: A Comparative Analysis of Ann and Anfis Methods<br>*(Sneha Krishnan, M. M. Parvathy, Mukul Kumar Sahu & G. S. Dwarakish)* |
| 3 | 400 | Shoreline Extraction and Analysis from Satellite Imagery Using Geospatial Tools<br>*(Anas A., Vineetha Basil)* |
| 4 | 427 | Optimization of proposed fishery harbour layout using mathematical model at Bharadkhol in Raigad District, Maharashtra.<br>*(Komal. S. Vighe, Rahul Sawant, Dr.A. K. Singh, Dr. J. Sinha)* |
| 5 | 439 | Development of Inland water way in Kali River, Karnataka<br>*(Shivani Sahu, V.B Sharma, VaibhavKonde, Dr. M. Phani Kumar, Dr. Prabhat Chandra)* |
| 6 | 486 | Numerical Investigation On The Wave Attenuation Due To The Interaction With Corrugated Semicircular Breakwater<br>*(Rishav Kumar, Mohammed Furqan, A Manoj, Praveen K M & Sreedhara B M)* |
| 7 | 518 | Coastal data collection and analysis for hydraulic model studies at Jafrabad, Gujarat<br>*(J. A. Shimpi, S.G Manjunatha, K.B Bobade, Coastal Data Centre, CWPRS, Pune, India)* |
| 8 | 559 | Numerical Investigation on the Performance of Curved and Rectangular Buffer Blocks as Tsunami Bore Energy Dissipators<br>*(N.SakthiVasanth,K.Varatharaj, V.Sriram, V.Sundar&H.Schüttrumpf)* |

| Day 2: 19 December 2024, Time: 2:30 PM to 4:00PM, Venue: Padmashri Dr. Z. S. Tarapore hall | | |
|---|---|---|
| **Theme: Hydraulics (TS 5)** | | |
| **Chair: Prof. Vinay Chembolu, IIT Jammu** | | **Co-chair: Dr. G. D. Naidu, CWPRS, Pune** |
| | | |
| Sl. No. | Paper ID | Paper Title and Authors |
| 1 | 209 | Hydraulic Model Studies for Desilting Chamber – A case study of Teesta H.E. Project, Stage-IV<br>*(M.Z. Qamar, M.K. Verma& A.P. Meshram)* |
| 2 | 221 | Comprehensive Physical model study approach for efficient hydraulic design of spillway and energy dissipator of a dam project from Himalayan region - a case study<br>*(K.T. More, S.A. Beturkar, M.K. Verma)* |
| 3 | 236 | Physical and Numerical model studies for Hydraulic design of Solid roller bucket as an Energy dissipator of a Spillway - A Case study<br>*(BoddupalliSSundarlal, Mrs. Gadhe Vaishali. P., Kulhare Amit &Gaikwad Amol H.)* |
| 4 | 362 | Dam-Break Modelling of Rangpo Dam and Rongli Dam for the Chuzachen Hydroelectric Project and Flood Inundation Mapping of Post Dam-Break Scenario<br>*(P. Machhkhand)* |
| 5 | 381 | Hydraulic Performance and Design Methods of Labyrinth Weir<br>*(Praful R. Khobragade, Dr. Bhalchandra V.)* |
| 6 | 484 | *Experimental and Numerical model studies on flow patterns and energy dissipation on ogee spillway(Yashvanth N, Shebaz, Muhammed Mahin A N, Nithya S R, Sreedhara B M, Punithraj G & Praveen K M)* |
| 7 | 545 | Evaluating Flood Dynamics and Infrastructure Resilience: A Case Study of the 2008 Kusaha Breach in the Kosi River<br>*(Md Shahadat Hossain,Rajat Prakash Singh, Amit Kumar Singh, Abhishek Ranjan, Ankita Singh, Arti Sinha)* |
| 8 | 584 | Experimental Investigation of Sump Pump Flow Characteristics<br>*(Shekhar Singh, S.V. Prabhu & TI Eldho)* |

| Day 2: 19 December 2024 , Time: 2:30 PM to 4:00PM, Venue: Room No. 12 | | |
|---|---|---|
| **Theme: Climate Change Impact on Water Resources (TS 5)** | | |
| **Chair: Dr. R. K. Jaiswal, NIH Bhopal** | | **Co-chair: Shri Hnumanthappa D.,CWPRS, Pune** |
| | | |
| **Sl. No.** | **Paper ID** | **Paper Title and Authors** |
| 1 | 414 | Climate Perturbed Flow Duration Curve Technique to Explore Hydro-Climatic Future in part of Upper Krishna basin<br>(R. V. Kale, A. Ahirwar, S. Kumar& A. K. Lohani) |
| 2 | 430 | Hydroclimatic Modelling Regional Sea Level Rise over Arabian Sea and Its Future Projection<br>*(Naren A. and Sinha J)* |
| 3 | 493 | Developing a Multivariate Climate-Based Flood Risk Scoring Method for India<br>*(MazhuvancheryAvarachen Sherly, Nishanth Mothkuri, Bindu Madhavi Atla, Geetha Sakamuri, Samyadeep Ghosh, Srinivas Kondapalli, Hemant Chowdhary)* |
| 4 | 506 | Long-Term Spatial and Temporal Climate Trends in Bandipur National Park: Insights from Maximum Temperature, Minimum Temperature, and Wind Speed<br>*(Abhishek Pawar, Vasala Saicharan & Shwetha H R)* |

