

- ❖ Assessment of in-situ quality of concrete of Rengali Power House Structure by non-destructive testing methods - A Case Study - *Vijay Ghodake, Prakash Palei, Santhosh Kumar, Rajendra Singh Gurjar, Rizwan Ali*
- ❖ A review study On Indian dam failures - *Dinesh Roulo & Subbarao Pichuka*
- ❖ Analysis of Seepage flow through Earth Dams using Numerical Modelling - *Shruti Jain, & Brijesh K. Yadav*
- ❖ Risk Informed Dam Safety Management, - *Ms. Anu & Kavitha*

11:30 – 13:00 Hrs. Technical Session VII - Major Rehabilitations and other Risk Reduction Investments

Chairman: *Shri Rakesh Singh, Addl. Chief Secretary, WRD, Govt. of Karnataka*

Co-chairman: *Prof. C.V.R. Murty, IIT Madras*

- ❖ Material selection and quality requirements for repair & rehabilitation of hydraulic structures - *P N Ojha, Brijesh Singh, Abhishek Singh & Suresh Kumar*
- ❖ Instrumentation for safety of dams – issues, challenges and lessons learnt in Indian context - *Hari Dev, Mahabir Dixit and R.S. Sehra*
- ❖ Underwater rehabilitation of dams using geomembrane waterproofing systems - *G. Vaschetti, F. Tronel & J. Subramanian*
- ❖ Effective measure to control seepage in masonry gravity dams - A case study - *R. Vigneswaran, S.J. Pillai, Sarbjeet Singh, K. Balachandran, Jai Prakash Meena & Ankit Sahu*
- ❖ Dealing with large lateral forces due to creeping slope – A case study of Shongtong Karcham HEP (450 MW), HP, India - *N. S. Shekhawat, M S Harshitha & A. Suhail*
- ❖ Evaluation of IS Code specified method of Design for Gravity Dam by Response History Analysis - *Shiyam Sundar K P, M K Shrimali & S D Bharti*

Poster Session Papers

- ❖ Probability-based design considerations for Jet Grouting in dam construction and Rehabilitation-Research and Practice - *V. Vishnu & A. Tyagi*
- ❖ Damage scenarios study of concrete spillways / tunnels in large dams - *S. Mandloi*
- ❖ Early warning system in hydropower projects with a Case Study of its successful implementation in Rangit IV HEP - *Vishal Kumar Saini, Manjusha Mishra, Sameer Srivastava, Bhavya Shukla*
- ❖ Proposal to study the feasibility of providing Piano Key Weir as an additional surplus arrangement at Anaikuttam Dam - *M. A. Jose Jerald Das*

14:00 - 15:30 Hrs. Technical Session VIII - DRIP Rehabilitation Case Studies

Chairman: *Shri Vijai Saran, Chief Engineer, DSO, CWC; Project Director, DRIP; Member, Policy & Research, NDSA*

Co-chairman:

- ❖ Sinuosity analysis of Barak River from Fulertal to Badarpur Ghat and its significance in project planning - *M. Tiwari G. Prasad and A. Gupta*
- ❖ Design flood review of Gandhi Sagar dam using multi storm analysis - *Manoj Tiwari, N.N. Rai, Akshat Jain Chetna & Payal Goyal*
- ❖ Rehabilitation and Replacement of 136 numbers of Sluice Gates & their Hoisting Equipment's of Krishna Raja Sagara Dam-A Case Study- *Aditya Mishra, Rahul Kumar Singh & Vivek Tripathi*
- ❖ Rehabilitation of Gararda Earthen Dam- *R.K. Choudhary & A.K. Verma*
- ❖ Experience of Flexible Geomembrane in DRIP (Dam Rehabilitation and Improvement Program) Project in India - *Vinayagam Subramanian, Jagadeesan.Subramanian, G. Vaschetti & F. Tronel*
- ❖ Rehabilitation of Konar Dam Under Drip – A Case Study- *Dipankar Chaudhuri & Saroj Kumar Sah*
- ❖ Reintegration of the spillway shutters of Krishnagiri dam Tamil Nadu, India - A Case Study- *Dr. R. Rani, C Johnci Rani & M.A. Jose Jerald Das*

Poster Session Papers

- ❖ Sholayar dam – masonry dam and distress that it subjected to remedial measures taken up – A Case Study – *Anandan, Dhandapani & S. Ashwin*
- ❖ Rehabilitation of a large masonry dam to control seepage – Case Study of Tamil Nadu Sholayar Dam – *Arun Balui & R. Harish*
- ❖ Seepage and Stability Analysis of Earthen dam in Slow and Rapid Drawdown Conditions - *Subodh Shrivastava & Prof. S.N. Sahoo*
- ❖ Refurbishment of New Umtru HEP- *S.K. Das, K.S. Saini & M.K. Goyal*
- ❖ Dam decommissioning: An option for India's ageing water storage infrastructures – *Dr. Manish K Nema, Dr P.K. Mishra & Dr Sanjay K Jain*
- ❖ Development of stage-discharge curve at Arang in Mahanadi - *Syed Khateeb Ahmad, Zulfequar Ahmad & Pramod Kumar Sharma*

