

1st International Conference on River Corridor Research and Management

25th to 27th February 2021,

Dept. of Civil Engineering, Indian Institute of Technology Jammu, J&K, India.

Organized by



विद्याधन सर्वधन प्रधानम्

IIT JAMMU

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Dr. Chembolu Vinay
IIT Jammu

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IIT Guwahati

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Dr. Divyesh Varade
IIT Jammu

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IIT Jammu

Advisory Member

Dr. Sameer K. Sarma P.
IIT Jammu

Conference Contact

Dr. Chembolu Vinay
Department of Civil Engineering,
IIT Jammu
Email: chembolu.vinay@iitjammu.ac.in
Phone: +91 (191) 2741175

Dr. Divyesh Varade
Department of Civil Engineering,
IIT Jammu
Email: divyesh.varadae@iitjammu.ac.in
Phone: +91 (191) 2741171

Conference Website

<https://sites.google.com/iitjammu.ac.in/rcrm2021/home>

We are pleased to announce the 1st International Conference on River Corridor Research and Management (RCRM 2021) organized by the Indian Institute of Technology Jammu in association with Indian Institute of Technology Guwahati in **virtual mode**. The Department of Civil Engineering welcomes researchers, scholars scientists, students and practitioners working in various areas of river research and applications to present, interact and discuss the ongoing and future prospects in river science. We hope to achieve research awareness, knowledge dissemination and possible collaborations in aligned areas through RCRM 2021. This conference is funded by the “**Shastri Indo-Canadian Institute (SICI) Golden Jubilee Conference and Lecture Series Grant**”.

Call for Abstracts

Major conference themes include river hydraulics, river dynamics, experimental and field hydraulics, remote sensing applications, river aquatic health, river ecology and other aligned. Interested individuals can send a short abstract of maximum 200 words by registering [here](https://forms.gle/UDijQC8TAULHNE5w5)

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Key Dates

Last date of abstract submission	14 Feb., 2021
Intimation of abstract acceptance	17 Feb., 2021
Presentation submission	21 Feb., 2021

Registration

No Registration Fee.

Participants are requested to register here.

<https://forms.gle/UDijQC8TAULHNE5w5>

Invited Speakers



Dr. Marwan Hassan
The University of British Columbia

River Processes



Dr. Shawn Chartrand
Simon Fraser University

Dam Removal &
Reservoir Sediment



Dr. S. K. Barik
CSIR-NBRI

River Ecology



Dr. Subashisa Dutta
IIT Guwahati

Large Rivers



Dr. H. Prashanth Reddy
IIT Kharagpur

Flow & Vegetation
Interactions



Dr. S. N. Kuiry
IIT Madras

River Modelling



Dr. Basanta K. Das
Central Inland Fisheries Research
Institute

River Aquatic Health



Chandan Ghosh
National Institute
of Disaster Management

River Disasters



Dr. Amit K Dubey
Space Applications Centre
ISRO, Ahmedabad

Remote Sensing

Additional Information

- Selected abstracts will be considered for Oral or Poster presentation based on decision of organising committee
- A digital copy of abstracts of all the presenters will be made available to the participants.
- Best 20 presentations may be called for submitting full length papers to be published in Springer Nature**



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Invited Lectures

Conference Schedule Day 1, 25th February 2021

Time (IST)	Invited Speaker	Title of the Talk
9:00 am to 10:00 am	Prof. Marwan Hassan <i>University of British Columbia, Canada</i>	Patterns of channel stability and morphology of gravel-bed streams
10: 00 am to 11:00 am	Prof Subashisa Dutta <i>IIT Guwahati</i>	Macro-Turbulence, Energy Expenditure and Sediment Transport in Large Braided River
11:00 am to 11:10 am	Dr. Prachi Kaul <i>Director, Shastri Indo-Canadian Institute</i>	Opportunities through Shastri Indo-Canadian Institute Programs

