

HYDRO 2021 – INTERNATIONAL

on

26th International Conference on Hydraulics, Water Resources and Coastal Engineering

(23rd – 25th December 2021)

Organized by Department of Civil Engineering,
Sardar Vallabhbhai National Institute of Technology, Surat, India
Under the aegis of Indian Society for Hydraulics (ISH), Pune, India



PROGRAMME SCHEDULE SUMMARY

DAY-1	
23rd December 2021 (Thursday)	
INAUGURAL CEREMONY 09:30 AM – 11:15 AM	Chief Guest: Shri. R K Sinha Chairman, Central Water Commission, New Delhi Guest of Honour: Prof. K G Ranga Raju Ex. Deputy Director, Indian Institute of Technology – Roorkee ISH Award Ceremony
11:15 AM – 11:25 AM	Break
11:25 AM – 12:10 PM	S N Gupta Memorial Lecture Award 2021: Prof. Sharad K Jain Former Director NIH and Visiting Professor at IIT Roorkee, India. Topic: Flood disaster risk reduction with special reference to India
Plenary Lecture- 1 12:15 PM – 01:00 PM	Prof. S K Mazumder , Former Professor of Civil Engineering, Delhi Technology University / Delhi College of Engineering., Former Visiting Professor, EPFL, Switzerland & Dean, Faculty of Technology, Delhi University Topic: Flood Management and River Training
01:00 PM – 01:15 PM	Sponsors Presentation: DHI India
01:15 PM – 02:00 PM	Lunch
Technical Session TS01 02:00 PM – 03:45 PM	<p style="text-align: center;">Parallel session 01: TS1-EH1</p> <p>Theme: Environmental Hydraulics Keynote-01: Prof. A B Gupta, Dept. of Civil Engg., MNIT Jaipur <i>Title: Importance of water quality aspects in water resources planning</i></p> <p style="text-align: center;">Parallel session 02: TS1-GTW1</p> <p>Theme: Geospatial Technologies in Water Resources Engineering Keynote-02: Prof. P K Garg, Civil Engg. Dept., IIT Roorkee <i>Title: Applications of Geospatial technologies for water resources engineering</i></p> <p style="text-align: center;">Parallel session 03: TS1-STW1</p> <p>Theme: Soft Computing Techniques in Water Resources Engineering Keynote-03: Dr. A K Lohani, Scientist 'G', NIH Roorkee <i>Title: Application of soft computing techniques in hydrological modeling</i></p> <p style="text-align: center;">Parallel session 04: TS1-FH1</p> <p>Theme: Fluvial Hydraulics Keynote-04: Prof. Dhruvajyoti Sen, Civil Engg. Dept., IIT Kharagpur <i>Title: Riverbank erosion mechanism and field examples of protection measures for south Bengal rivers</i></p> <p style="text-align: center;">Parallel session 05: TS1-HHM1</p> <p>Theme: Hydrology and Hydrologic Modeling Keynote-05: Dr. R P Pandey, Scientist 'G', NIH Roorkee <i>Title: Application of hydrologic model for assessment of vulnerability of drought</i></p> <p style="text-align: center;">Parallel session 06: TS1-CCW1</p> <p>Theme: Climate Change Impact on Water Resources Keynote-06: Prof. D Nagesh Kumar, Dept. of Civil Engg., IISc Bangalore <i>Title: Assessing Severe Drought and Wet Events over India in a future climate</i></p>
03:45 PM – 03:55 PM	Break