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|---|---|---|
| 5 | 522 | Trend Analysis of Seasonal and Annual Rainfall of Vrishabhavathi Catchment<br>*(Yatish RamE.R, Amrutha Rani H.R , N. Vivekanandan and A.S. Ravikumar)* |

| **Day 2: 19 December 2024 , Time: 2:30 PM to 4:00PM, Venue: Auditorium** |
|---|
| **Theme: Hydro Hackathon: IAHR Young Professionals Network- event Organized by IAHR Southern India YPN and IAHR India YPN collaboration with The Indian Society for Hydraulics (ISH)** |

| **Day 2: 19 December 2024, Time: 4:10 PM to 5:30PM, Venue: CT Hall** | | |
|---|---|---|
| **Theme: Surface Hydrology and Watershed Management (TS 6)** | | |
| **Chair: Prof. V. L. Manekar, SVNIT** | | **Co-chair:Shri M. Z. Qamar, CWPRS, Pune** |
| Sl. No. | Paper ID | Paper Title and Authors |
| 1 | 271 | A Comparison of GPM- IMERG and Radar Derived Precipitation in Hydrological Modeling of Adyar Basin for Michaung Cyclonic Storm<br>*(V. V. Aaritha, Soumendra Nath Kuiry and V. Chandrasekar)* |
| 2 | 280 | On the need to redefine the functionality of tanks in the urban context<br>*(Elanchezhiyan Duraisekaran, Sudharsanan Rajagopalan, Jeciliya Selva Kiruba Samuel, Govindasamy Ravikumar & Balaji Narasimhan)* |
| 3 | 284 | Ensemble inflow forecasting driven by improved parameterization of weather model in upstream catchments of the Western Ghats<br>*(Jeciliya Selva Kiruba Samuel, Kirthiga S M, Elanchezhiyan Duraisekaran& Balaji Narasimhan)* |
| 4 | 528 | HEC-HMS Based Rainfall-Runoff Model for Burhigandak River Basin<br>*(K.L.Babu, A.K.Keshari)* |
| 5 | 544 | Flood risk management through hydrological basin modelling of the Sone River basin using MIKE HYDRO BASIN incorporating reservoirs and structures<br>*(Liton Chandra Mazumder, Tarun Kanti Magumdar, Md. Shahadat Hossain, Prashant Kumar, Amit Kumar Singh, Abhishek Ranjan, Rajat Prakash Singh, Ankita Singhand Kazi Hassan)* |
| 6 | 546 | Spatial-temporal assessment of streamflow for identifying suitable locations for surface rainwater harvesting using GR4J<br>*(Sri Priyanka Kommula, Dongryeol Ryu, Bharat Lohani & Stephan Winter)* |
| 7 | 550 | Rainfall-Runoff Modeling of Punpun River Basin Using ANN and SVR Techniques<br>(Ranjan S., kalyan K., Kumar S. and Singh V.) |
| 8 | 592 | Optimising Hydro-Meteorological Data Acquisition Network in Semi-Arid Watershed using Thiessen Polygon and GIS: A Case Study for Bisalpur Dam<br>*(Sanjay Agarwal, Archana Sarkar & Rohit Goyal)* |

| **Day 2: 19 December 2024 , Time: 4:10 PM to 5:30PM, Venue: Auditorium** | | |
|---|---|---|
| **Theme: Hydroinformatics (TS 6)** | | |
| **Chair: Dr. M. Selvabalan,CWPRS,Pune** | | **Co-chair:Shri M. S. Bist, CWPRS, Pune** |
| Sl. No. | Paper ID | Paper Title and Authors |
| 1 | 91 | Application of the Fuzzy Analytic Hierarchy Process (Fuzzy AHP) Method in Multi-Criteria Decision Making<br>*(Amit Jain, Sejal Chandel, V. L. Manekar, J. N. Patel)* |
| 2 | 171 | Seasonal variation in PM10 concentrations in Navi Mumbai city: Mapping and Spatial Interpolation using GIS |

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|---|---|---|
| | | *(Sujaya Wadekar, S. Sangita Mishra)* |
| 3 | 188 | Performance Assessment of Narayanpur Irrigation System Using Remote Sensing Based Inputs<br>*(S. Sithara, Sanjay Mallya, Annie Maria Issac, Varun Pandey, K. A. Nalnajisa, Taroob Bashir Naqash, Nidhi Misra, K. Chandrasekar, P. Venkat Raju)* |
| 4 | 207 | Estimation of actual evapotranspiration using penman-montieth method for indriyani river basin using remote sensing and gis.<br>*(N. Muniappan, S.Wagh, S. Sutar, S. Shetty, K. Koyande, S. Iapate, K. Londhe & S.P. Rajaveni)* |
| 5 | 230 | Application of Extreme Gradient Boosting and PSO-SVM method in modelling Live Bed Scour Depth around Bridge Piers<br>*(Kumari P., Baranwa, A., Das B.S.& Singh S.K.)* |
| 6 | 241 | Landslide Vulnerability Assessment of a Landslide Prone Region in Northeast India<br>*(Dibyajyoti Saikia, & Monomoy Goswami)* |

| **Day 2: 19 December 2024 , Time: 4:10 PM to 5:30PM, Venue: CT 2** | | |
|---|---|---|
| **Theme: Coastal/Harbor & Ocean Engineering (TS 6)** | | |
| **Chair: Shri. A. A. Purohit, CWPRS, Pune** | | **Co-chair:Shri M. M. Vaidya, CWPRS,Pune** |
| **Sl. No.** | **Paper ID** | **Paper Title and Authors** |
| 1 | 375 | Wave Loads on Seawalls and Influence of Retrofit Method: A Numerical Study<br>*(NimmaRambabu&SrineashV K)* |
| 2 | 408 | Shoreline Modifications at Chethi Fishery Harbour on South West Coast of India<br>*(KunhimammuParavath&T.Nasar)* |
| 3 | 447 | Design of Breakwater For The Development of Fish Landing Centers – A Case Study<br>*(Praveen K M, B R Tayade, G R Pardeshi and A. V. Mahalingaiah)* |
| 4 | 449 | Coastal protection measures for prominent structures along Indian coastline – A case study<br>*(B R Tayade, Praveen K M, Deepak Sharma &S P Jagtap)* |
| 5 | 468 | Identification of SW-GW Interaction Pattern in Coastal Agricultural Region<br>*(Shubhshree Panda &SanatNalini Sahoo)* |
| 6 | 516 | Numerical model studies for optimizing layout on West Coast of India using ERA5 wind data<br>*(Amol S Borkar, Santosh Kori, Dr. M. Phani Kumar &Dr. Prabhat Chandra)* |
| 7 | 517 | Role of physical wave model in evolving harbour entrance by studying wave reflections from adjacent breakwater – a case study<br>*(Sudheer S. ChavanM.D. Sawant, Dr M. Phani Kumar,Dr. Prabhat Chandra)* |

| **Day 2: 19 December 2024 , Time: 4:10 PM to 5:30PM, Venue:PadmashriDr. Z. S. Tarapore hall** | | |
|---|---|---|
| **Theme: Hydraulics (TS 6)** | | |
| **Chair: Prof. V. Jothiprakash, IIT Bombay** | | **Co-chair:Shri M.K.Verma, CWPRS, Pune** |
| Sl. No. | Paper ID | Paper Title and Authors |
| 1 | 127 | Physical Modeling of Pluvial Urban Flood Scenarios<br>*(R. Reshma, Pravas Ranjan Pradhan& Soumendra Nath Kuiry)* |
| 2 | 237 | Wireless Data Communication Systems/Protocols for Sensors on near/remote sites: Significance and Comparison<br>*(Dorle P.K., Saurabh Anand& Dr M Selva Balan)* |
| 3 | 470 | Semi-Automated Framework for Stream Gauge Datum Estimation Using Sentinel Imagery |

