



# **International Conference on Climate-Resilient Dams and Hydropower Infrastructure: Integrating Environmental Sustainability in Planning and Development**

29-30 January, 2026 at SCOPE Convention Centre, Lodi Road, New Delhi – 110003

## **DRAFT TECHNICAL PROGRAMME SCHEDULE**

### **29<sup>th</sup> January 2026 (Thursday)**

09:00 – 10:00 hrs.	Registration
10:00 – 11:00 hrs	Inaugural Session
11:00 – 11:30 hrs.	Tea/Coffee Break
11:30 – 13:00 hrs	<b>Plenary Session</b> <ol style="list-style-type: none"><li>1. National-scale river flow prediction portal for climate-resilient dams and hydropower planning in India – <i>Dr. Prof. A.K. Gosain, IIT Delhi</i></li><li>2. Impacts of climate change on hydropower development and sustainability <i>Shri Milind Ganesh Gokhale, Member (Hydro), CEA</i></li><li>3. Enhancing GLOF Risk Resilience through Technology, Governance and Community Preparedness –<i>Shri Ashok Thakur, Sr. Consultant GLOF/ LLOF, NDMA</i></li><li>4. Significance of dams in climate change adaptation and mitigation - <i>Dr. J. Chandrashekhar Iyer, Former Chairman, CWC</i></li></ol>
	Q&A
13:00 – 14:00 hrs.	Lunch Break
14:00 – 15:30 hrs	<b>Technical Session I– Climate change and water resources management - Climate impacts on hydrology and systems</b>  <b>Chair : Shri Anil Jain, Chairman, National Dam Safety Authority</b> <b>Co-Chair: Shri Rakesh Kashyap, Chief Engineer, Central Water Commission</b>  <b>Keynote Presentation:</b> Climate change and water resources management - <i>Mr. Pierre-Yves Pitteloud, Senior Regional Advisor on Disaster Risk Reduction (DRR), Climate Change Adaptation (CCA) &amp; Rapid Response (RR) in South Asia, Embassy of Switzerland</i> <ol style="list-style-type: none"><li>1. Climate change and water resources management- <i>Shri Anil Jain, Chairman, National Dam Safety Authority</i></li><li>2. Glacial Lake Outburst Flood Hazard Assessment For A Himalayan Hydropower Project: A Case Study From The Lohit Basin, India - <i>Shri Rakesh Kashyap, Chief Engineer, Central Water Commission</i></li><li>3. A National water modeling framework with reservoir Integration and development of a Digital Twin - <i>Dr. Manabendra Saharia, Associate Professor, Dept. of Civil Engg., Indian Institute of Technology Delhi</i></li><li>4. Performance evaluation of rainfall forecasts from 17<sup>th</sup> to 29<sup>th</sup> August 2025 over the River sub-basins under Bhakra Beas Management Board (BBMB) in Himachal Pradesh and Punjab, India: A Case study - <i>Dr. S K Manik, Scientist.-D, Hydromet Division, IMD</i></li><li>5. Climate change aspects in dam in Himalaya - <i>Dr. Ajay Pradhan, President &amp; CEO, Cuttack Consulting Solution Services (C2S2)</i></li><li>6. Climate change and dam safety in Northeast India - <i>Shri Ranendra Sarma, Former Director (Technical), NEEPCO Ltd.</i></li></ol>
15:30 – 16:00 hrs	Tea/Coffee Break

15:30 – 16:00 hrs Tea/Coffee Break



16:00 – 17:30 hrs

### Technical Session – II: Climate change and environmental considerations in dam and hydropower projects

**Chair :** *Shri A.K. Singh, President, INHA and Former CMD, NHPC*

**Co-Chair:** *Shri Biswajeet Das, Executive Director, Soma Enterprise Ltd*

**Keynote Presentation:** Climate change and environmental considerations in hydropower projects - *Shri A.K. Singh, President, INHA and Former CMD, NHPC*

