



HYDRO 2022 INTERNATIONAL

27th International Conference on Hydraulics, Water Resources and Coastal Engineering

Venue: PEC Chandigarh, India

(December 22-24,2022)



DAY 1 - 22nd December 2022, Time : 02:00 pm – 03:15pm

Session – 01, Theme: Hydrology and Hydrologic Modelling (HHM01)

S. No.	Paper ID	Paper Title and Author(s)
1	28	Hydraulic conductivity of porous media: Assessment of wall effect and pressure drop coefficients (Chandel, Abhishish*; Shankar, Vijay; Alam, M. A.)
2	42	Hydrological Simulation of Inter-Basin Water Transfer (GADHAVE, SHREYA PRAMOD*)
3	85	Investigation of Effect of Temporal Variability of Soil Hydraulic Properties on Soil Water Dynamics Modeling (Kumar Saurabh*; OJHA RICHA)
4	96	Characterization of aquifer properties using sandbox experiments and numerical studies (Sai Srinivas, Gorugantula*)
5	101	Influence of mulching on the soil moisture balance in the root zone of crops (Shukla, Yash*; Chandel, Abhishish; Shankar, Vijay)
6	124	A Comparative study of Infiltration models over a Catchment (Rajput, Utsav*; kumar, mohit)
7	133	Studies of Rainfall-Runoff estimation for newly formed district in Tamilnadu (Suresh, Pallavur KMurthy*; Surendar, N; Sundaravadivelu, Renganathan)
8	149	A Comparison of the Rain Gauges of Various Sizes and Measuring Principles (Pravesh Singh)
9	169	Hydraulic Conductivity of Porous Media: Influence of Grain-size distribution and Angularity (Rajnish Chaudhary)
10	183	Addressing the Characteristic Length Enigma in Non-linear Filtration Through Granular Porous Media (Ashes Banerjee).
11	206	Assessment of Groundwater Quality for Irrigation and Drinking Purposes in Gajapati District, Odisha (Papri Mukherjee)

Session – 02, Theme: Environmental Hydraulics (EH01)

S. No.	Paper ID	Paper Title and Author(s)
1	41	Evaluation of Groundwater Quality and its Suitability for Irrigational Use in Haryana State (Hemant Raheja)
2	145	Recycling and Reuse of Domestic Wastewater Using Soil-Gravel Filter (Sharad Jagannath Kadbhane)
3	165	Heavy metal contamination in agricultural region of Yamuna-Hindon inter-basin, India (Divya Thakur)
4	167	Hydrodynamic Performance of Raceway Pond using k-epsilon Turbulence Model (ROZY KUMARI)
5	187	Effect of Chlorpyrifos Pesticide on Bio-transportation of Escherichia coli through porous media (Ajay Chalotra)
6	259	Stage-discharge modelling for a river cross-section (Padmini P Pradhan)
7	321	Rapid detection of Fluoride in potable water using novel Graphene Quantum Dot material (Shivani Pandey)
8	383	Local Inertia Framework for Macroscopic Urban Flooding Modeling (Gourabananda Pahar)
9	430	Comparative Study of Hydrodynamic Model for Dispersal and Transport of Microplastics in Rivers (Srishti Mishra)
10	438	Impacts of unwarranted waste disposal on water reuse pattern in Simrol, Madhya Pradesh (Sugato Panda)



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11	446	Studies on Fixed Bed Column Adsorption Modelling Magnifera Indica (Mango) Seed's for Fluoride Removal (KEERTHI B GURANI)
12	466	Assessment of River Water Quality Using Qual2k Model and Water Quality Index for the Bhadra River, India (Himanshi singh)
13	492	Evaluation of future groundwater quality trends along a vulnerable coastline stretch near a mining industrial area, Kerala (Bincy B)

Session – 03, Theme: Climate Change Impact on Water Resources (CCW01)