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| | | *(SwarnadeepMukherjee, MazhuvancheryAvarachen Sherly, DineshBorse, Samyadeep Ghosh, Srinivas Kondapalli, Matthew Hergott, Abebe Jemberie and Hemant Chowdhary)* |
| 4 | 499 | Effect of Spin on Calibration of Cup Type Current Meters<br>*(M. Someshwara , H. R. Khandagale& S. R. Swami)* |
| 5 | 501 | Drag force measurement of Wheeled Armoured Platform (WhAP) Combat Vehicle Model using Rating Trolley<br>*(H. R. Khandagale , M. Someshwara & S. R. Swami)* |
| 6 | 554 | Transient Analysis and Protection of Water Transmission pipe lines for Irrigation systems<br>*(G. V. R. Murthy & Vishal S. Telgote)* |
| 7 | 593 | Flow turbulence and third order correlations in an asymmetric sinuous channel<br>*(GurugbelliYatirajulu, P V Timbadiya& Bandita Barman)* |

| **Day 2: 19 December 2024 , Time: 4:10 PM to 5:30PM, Venue: CT 1** | | |
|---|---|---|
| **Theme: Water Resources (TS 6)** | | |
| **Chair: Dr. R. V.Galkate,NIH-Bhopal** | | **Co-chair:Prasad Kunjeer, CWPRS, Pune** |
| Sl. No. | Paper ID | Paper Title and Authors |
| 1 | 26 | Determining Wheat Irrigation Efficiency through Machine Learning-Based Crop Water Stress Index Estimation<br>*(Y. Bhandari, S. Dubey, R. Garg, V. Dubey, P.K. Dandotia, K.S. Hari Prasad and C.S.P. Ojha)* |
| 2 | 41 | Effect of Crop Sowing Date on Water Balance in an Arid Region of India<br>*(Nikul Balotiya, Himanshu Arora and Nitesh Amberia)* |
| 3 | 48 | Modelling Agricultural Productivity under Reduced Water Availability for Haridwar District, Uttarakhand<br>*(Sreya Bhowmik & Hemant Kumar )* |
| 4 | 49 | Use of AVIO Gates at Head of the Canal for Water User's Association (WUA)<br>*(Dr. Padmakar Kelkar ,DileepTawar&Dr. Sudhir Agashe)* |
| 5 | 72 | Experimental Study on Soil Moisture Movement in the Root Zone of Wheat Crop and Crop Growth during its Mid-Season in a Warm Semi-arid Climate Region<br>*(Amberia N. and Arora H. & Jat M.K)* |
| 6 | 418 | Hydrological Impacts of Large Reservoirs on Alterations in the RiverFlow Regimes<br>*(Arpit Tiwari, Priyank J. Sharma)* |
| 7 | 575 | Integrated Analysis and Management of Urban Water Resources in Rapidly Growing Indian Cities: Harnessing High-Resolution Earth Observation Data and LID Measures for Sustainable Development<br>*(Suryansh Mandloi, Minotshing Maza & Lokesh Patel)* |

| Day 3: 20 December 2024, Time: 10:15 AM to 11:45 AM, Venue: CT Hall | | |
|---|---|---|
| **Theme: Surface Hydrology and Watershed Management (TS 7)** | | |
| **Chair: Shri Hanumanthappa D., CWPRS, Pune** | | **Co-chair:Shri Sachin Marulkar, CWPRS, Pune** |
| **Sl. No.** | **Paper ID** | **Paper Title and Authors** |
| 1 | 285 | Flood-Inundation Mapping of the Krishna River Basin Using Remote Sensing and GIS Techniques<br>*(DharmRajBairwa&ManojKumarDiwakar)* |
| 2 | 300 | Identification of moisture source of the precipitation and isotopic variability in the mid-Himalayan catchment through stable water isotopes<br>*(Abhishek Sharma, Vijay Shankar, P.K. Thakur)* |
| 3 | 306 | A novel approach for flash drought quantification and its impact over Indian River Basins<br>*(Vikas Poonia)* |
| 4 | 311 | Watershed Management of Arpa River Basin: Identification of Potential Surface Water Storage Zones Using Remote Sensing and GIS<br>*(Ashutosh Chaturvedi &ManojKumarDiwakar)* |
| 5 | 320 | Flood Estimation of Narmada River Using Hydraulic Model and GIS Techniques<br>*(Manoj Kumar Diwakar &HimanshuSingh)* |
| 6 | 321 | Assessment of Probable Maximum Flood (PMF) Hydrograph Estimation Techniques: A Comparison of Central Water Commission (CWC) Method and HEC-HMS Modelling<br>*(Revathy Raj S.,ShibuA.& Anand T. )* |
| 7 | 360 | Event-Based Hydrological Modelling of Ghaggar River Watershed Using HEC-HMS Model<br>*(MohitKumar,&SonuDuhan)* |
| 8 | 406 | Flood Frequency Assessment for Ungauged Catchment of Himalayan Foothills Region Using Regional Flood Frequency Relations and GLOFAS Data.<br>*(S.S. Parihar, P.K. Ranjan, A.K. Lohani, A K. kar, S. Kumar & A. Sah)* |
| 9 | 429 | Hydraulic modelling for controlling flood-induced river bank erosion: Case study of Chenab River reach<br>*(Naga Sai Viswanath B, Sreedevi.S., Arun Kumar & R.G Patil)* |

