

#### **ABOUT THE CONFERENCE**

The fourth in the series of Dam Safety Conferences is being organized during 23rd and 24th January 2018 in Kovalam, Thiruvananthapuram. The Conference is jointly organized by the Central Water Commission (CWC), Kerala Water Resources Department (KWRD), Kerala State Electricity Board (KSEB), National Institute of Technology, Calicut (NITC), and College of Engineering, Trivandrum (CET) under the aegis of ongoing Dam Rehabilitation and Improvement Project (DRIP) undertaken with the financial assistance from the World Bank to rehabilitate about 240 dams in India. The Conference brings together dam professionals and experts in the various inter-related disciplines from within India and around the world to discuss, reflect and share technology and experience in addressing dam safety issues and strategies to address them. The Conference will have one Plenary Session, four Technical Sessions, and one Industry Session.

There will be three stimulating presentations during the Plenary Session by eminent dam safety professionals. Several oral presentations during the Technical Sessions reflect the developments in technologies, materials, and instrumentation for dam design, construction, operation, maintenance and rehabilitation including case histories on practical dam safety issues and solutions. Technical Sessions are organized in parallel to provide opportunities for presentation of many papers.

# THE VENUE

The Conference will take place at 'The Leela Kovalam', Thiruvananthapuram, the capital of Kerala which is known as the Spice Coast of India for the variety of spices grown here and as God's Own Country for its natural beauty and famous temples. India's richest temple, the eighth century Sree Padmanabhaswamy Temple is in Thiruvananthapuram. The confluence of the three seas (The Arabian Sea, Indian Ocean, and the Bay of Bengal) is about 90 km from here (Kanyakumari). Thiruvananthapuram is easily accessible by air, rail and by road.

# **CONFERENCE THEMES**

The Conference focuses on the continual improvement of the techniques for managing the safety and risk of aging dams providing for their long-lasting and sustainable management to ensure that our dams and reservoirs are secure and resilient, and are adequately prepared for floods and earthquakes. The themes for various sessions are as under:

#### **Plenary Session: Sustainable Dam Safety Initiatives**

Dam safety is of paramount importance to protect life, property and the environment as also to protect the water security offered by the dams. Invited papers from eminent persons to project emerging trends and innovations related to dam safety and their experience in implementing several initiatives and their contribution towards sustainable dam safety will be presented during this session.

#### TS 1: Uncertainties and Risk Management in Dams

- Potential risk associated with dam design, construction, maintenance, operation, and safety assurance of dams;
- Special risks from gates operation and floating debris;
- Risks associated with human and organizational factors;
- Uncertainties and risk-informed decision making in dam design, construction, maintenance, operation, and safety assurance of existing dams and novel technologies in construction material;
- Numerical modelling and statistical approach for risk evaluation
- Risks specific to tailing dams, special purpose dams, flood control structures etc.

#### TS 2: Operation, Maintenance, Rehabilitation, and Upgrading of existing dams

- Reservoir silt management and desilting (flushing, dredging, excavation, etc.);
- Upgrading dam health monitoring system and re-instrumentation;
- Long-term performance of dams w.r.t. various loading histories, including thermal loading;
- Dam failure case histories and solutions;
- Internal erosion: analysis, monitoring, remedial measures;
- Raising of dams and reservoir levels;
- Innovations in operation, maintenance, and rehabilitation of hydro-mechanical components.

## TS 3: Dam Safety Management Practices

- Legislation, regulatory mechanism, guidelines and good dam safety practices;
- Accidents and incidents in dams and reservoirs case studies;
- Monitoring, Instrumentation and Safety Assessment;
- Enhancements in dam surveillance systems for dam safety and its security;
- Capacity building and state-of-the-art in dam engineering;
- Advanced construction materials, technologies, and solutions in dam rehabilitation;
- Advances in dam health investigations like underwater investigations using Remote Operated Vehicles (ROVs), surface mapping using Unmanned Aerial Vehicles (UAVs) / Drones, geotechnical methods, etc.

## TS 4: Integrated Flood Management for existing dams

- Uncertainties in flood evaluation, revision and associated risks in design floods for existing dams.
- Recent trends in spillway design and spillway upgrading.
- Innovations in energy dissipation and downstream erosion control.
- Structural and non-structural measures to mitigate dam flood disasters
- Dam failures or flood incidents linked to gate operation: case histories and lessons learnt

#### **INDUSTRY SESSION**

In this session, industry representatives from within India and outside project their products and services to highlight latest developments in technology and their application in the dam safety area.