1. Climate change and environmental considerations in hydropower projects - *Shri Sandeep Batra, ED (Planning), NHPC Limited*
2. Challenges In hydro projects: Planning the restoration Of RCC Structures - Case study of Tapovan Vishnugad hydropower project - *Shri Vivek Gupta, Dy. General Manager, Field Engineering Services, Tapovan Vishnugad Hydro Power Project*
3. Building climate-resilient hydropower: Slope stability and landslide risk management - *Dr. Sibatosh Debnath, Sr. VP (Design & Engineering) and Shri Kishan Daga, Wholetime Director, Patel Engineering Limited*
4. Climate change and environmental considerations in dams hydropower and renewable projects - *Shri Biswajeet Das, Executive Director, Soma Enterprise Ltd*
5. Climate-resilient pumped storage hydropower development: Integrating climate risk assessment, dam safety, and sustainable design for off-river closed-loop pumped storage projects – *Shri B. Nagendra Reddy, Vice President, Aarvee Engineering Consultants Limited.*
6. Climate-resilient hydropower operations in the Himalayas: the role of cloud seeding in managing snowpack and inflow variability – *Shri Harsh Dubey, Head of IndiaRainmaker Technology Corporation*
7. Nano grouting to arrest heavy water loss through aging dams leading to major reduction in carbon foot print - *Dr. Surendra Manjrekar, CMD, Sunanda Speciality Coatings Pvt. Ltd*

**30<sup>th</sup> January 2026 (Friday)**

09:30 – 11:00 hrs

### Technical Session – III: Climate change in Himalayan Cryosphere – Glacier studies and risk assessment

**Chair:** *Dr. Prof. A.K. Gosain, IIT Delhi*

**Co-Chair:** *Shri V D Roy, Chief Engineer, Flood Management Organisation, CWC*

**Keynote presentation:** Climate change impact on the Himalayan cryosphere focusing on Glacier studies and risk assessment - *Dr. Gagandeep Singh, Assistant Professor, NIDM*

1. Climate impact on hydrology and systems leading to more frequent and severe extreme weather events like floods and droughts - *Dr. Rahul Saxena, Scientist-G, IMD*
2. Climate change impacts on the Himalayan Cryosphere and extreme hydro-meteorological events: Implications for cascade hazards, GLOF Risk, and climate-resilient dam and hydropower infrastructure in the Eastern India – *Dr. Laxmi Linggi, Scientist/Engineer & Dr. P. C. Vanlalnunchhani, Scientist, Centre for Earth Sciences & Himalayan Studies*
3. Extreme floods event trends and future challenges – *Shri. Vasanthakumar V, Director, Flood Forecast Monitoring Dte, CWC*
4. Climate Change Impacts on the Himalayan Cryosphere – A Special Focus on Avalanches, GLOFs and Debris Flows - *Dr. D.P. Kanungo, Chief Scientist & Professor (AcSIR), CSIR*
5. Comprehensive early warning system for vulnerable hydro power projects - *Ms. Sanjeeta Kumari, Dy. General Manager, Hydro Engineering, NTPC*
6. Sustainable and climate-resilient design and operation of hydropower projects: Lessons from extreme flood events in Himachal Pradesh, India – *Er. Revati Raman, Dy. General Manager (Civil), SJVN Limited*



11:00 – 11:30 hrs.

Tea/Coffee Break

11:30 – 13:00 hrs

#### **Technical Session – IV: Climate Risk Assessment & Adaptive Planning, Regulatory Frameworks and Environmental Compliance**

**Chair:** *Dr. Sabin T P, Scientist - F, Indian Institute of Tropical Meteorology*  
**Co-Chair:** *Mr. Adam Pascale, Chief Commercial Officer, ESS Earth Sciences Pty Ltd*

**Keynote Presentation:** Warming climate, escalating extremes: From risk assessment to action - *Dr. Sabin T P, Scientist - F, Indian Institute of Tropical Meteorology*

1. Adaptive hydropower infrastructure under climate uncertainty: Insights from India - *Dr. Sibatosh Debnath, Sr. VP (Design & Engineering), Patel Engineering Limited*
2. Heavy Water Ingress In Deep Seated Foundation Galleries Of Operational Dams: Issues, Challenges & Remedial Measures- A Case Study of NTPC Koldam - *Shri Vishal Kaushik, Dy. General Manager, NTPC Ltd.*
3. Framework for Developing an Effective Early Warning System for Dams in Compliance with the Dam Safety Act 2021 in India – *Shri Vijay Dubey, Director, Jomiso Consulting Pvt. Ltd.*
4. Advanced monitoring systems for dam/hydropower with a focus on seismic monitoring – *Mr. Adam Pascale, Chief Commercial Officer, ESS Earth Sciences Pty Ltd*
5. Integration of environmentally sustainable planning and development of climate-resilient hydropower infrastructures – *Dr. Madhuban Lal Maskay, Nepal*
6. Climate Finance – *Dr. Tanya Sharma, Senior Manager, Carbon Project Development, IORA Ecological Solutions Pvt. Ltd.*

13:00 – 14:00 hrs.

