REGISTRATION OF PARTICIPANTS

Dam owners, dam planners, dam operators and dam safety professionals as also contractors, suppliers and consultants involved in dam design, construcəon, instrumentaəon and inspecəon of dams are invited to parəcipate in the Naəonal Conference. They may register online by visiəng our website: www.damsafety.in.

There is no parəcipaəon fee for aǧending the Conference. Parəcipants are required to make their own arrangements for their stay, transportaəon and other incidentals; the organizers will be able to assist in finding suitable accommodaəon on specific requests. E orts are being made to provide limited accommodaəon to o cial delegates of DRIP and State Agencies. The parəcipaəon in the Conference is by invitaəon and all the registraəons for parəcipaəon may not get accepted; therefore, it is advised to await confirmaəon of acceptance of registraəon before making travel and other arrangements.

PAPERS FOR PRESENTATION

The papers relaəng to the topics of the Technical Sessions are invited from professionals who are associated with design, construcəon, operaəon and maintenance of dams or suppliers of equipment and instrumentaəon for dams; interested parəcipants may indicate their intenəon to present the paper while uploading the registraəon form. Guidelines for the authors presenəng the papers are available on our website; technical papers not adhering to the Guidelines are likely to be rejected. Authors are requested to upload their papers on our website and not to submit the papers in any other form like CD ROMs, email communicaəons, hardcopies, etc.

It is planned to publish the accepted technical papers as a compendium aDer the Conference, besides, CWC / CDSO reserves the right to publish the Papers in their websites or in any other media. Necessary ediəng of papers may be carried out to bring about consistency. Therefore consent in this regard, shall be given by the Principal Author while uploading the paper.
Timelines for submission of papers:

- Last date for submission of Full Paper: 30 November 2015;
- Communicaəon of acceptance of the papers and papers selected for oral presentaəon: 15 December 2015.
- Submission of presentaəon slides (confined to 15-20) for papers accepted for oral presentaəon: 31 December 2015

EXPOSITION

Space will be made available at the venue of the Conference for display / exposiəon of products, charts, banners, photographs showcasing the latest developments, technologies and soluəons in the areas of dam safety. Select exhibiters may also be permiǧed to make a brief presentaəon of their products / technologies during the Technical Sessions. Those interested to parəcipate in the exposiəon may inform their interest indicaəng 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

The tentaəve programme of the conference is as below:

12 January 2016		13 January 2016	
Date & Time	Programme Details	Date & Time	Programme Details
0900-0930 h	Registraəon	0900-1030 h	Technical Session 4
0930-1100 h	Inaugural Session	1030-1100 h	Tea Break
1100-1130 h	Tea Break	1100-1230 h	Technical Session 5
1130-1300 h	Technical Session 1	1230-1330 h	Lunch
1300-1400 h	Lunch	1330-1500 h	Technical Session 6
1400-1530 h	Technical Session 2	1500-1600 h	Concluding Session
1530-1600 h	Tea Break	1600-1630 h	High Tea
1600-1730 h	Technical Session 3		

Since the registraəon of the parəcipants for the Naəonal Conference is starəng at 0900h on 12 January 2016, for the benefit of the outstaəon parəcipants arriving Bengaluru on the previous day, a sightseeing tour is planned on 11 January aDernoon. Those interested to take part in the sightseeing tour are requested to inəmate their desire while registering online at our website.

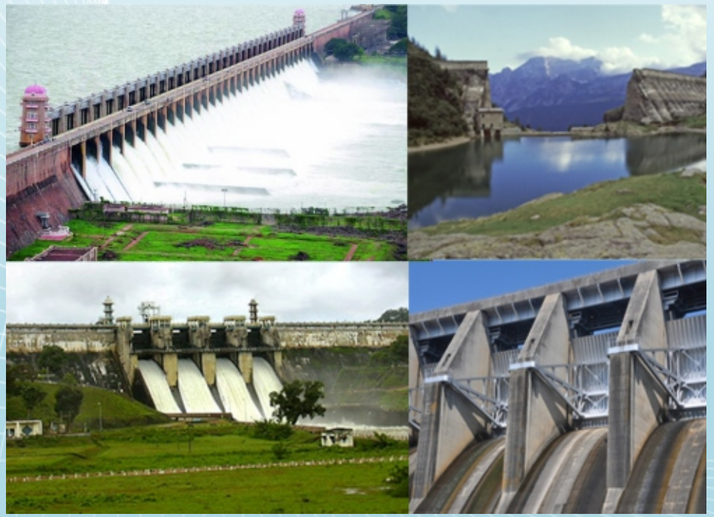
For any informaəon, please contact
The Organizing Secretary,
Second Naəonal Dam Safety Conference,
Central Project Management Unit, DRIP
Central Water Commission,
3rd Floor, New Library Building (Near Sewa Bhawan),
R. K. Puram, New Delhi – 110066.
Phone: +91 9350475556, +91 11 26168903
Email: cpmu-cwc@nic.in; Website: www.damsafety.in