S. No.	Paper ID	Paper Title and Author(s)
1	73	Spatiotemporal variability of Heat waves over India: Historical and future perspectives (Shivam Singh)
2	97	Effects of climate change over groundwater level fluctuations using artificial neural network-A Review (Swarit Gupta)
3	112	Land use/land cover mapping for the Gomati River Basin in Tripura Using Arc-GIS Tool (Nikita Majumder)
4	138	Flash Drought Analysis and its Impact (Hardiki Sharma)
5	140	Temperature extreme events over India under 1.5°C and 2°C global warming (Hardeep kumar maurya)
6	157	THE IMPACT OF CLIMATE CHANGE ON THE TOTAL WATER AVAILABILITY OF THE HAORA RIVER (Dhritiman Saha)
7	191	Adaptation strategies for climate change in water resources- India Specific (Manohar Arora)
8	193	Ramification of Climate Change into Hydrological Parameters Using SWAT : A Review (PRIYA VERMA)
9	202	Understanding the nonstationary behavior Indian Summer Monsoon Rainfall extremes using wavelet analysis (ATHIRA K)
15	277	Assessment of rainfall trends and variability over the Sabari River basin, India (Rathna Kumar Vakkalagadda)



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DAY 1 - 22nd December 2022, Time : 03:30 pm – 04:45pm

Session – 01, Theme: Experimental and Computational Fluid Mechanics (ECF-01)

S. No.	Paper ID	Paper Title and Author(s)
1	64	STUDY OF HYDRAULIC JUMP IN SLOPING CHANNEL (H L Tiwari)
2	125	Comparison of Pressure Drop Characteristics of Multistage Orifice Plate and Normal (Abhishek M Talageri)
3	181	Numerical Simulation of Twin Piers in Staggered Configuration Using FLOW-3D (Lav Kumar Gupta)
4	200	Numerical modeling of flow over piano key weirs (Naveed Ul Hassan Bhat)
5	216	Numerical modelling of flow past a slippery elliptical cylinder (Subhrangshu Purkayastha)
6	219	Measurement of Head Loss in a Fluid Flowing through a Porous Screen (Shravani Mohanty)
7	237	Hydrodynamic Analysis of Raceway Pond using LES Turbulence model (Sweety Rajput)
8	316	Numerical modelling of bed shear stress for an asymmetric compound open channel (SARJATI SAHOO)
9	403	Comparative study on performance of elbow and conical draft tube at different operating conditions of turbine (Dasari Navya)
10	479	COMPUTATIONAL INVESTIGATION OF ENERGY DISSIPATION DOWNSTREAM OF HYDRAULIC STRUCTURE (Harshit Kumar Jayant)
11	364	Velocity Distribution in Meandering Channel (Mohammad Athar Alam)

Session – 02, Theme: Fluvial Hydraulics (FH-01)

S. No.	Paper ID	Paper Title and Author(s)
1	24	Geomorphic response of the mid-Mahanadi River towards inflowing runoff and sediment load variation (Rohan Kar)
2	54	Computation of Critical Shear Stress of individual sediment at incipient motion for non uniform sediment mixture (Deepali R Kulkarni)
3	58	Prediction of Bed Load Transport in Heterogeneous sand bed Channel Using Artificial Neural Networks (ANN) (Anurag Sharma)
4	59	Friction Factor Prediction of Heterogeneous Channel Using Artificial Neural Network (ANN) (Anurag Sharma)
5	61	Study of turbulent flow characteristics around a circular pier under various submergence conditions using Particle Image Velocimetry (PIV) (Aravind Jagilinki)
6	104	Scour forecast modeling caused by submerged vertical imping circular jet in cohesive sediments- A comparative study between ANFIS and MNLN (Rahul Shakya)
7	119	Estimation of Maximum Scour Depth Around Spur Dikes (Balraj Singh)
8	136	Simultaneous treatment of velocity and concentration in the suspension region of an open channel turbulent flow (Sourav Hossain)
9	148	Steady two-dimensional suspended sediment transport in channels with biquadratic log-wake law of velocity and concentration dependent eddy viscosity (Arun Kumar)