## **EXPOSITION**



Space will be made available to interested organizations to showcase their technologies, instruments, products and services. Organizations interested in participating in the exposition should submit the 'Request for Exposition' online at our website by 30 November 2017. Depending on the availability, space will be assigned; preference will be given to organizations sponsoring events or items for the Conference. The exposition stalls will remain open after the day's sessions have ended to provide an opportunity for extra networking between registered participants and the international exhibitors.

# **PARTICIPATION**

Professionals who plan, design, build, operate, instrument, maintain and rehabilitate dams are invited to register online our website: www.damsafety.in to participate in the Conference. There is no participation fee for attending the Conference. However, participants are required to make their own arrangements for their stay, transportation, and other incidentals. Efforts are being made to provide limited accommodation to official delegates of Dam Rehabilitation and Improvement Project (DRIP) Implementing Agencies and members of National Committee on Dam Safety. Participation in the Conference is by invitation. Owing to capacity limitations, some registrations might not be accepted; therefore, it is advised to await confirmation before making travel plans and other arrangements.

## **TECHNICAL PAPERS**

Technical Papers reflecting the developments in technology, materials, instrumentation, and methods including case histories of dam safety issues and solutions, are invited for presentation in the technical sessions. All the papers received will be reviewed by a panel of experts for the quality of contents and their relevance to the themes of Technical Sessions before acceptance. Authors of accepted papers are requested to submit presentation slides. After reviewing the presentation slides for their suitability, papers will be selected for oral presentation.

Soft copies of all the accepted papers and printed copies of their abstracts will be distributed to the participants during the Conference. In addition, select technical papers, after necessary editing, will be published as a compendium following the Conference. CDSO and CWC reserve the right to publish the technical papers/compendium in its websites or in any other media; therefore, consent in this regard shall be given by the Principal Author while uploading the paper.

Timelines for submission of papers:

- Submission of full papers: 31 October 2017;
- Communication of shortlisted papers for oral presentation: 30 November 2017;
- Submission of slides (limited to 15-20) for oral presentation: 15 December 2017



## **EXPOSITION**

Space will be made available at the venue of the Conference for display / exposition of products, charts, banners, photographs showcasing the latest developments, technologies and solutions in the areas of dam safety. Select exhibiters may also be permitted to make a brief presentation of their products / technologies during the Technical Sessions. Those interested to participate in the exposition may inform their interest indicating the nature of display and the space required, latest by 30 November 2015; requests may be made through our website or by email to the Organizing Secretary. Depending on the availability, the space will be assigned and the details will be confirmed.

# **CONFERENCE PROGRAMME**

23 January 2018		24 January 2018	
Time	Programme	Time	Programme
0900-0930	Registration	0900-1030	Technical Session 2
0930-1030	Inauguration	1030-1100	Tea
1030-1100	Inauguration of	1100-1230	Technical Session 3
	Exposition		
1100-1130	Tea	1230-1330	Lunch
1130-1300	Plenary Session	1330-1500	Technical Session 4
1300-1400	Lunch	1500-1600	Valedictory Session
1400-1530	Technical Session 1	1600-1630	Tea
1530-1600	Tea		
1600-1730	Industry Session		

Each of the four Technical Sessions will be organized in two parallel locations by designating them as TS1a, TS1b.....to accommodate oral presentations of more papers

## **SIGHTSEEING TOURS**

Kerala is one of the most popular tourist destinations in the country. Named as one of the ten paradises of the world by National Geographic Traveler, Kerala is famous especially for its ecotourism initiatives and beautiful backwaters. Participants interested in undertaking sightseeing tours may visit the Kerala Tourism website: https://www.keralatourism.org/ for more details.



For any information, please contact

The Organizing Secretary, International Dam Safety Conference-2018, Central Project Management Unit, DRIP Central Water Commission, 3rd Floor, New Library Building (Near Sewa Bhawan), R. K. Puram, New Delhi – 110066. Phone: +91 11 26168903

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# International Dam Safety Conference 2018

Safe Dams for Safe Future



23-24 January 2018 Thiruvananthapurom Kerala





## Organized By

Central Water Commission, Kerala Water Resources Department, Kerala State Electricity Board, National Institute of Technology Calicut, and College of Engineering, Trivandrum