Second Naəonal Dam Safety Conference
12-13 January 2016 , Bengaluru
Organized by CWC, Karnataka WRD and IISc
Website: www.damsafety.in

DRIP
Dam rehabilitation & improvement project

Second National Dam Safety Conference 12-13 January 2016

Venue: JN Tata Auditorium, IISc, Bengaluru



Organized by:

Karnataka Water Resources Department

Central Water Commission

Indian Institute of Science

INTRODUCTION

Central Water Commission (CWC), a premier technical organizaəon of India in the field of Water Resources has established Central Dam Safety Organisaəon (CDSO). CDSO provides technical and managerial assistance to dam owners and State Dam Safety Organisaəons for proper surveillance, inspecəon, operaəon and maintenance of all dams and appurtenant works in India to ensure safe funcəoning of dams and protecəng human life, property and the environment. CDSO is also coordinaəng and supervising the Dam Rehabilitaəon and Improvement Project (DRIP) assisted by World Bank (esəmated to cost Rs. 2100 crore) targeəng rehabilitaəon and improvement of about 250 dams in seven states - namely: Karnataka, Kerala, Madhya Pradesh, Odisha, Tamil Nadu, Jharkhand and Uğarakhand. The project will also promote new technologies and improve insətuəonal capaciəes for dam safety evaluaəon and implementaəon at the Central and State levels and in some idenəfied premier academic and research insətutes of the country.

Karnataka Water Resources Department (WRD) is engaged in planning and invesəgaəon, design, construcəon and maintenance of major and medium irrigaəon projects of Karnataka. Karnataka WRD consists of three major corporaəons; Krishna Bhagya Jala Nigam Limited (KBJNL), Karnataka Neeravari Nigam Limited (KNNL) and Cauvery Neeravari Nigam Limited (CNNL). These three corporaəons act as Special Purpose Vehicles for speedy implementaəon of irrigaəon projects. Karnataka WRD is a parəcipant under DRIP with 27 large dams under rehabilitaəon.

The Indian Insətute of Science (IISc), Bengaluru, founded in 1909, is one of the premier insətutes in India. Department of Civil Engineering in IISc focuses on advanced research and educaəon in the broad areas of Geotechnical, Structural, Transportaəon and Water Resources & Environmental Engineering. IISc, Bengaluru is one of the premier academic and research insətutes idenəfied for capacity building in dam safety areas under DRIP.

Karnataka WRD and IISc are collaboraəng with CWC in organizing the Second Naəonal Dam Safety Conference during 12-13 January 2016 in Bengaluru.

ABOUT THE CONFERENCE

Naəonal Dam Safety Conferences have been conceived as part of dam safety insətuəonal capacity building, to be organized in di erent States as an yearly event. These Conferences propagate the concepts, techniques, instruments, materials, etc. for design and construcəon of new dams, as well as for monitoring, surveillance, operaəon, maintenance and rehabilitaəon of exisəng dams.

First Naəonal Dam Safety Conference organized in Chennai jointly by CWC, Tamil Nadu Water Resources Department (TNWRD) and Indian Insətute of Technology Madras (IITM) received overwhelming response and generated great interest among dam professionals associated with various aspects of dam design, construcəon, operaəon and maintenance. Conənuing with the thrust so generated, the second Naəonal Dam Safety Conference is planned to be held in the garden city, Bengaluru, focusing on key issues of dam safety that have been highlighted in the course of DRIP implementaəon.

Six Technical Sessions (TS) are planed during the Conference wherein technical papers and case studies are invited from engineers, hydrologists, geologists, dam owners / operators, industry representaəves, academic & research insətutes and other stakeholders.