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10	166	Critical Appraisal of Different Approaches to Model Hydrodynamic Characteristics of River Confluence (Shashank Shekhar Sandilya)
11	170	Modelling of Local Scour Depth around Bridge Piers using Large Eddy Simulation (Anubhav Baranwal)
12	184	Structural countermeasures for Local scour around the Bridge pier: A Review (RAHUL M BHARADWAJ)

Session – 03, Theme: Hydraulic Structure and Hydropower Project (HSH-01)

S. No.	Paper ID	Paper Title and Author(s)
1	39	Turbulent flow structure around a circular pier under the combination of wave and current effect (Gaurav Misuriya)
2	129	Seepage Analysis of Dam Structure: A Review (Bhineshwar Brahmachari)
3	177	An experimental and CFD based study on the effect of End Sill in energy dissipation of Stilling Basins (Bhaswati Sen)
4	214	Dam Site Suitability using Remote sensing and GIS techniques (Harishankar M)
5	222	Real Time Structural Health Monitoring of Dam using IoT & AI Techniques (Satanand Mishra)
6	263	An Approach to Utilize the Static Energy of Obstructed Water to Enhance the Use of River Flows for Agricultural Water Supplies (Rita Tiwari)
7	372	Review of Sediment Removal Measures for Hydropower Projects (Aditya S Thakare)
8	428	Development of a Simple Discharge Coefficient Equation for Triangular Labyrinth Weir (MOHAMMAD DANISH MUSTAFA)
9	509	Seismic Pore Pressures In Earth Dams – Mathematical Analysis And Modeling (Surinder M Goel)



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DAY 2 – 23rd December 2022, Time : 10:30 am – 11:45am

Session – 01, Theme: Geospatial Technologies in Water Resources Engineering (GTW01)

S. No.	Paper ID	Paper Title and Author(s)
1	79	Satellite Based Land Use Land Cover Study in Ashtamudi Lake, Kerala (Asha M S)
2	84	A Case Study From Pune City Using Remote Sensing and GIS To Identify Potential Ground Water Recharge Zones In Urban Areas (Supriya C Rayjade)
3	95	Identification of Suitable Locations for Artificial Groundwater Recharge by weighted overlay method using GIS tools (Rudra Ramakrishnan)
4	120	Mapping of surface water bodies using Google Earth Engine: A Review (ABHIJEET SINGH)
5	153	Application of RS and GIS Technique to Map Landslide-prone Villages in Koyna Reservoir Catchment: A Case Study (Shalini B Shewale)
6	155	Assessment of the suitability of several precipitation datasets for the Upper Yamuna Basin upto Delhi (Aradhana Thakur)
7	158	Spatio-Temporal Variation of Unit Hydrograph of Brahmani River Basin (MANOJ KUMAR PUJARI)
8	168	Investigating land use/cover and climate induced hydrological alteration in Western Vidarbha region, India (Rakesh K Verma)
9	171	Integrating Multiple Land Use and Assessment of Evapotranspiration for Sustainable Management of Land and Water Resources in Upper Yamuna Basin (Prakhar Sharma)
10	172	Impact of Climate Change and Land Use Land Cover Change on Tapi River Basin, India (Balaji Dharavath)
11	182	Flood modelling and mapping for a reach of the Narmada River (Anoop Pandey)

Session – 02, Theme: Coastal Harbor and Ocean Engineering (COE-01)