16:00 - 17:30 Hrs. Technical Session IX - Operation, Maintenance and Emergency Management

Chairman:

Co-chairman:

- ❖ Repair & Rehabilitation of Spillway glacis using Steel Liner - Case Studies of Dhauliganga & Teesta- V Dams - *Rao Musharraf Ali Khan, Rajesh Kumar & Shankar Kumar*
- ❖ Rectification in the operating system of non-functional stop logs on an inclined track - *Ghanshyam Patel, Satish Kamboj, Director & Sanjay Kumar Sibal*
- ❖ Dam break flood simulation: Sensitivity analysis - *Anil Kumar Lohani, S.K. Jain & R.K. Jaiswal*
- ❖ Koldam Hydropower Station: Flip Bucket issue and remedial measures - *Rakesh Rathee, Jagat Singh Yadav, Surinder Garg, Sanjai Bharti*
- ❖ 3D seismic finite element analysis of concrete gravity and CFRD dams - *MIDAS*

Morning Tea: 11:00 – 11:30 Hrs.

Lunch: 13:00 - 14:00 Hrs.

Evening Tea: 15:30 - 16:00 Hrs.



सत्यमेव जयते

Ministry of Jal Shakti
Department of Water Resources, River Development & Ganga Rejuvenation
Government of India



International Dam Safety Conference

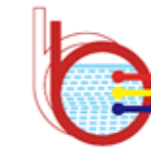
10-12th October, 2022, Birla Auditorium, Jaipur

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PROGRAMME

10th October, 2022 (Monday)

08:30 - 09:45 Hrs.

10:00 - 11:00 Hrs.

11:30 - 13:00 Hrs.

Registration

Inaugural Session

Plenary Session: Emerging Challenges in Dam Safety Management

Chairman: Shri Pankaj Kumar, Secretary, DOWRD, RD&GR, Ministry of Jal Shakti

Co-chairman: Mr. Michel LINO, President, ICOLD

- ❖ Dam safety situation in the world and ICOLD action plan in favour of Dam Safety management - *Mr. Michel LINO*
- ❖ Dam Safety Management in India - *Dr. R.K. Gupta, Chairman, CWC*
- ❖ Challenges upgrading safety modifying dams under operation - Some cases of study - *Dr Enrique Cifres, Vice-President*
- ❖ Emerging challenges in dam safety management with the background of climate change - *Prof. Zeping Xu, Chairman, ICOLD Committee on Dam Safety*

14:00 - 15:30 Hrs.

Technical Session I - Global Best Practices in Dam Safety Management and Governance

Chairman: Dr. R.K. Gupta, *Chairman, CWC*

Co-chairman: Shri Anand Mohan, *Joint Secretary (RD & PP)*

- ❖ The urgent need for the seismic safety evaluation of existing dams - *Martin Wieland*
- ❖ Dam Safety Management in Malaysia: Resilience Dam for Safe Communities - *Lariyah Mohd Sidek, Md Nasir Md Noh, Hazri Khambali & Hidayah Basri*
- ❖ Reservoir management model optimized for flood risk periods. A Portuguese case - *Dr. Juliana Mendes & R. Maia*
- ❖ Implementation of Dam Safety Emergency Action Plan: The Malaysian Experience on Community-Based Disaster Management Approach - *Lariyah Mohd Sidek, Roslan Abd Rahman, Md Nasir Md Noh, Hidayah Basri, Rahsidi Che Muda & Sarbani Anjang Ahmad*
- ❖ Best practices followed in dam safety management and governance at Subansiri Lower Dam (2000 MW) - *Vipin Gupta, Ramesh Ojha and Ram Kewal*
- ❖ Two-dimensional Dam break flow analysis of cascade of Dam using HEC-RAS - *Shivendra Jaiswal, Rahul Kumar Jaiswal & A K Lohani*
- ❖ Assessment of hydro cover in three revenue zones of Maharashtra by remote sensing method - *Rajan Shah, Sanjiv Tatu, Rajiv Mundada, Makarand Kulkarni and Santosh Wagh*

Poster Presentation Papers

- ❖ A Study on Hydro-suction method for sediment removal from reservoirs - *A. Jaiswal*

16:00 - 17:30 Hrs.