| Day 3: 20 December 2024 , Time: 10:15 AM to 11:45 AM, Venue: Auditorium | | |
|---|---|---|
| **Theme: Hydroinformatics (TS7)** | | |
| **Chair: Dr. Pradnya Dixit, VIIT Pune** | | **Co-chair:Shri Naved Ali,CWPRS, Pune** |
| | | |
| **Sl. No.** | **Paper ID** | **Paper Title and Authors** |
| 1 | 99 | Groundwater quality prediction with emphasis on arsenic using artificial intelligence and machine learning models<br>*(Abhishek Kumar Mishra, Suraj Kumar, Jitendra Kumar, Astha Kumari, Nityanand Singh Maurya)* |
| 2 | 134 | A statistical assessment of the performance of various reanalysis data and gridded precipitation datasets over India<br>*(Apala Majumder, Yaswanth P. &Balaji Narasimhan)* |
| 3 | 212 | A Novel Framework for Climate Regionalization Using AI-Based Spatiotemporal Clustering Technique<br>*(Satyajit Dwivedi, M.A..Sherly& Arun Kansal)* |

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| 4 | 231 | Machine Learning-Based Modeling of Clear Water Scour Depth around Bridge Piers Using XGBoost and ETR Approaches<br>*(Suman A., Baranwal A., Das B.S., Singh S.K.,Khuntia J. R.& Devi, K.)* |
| 5 | 235 | Predicting Temporal Scour Depth around Bridge Pier using LightGBM and PSO-SVM Machine Learning Approaches<br>*(Verma A., Baranwal A., Das B.S.)* |
| 6 | 292 | Sensitivity on Evapotranspiration Estimation by Surface Energy Balance Algorithm for Land (Sebal)<br>*(Noufia MA. and Narasimhan B.)* |
| 7 | 297 | Remote Sensing-Driven Water Quality Assessment at the Intake Site of Dwarkeswar River Basin<br>*(Suktiprajna Rath, Gilbert Hinge, Arpan Dawn)* |
| 8 | 589 | Identification of The Image Classifier for The Urban Subbasin of The Sabarmati River Basin<br>*(Navalkumar Solanki & Vivek L. Manekar)* |

| **Day 3: 20December 2024 , Time: 10:15 AM to 11:45 AM, Venue: CT 2** | | |
|---|---|---|
| **Theme: Coastal/Harbor & Ocean Engineering(TS7)** | | |
| **Chair: Dr. J. Sinha, CWPRS,Pune** | | **Co-chair:Shri S. S. Chavan, CWPRS, Pune** |
| **Sl. No.** | **Paper ID** | **Paper Title and Authors** |
| 1 | 204 | Impact of Proposed Expansion of Karwar Port on the North Coast of Karnataka<br>*(R.K.Chaudhari, S.K. Kori, Dr. Prabhat Chandra)* |
| 2 | 205 | Significance of Wave Tranquility Studies in Design of Passenger Jetty in Open Coast Near the Janjira Marine Fort<br>*(R.K.Chaudhari, S.K. Kori, Dr. Prabhat Chandra)* |
| 3 | 293 | Numerical Modelling of SPAR-type Floating Offshore Wind Turbines<br>*(Thomas, Arya, V.K. Srineash, Wang, Weizhi, M.R. Behera &Bihs, Hans)* |
| 4 | 398 | Aquatic Ecosystem Risk Assessment for Indian Coastal Ramsar Wetlands<br>*(Vijay Jain, Manish Kumar Goyal & Kiran Bala)* |
| 5 | 441 | Identification of dredged disposal ground for Sogal Channel, Deendayal Port<br>*(Shivani Sahu,Vaibhav Konde, V B Sharma, Dr. M Phani Kumar, Dr. Prabhat Chandra)* |
| 6 | 437 | Mathematical model studies to assess the impact of a groin system on shoreline evolution at Kozhikode, Kerala<br>*(Dr. Anil Bagwan, Vabhavi Roy & Dr. Jiweshwar Sinha)* |
| 7 | 526 | Locating The Dumping Ground In The Nearby Areas For Disposal Of Dredged Material From River Hooghly, West Bengal By Using Mathematical Model<br>*(V. K. SHUKLA & V. D. KOKANE)* |
| 8 | 548 | FEM Technique- A Promising Tool in Reliable Prediction of Siltation for the Development of Domestic Cruise Terminal in Macro Tidal Region<br>*(A.A. Purohit, M. M. Vaidya& K. R. Karambelkar)* |

| Day 3: 20 December 2024 , Time: 10:15 AM to 11:45 AM, Venue: Padmashri Dr. Z. S. Tarapore hall | | |
|---|---|---|
| **Theme: Dam and Appurtenant Structures (TS7)** | | |
| **Chair: Prof. S.M. Yadav, SVNIT** | | **Co-chair:Shri K. T. More, CWPRS, Pune** |
| | | |
| **Sl. No.** | **Paper ID** | **Paper Title and Authors** |
| 1 | 5 | Dams, Floods and Risk: The Case of Cheruthoni dam, India<br>*(Aditya Harikumar & Santosh G Thampi)* |
| 2 | 22 | Dam Break Flow Simulation Using Hec-Ras<br>*(K. Rahul, B. Brahmachari, A. Jayasree, K. Devi, J. R. Khuntia& B. S. Das )* |
| 3 | 177 | Remaining Life Assessment of Electric Generator in Hydropower Plant by Partial Discharge Techniques<br>*(Muhammed Faisal Rahman, T.K. Swain, Raghuchandra Garimella, Chandan Gupta)* |
| 4 | 184 | Strategy for Assessment of Gravity Dam Seepage - A Case Study of Temghar Dam<br>*(Govind A Panvalkar, Amol D Chunade, Smt. Archana K. Pund , Sunit Kumar , B. Suresh Kumar, Rizwan Ali)* |
| 5 | 211 | Enhancing dam safety and hydroelectric power plants using Robotic Inspection Solutions<br>*(Kannappa. Palaniappan.P, Riya.Mary.Varghese, Akhil.Ashokkumar, Manisery&AshaThomas)* |
| 6 | 431 | Assessment of insitu permeability in Chandas-Wathoda Earthen Dam, Amaravati, Maharashtra – A case study<br>*(Dr. Sanjay A. Burele, G. C. Singarkar, Dr.Pravuram Panda, Rizwan Ali and Dr. R. S. Kankara)* |
| 7 | 481 | Sensor-Based Experimental and Numerical Approach to Enhance Dam Safety<br>*(Tharun Ramesh, Dhanyashree P,Sreedhara B M, Punith Raj G & Praveen K M)* |