S. No.	Paper ID	Paper Title and Author(s)
1	21	Hydraulic characteristics of two rows of perforated pile head breakwater (Arunakumar Hunasanahally Sathyanarayana)
2	47	Experimental investigation on suspended kelp farm for wave attenuating characteristics (surakshitha ks)
3	68	A Study on Seismicity Recurrence of Sumatra-Andaman-Subduction-Zone for Probable Tsunamigenic Earthquake (Ashis K Bala)
4	72	Future Sea-Level Rise at India's Major Ports using Neural Networks Trained with CMIP5 and CMIP6 Models (Makarand Chintamani Deo)
5	106	Numerical Study on the Dynamic Behaviour of a Semi-Submersible Floating Offshore Wind Turbine Platform Combined with an Oscillating Water Column (Binoy Sebastian)
6	109	Dynamic response of combined Tension leg platform floating wind turbine and point absorber wave energy converter (RONY J S)
7	113	Hydroelastic Analysis of floating VLFS with Fixed Floating Breakwater using Multi-domain Boundary Element Method (Hemanth S)
8	130	Hydrodynamic analysis of floating U-shaped Oscillating Water Column device integrated with breakwater using Boundary Element Method (Ronit Muduli)
9	137	Hydrodynamic study of a fixed and floating H-shaped stratified porous breakwater (Aparna Panda)



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DAY 2 – 23rd December 2022, Time : 12:00pm – 1:15pm

Session – 01, Theme: Soft Computing techniques in Water Resource Engineering (STW-01)

S. No.	Paper ID	Paper Title and Author(s)
1	78	Identification of the Most Influencing Factors for Developing a Low-Cost Water Filter. (<i>Sampari Jamatia</i>)
2	92	MCDM approach in determination of the most influential surface water quality parameters (<i>Raja Ghosh</i>)
3	131	Hydrological modeling of Terna Dam basin using SWAT model (<i>Ranjeet S Sabale</i>)
4	134	Selection of optimal quality water for specific uses by ANP-MCDM based Auto-Selector. (<i>Arnab Bhattacharya</i>)
5	139	Rainfall Disaggregation by Integrating Satellite Rainfall Data with Random Multiplicative Cascade Models (<i>Ashenafi Dabesa Regasa</i>)
6	142	EVALUATION AND DETERMINATION OF RELIABILITY ON ADVANCED NEURAL NETWORK MODELS FOR PREDICTION OF SOIL MOISTURE (<i>Nagashree G E</i>)
7	146	A GRNN model for Scour Depth prediction at Spur Dike in Coarse Sediments (<i>Mohd Haris Ansari</i>)
8	163	Modelling of Clear Water Scour Depth around Bridge Piers using M5 Tree and ANN-PSO. (<i>AMARJEET KUMAR</i>)
9	173	Numerical studies on oblique weirs (PRASAD P SADAN)
10	176	Prediction of Discharge in Compound Channel with Converging and Diverging Floodplains by ANN-PSO and MARS (<i>DIVYANSHU SHEKHAR</i>)
11	198	A Low-Cost Internet-of-Things (IoT) based Smart Sensor for Water Quality Monitoring and Water Pollution Detection (Satanand Mishra)

Session – 02, Theme: Hydrology and Hydrologic Modelling (HHM-02)

S. No.	Paper ID	Paper Title and Author(s)
1	253	Multifractal detrended fluctuation analysis of meteorological drought time series over two homogeneous rainfall regions of India with distinct climatic conditions. (<i>Akshay B Pachore</i>)
2	255	Propagation dynamics of meteorological drought to agricultural drought using lag time analysis. (<i>Anjali C V</i>)
3	257	Development of Flood Generation Models using Stochastic and Machine Learning techniques (<i>Litan Kumar Ray</i>)
4	266	Comparison of Groundwater estimation committee (GEC) method and SWAT model for the estimation of groundwater recharge for the waterlogged groundwater system of Cachar, Assam using MODFLOW (<i>MRINAL kumar Singh</i>)
5	301	Mapping of agricultural drought using Remote Sensing and GIS in Sabarkantha district, North Gujarat, India (<i>Pranav B Mistry</i>)
6	304	Groundwater Quality Assessment of phreatic aquifers in Northern Kerala, India (<i>Arjun P</i>)
7	311	Prediction of Rainfall by using Different Machine Learning Models (<i>Mahesh Patel</i>)
8	320	Influence of Climatic oscillations on regional droughts over India and the importance of climatic oscillation-based drought frequency analysis (<i>SIDHAN V V</i>)
9	345	Prioritization of the sub-watersheds in Neugal Watershed of the Western Himalayan region using Morphometric analysis and GIS (<i>Saksham Chauhan</i>)
10	371	A Review of Drought Indicators and Indices (<i>Pranita Joshi</i>)
11	387	Streamflow estimation for Gurpur River Basin, Karnataka, India (<i>Vamshi krishna chetlapelly</i>)