Technical Session TS02 03:55 PM – 05:50 PM	Parallel session 01: TS2-CCW2 Theme: Climate Change Impact on Water Resources <i>Keynote-07: Prof. Roberto Ranzi, Hydraulic Structures and River basin monitoring and restoration at University of Brescia, Italy</i> <i>Title: Long term variability of streamflow and snow water equivalent in the Central Italian</i>
	Parallel session 02: TS2-HHM2 Theme: Hydrology and Hydrologic Modeling <i>Keynote-08: Prof. N K Goel, Dept. of Hydrology, IIT Roorkee</i> <i>Title: Development of operational Inflow forecasting system for the Tehri dam</i>
	Parallel session 03: TS2-HSH1 Theme: Hydraulic Structure and Hydropower project <i>Keynote-09: Prof. Nayan Sharma, Former Professor, IIT Roorkee</i> <i>Title: Imperatives to overhaul standing dams for spillway capacity and flood storage to take on climate challenges</i>
	Parallel session 04: TS2-CIWC Theme: Coastal Change Impacts on Water and Coastal Infrastructures <i>Keynote-10: Prof. Mukand Singh Babel, Asian Institute of Technology, Bangkok</i> <i>Title: A bottom-up approach for enhancing climate resilience of urban water supply systems: Cases of Bangkok and Colombo</i>
	Parallel session 05: TS2-CMWW Theme: Challenges in Management of Water Resources and Flooding in West Flowing Rivers <i>Keynote-11: Prof. T I Eldho, Dept. of Civil Engg., IIT Bombay</i> <i>Title: Challenges and Issues for Water Resources Management in West Flowing River Basins.</i>
06:00 PM – 07:00 PM	ISH General Body Meeting

DAY-2 24th December 2021 (Friday)	
Plenary Lecture- 2 09:00 AM – 09:45 AM	Prof. V P Singh Distinguished Professor and Regents Professor, Caroline & William N. Lehrer Distinguished Chair in Water Engineering, Texas A&M University, USA Topic: <u>Theory of Hydraulic Geometry</u>
09:45 AM – 09:55 AM	Sponsors Presentation: FAMS, Mumbai
09:55 AM – 10:00 AM	Break
Technical Session TS03 10:00 AM – 12:00 PM	Parallel session 01: TS3-CEM Theme: Coastal Environment and Measurement <i>Keynote-12: Dr. P Chandramohan, MD, Indomer Coastal Hydraulics (P) Ltd, Chennai, India</i> <i>Title: Importance of field measurements for coastal engineering projects</i>
	Parallel session 02: TS3-STW2 Theme: Soft Computing Techniques in Water Resources Engineering <i>Keynote-13: Prof. Ramesh Teegavarapu, Professor and graduate program director and coordinator, Department of Civil, Environmental and Geomatics Department, Florida Atlantic University (FAU), Boca Raton, Florida</i> <i>Title: Data analytics, soft and statistical computing for modeling and management of hydrosystems</i>
	Parallel session 03: TS3-FFM1 Theme: Flood Forecasting and Mitigation Measures <i>Keynote-14: Dr. Soumendra Nath Kuiry, Associate Professor, Civil Engg. Dept., IIT Madras</i> <i>Title: A novel local-inertial formulation representing sub-grid scale topographic effects for urban flood simulation</i>
	Parallel session 04: TS3-HHM3 Theme: Hydrology and Hydrologic Modeling <i>Keynote-15: Prof. V V Srinivas, Dept. of Civil Engg., IISc Bangalore</i> <i>Title: Emerging perspectives in predicting hydrologic extremes</i>
12:00 PM – 12:05 PM	Break
Technical Session TS04 12:05 PM – 01:35 PM	Parallel session 01: TS4-FH2 Theme: Fluvial Hydraulics <i>Keynote-16: Prof. Luca Solari, Dept. of Civil and Environmental Engg., University of Florence, Italy</i> <i>Title: Plastic in rivers: production, transport and deposition</i>
	Parallel session 02: TS4-COE1 Theme: Coastal, Harbour and Ocean Engineering <i>Keynote-17: Dr. Manasa Ranjan Behera, Associate Professor, Dept. of Civil Engg., IIT Bombay</i> <i>Title: Resilient infrastructure for ocean and coastal disasters</i>
	Parallel session 03: TS4-STW3 Theme: Soft Computing Techniques in Water Resources Engineering <i>Keynote-18: Prof. V Jothiprakash, Dept. of Civil Engg., IIT Bombay</i> <i>Title: Soft computing techniques in water resources engineering</i>
	Parallel session 04: TS4-CCW3 Theme: Climate Change Impact on Water Resources <i>Keynote-19: Prof. Subimal Ghosh, Dept. of Civil Engg. and Institute Chair Professor and Convener (Head) of the Interdisciplinary Program in Climate Studies, IIT Bombay.</i> <i>Title: Land-atmosphere interactions in Indian monsoon</i>