| Day 3: 20 December 2024 , Time: 10:15 AM to 11:45 AM, Venue: CT 1 | | |
|---|---|---|
| **Theme: Water Resources (TS7)** | | |
| **Chair: Dr H. L. Tiwari, MANIT Bhopal** | | **Co-chair:M .K. Verma, CWPRS, pune** |
| **Sl. No.** | **Paper ID** | **Paper Title and Authors** |
| 1 | 94 | Modeling Groundwater Flow in a Confined Aquifer Using Strong-Form Meshless Method<br>*(Kunwar Gaurav Singh &Tinesh Pathania)* |
| 2 | 137 | Sustainable Irrigation Strategies for Mitigating Water Scarcity in the Face of Climate Change: A Review<br>*(Kundan Kumar Sahu & Vishnu Prasad)* |
| 3 | 208 | Siltation Study of Rihand Reservoir at Sonbhadra District, Uttar Pradesh<br>*(Dr. M Selva Balan, M. S Bist, Dr. S Sampath, Dr. R Garimella, K.S.Murthy)* |
| 4 | 277 | Design Of Optimal Water Distribution Network for Revised Demand: A Case Study of South-West Zone (Piplod) Of Surat City<br>*(Shreshthy Raj, Nitin Singh Kachhawa& Prasit Girish Agnihotri)* |
| 5 | 309 | Hybrid Rao algorithm for multi-reservoir benchmark problem<br>*(K. B. Baladaniya, P. L. Patel, P. V. Timbadiya)* |
| 6 | 383 | Watershed Delineation and Stream Network Analysis of Jayakwadi Reservoir Catchment using GIS Technique<br>*(Raju Gaikwad, Dr. Santosh Wagh, Sunil Gaikwad, Chandrakant Mali, Pramod Mandade)* |

| Day 3: 20 December 2024 , Time: 11:55 AM to 1:00 PM, Venue: CT Hall | | |
|---|---|---|
| **Theme: Surface Hydrology and Watershed Management (TS8)** | | |
| **Chair: Dr. Vikas Poonia, MANIT Bhopal** | | **Co-chair:Shri Naved Ali, CWPRS, Pune** |
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| Sl. No. | Paper ID | Paper Title and Authors |
| | | |
| 1 | 180 | Hydrological Assessment Study for the Railway Bridges in Araria-Galgalia Section<br>*(Archana S. Shinde, N. Vivekanandan, C. Srishailam, R.G. Patil)* |
| 2 | 435 | Urban Flood Risk Modelling using PCSWMM for Chalakudy Municipality in Kerala<br>*(Revathy Radhakrishnan, T K Drissia , Chandran Kolappadan, Vishnudas N, Athil Muhammed & Nebil P K)* |
| 3 | 436 | Regional Scale Flood Modeling using HEC-HMS and HEC-RAS: A Case Study for the Meenachil River Basin in Kerala<br>*(Indu K I, Digambar S Londhe & T K Drissia )* |
| 4 | 445 | Comparison of Parameter Estimation Methods of EV1 Distribution for Intensity-Duration-Frequency Analysis of Rainfall<br>*(Manasi M. Mulay, N. Vivekanandan, R.G. Patil)* |
| 5 | 458 | Application of Large-Sample Hydrology (LSH) Datasets to Improve Prediction in Ungauged Basin (PUB) for Indian Catchments using Machine Learning Techniques<br>*(Ankit Deshmukh)* |
| 6 | 460 | Effect of Data Length on Assessment of Peak Flood Discharge Using L-Moments of Probability Distributions<br>*(N. Vivekanandan, R.G. Patil)* |
| 7 | 462 | Comparative Assessment of Infiltration Models (SCS Curve Number, Horton, Green-Ampt) using EPA-SWMM for a Stormwater Zone of Hyderabad<br>*(Mohammad Shikaf Ali S.,Mummidivarapu Satish Kumar, Rehana Shaik, Ataur Rahman)* |
| 8 | 491 | Using Standardized Evaporative Stress Ratio For Flash Drought Monitoring In Tropical Agricultural Watersheds<br>*(Bandu Himajwala, Meenu Ramadas)* |

| **Day 3: 20 December 2024 , Time: 11:55 AM to 1:00 PM, Venue: Auditorium** | | |
|---|---|---|
| **Theme: Hydroinformatics (TS8)** | | |
| **Chair:Shri Manjunatha S. G., CWPRS, Pune** | | **Co-chair:Shri Sachin Khupat, CWPRS, Pune** |
| | | |
| **Sl. No.** | **Paper ID** | **Paper Title and Authors** |
| 1 | 153 | A Comparison of Performance of AI And Hybrid-AI in Predicting Streamflow in the Wainganga Basin<br>*(Abhishek Gupta, Purneemaa R S, Manish Nema, Deepak Khare, P. Masilamani)* |
| 2 | 302 | Remote Sensing Based Estimation of Heavy Metal Contamination of Agricultural Soils Around Kali River Passing Through Aligarh District, India<br>*(Shadab Ali Khan, Saif Said)* |
| 3 | 308 | Reservoir Inflow Prediction: A Comparison Between Artificial Neural Network (ANN) And Long Short-Term Memory (LSTM) Techniques<br>*(Mahesh Shelke, Dr.S.N.Londhe, Dr.P.R.Dixit)* |
| 4 | 331 | Univariate Evaporation prediction using The Neural Basis Expansion Analysis -NBeats and long short-term memory-LSTM<br>*(P.S. Kulkarni, S.N. Londhe& P.R. Dixit)* |

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|---|---|---|
| 5 | 332 | Assessing Drought Trends and Impacts in India Using CMIP6 Data<br>*(Gupta T., Arora H., Amberia N., Matolia V.)* |
| 6 | 339 | Assessing the Potential of InSAR for Detecting Leaks in Water Distribution Networks<br>*(Arpan Dawn, Gilbert Hinge, Mohammed M. Hamouda, Ongwec Hudson, Ambedkar Kumar)* |
| 7 | 341 | Performance Evaluation of Satellite Precipitation Products and Reanalysis Data in Diverse Climatic, Topographical Zones, and Major Basins of India<br>*(Luwang Clinton Nongmaithem,Gilbert Hinge, Amandeep Kumar,Arpan Dawn)* |