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DAY 2 – 23rd December 2022, Time : 2:15pm – 3:30pm

Session – 01, Theme: Flood Forecasting and Mitigation Measures (FFM-01)

S. No.	Paper ID	Paper Title and Author(s)
1	30	Analysis Of Close Drainage Network System Of Proposed Nit Campus At Bihta, Patna Using Swmm (<i>Malti Mardi</i>)
2	86	Prediction of Rain gardens infiltration rate for different types of vegetation using conventional model (<i>SANDEEP KUMAR</i>)
3	87	Flood Inundation mapping using HEC-RAS and HEC-Geo RAS (<i>KOMAL VASHIST</i>)
4	94	Urban Flood Estimation in Bhubaneswar city using Storm Water Management Model (SWMM) (<i>S VAHIDA</i>)
5	105	Flood frequency analysis of Upper Cauvery River (<i>Mukul Kumar Sahu</i>)
6	225	Study of flash floods and flow prediction by AI techniques (<i>Rahul Kandakatla</i>)
7	271	Identification of Urban Flooding Hot Spot Zones in the Densely Populated Area of Kolkata Municipal Corporation Area by Using SWMM Model (<i>AMAN KUMAR</i>)
8	273	Field Study of 3-Dimensional Flow Characteristics at a River Bend using Acoustic Doppler Current Profiler (<i>Sayed Sadulla Ahmed</i>)
9	280	Steady Flow Analysis and Floodplain Mapping using HEC-RAS (<i>Rohini Y Manwar</i>)
10	312	Flood Frequency Analysis of Beas River Basin at Pong Dam, India (<i>Suman Kumari</i>)

Session – 02, Theme: Challenges in Management of Water Resources(CWR01)

S. No.	Paper ID	Paper Title and Author(s)
1	43	Utilization of Household Waste Water for Micro-Irrigation- A Case Study (DEEPAK HOODA)
2	76	Estimation Of Soil Erosion Using Revised Universal Soil Loss Equation (RUSLE)- a Review (Vijay Suryawanshi)
3	82	Study of Surface Water and Drinking Suitability through Water Quality Index (WQI) Modelling in Mahanadi Basin, Odisha (<i>ABHIJEET DAS</i>)
4	93	Groundwater Quality Assessment for Drinking Purpose in Bhopal City, M.P using Geographic Information System and Water Quality Index (Farooque Rahman)
5	98	Design and Feasibility Study of River Interlinking in Odisha (<i>Bobbili Aravind Sai Atchyuth</i>)
6	227	Urban flood management for Chandigarh city using Low Impact development techniques. (Himank Sen)
7	249	Water Quality Assessment using Physico-chemical parameters and NSF-WQI indicator (korla deepthi)
8	254	A web framework for assessing water demand in a watershed (Bhavana Dwivedi)
9	450	Technical feasibility of hydropower generation at Meenpidipara, Kollam (SUDHI M KURIAN)
10	500	SOME CHALLENGES AND ISSUES FOR WATER TRANSFER FROM GANGA-BRAHMAPUTRA BASINS TO CAUVERY-PENNNAR BASINS IN INDIA (Somendra Kumar Mazumder)



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DAY 2 – 23rd December 2022, Time : 3:45pm – 05:00pm

Session – 01, Theme: Climate Change Impact on Water Resources (CCW02)