Lunch Break

14:00 – 15:30 hrs

#### **Technical Session – V: Nature-Based and Technological Solutions**

**Chair:** *Dr. Chetan Hazaree, Associate Vice President, MYK Arment Pvt. Ltd.*  
**Co-Chair:** *Dr. D.P. Kanungo, Chief Scientist & Professor (AcSIR), CSIR*

**Keynote Presentation:** Why stronger Is not enough: Re-engineering water infrastructure through systems thinking—Rethinking material systems for low-carbon, circular futures - *Dr. Chetan Hazaree, Associate Vice President [R&D & Sustainability], MYK Arment Pvt. Ltd.*

1. Low carbon concrete: Cut carbon not performance" *Shri Amol Anand Patil, Business Development Manager, Sika India Pvt Limited*
2. Integration of ROV technology for climate-resilient hydropower infrastructure assessment and management –*Shri Kannappa Palaniappan, Co-Founders, IROV Technologies Private Limited*
3. Application of tracer techniques for detecting dam leakage - *Dr. Gopal Krishan, Scientist E, Hydrological Investigations Division, NIH*
4. Stainless Steel, Resilient by Design - Innovative Materials for Climate-Ready Hydropower Infrastructure – *Shri Varun Pruthi, Head Business Development & Sales, Jindal Stainless Limited*
5. Innovative corrosion protection system to Gates of Middle Vaitarna, Barvi & Ransai Dams - *Dr. Surendra Manjrekar, CMD, Sunanda Specialty Coatings Pvt. Ltd*
6. Sustainable Infrastructure Design and Operations - *Ms. Minimol Korulla, Vice President-Technical, Maccaferri Environmental Solutions Pvt. Ltd.*

15:30 – 16:00 hrs Tea/Coffee Break



16:00 – 17:30 hrs

### Technical Session – VI: AI and Geospatial Technologies

**Chair :** *Dr. Sanjay Rana, Managing Director, PARSON Overseas Pvt. Ltd.*

**Co-Chair :** *Shri Suneet Manjavkar, Industry Head Water-Business Development, ESRI India Technologies Ltd*

**Keynote Presentation:** Health assessment of dams by geophysical techniques - *Dr. Sanjay Rana, Managing Director, PARSON Overseas Pvt. Ltd.*

1. AI and Geospatial technologies for climate resilient dams and hydropower - *Shri Nikhilesh Kumar, Co-founder & CEO - Climate Tech, Vassar Lab Climate Technology Company*
2. From visual to integrated digital intelligence: A Multi-Layer digital condition assessment & technology-enabled inspection framework using UAV and AI/ML-based data fusion for safety evaluation of dams and hydropower structures - *Dr. Ramji Singh, Member – Dam Safety Review Panel (Govt. of Gujarat)*
3. Latest development in GIS technology, tools and platform and further support state SWIC and DRIP projects - *Shri Suneet Manjavkar, Industry Head Water-Business Development, ESRI India Technologies Ltd.*
4. Space technology for structural health monitoring (SHM) of dams and hydropower in a changing climate - *Ms. Asiya Begum, Scientist/ Engineer 'SF', National Remote Sensing Centre (NRSC)*
5. Adaptive Rehabilitation of aging dams under climate change using exposed geomembrane linings – *Mr. Mohammad Asim, Technical Sales Engineer Carpi India*
6. Statistical Analysis of Dam Failures and Ensuring Dam Safety at Koldam – *Shri Akhilesh Chandra Joshi, Deputy General Manager (FES/FQA/DSU), NTPC Limited.*

17:30 – 18:00 hrs

### Valedictory Session

Concluding Remarks and Vote of Thanks : *Shri K.K. Singh, Director (WR), CBIP*