**Day 3: 20 December 2024 , Time: 11:55 AM to 1:00 PM, Venue: CT 2**

**Theme: Groundwater Hydrology (TS8)**

**Chair: Shri Mahalingaiah A. V., CWPRS, Pune** **Co-chair:Dr. Andrade Rolland, CWPRS, Pune**

| Sl. No. | Paper ID | Paper Title and Authors |
|---|---|---|
| 1 | 143 | Using Remote Sensing And GIS, A Case Study of The Tel River Basin in Odisha, Explores the Depletion of Groundwater in Eastern Regions and Its Impact on River Systems.<br>*(Kumar Prabin Parida and Janhabi Meher)* |
| 2 | 157 | A Case Study in Achieving Self-Sustainability and Water Security in Township Development<br>*(Kamalini, Devi, Lokanatha, D. P ., Prashanthi, C., Cherisma P)* |
| 3 | 178 | Prospective Techniques for Treatment and Protection of Groundwater Systems: Special focus on the role of Zerovalent Iron in Permeable Reactive Barriers (PRBs) for in-situ Groundwater Remediation.<br>*(Dr. Akhil P S, Kuldeep Malik &Dr. R.G. Patil)* |
| 4 | 210 | An Appraisal of Trends of Water Quality of Khadakwasla Reservoir and its downstream area, Pune, Maharashtra: A Case Study<br>*(S. Nath, P.S.Akhil, J. N. Vyas & K. Malik)* |
| 5 | 456 | Coupled SWAT- FEFLOW model for evaluation of groundwater–surface water interactions in Valapattanam River Basin<br>*(T. M. Sharannya, M. R. Lydia, E. Abdul Hameed, C. P. Priju& Renji Remesan)* |

**Day 3: 20 December 2024 , Time: 11:55 AM to 1:00 PM, Venue: Padmashri Dr. Z. S. Tarapore hall**

**Theme: Dam and Appurtenant Structures (TS8)**

**Chair: Dr. R. G. Patil, CWPRS, Pune** **Co-chair:Smt J.S. Edlabadkar, CWPRS, Pune**

| Sl. No. | Paper ID | Paper Title and Authors |
|---|---|---|
| 1 | 191 | Enhancing Dam Safety through Magnetic Inspection Technique for Wire Ropes<br>*(Omkar Kiran Sakurikar& Golak Chandra Sahoo)* |
| 2 | 206 | Determination of dynamic elastic properties of rock core from the frequency of natural vibrations by using Resonance frequency test method for Kudankulam Nuclear Power Plant (KKNPP) – A Case Study<br>*(Vijay Ghodake, B.N. Prakash Palei, Santhosh Kumar, Rajendra Singh Gurjar, Rizwan Ali, Dr.R. S. Kankara)* |
| 3 | 251 | Utilizing Multi-Source Data for Hydrodynamic Modeling and Prediction of Dam Breach Flood Inundation: Satellite Imagery, UAVs, and Google Earth Engine<br>*(Kishanlal Darji, Uttamkumar Vyas, Saloni Tailor & Dhruvesh Patel)* |
| 4 | 358 | Assessment of Dam Breach Using HEC RAS: A Case Study |

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|---|---|---|
| | | *(B.Brahmachari, B.S.Das, SS.Kumar, K.Devi, J.R.Khuntia, K.Rahul)* |
| 5 | 450 | Structural Health Monitoring of an Under Construction Dam-A Case Study<br>*(Hanumanthappa M S., Nirbhay Singh, Khalil Bagwan, Shyamli Paswan, Rizwan Ali &Dr.R.S.Kankara)* |
| 6 | 590 | Prediction of flow regime over gabion stepped spillway using ANFIS<br>*(Aniket Kumar Sharma,BharatJhamnani)* |

| **Day 3: 20 December 2024 , Time: 11:55 AM to 1:00 PM, Venue: CT 1** | | |
|---|---|---|
| **Theme: Environmental Flows in Natural Rivers (TS8)** | | |
| **Chair: Prof. Shreenivas Londhe, VIIT, Pune** | | **Co-chair:Dr.Akhil, CWPRS, Pune** |
| | | |
| **Sl. No.** | **Paper ID** | **Paper Title and Authors** |
| 1 | 84 | Pollution studies of Peryar river, Kerala<br>*(T N Harshananda, P C Aneesh, P K Suresh, K Dhanasekar)* |
| 2 | 88 | Water Quality Assessment for River Ganga in Kanpur City, Uttar Pradesh, India using Machine Learning model<br>*(Shubhangi Umare , Ajay K. Thawait , Sumit H. Dhawane, Sachin Kumar)* |
| 3 | 101 | Recent Developments in Sampling Procedure, Quantification, and Characterization of Microplastics in Riverine Environments<br>*(Jitendra Kumar, Abhishek Kumar Mishra, Suraj Kumar and Nityanand Singh Maurya)* |
| 4 | 105 | Assessing Groundwater Quality for Drinking Purposes Application of the Weighted Arithmetic Water Quality Index (WAWQI), Pollution Index of Groundwater (PIG), and Non-Carcinogenic Health Risk Assessment: A Case Study in a Gaya, India<br>*(Suraj Kumar, Abhishek Kumar Mishra, Jitendra kumar, Nityanand Singh Maurya)* |
| 5 | 385 | Numerical Modeling for Seawater Intrusion: A Review<br>*(Anant Kumar Nagar, V.L. Manekar& P.L. Patel)* |
| 6 | 387 | Microplastic Pollution In Urban Rivers: A Critical Review on Pathways<br>*(Supriya B. Shinde, Dr. Moni U. Khobragade)* |
| 7 | 585 | Assessment of the change in hydrodynamics due to saline groundwater pumping in a layered coastal aquifer<br>*(Dhanya, N.,T. I. Eldho.)* |