S. No.	Paper ID	Paper Title and Author(s)
1	203	Impact of climate and landuse change on streamflow of Kuttiyadi river basin, Kerala (T K Drissia)
2	229	Climate Change Impact on Rice Cultivation in Palakkad Region, Kerala (T R SREESHNA)
3	232	Attribution of runoff variation to changes in climate and catchment characteristics for Brahmani-Baitarani river basin in eastern India (Nehar Mandal)
4	234	An Evaluation of Future Changes in Hydroclimate Extremes across India(Subhasmita Dash)
5	236	Non-parametric trend of projected drought over the upper Bundelkhand region in central India (ANKUR VISHWAKARMA)
6	277	Assessment of rainfall trends and variability over the Sabari River basin, India (Rathna Kumar Vakkalagadda)
7	281	Impact of Climate Change on The Hydro-Meteorological Trends in Kashmir Valley (Shahnawaz Jami)
8	289	Homogeneous Precipitation Zones: Newly proposed Zones for India and their Future-projected Changes in Precipitation Characteristics (Subharthi Sarkar)
9	293	Impact of Climate Change Scenarios on Inflows into Bhakra Dam from the Satluj Basin (Kewal K Gupta)

Session – 02, Theme: Fluvial Hydraulics (FH02)

S. No.	Paper ID	Paper Title and Author(s)
1	186	Temporal Evolution of Pressure-flow Scour due to Vertical Contraction (Sofi Aamir Majid)
2	197	Solution of unsteady one-dimensional advection-diffusion equation using fifth kind shifted Chebyshev polynomial (sumit sen)
3	230	Evaluation of local scour on parallel bridge piers - a case study (BISWAJIT DALAL)
4	256	Bed Load Transport in Non-uniform Sand Bed Channel: A Review (Prabhat singh)
5	261	A review on Hydrodynamics of River Meandering (Suniti Kumari)
6	324	Computational modelling of the Chorabari glacial lake outburst and simulation of flooding event (June 2013) in Uttarakhand, India (Dhruvajyoti Sen)
7	332	Review of Scour Around Tandem and Staggered Bridge Pier (Mukul Anand)
8	382	Modeling Sediment Transport Dynamics of Tel River in the sub-basin of Mahanadi River, India (Akshay V Dahiwale)
9	396	Effect of Soil Erosion and Sedimentation on Water Bodies. (saloni singh)
10	488	Influencing parameter determination for Total Load transport (Urvashi Malani)
11	515	Variation in scour depth around a compound circular bridge pier with changing pier position and sediment sizes (Abhishek Pandey)



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DAY 3 – 24th December 2022, Time : 10:30am – 11:45am

Session – 01, Theme: HHM03

S. No.	Paper ID	Paper Title and Author(s)
1	502	Design and Analysis of Water Distribution Network - A Case Study of Khultabad, Aurangabad district, Maharashtra State (SHREEYA GAJANAN RAUT)
2	514	Hydrological modelling and evaluation of the Indravati River basin's elements of water balance (RAJU NARWADE)
3	221	Depth variation in soil hydraulic properties of macropores in an agricultural field (Nirali Vashishth)
4	226	Groundwater modelling and identification of recharge potential zones using Modflow and GIS (Abhishek Kumar)
5	231	Quantitative Assessment of Viability of Rainwater Harvesting System for Households (Radha S Mohril)
6	251	Monitoring Soil Erosion Prone Areas for Tawi River Catchment using SWAT and RUSLE Model. (Rishi Gupta)
7	392	A Review on Post Processing Methods for Hydro-metrological Ensemble Forecast (Ayushi Panchal)
8	414	Temporal Assessment of Drought over the Tapi River Basin, India (Lalit Kumar Gehlot)
9	425	Finite Volume Framework for Coupled Consolidation in Porous Media (Himanshu Srivastava)
10	499	Monthly evapotranspiration trends across India using the Hurst exponent (Vamsi Krishna Gunturu)