CONFERENCE THEMES

The themes for the Technical sessions are as under:

TS 1: Design Flood Esəmaəon and Methodology for Ensuring Hydrological & Hydraulic Safety of Dams

The theme will focus on esəmaəon of flood and flood handling measures for new and exisəng dams and cover:

- State-of-the-art approach for design flood esəmaəon;
- Spillway design;
- Performance of spillways and energy dissipaəon arrangements and remedial measures;
- Spillway capacity enhancement; and
- Case studies related to design floods and spillway designs.

TS 2: Extent and Methodology for Site Invesəgaəons for the health and Safety of Dams

The theme will address challenges of dam site invesəgaəons before taking up new dam construcəon as well for unraveling site condiəons of exisəng dams; it covers:

- Extent of invesəgaəons and state-of-the-art techniques for ascertaining geological and geotechnical uncertainəes in dam- foundaəon system;
- Invesəgaəons relaəng to seismic safety of dams;
- Underwater dam invesəgaəons and bathometric survey of reservoirs;
- Laboratory and in-situ tests for site characterizaəon, dam material properəes, and environmental condiəons;
- Invesəgaəons for health assessment of exisəng dams; and
- Case studies relaəng to challenges encountered in foundaəon and dam body invesəgaəons.

TS 3: Planning and Design Consideraəons for Safe Dams

Faulty planning and poor designs have oDen been the cause of dam failures during their first fillings, besides being responsible for under uəlizaəon of dam capaciəes in some cases. With this realizaəon, the theme covers:

- Dam planning and opəmizaəon;
- State-of-the-art approach for dam design towards hydraulic, structural and seismic safety;
- Numerical modelling tools for dam analysis and design;
- Use of new materials and technologies for enhanced dam performance and safety; and
- Case studies highlighəng challenges encountered in planning and design of dam structures.

TS 4: Challenges in Dam Health Monitoring and Miəgaəon of Dam Health Issues

With about 80% of India's large dams having crossed the age of 25 years, the monitoring of dam health and miəgaəon of their distress condiəons have assumed paramount importance. The task ahead is highly challenging in view of absence of perənent design records and drawings, inadequacy of performing dam instruments and instrumentaəon data, and shortage of experienced manpower for dam inspecəons. Accordingly, the theme covers:

- Needs of perpetual surveillance & insətuəonal mechanism for dam health monitoring;
- State-of-the-art instrumentaəon, especially in exisəng dams deprived of performing instruments;
- Integraəon of health monitoring data, centralized archiving, ease of retrieval, and tools for analysis;
- Case studies highlighəng emerging issues and challenges of dam health monitoring; and
- Case studies of extreme distress condiəons and approaches for their miəgaəon.

TS 5: Innovaəons and Integraəon of Technologies for Dam Safety

Over last few decades, the pace of innovaəons and technology has significantly impacted many sectors of development. However, water resources sector in general and dam building in parəcular, have gained very liğle from these advancements. There is immense potenəal in leveraging from the current day technologies; and towards this intent, the theme covers:

- Integraəon of communicaəon technologies for dam health monitoring, advance warning systems and emergency acəons;
- Use of corrosion resistance material for gate structures, use of advanced technologies for operaəon of crest and sluice gates, integraəon with SCADA for remote operaəons;
- Integraəon of roboəcs, UAVs, and imaging technologies for aerial, surface, sub-surface and underwater invesəgaəon of dams and appurtenant structures; and
- Case studies of implementaəon of new technologies – Challenges and results achieved.

TS 6: QC & QA in Dam Construcəon and Rehabilitaəon

Despite use of beğer design pracəces and construcəon technologies, the newer dams are oDen found to have su ered on account of nonconformance with design specificaəons; and this scenario is in no way beğer for dam rehabilitaəon works. Emphasizing the importance of quality control and quality assurance in dam works, the theme covers:

- Importance of quality plans right from the tender preparaəon stage;
- Supervisory controls at di erent levels towards QC & QA, and acəons for bridging the gaps;
- Benefits of quality management systems at insətuəonal level for improved dam safety;
- Drawbacks of prevalent pracəces oriented towards fault finding rather than fault prevenəon and the need for system oriented approach for QC & QA; and
- Needs of QC & QA training at operaəve levels for e ecəve and transparent implementaəon