| **Day 3: 20 December 2024 , Time: 2:00 PM to 3:00 PM, Venue: CT Hall** | | |
|---|---|---|
| **Theme: Surface Hydrology and Watershed Management (TS9)** | | |
| **Chair: Prof. Mohit Kumar, Panjab Engineering College, Chandigarh**<br>**Co-chair:Shri Vivekanandan N., CWPRS, Pune** | | |
| | | |
| **Sl. No.** | **Paper ID** | **Paper Title and Authors** |
| 1 | 15 | Early Flood Monitoring and Forecasting using ANN and Hec-Ras in Meenachil River Basin<br>*(Rahul Rajan, Libin D Santosh, Firdous S, Anwar Muhammed A, Dr. Alice Thomas)* |
| 2 | 323 | Enhancing Urban Flood Management in High-Density Indian Cities through Building Footprint Utilization: Insights from 1D-2D Hydrodynamic Modelling<br>*(PravasRanjanPradhan&S.N.Kuiry)* |
| 3 | 342 | GIS Based Morphometric Analysis and Sub-basin Prioritization of Lower Betwa River Basin-Central India<br>*(Fatimah, Kakoli Gogoi, Saif Said)* |

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| 4 | 357 | Intercomparison of Estimators of EV1 Distribution for Determination of Design Rainfall Depth of Vrishabhavathi Catchment, Bengaluru Urban<br>*(Yatish Ram.E.R., Amrutha Rani, H.R. , N. Vivekanandan and A.S. Ravikumar)* |
| 5 | 560 | Integrating Sustainability into Drought Assessment and Management<br>*(Gauri Sundarrao Panse- Aglave& Quamrul Hassan)* |
| 6 | 565 | Statistical Analysis of Rainfall Data OfBurhi Gandak Basin<br>*(K.L.Babu , A.K.Keshari)* |
| 7 | 568 | Predicting catchment scale sediment yield, export and retention capacity for managing reservoir sedimentation in an Indian Peninsular River<br>*(Tapas Das,Krishna Gopal Ghosh)* |

| **Day 3: 20 December 2024 , Time: 2:00 PM to 3:00 PM, Venue: Auditorium** | | |
|---|---|---|
| **Theme: Hydroinformatics (TS9)** | | |
| **Chair: Dr. Vikas Poonia, MANIT, Bhopal** | | **Co-chair:Dr.Sreekant Sampath, CWPRS, Pune** |
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| **Sl. No.** | **Paper ID** | **Paper Title and Authors** |
| 1 | 363 | Identifying Potential Rainwater Harvesting Sites using a GIS Based Approach<br>*(Jaideep Kumar, Digambar S. Londhe, Yashwant B. Katpatal)* |
| 2 | 370 | Comparison of Satellite-Based Global Terrestrial Evapotranspiration Products Models for Wheat Crop<br>*(Priya Singh & Kritika Kothari)* |
| 3 | 386 | Machine Learning-Based Techniques for Flood Mapping and Modeling: A Review<br>*(Prathibha Prakash, Sudip Roy and Sumit Sen)* |
| 4 | 494 | Machine Learning approach in the prediction of Scour depth around Complex Pier Foundation<br>*(Ashwith Kumar H, Appu Chavan, Sreedhara B M, & Praveen K M)* |
| 5 | 507 | Future Runoff Projections in the Krishna River Basin: The Role of Land Use Changes and Machine Learning<br>*(Shubham Dixit,K. K. Pandey)* |

| **Day 3: 20 December 2024 , Time: 2:00 PM to 3:00 PM, Venue: CT 2** | | |
|---|---|---|
| **Theme: Groundwater Hydrology(TS9)** | | |
| **Chair: Shri Suresh Kumar, CWPRS, Pune** | | **Co-chair:Dr. Andrade Rolland, CWPRS, Pune** |
| | | |
| **Sl. No.** | **Paper ID** | **Paper Title and Authors** |
| 1 | 16 | Interpretation of Geoelectrical resistivity measurements for solving hydrogeological problems - Theory and Field design in KRS group of institutions campus, Chennai, Tamil Nadu<br>*(R.Arivazhagan, K. Dhanasekar, S.Nishanth&A.Sivakumar)* |
| 2 | 21 | Identifying Surface and Groundwater Interaction through Isotope Hydrology and Geo-Physical Techniques in A Semi-Urban Region – Study On OMR, IT Corridor of Chennai City, India<br>*(Surendar Natarajan)* |
| 3 | 40 | Intra-Basin Water Transfer in the Cauvery River Basin: Insights from Groundwater Potential Analysis |

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| | | *(R.P. Vijay Aravinth,R.Sudharsanan,G. Ravikumar)* |
| 4 | 68 | Numerical Modeling of Solute Transport in Hyporheic Zones using Smoothed Particle Hydrodynamics<br>*(Sinchan Roy Chowdhury, Anirban Dhar)* |
| 5 | 97 | Assessment of Groundwater Quality for Domestic and Irrigation Purposes Using Water Quality Indices: Correlation and Temporal Analysis in Udhampur District, Jammu & Kashmir<br>*(Waseem Rashid Taley, Pappu, Alok Dwivedi, A.M. Yaswanth & Prof. Abdul Qayoom Dar)* |
| 6 | 107 | Enhancing Predictive Accuracy of Solute Transport in Variably Saturated Soil by Incorporating Physical Non-Equilibrium (PNE) Processes<br>*(Pooja Agarwal & Pramod Kumar Sharma)* |

| **Day 3: 20 December 2024, Time: 2:00 PM to 3:00 PM, Venue:PadmashriDr. Z. S. Tarapore hall** | | |
|---|---|---|
| **Theme: Dam and Appurtenant Structures (TS9)** | | |
| **Chair: Dr. Seema Narain, College of Military Engineering ,Pune Co-chair:Dr. Sanjay Burele, CWPRS, Pune** | | |
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| Sl. No. | Paper ID | Paper Title and Authors |
| 1 | 183 | Self Potential, Resistivity and Tracer an Integrated Approach in Seepage Studies for Earthen Dams<br>*(Rolland Andrade)* |
| 2 | 426 | Assessment Of Foundation Rock Using Geophysical and Geotechnical Parameters Prior To The Design of Foundation ForCritical Civil Structures<br>*(S. Bhowmick)* |
| 3 | 440 | Determining In-situ Strength Parameters by Non-invasive technique in M.I.D.C. Ransai Masonry gravity Dam, Maharashtra – A case study<br>*(Dr. Sanjay A. Burele,G. C. Singarkar, Dr.Pravuram Panda, Shabeer A. Lone, Rizwan Ali and Dr. R. S. Kankara)* |
| 4 | 443 | Rehabilitation of Distressed Penstock Lines through In-Situ StrainMeasurement Subject to Power Generation Load Conditions – A Case Study<br>*(Hanumanthappa M S,Shyamli Paswan, Nirbhay Singh, Rizwan Ali &Dr.R.S.Kankara)* |
| 5 | 509 | Stress Analysis of Non-Overflow Block of Ageing Gravity Dam by Finite Element Method during Strengthening - A Case Study<br>*(Shyamli Paswan, Hanumanthappa M S, Khalil Bagwan, Rizwan Ali&Dr.R.S. Kankara)* |