Session – 02, Theme: GTW02

S. No.	Paper ID	Paper Title and Author(s)
1	194	Design of Readout System for Water Quality Assessment with Geospatial Technologies (Satanand Mishra)
2	195	Variation in sinuosity concerning river migration: A case study of the Sutlej River in Panjab (Aparba Nath)
3	212	Optimal variable selection for downscaling of satellite precipitation dataset using ensemble machine learning algorithms-A case study of Marathwada region of Maharashtra (Mohit Kesarwani)
4	215	Analysis of Reservoir Sedimentation Using Satellite Images (Kartikya Mishra)
5	218	Assessment of Drought using Meteorological and Remote sensing data (dasari pavan kumar)
6	252	Mapping and assessment of coal mining induced land use changes in the Damodar River Basin, India using remote sensing and GIS techniques KUMARI ANJALI
7	286	Rainfall-Runoff Modelling of Sabarmati River Sub- Basin Using SWAT+ T. M. V. Suryanarayana
8	291	Trend Analysis of Precipitation and Its Relation with Groundwater Recharge Rahul Y Nandurkar ()
9	309	Drought Zoning of Rajasthan: A Comparative Study of Meteorological Drought and Vegetation Cover Index (Manoj Kumar Diwakar)
10	319	A holistic assessment of the propensity for utilization of underground minewater for potability in the water-stressed coal mining region of Eastern India: A case study of Jharia Coalfield (PRITAM MAZINDER BARUAH)
11	376	Real time Monitoring for Water Quality in Water Supply Department (SHIBARAJ BRAHMA GAYARI)



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DAY 3 – 24th December 2022, Time : 10:30am – 11:45am

Session – 03, Theme: Coastal Harbor and Ocean Engineering (COE-02)

S. No.	Paper ID	Paper Title and Author(s)
1	164	Shoreline changes due to the construction of breakwaters at Beypore estuary in Kerala (<i>Kunhimammu Paravath</i>)
2	189	Prediction of hydrodynamics performance of composite porous breakwater using soft computing techniques (<i>Abhishek Gupta</i>)
3	190	Experimental investigation on hydrodynamic performance of stratified porous breakwater (<i>saquib jawed</i>)
4	388	Breakwater integrated with oscillating water column wave energy converters -A review (<i>HARIKRISHNAN T A</i>)
5	417	Hydrodynamic Performance of Floating Breakwater combined with Wave Energy Converter (<i>Ranti Dev Vishwakarma</i>)
6	431	Coupled dynamic analysis of TLP-type floating wind turbine combined with OWC wave energy converter (<i>Austin Joju</i>)
7	461	Numerical investigation of floating breakwater system combined with wave energy converter (<i>Rahul V Ray</i>)
8	518	Sediment Transport Analysis using the 3D Modeling of Beach Survey Profiles along the East Coast of India (<i>Hari Prasad Durusoju</i>)



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DAY 3 – 24th December 2022, Time : 12:00pm – 1:15pm

Session – 01, Theme: CCW03,FFM02

S. No.	Paper ID	Paper Title and Author(s)
1	296	Study of Intra-model Uncertainty in Future Prediction of Temperature for GCM models: ESM2G and ESM2M (JAYSHREE HAZARIKA)
2	302	Assessment of Discharge and Sediment Yield in the Bagmati River Basin using SWAT Model (ANKIT RANJAN)
3	378	Ranking of GCMs by Distance based complex network analysis (Anand T)
4	389	Graphical trend analysis of streamflow in Cauvery river basin, India (Neha Gupta)
5	447	Impact of Land use/Land cover Change on Streamflow Forecasts using SWAT Model: A Case Study in a Heterogeneous River Basin in Western Ghats Region (Visweshwaran R)
6	470	Water Quality Index Prediction using Regression for Bhadra River (Rehana Shaik)
7	478	Impact of Climate Change and Construction of Dams on Peak floods - A Case Study of Lower Tapi basin (Dr. SANSKRITI MUJUMDAR)
8	338	Adequacy of Storm water Drainage System for Nagpur City, India (Amitha Thankachan)
9	385	Dam Break Analysis using HEC-RAS 2D Hydrodynamic Modeling – A Case Study of Ukai Dam, Lower Tapi Basin, India (Arbaaz Shaikh)
10	404	Changes in flood seasonality of two contrasting catchments in the Tapi River basin (Shivraji Meena)
11	415	Flood Hazard Assessment for Vehicle Instability: A Case-study of Surat City, India (Shubham M Jibhakate)
12	427	Understanding the flood regime changes of west-flowing rivers in India (Achala Singh)