Conference Presentations on Modeling Studies

Time (IST)	Participant	Title of the Presentation
11: 10 am to 11:20 am	Suresh Modalavalasa <i>IIT Guwahati</i>	Analysis of flow at the vicinity of bridge pier in the floodplain of a sinuous channel
11:20 am to 11:30 am	Ray Singh Meena <i>NIT Hamirpur</i>	Flood inundation modelling using coupled 1d-2d HEC-RAS model in lower Kosi river basin, india with limited data
11:30 am to 11:40 am	P C Nayak <i>NIH Kakinada</i>	Pulichintala Dam Breach Analysis and Modelling using HEC-RAS
11:40 am to 11:50 am	M. Selva Balan <i>CWPRS Pune</i>	Performance evaluation of artificial intelligence in flood estimation for small river streams
11:50 am to 12:00 pm	SS Rawat <i>NIH Roorkee</i>	Modelling of Sediment Yield in Tawi River for Identification of Critical Sources of Sediments
12:00 pm to 12:10 pm	Deepak Singh Bisht <i>NIH Jammu</i>	River flow dynamics in changing climate scenarios – a case study of Mahanadi River basin of eastern India
12:10 pm to 12:20 pm	Surendar Natarajan <i>NIT Trichy</i>	Flood Modeling Approach for an Inundated Ungauged River Basin Using Hydraulic Modeling Approach
12:20 pm to 12:30 pm	T. Thomas <i>NIH Bhopal</i>	Runoff Simulation in Upper Narmada basin using Soil and Water Assessment Tool (SWAT)

Invited Lectures

Time (IST)	Invited Speaker	Title of the Talk
4:00 pm to 5:00 pm	Dr. Basanta K. Das <i>Director, Central Inland Fisheries Research Institute, Barrackpore</i>	Aqualife Vis-a-Vis Anthropocene in Rivers: A holistic management approach is need of hour
5: 00 pm to 5:30 pm	Dr. Chembolu Vinay <i>IIT Jammu</i>	Field Scale Data Collection for River Engineering Studies

Short Presentations

Time (IST)	Participant	Title of the Presentation
5: 30 pm to 5:35 pm	Ashwin S Aher, <i>PREC</i>	A Review on Damanganga-Vaitarna-Godavari link project
5:35 pm to 5:40 pm	Rohit Sandhu <i>NIT Hamirpur</i>	Floodplain analysis in Kosi river using HEC-RAS
5:40 pm to 5:45 pm	Sinchana M , <i>Bangalore University</i>	Generation of Intensity Duration Frequency Curve for Tunga Watershed
5:45 pm to 5:50 pm	Soumya SN, <i>NIT Suratkal</i>	Flood frequency studies of Sita catchment, Karnataka, India

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Invited Lectures

Conference Schedule Day 2, 26th February 2021

Time (IST)	Invited Speaker	Title of the Talk
9:00 am to 10:00 am	Dr. Shawn M. Chartrand <i>Simon Fraser University, Canada</i>	A tale of a river and three dams
10: 00 am to 11:00 am	Prof H. Prashanth Reddy <i>IIT Kharagpur</i>	Hydrodynamics of Free Surface Flows in Emergent Vegetated Channels

Conference Presentations on Experimental Hydraulics and Ecology

Time (IST)	Participant	Title of the Presentation
11:00 am to 11:10 am	Maisnam Bipinchandra Singh <i>NIT Manipur</i>	Sequent depth ratio and energy losses in hydraulic jumps on rough near-prismatic channels with sediment flows
11: 10 am to 11:20 am	Abhishek K. Pandey <i>IIT Gandhinagar</i>	Bed-load transport equations in predicting the equilibrium bed morphology at right-angled combined open channel junction
11:20 am to 11:30 am	Kalpna Devi <i>IIT Kharagpur</i>	TKE budget in the Flow Field of a Horizontal Circular Cylinder Mounted on an Open Channel Bed
11:30 am to 11:40 am	Riddick Kakati <i>IIT Guwahati</i>	Three dimensional modelling of hybrid river training works
11:40 am to 11:50 am	Indulekha Kavila <i>Mahatma Gandhi University, Kerala</i>	A study of the impact of some land use land cover changes on watershed hydrology
11:50 am to 12:00 pm	R. K. Manna <i>CIFRI Barrackpore</i>	Necessity of appropriate barrage downstream structure to facilitate fish migration: lessons learnt from Grand Anicut, Tamil Nadu, India
12:00 pm to 12:10 pm	Priyanka Rana <i>HNB Garhwal University</i>	Impacts on reproductive biology of Golden Mahseer caused by climate and landuse change in western Himalaya.
12:10 pm to 12:20 pm	Anjana Ekka <i>Delft University of Technology</i>	Impact of anthropogenic modifications on river ecosystem services in India
12:20 pm to 12:30 pm	Ketan Nandi, <i>IIT Guwahati</i>	Development of Conceptual Framework for Hydro-ecological Security across Himalayan River Basins

Invited Lectures

Time (IST)	Invited Speaker	Title of the Talk
4:00 pm to 5:00 pm	Prof. Chandan Ghosh <i>National Institute of Disaster Management</i>	Urban Flood Mitigation and Flexible Storage System using Geosynthetics
5: 00 pm to 5:30 pm	Dr. Vivek Gupta <i>International Water Management Institute</i>	Building Resilience to Climate Change: A water resources perspective