| **Day 3: 20 December 2024 , Time: 2:00 PM to 3:00 PM, Venue: CT 1** | | |
|---|---|---|
| **Theme: Climate Change Impact on Water Resources (TS9)** | | |
| **Chair: Shri J. Sinha, CWPRS, Pune** | | **Co-chair:Dr. A. K. Singh. CWPRS, Pune** |
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| **Sl. No.** | **Paper ID** | **Paper Title and Authors** |
| 1 | 81 | Groundwater Potential Mapping Using AHP and Geospatial Analysis<br>*(Saswata Ghosh, Minakshee Mahananda)* |
| 2 | 138 | Hydrological Stream Flow Modeling for Calibration, Validation and Uncertainty Analysis on Annual and Seasonal Basis Using Swat Model in Meenachil River Basin, Kerala, India<br>*(Nawazish Amir &Varija.K)* |
| 3 | 294 | Evaluation of Recent Climate and Land Use/Land Cover Change Impacts on Hydrological Responses of Upper Godavari River Basin<br>*(Vikas Singh, T I Eldho, Pennan Chinnasamy)* |
| 4 | 295 | Forecasting Extreme Events in the Western Himalayan River Basin Using CMIP6 SSPs |

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| | | *(Ray Singh Meena& Chander Kant)* |
| 5 | 424 | Drought Assessment in Telangana State: A Comparative Study of Standardized Indices<br>*(Asha Farsana M, Geetha Vimala CH,Bharath Kumar Reddy Kadapala, Chandrasekar K, Abdul Hakeem K)* |
| 6 | 434 | Role of irrigation treatment and soil structure on the dynamics of leaf and plant water use efficiencies for Maize crop<br>*(Syam Chintala& KBVN Phanindra)* |
| 7 | 451 | Assessment of impact of spatiotemporal land use-land cover and climate change on water balance components in Wainganga basin, India<br>*(B.L. Meena, P.V. Timbadiya, P.L. Patel & Prabhat Chandra)* |

| **Day 3: 20 December 2024 , Time: 3:10 PM to 4:00 PM, Venue: CT1** | | |
|---|---|---|
| **Theme: Surface Hydrology and Watershed Management (TS10)** | | |
| **Chair: Prof. Shreenivas Londhe, VIIT-Pune** | | **Co-chair:Shri Vivekanandan N., CWPRS, Pune** |
| | | |
| **Sl. No.** | **Paper ID** | **Paper Title and Authors** |
| 1 | 176 | AI/ML based prediction of flood propagation with decision support systems – An Overview<br>*(Raghuchandra Garimella, Selva Balan M. &Vankayalapati S. Ramarao)* |
| 2 | 372 | Evaluation of Digital Elevation Models for SWAT-based Hydrological Modelling<br>*(Prashant, Surendra Kumar Mishra, Anil Kumar Lohani)* |
| 3 | 376 | Sensitivity analysis of multi-layer perceptron and generalized neuron models for rainfall-runoff modeling<br>*(Seema Narain and Ashu Jain)* |
| 4 | 396 | An improved framework for site selection of Sustainable Drainage System elements at basin scale<br>*(Arun Rajasekaran Sankarbalaji, SreethuSubrahmanian, Krushil Modi, Elanchezhiyan Duraisekaran, Balaji Narasimhan)* |
| 5 | 524 | SVM and Optimised SVM application in modelling discharge in meandering compound channels<br>*(Kumar, R., Sandilya, S.S., Das, B.S., Singh, S.K., Devi, K., Khuntia, J.R)* |
| 6 | 583 | Assessment of Inundation Mapping in Urban Floods using 2D HD Model in HEC-RAS<br>*(KairaviTrivedi and Bhoomi R. Andharia)* |

| **Day 3: 20 December 2024, Time: 3:10 PM to 4:00 PM, Venue: CT2** | | |
|---|---|---|
| **Theme: Hydro informatics (TS10)** | | |
| **Chair: Prof. V. Jothiprakash, IIT Bombay** | | **Co-chair:Dr.Raghuchandra Garimella, CWPRS, Pune** |
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| Sl. No. | Paper ID | Paper Title and Authors |
| 1 | 446 | Real Time Structural Health Monitoring of Dams Using 5G Transmission -A Conceptional Case Study<br>*(Hanumanthappa M S,Rizwan Ali, P S Solanki,Dr. ND Atkekar&Dr.R S Kankara)* |
| 2 | 461 | Application of Regression and Artificial Neural Network models for estimation of Boundary Shear Stress in Trapezoidal Channels<br>*(Bhaswati Sen, Pankaj Singh,Supia Khatun, Ambarish Ghosh&Dhrubajyoti Sen)* |
| 3 | 483 | Understanding the dynamics of land surface representations on the regional precipitation simulations<br>*(Prachi Khobragade, S.M. Kirthiga & Balaji Narsimhan)* |

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| 4 | 535 | Assessment of course change of Kosi River using Remote Sensing and GIS<br>*(Anurag Labh Aman and G S Dwarakish)* |
| 5 | 541 | Improving Crop Classification Accuracy for Canal Command Area Using Recursive Feature Elimination and Machine Learning Algorithms on the Google Earth Engine Platform<br>*(MohansingRajaput,B. M. Dodamani& Abhilash R)* |
| 6 | 579 | Comprehensive Hypsometric Analysis and Statistical Moments Evaluation of Large River Basins using Google Earth Engine<br>*(Srija Roy, Shubham Dixit, Abhilash Gogineni)* |