Technical Session II - Dam Safety Act 2021

Chairman: Shri D.K. Sharma, *Vice-President, ICOLD*

Co-chairman: Shri J. Chandrasekhar Iyer, Member - D&R, CWC

- ❖ Video Presentation on Dam Safety Act 2021 - DRIP
- ❖ An overview of Dam Safety Act 2021 - *Shri J. Chandrasekhar Iyer*
- ❖ Dam safety and legislation frameworks in Albania - *Arjan Jovani*
- ❖ Technical framework concerning dam safety - *Prof. C.V.R. Murthy*
- ❖ Dam Safety act and Dam Rehabilitation & Improvement Programme - *Vijai Saran*

Cultural Programme followed by Dinner

19:00 - 22:00 Hrs.

11th October, 2022 (Tuesday)

09:30 - 11:00 Hrs.

Technical Session III - Sustainable Dam and Reservoir Management

Chairman: Ms. Debashree Mukherjee, Addl. Secretary, Dept. of Water Resources, RD and GR

Co-chairman: Dr Enrique Cifres, *Vice-President, ICOLD*

- ❖ Analysis of Deviations observed in Design Flood of existing River Valley Projects in India and the causative factors - *N. N. Rai, Goverdhan Prasad, Akshat Jain and Payal Goyal*
- ❖ Potential flood zone mapping for risk mitigation of Rakasakoppa dam, Belagavi, India - *Dr. Venkatesh B, R. Abhilash, T. Thomas & P.C. Nayak*
- ❖ Reservoir inflow modelling by Neuro Fuzzy and ANN models - *Anil Kumar Lohani, S.K. Jain & R.K. Jaiswal*
- ❖ Optimization model for integrated operation of multipurpose reservoir in Narmada basin - *Dr. Tejram Nayak, Namrata Patel, Aditya Sharma, Nikhilesh Kumar & Sreekarthikeya Reddy*
- ❖ Unsteady flood modeling for Pulichintala and Kandaluru dam using HEC-RAS - *P C Nayak, Meenakshi Ramola, B Venkatesh, T Thomas & A.K. Lohani*
- ❖ Assessment and Management of Sedimentation in Kundah Reservoir - A Case study - *V. Veeralakshmi, E. Abinaya & B. Sanjay*
- ❖ An Overview of current state and policies governing sustainable tourism around dams in India - *Saurabh Kumar Sahu*
- ❖ Sediment Management in Run-of-the River Hydropower Plants in Himalayan Region - *Vishal Kumar Saini, Manjusha Mishra & S D Shukla*

Poster Presentation Papers

- ❖ Framework for soil conservation measures in WR project: need assessment to impact analysis - *Dr Rahul Kumar Jaiswal, A. K. Lohani & R. V. Galkate*
- ❖ Simulation model for integrated operation of multipurpose reservoirs in Narmada River Basin - *Dr. Tejram Nayak*
- ❖ Estimation of Sediment yield in Beas basin and sedimentation rate in Pong reservoir - *Sanjay K Jain, J V Tyagi & A K Lohani*
- ❖ A review on sediment transport modelling using HEC-RAS - *Rahul P R & P K Sharma*
- ❖ Discharge characteristics of Piano Key Weirs - *Vishal Singh & Zulfequar Ahmad*
- ❖ Reservoir sedimentation surveys for effective management of water - A scenario in Maharashtra - *Rajan Shah*

11:30 - 13:00 Hrs.

Technical Session IV - INCOLD YPF Special Session

Chairman: Shri R.K. Vishnoi, CMD, THDC India Limited

Co-chairman: Shri Amit Gautam, Chair, *INCOLD YEF*

- ❖ Role of young professionals in dam safety - *Amit Gautam, Abhinav Srivastav & Ashutosh Anand*
- ❖ Managing dam safety risks over time including climate change - *Dr. Adrian Morales Torres, Helena Yarritu Sanchez & Dr. Javier Fluixa Sanmartin*
- ❖ DAMS: Mitigation & Adaption in Design as per climatological challenges - *Ankur Sharma*
- ❖ Post seismic shock controls on dams and the procedures of "dam risk" and "downstream valley risk" - *Giulia Buffi*
- ❖ Energy Infrastructure Risk against Flood in a Changing Climate: A Case Study - *Dr. Viraj Loliyana & Prince Kaley*
- ❖ Assessment of current reservoir sedimentation rate and storage capacity loss: an Italian overview - *Dr. Ritesh Patro*

14:00 - 15:30 Hrs.