	<p>Parallel session 05: TS4-HHM4 Theme: Hydrology and Hydrologic Modeling Keynote-20: Prof. Ramakar Jha, Dept. of Civil Engg., NIT Patna Title: <i>Soil moisture and water retention capacity in Ganga plains for flood management</i></p>
01:35 PM – 02:15 PM	Lunch
<p>Technical Session TS05 02:15 PM – 03:55 PM</p>	<p>Parallel session 01: TS5-FH3 Theme: Fluvial Hydraulics Keynote-21: Prof. B S Mazumder, Former Professor, Indian Statistical Institute, Kolkata Title: <i>Turbulence Characteristics in natural rivers due to Navigation traffics</i></p>
	<p>Parallel session 02: TS5-GTW2 Theme: Geospatial Technologies in Water Resources Engineering Keynote-22: Prof. Subashisa Datta, Dept. of Civil Engg., IIT Guwahati Title: <i>Cloud Computing on geospatial data for hydrological studies</i></p>
	<p>Parallel session 03: TS5-HSH2 Theme: Hydraulic Structure and Hydropower project Keynote-23: Prof. Z Ahmad, Civil Engg. Dept., IIT Roorkee Title: <i>Critical submergence water intake structures</i></p>
	<p>Parallel session 04: TS5-CCW4 Theme: Climate Change Impact on Water Resources Keynote-24: Prof. Shubhankar Karmakar, Environmental Science and Engg. Dept., IIT Bombay Title: <i>Mapping flood risk under changing climate</i></p>
	<p>Parallel session 05: TS5-ECF1 Theme: Experimental and Computational Fluid Mechanics Keynote-25: Prof. K C Patra, Dept. Civil Engg., NIT Rourkela Title: <i>Evolution of dam breach parameters and its application</i></p>
03:55 PM – 04:05 PM	Break
<p>Technical Session TS06 04:05 PM – 05:45 PM</p>	<p>Parallel session 01: TS6-COE2 Theme: Coastal, Harbour and Ocean Engineering Keynote-26: Prof. Nilanjan Saha, Dept. of Ocean Engg., IIT Madras Title: <i>Use of Geosynthetics as a Coastal and River Protection Measure</i></p>
	<p>Parallel session 02: TS6-EH2 Theme: Environmental Hydraulics Keynote-27: Prof. A K Keshari, Dept. of Civil Engg., IIT Delhi Title: <i>Plausible interventions for convergence between water environment and developmental activities</i></p>
	<p>Parallel session 03: TS6-HSH3 Theme: Hydraulic Structure and Hydropower project Keynote-28: Shri V P Kapadia, Director, Sardar Sarovar Narmada Nigam Limited, Gandhinagar and Secretary, Government of Gujarat. Title: <i>Hydraulic structures: issues and solutions (case studies)</i></p>
	<p>Parallel session 04: TS6-FFM2 Theme: Flood Forecasting and Mitigation Measures Keynote-29: Dr. R N Sankhua, Chief Engineer (South), Ministry of Jal Shakti (DoWR, RD & GR), Govt. of India Title: <i>Palliating flood impacts through Flood Forecasting and mitigation</i></p>
	<p>Parallel session 05: TS6-ECF2 Theme: Experimental and Computational Fluid Mechanics Keynote-30: Prof. K K Khatua, Dept. of Civil Engg., NIT Rourkela, Odisha Title: <i>Experimental investigations of unsteady flow over rough bed channels</i></p>