Short Presentations

Time (IST)	Participant	Title of the Presentation
5: 30 pm to 5:35 pm	Akshatha SM, <i>Bangalore University</i>	Comparison of Estimated and Observed Runoff of Sub-basins of Cauvery
5:35 pm to 5:40 pm	Tufa Feyissa Negewo <i>IIT Guwahati</i>	Land Use/Cover and Climate Change Effects on Hydrological Watersheds
5:40 pm to 5:45 pm	Saketh Shetty, <i>AJIET</i>	A Study of Variation Of Agricultural Productivity Using Water Harvesting
5:45 pm to 5:50 pm	Archana Anand <i>GITM Bhubaneswar</i>	Monitoring and substantial protective measure of riverbank erosion processes
5:50 pm to 6:00 pm	Ritambhara K Upadhyay <i>Panjab University</i>	A Geospatial Approach for Mapping and Delineation of Palaeochannels

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Invited Lectures

Conference Schedule Day 3, 27th February 2021

Time (IST)	Invited Speaker	Title of the Talk
9:00 am to 10:00 am	Prof. S. K. Barik <i>Director, CSIR- National Botanical Research Institute, Lucknow</i>	Planning for a sustainable river basin management
10: 00 am to 11:00 am	Prof. Soumendra Nath Kuiry <i>IIT Madras</i>	Urbanization-hydrological-hydraulic modeling framework for flood simulations and management

Conference Presentations on Remote Sensing Studies

Time (IST)	Participant	Title of the Presentation
11:00 am to 11:10 am	Chandan Pradhan, <i>IIT Guwahati</i>	Assessment of transport effectiveness and recovery trajectory in regulated Mahanadi river
11: 10 am to 11:20 am	Uma Narayan M. <i>IIT Guwahati</i>	Inferring time-space record of tectonic upliftment from the river profile analysis: A case study of Siang River
11:20 am to 11:30 am	Akshay Kumar <i>BIT Mesra, Ranchi</i>	Monitoring of sand quarrying and their impact on channel migration of the Damodar River, Jharkhand using geospatial technique
11:30 am to 11:40 am	Ranjit Deka <i>The Brahmaputra Board</i>	Use of landsat and sentinel-1 data for implementation of bank protection work in the Brahmaputra river
11:40 am to 11:50 am	Gopinadh Rongali <i>Delhi Technological University</i>	Assessment of potentially dangerous glacial lakes risk mapping in satluj river basin using remote sensing and GIS of Himachal pradesh- india
11:50 am to 12:00 pm	Prashanth Thallam <i>JNTU Kakinada</i>	Two-Dimensional Dam Breach Analysis Using HEC-RAS for Tungabhadra Dam
12:00 pm to 12:10 pm	Jayatu K Bhuyan <i>Biozatra Science & Tech. Pvt. Ltd.,</i>	Estimating Critical Mixing Depth condition in Eutrophicated Water Bodies to Prevent Harmful Cyano-Bacterial Blooms
5:30 pm to 5:40 pm	C J Jagadeesha <i>Former ISRO Scientist</i>	Multi Chaneel SAR Interferometry for Mighty Brahmaputra River Systems Engineering

Invited Lectures

Time (IST)	Invited Speaker	Title of the Talk
4:00 pm to 5:00 pm	Dr. Amit Kumar Dubey <i>Space Applications Centre, ISRO Ahmedabad</i>	Satellite Remote Sensing for River Corridor Studies
5: 00 pm to 5:30 pm	Shri. Akkimi Anjaneyulu <i>Senior Project Fellow, IIT Guwahati</i>	Availability of Digital Elevation Models for River Floodplain Modeling and Geomorphometric Analysis

Short Presentations

Time (IST)	Participant	Title of the Presentation
5:40 pm to 5:45 pm	Pallavi M, <i>REVA University</i>	Morphometric Analysis and Water Quality using RS and GIS
5:45 pm to 5:50 pm	Shannon Meryl Pinto, <i>NIT Suratkal</i>	Morphometric Analysis for Geo-Hydrological Studies using RS and GIS –
5:50 pm to 5:55 pm	Lakshmi, <i>AIT Bangalore</i>	Derivation of unit hydrograph for cumulative watershed area using DEM
5:55 pm to 6:00 pm	Dev Anand Thakur, <i>NIT Suratkal</i>	Flood inundation mapping using HECRAS 2D model: A Review