Technical Session V - Dam Health Monitoring, Data Acquisition and Processing

Chairman: Mr. Michel LINO, *President, ICOLD*

Co-chairman: Mr. Michel De Vivo, *Secretary General, ICOLD*

- ❖ Dam health check & monitoring using advanced tools of geophysics - Indian Experience - *Dr. Sanjay Rana*
 - ❖ Monitoring of landslides between Tehri and Koteswar Dams in Uttarakhand, Himalayas - *K. Kumar, A. Papnai, M. Kuri & Alok Bhardwaj*
 - ❖ A Concept of Integrating Complex Dams into a SMART Dams for Chambal River Basin - *S.S. Parihar, Dr. M.K. Choudhary & Dr. R.K. Jaiswal*
 - ❖ Role of Instrumentation in Dam Health Monitoring - *Dr. R. Rani, K.S. Senthil Kumar & S. Shenbagadevi*
 - ❖ Importance of Seismological Instrumentation in Dam Safety Assessment - *D. Srinagesh*
 - ❖ Effective Analysis and Usefulness of Dam Health Investigations - *Nisheeth Agnihotri, Ravi Agarwal & U.S. Vidyarthi*
- Poster Session Papers**
- ❖ SCADA system in dam for optimum management of water resources: A case study of Bisalpur Dam - *Dr. Nitin Singh Kachhawa*
 - ❖ Settlement analysis of rockfill dams - *Ketan Patel & Mahendra Singh*
 - ❖ Non-Destructive Testing (NDT) of Dams by Underwater Remotely Operated Vehicles (ROVs) - *Ashish Anthony Jacob, Santhosh Ravichandran, Vineet Upadhyay, Shanmukha Kavaya Vedam, Tanuj Jhunjhunwala*
 - ❖ Investigating effect of shell stiffness on the dynamic response of embankment dam - *Mohammad Davoodi, Reza Afzalsoltani & Abbas Pourdeilami*
 - ❖ Inspection of long tunnels using ROV (Remotely Operated Vehicle) - *Kannappa Palaniappan. P*
 - ❖ Calibration of VW sensors and its performance evaluation on a DAS - A case study - *Dr. M. Selva Balan & J. K. Singh*

16:00 - 17:30 Hrs.

Industry Session -

Chairman: Shri Y.K. Chaubey, CMD, NHPC Limited

Co-chairman: Prof. S.D. Bharti, MNIT, Jaipur

- ❖ Presentation by NHPC
- ❖ Presentation SJVN
- ❖ Existing dams/reservoirs: Leveraging them for energy needs - *Amitabh Tripathi*
- ❖ Software solutions in Dams and Hydropower related segments, list of users/testimonials, applications of Midas FEA-NX in geotechnical, tunnels, dams, hydropower and advanced structural engineering with real project applications - *MIDAS*
- ❖ Inspection of dams - Team Viewer
- ❖ Pinnacle Geosystems
- ❖ Presentation by Ayesa
- ❖ Presentation by Normet India Pvt. Ltd.
- ❖ Presentation by Rohri Enterprises LLP

12th October, 2022 (Wednesday)

09:30 - 11:00 Hrs.

Technical Session VI - Safety Reviews and Risk Assessment

Chairman: Shri N.L. Sharma, CMD, SJVNL

Co-chairman: Dr. Wieland Martin, *Chairman, ICOLD Committee on Seismic Aspects*

- ❖ Seismic Analysis of 3D Model of Morrow Point Arch Dam - *Deepak Khandelwal, S. D. Bharti & M. K. Shrimali*
- ❖ Discordant seismicity In Himalaya and its implications in seismic hazard assessment - *M. L. Sharma & Shweta Bajaj*
- ❖ Evaluation of seismic design of Concrete Gravity Dams - Various Guidelines - *Anil Jain*
- ❖ A comparative study on seismic stability analysis Of 2D And 3D concrete gravity dam - *Arnab Banerjee & M.K. Alam Chowdhury*
- ❖ Probabilistic dam breach modelling of Mahi Bajaj Sagar dam using monte Carlo simulation technique - *Jagadish Prasad Patra, Anil Kumar Lohani, Sunil Gurrapu, Pankaj Mani & Rakesh Kumar*
- ❖ Attributes of local seismicity around tehri dam - *Prof. Mukat Lal Sharma, S.C. Gupta, A. Sen, S.K. Jain, A.K. Jindal, R.K. Vishnoi, A. Jain, V. Singh & S.K. Saxena*
- ❖ A breach modeling of a debris-dammed lake formed aftermath of the flash flood and debris flow on 07 February 2021 in the Rishiganga river valley - *Yogesh Kumar Gupta, Ankit Kumar, Samir Kumar Shukla*

Poster Session Papers

- ❖ Understanding risks associated with dams and in context to dams in Damodar Valley - *Abhishek Shukla & N.K. Goel*
- ❖ Evaluating flood risk at an industrial site using 1D-2D coupled hydrodynamic flow model under cascading effect of dam failure - *Dr Pankaj Mani, Rakesh Kumar, Sharda University & Jagadish P. Patra*