DAY-3 25th December 2021 (Saturday)	
Plenary Lecture- 3 09:00 AM – 09:45 AM	Prof. Rao S Govindaraju Bowen Engineering Head of Civil Engineering and Christopher B. and Susan S. Burke Professor of Civil Engineering Purdue University, USA Topic: Assessing Structural Uncertainty in Hydrologic Models
09:45 AM – 09:55 AM	Sponsors Presentation: Mahavir Traders (Bentley) & TSI
09:55 AM – 10:05 AM	Break
Technical Session TS07 10:05 AM – 12:05 PM	Parallel session 01: TS7-EH3 Theme: Environmental Hydraulics Keynote-31: Prof. Rajesh Gupta , Civil Engg. Dept., VNIT Nagpur Title: <i>Water distribution network optimization: past, present and future</i>
	Parallel session 02: TS7-GTW3 Theme: Geospatial Technologies in Water Resources Engineering Keynote-32: Dr. M K Goyal , Associate Professor, Dept. of Civil Engg., IIT Indore Title: <i>Heat wave events over Indian cities under climate change</i>
	Parallel session 03: TS7-STW4 Theme: Soft Computing Techniques in Water Resources Engineering Keynote-33: Prof. K Srinivasa Raju , Dept. of Civil Engg., BITS-Pilani, Hyderabad Title: <i>Cluster analysis and multicriterion decision making in irrigation planning framework: case study in of South India</i>
	Parallel session 04: TS7-FFM3 Theme: Flood Forecasting and Mitigation Measures Keynote-34: Shri. Aditya Sharma , Chief Engineer, CWC and Executive Member, Narmada Control Authority, India. Title: <i>Flood forecasting activities by Central Water Commission in Narmada basin</i>
	Parallel session 05: TS7-HHM5 Theme: Hydrology and Hydrologic Modeling Keynote-35: Shri. Chandrasekhar Iyer , Chairperson, Godavari River Management Board, MoJS, GoI and CEO, Polavaram Project Authority, Andhra Pradesh. Title: <i>Hydraulic engineering in the planning and implementation of Polavaram project on Godavari River in Andhra Pradesh</i>
	Parallel session 06: TS7-CCW5 Theme: Climate Change Impact on Water Resources Keynote-36: Dr. Rajib Maity , Associate Professor, Dept. of Civil Engg., IIT Kharagpur Title: <i>Global climate shift in 1970s causes a significant worldwide increase in precipitation extremes</i>
12:05 PM – 12:15 PM	Break
Technical Session TS08 12:15 PM – 01:35 PM	Parallel session 01: TS8-FH4 Theme: Fluvial Hydraulics Keynote-37: Prof. Bimlesh Kumar , Dept. of Civil Engg., IIT Guwahati Title: <i>Streambed instabilities around bridge piers in a dredged channel</i>
	Parallel session 02: TS8-COE3 Theme: Coastal, Harbour and Ocean Engineering Keynote-38: Prof. R Balaji , Dept. of Civil Engg., IIT Bombay Title: <i>Nearshore dynamics and practical challenges</i>
	Parallel session 03: TS8-HSH3 Theme: Hydraulic Structure and Hydropower project Keynote-39: Dr. V V Bhosekar , Former Director, CWPRS, Pune

	<i>Title: Hydraulic design of water resource structures</i>
	<p>Parallel session 04: TS8-HHM6 Theme: Hydrology and Hydrologic Modeling Keynote-40: Prof. Ashish Pandey, Department of Water Resources Development and Management, IIT Roorkee <i>Title: Hydrology and hydrological modeling</i></p>
01:35 PM – 02:15 PM	<p>Parallel session 05: TS8-GTW4 Theme: Geospatial Technologies in Water Resources Engineering Keynote-41: Dr. Raaj Ramasankaran, Associate Professor, Department of Civil Engg., IIT Bombay <i>Title: Geospatial applications in hydrology and water resources - current trends and future directions</i></p>
	Lunch
Valedictory Session and Awards	
03:30 PM – 05:00 PM	<p>Chief Guest: Prof. Baldev Setia Director, Punjab Engineering College, Chandigarh Guest of Honour: Prof. G L Asawa Ex. Head of Department, Civil Engineering, IIT Roorkee & Adjunct Professor, SVNIT Surat Theme-wise Best Paper Presentation Award</p>

Note:

Keynote lecture duration in each session: 20 mins

Each paper presentation duration: 10 to 12 mins (including Q & A)

All the times mentioned are in Indian Standard Time (IST)