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SECRETARIAT
Central Board of Irrigation and Power
Malcha Marg, Chanakyapuri, New Delhi-110 021
Phone: 91-11-26115984 / 26116567; Fax : 91-11-26116347
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CONTACT PERSONS:
Shri A.C. Gupta, Director – Water Resources (Mobile: 9871995996)
Shri Sunil Sharma, Senior Manager – Technical (Mobile: 9811299136)

REGISTRATION FORM
1. Name _____________________________________________________________________________
   (First Name) (Middle Name) (Surname)
2. Position ___________________________________________________________________________
3. Organization _______________________________________________________________________
4. Address ___________________________________________________________________________
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6. Mobile No. _________________________________________________________________________
7. E-mail ID __________________________________________________________________________
8. Bank Draft No. ___________________ dated ______________ for Rs. __________________ is
   enclosed.
9. I intend to participate in the deliberations of the Workshop.
   ____________________________ (Signature)
   Place: __________________
   Date : ______________
INTRODUCTION
Construction tunnels and caverns in the technically active Himalayas is full of challenges and uncertainties. Experience has shown that construction of tunnels and caverns in Himalayas requires a good understanding of geology, adequate site investigation, proper tunnel design and selection of suitable construction methods and technologies. What is the limit of adequate investigation to reduce uncertainty is being asked by many even question whether it is possible to do complete geological investigation before D&R stage. What is the way out to reduce uncertainties creating problem during execution of work. These issues are of para manual importance for a design and construction energy proper tunnel design and selection of suitable construction methods based on geological conditions are important for design and construction of tunnels for hydro, road transport, rail network to remote regions of continent size country besides development of infrastructure projects like Metro etc. A proper understanding of all these issues can definitely help in reducing cost and finance over run.

To focus on the various issues and challenges being faced for the design and construction of the tunnels on soft and hard rock, it is proposed to organize a Workshop on ‘Tunnel Design and Construction – Issues and Challenges’ on 12-13 November 2014 in the Conference Hall of CBIP at New Delhi.

OBJECTIVES
The objective of this workshop is to update the knowledge of tunneling professionals, i.e., Engineers, Geologists and tunnel technician to understand on various issues & challenges being faced during investigations, design, construction and how they can be newcomer.

TOPICS
General
- Linkages between site investigation, design and construction
- Ground Investigation

Tunnel Design
- Design Philosophy : Tunnel Design and management by design
- Specificities and Stages of tunnel design
- Geo-investigation and Tunnel Modeling parameters
- Influence of construction methods in design approach
- Empirical, Analytical and numerical modelling methods
- Construction Methods and aspects affecting design (ventilation etc.)
- Excavation in difficult ground (cavities, fault zones etc.)
- Monitoring for Conventional (Drill and Blast) and Mechanized Tunneling
- Permanent lining

Tunnel Construction
Conventional Tunneling
- Sequential excavation in soft ground and hard rock
- Structural design (Calculation, Dimensioning, Face stability)
- Ground reinforcement techniques
- Performance Monitoring
- Water Control and Drainages, Grouting, Water Profiling
- Safety and Quality Control

Mechanized Tunneling
- Types of machines and support systems
- Interface between TBM and Lining
- Design of Face pressure, Soil condition, Backfilling
- Segment lining design for soft ground and hard rock

WORKSHOP BENEFITS
The Workshop will introduce to the participants the latest tunneling techniques and will help them to develop their skills so as to:
- Select suitable investigation techniques for tunneling;
- Analyze ground conditions for tunneling;
- Assist in making informed decisions regarding tunnel and tunnel shaft construction methods and tunnel linking selection;
- Select and specify the most suitable equipment for tunneling;
- Develop a better understanding of the application and use of microtunneling techniques;
- Develop techniques to mitigate anticipated and unanticipated tunneling problems;
- Develop tunnel construction schedules more accurately;
- Manage tunnel construction projects more successfully and safely;
- Develop an awareness for the latest tunneling techniques and future trends in the industry.

WHO SHOULD ATTEND
The Workshop programme is designed for professionals working in public or private sector organizations dealing with the design and construction of tunnel and underground works. The workshop is of interest to tunnel designer and operators, construction and project managers, engineers (both field and design office), construction supervisory personnel, construction cost estimators, geotechnical engineers and individuals in the construction industry wanting a better grounding in modern tunneling techniques and practices, geologists, regulatory bodies. Government Departments, Tunnel Building Contractors & Consultants. Suppliers of Products & Services for Tunneling Construction. Fire Authorities dealing with Infrastructure Tunnels, Technical and Research Institutes, Universities dealing with Tunneling, Organization & associations active in the Tunneling World and Funding Agencies.

RESOURCES SPEAKERS
The resources for the Workshop are national and international experts having considerable experience on the Tunnel Design and Construction issues and challenges, who will be delivering lectures. The CD containing the Powerpoint Presentation made by the experts will be given to the participants for their reference.

DATES & VENUE
The Workshop will be held on 12-13 November 2014 in the Conference Hall of Central Board of Irrigation and Power, Malcha Marg, Chanakyapuri, New Delhi

OFFICIAL LANGUAGE
The official language of the workshop will be English.

REGISTRATION FEE
The registration fee for participation in the workshop is Rs. 10,000/- plus service tax 12.36% per participant by cash / cheque at par / demand draft drawn in favour of ‘Central Board of Irrigation and Power’, payable at New Delhi. There would be 10% discount applicable to Members of CBIP & TAI.

The registration fee includes working lunch, tea during the workshop. Registration fee does not include payment for hotel accommodation or meals except those specifically indicated in the Workshop Programme. The participants will have to make their own arrangement for boarding and lodging, transport, etc. at New Delhi. Registration fee once paid will not be refunded.

SPONSORSHIP
Scope exists for organizations to be the Golden Sponsor or Silver Sponsor on lumpsum payment with following attendant benefits:

Golden Sponsor – Rs. 2,00,000/-
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- Organization may nominate six delegates
- Time slot for making presentation
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- Distribution of literature/brochures

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- Name of the organization in the list of Sponsors
- Organization may nominate three delegates
- One full-page black & white advertisement in the proceeding volume
- Distribution of literature/brochures

ADVERTISMENT OPPORTUNITIES
A limited space will be made available on first-come-first-served basis, for coloured advertisement to the organizations, involved in the concerned field, in the proceedings volume of the workshop. The interested organizations are required to send the CD of the advertisement material, in A4 size i.e., Art Work / Negative/ Positive along with payments as detailed below by 10th September 2013.
- Inner Pages US$ 500 / INR 30,000
- 2nd & 3rd Cover US$ 1000 / INR 50,000
- Back Cover US$ 1500 / INR 75,000

* Service tax extra @ 12.36%, Service Tax Registration No : AAJC0237FST001