

International Conference
on
**UNDERGROUND EXCAVATIONS IN DIFFICULT
GROUND CONDITIONS: ISSUES & CHALLENGES**
(As a part of the activities of ISRM Commission on Hard Rock Excavation)

27-28 April 2017, New Delhi



Organised by



Central Board of Irrigation & Power



ISRM (INDIA)

Indian National Group of
International Society for Rock Mechanics



DELHI CHAPTER

Indian Geotechnical Society (IGS)
Delhi Chapter

INTRODUCTION

Excavation forms part of any type of construction now a days, viz. buildings, dams, tunnels, retaining walls, bridges and other infrastructure works. Underground material either soil or rock is non-linear, inelastic and anisotropic material whose behaviour is affected by several parameters like geology, in-situ stresses, water conditions, type of support system etc. