Workshop
Latest Trends in Inspection & Investigations of Dams
May 30-31, 2019, New Delhi, India

Under the aegis of:  In association with:  Organized by:

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Introduction:

Dams in the country represent a major investment and huge benefits to population in terms of irrigation, power and flood control. Most of the big dams are very old and regular monitoring and maintenance of these dams is of utmost importance for continuing benefits.

The primary purpose of the dam safety inspection program is to enhance the safety of dams and appurtenant structures for the protection of downstream life and property. Dam safety inspections are conducted to ensure proper operation and maintenance; to discover unsafe conditions and determine why they exist; to recommend remedial measures to mitigate the deficiency or defect that will safeguard the structure and appurtenances, and to confirm that the dam meets minimum safety requirements.

The workshop covers recently published CWC’s Guidelines for Safety Inspections of Dam (2018) elaborating procedures for safety inspection of dams during pre and post-monsoon, unscheduled flood and post-earthquake events, and periodic comprehensive inspections, with special focus on mobilizing ‘Dam Safety Review Panels’, technological advancements and best practices worldwide. The health of the dam can be easily categorized using detailed inspection proformas provided in guidelines for identifying deficiencies and prioritizing rehabilitation schemes to reduce dam safety risks.

Objectives:

In the event of a dam failure, the economic loss as well as the potential hazard to life and property could be enormous. The primary aim of this workshop is to provide dam owners, dam engineers, and other professionals with information to help guide the planning and execution of dam inspection and investigation programs. Dam safety inspection case study will be presented to illustrate the advantages of conducting field inspections in a timely manner for sustaining the health of the dam.

The workshop will cover Overview of dam inspection, dam safety inspection program, preparing for an inspection, inspecting embankment dams, concrete and masonry dams including spillways, outlets and mechanical equipment and general areas. Use of remotely operated underwater vehicles (ROVs) for upstream underwater inspection of dam body and the reservoir floor and the unmanned aerial vehicles (UAVs) also called DRONEs for surface mapping of the downstream face of the dam and the catchment area are increasingly being used in developed countries. Information regarding these advanced techniques will also be presented during workshop. Geophysical investigations are being increasingly used to ascertain internal conditions of dam in non-destructive manner, and same will be extensively covered in the workshop.
Who Should Attend?

The workshop is extremely useful for:

- Dam owners
- Dam consultants
- Hydropower companies
- Product/Service providers for dams

Key Elements:

- Dam Safety Inspection
  - Preparing for Scheduled or Unscheduled Inspections
  - Pre and Post Monsoon Inspection
  - Special Inspection after Extreme Event like Floods, Earthquake etc.
  - Specialized Inspections for Distress Conditions
  - Comprehensive Inspection after Every Five Years
  - Protocol for Safety Inspections
  - Inspecting Embankment Dams
  - Inspecting Concrete and Masonry Dams
  - Inspecting Spillways, Outlets and Mechanical Equipment
  - Inspecting General Areas
  - Visual Inspection using Remotely Operated Vehicles (ROVs)
  - Documenting and Reporting Inspections
  - Comprehensive Dam Safety Review
  - Instrument Monitoring
  - Case Study- Inspection Manual for Dam Field Engineers after Seismic Events (Maithon Dam & Ichary Dam)

- Latest Investigations Techniques
  - Geotechnical
  - Geophysical Techniques for
    - Leak Path Detection
    - Internal Erosion
    - Identification of Zone of Water Accumulation
    - Cavity/Sinkhole
    - Concrete/Masonry Degradation (weak zones)
    - Residual Density Determination
    - Stilling Basin Inspection
  - Use of Temperature and Strain Sensing for Dams
  - Latest Developments including Optical Fiber Sensors
  - Geophysical Investigation Techniques
    - Seismic/Sonic Tomography
    - Electrical Resistivity Imaging/Tomography
    - Multi-Channel Analysis of Surface Waves (MASW)
    - Seismic Refraction Tomography
    - Streaming Potential
    - Ground Penetrating Radar
**Fee Structure:**

Government Departments, Ministries: INR 8,000 per participant
Private, PSUs, Boards: INR 12,000 per participant
Students, Research Scholars: INR 6,000 per participant

GST@18% is extra as applicable.

The fee is inclusive of training notes, morning & evening tea & lunch. A discount of 10% on group booking of 04 or more participants from a single organization is applicable.

**Registration Process:**

Prior registration is must by sending email to info@aquafoundation.in OR pragya@damsafety.co. Fee is to be paid through DD in favor of *Aqua Foundation payable at Delhi*. It can also be deposited in following account:

- **Name of the Bank**: ICICI Bank Ltd
- **Address of the Bank**: ICICI Bank, 9 A, Phelps Building, Connaught Place, New Delhi- 110001
- **Name of the Account holder**: AQUA FOUNDATION
- **A/C no**: 000701260885; **IFSC Code**: ICIC0000007; **Swift code**: ICICI NBB CTS

**Venue:**

Hotel The Hans, No. 15, Barakhamba Road, Connaught Place, New Delhi-110001, India

**Contact Details:**

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