Session – 02, Theme: Geospatial Technologies in Water Resources Engineering (GTW-03)

S. No.	Paper ID	Paper Title and Author(s)
1	394	Satellite-based Fog detection for North India using LSTMs (Prasad J Deshpande)
2	462	Integrated Remote Sensing - GIS Based Groundwater Potential Zone Mapping Using MCDM Techniques for Surat District, Gujarat, India. (USMAN A MOHSENI)
3	473	Assessment of Inundation Changes of the Dharoi Reservoir using Landsat Observations (Balaji G B)
4	494	Evaluating spatial distribution of crop coefficient in a semi-arid environment using the surface energy balance model (Dhruv Mr. Saxena)
5	496	Geospatial Technology to Locate Aquifers in Raigad, Maharashtra State Using Satellite Derived Data for Hydrologic Applications (anushka harish bhatt)
6	497	Geospatial-based Hydro-Ecological Sustainability Assessment of a Himalayan Catchment under the Impact of Climate Change Sathyaseelan M
7	503	Estimation of Velocity and Thickness of Siachen Glacier Using Remote Sensing (Sunita Saini)
8	507	Relationship between timberline altitude and climatic parameters in the Himalayan Region of Jammu & Kashmir (PRIYANKA SAH)



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9	512	Water quality parameter retrieval using the spectral matching technique (Vaibhav Garg)
10	516	Reliability and significance of satellite derived precipitation products in the context of landslide studies: A review (Vishnu Sasidharan)
11	462	Integrated Remote Sensing - GIS Based Groundwater Potential Zone Mapping Using MCDM Techniques for Surat District, Gujarat, India. (USMAN A MOHSENI)

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1	204	Comparative Analysis of SVR and ANN in Heatwave Prediction over Rajasthan (Manali Pal)
2	246	Numerical Modelling of Triangular Central Baffle Flume (SUJITH NAIR)
3	275	Conjunctive Use of Ground and Surface Water for Optimal Cropping Pattern (Swagata Talukdar)
4	276	Meteorological Drought Index forecasting based on machine learning techniques in the Homogenous Monsoon Region of North-East India Ayilobeni Kikon1, B M Dodamani2 (Ayilobeni Kikon)
5	336	Comparative performance of two data driven techniques for rainfall - runoff modelling (APARNA MAHADEORAO DEULKAR)
6	353	Modelling of Scour Depth around Bridge Pier for Unsteady Flow Condition using ANFIS and GEP (Virendra Kumar)
7	367	Development and Prediction of Stage-Discharge and Sediment-Discharge relationship using data-driven approach for Eastern Dhauliganga River (Kuldeep Singh Rautela)
8	370	Soft Computing Techniques Hybridised with Swarm Intelligence Metaheuristic Algorithms for Estimating Reference Evapotranspiration – a Review (SRUTHAKEERTHI P)
9	391	Application of Data Driven Techniques for Prediction of Koyana Reservoir Inflow (Mahesh Balasaheb Shelke)
10	424	Rainfall Prediction from Antecedent Rainfall using a Model Tree Technique (VICKY VIKRAM HANSDA)
11	426	Aeration efficiency of weirs - a critical review with a proposed numerical solution (MD SHAHEER ALI)
12	465	Soil Moisture Modelling using Machine Learning Models - Waipara Experimental Catchment, New Zealand (Surendra Kumar Reddy Gopireddy)
13	471	Innovative trend analysis technique for annual streamflow and suspended sediment load of Lower Godavari River Basin, India (Madhura Chetan Aher)
14	498	Hybrid Metaheuristic: A Combination of Evolutionary Algorithm and Swarm-based Technique for Optimal Design of WDN (S N Poojitha)
15	511	Optimization of leakage and power in water distribution network (Priyanshu Jain)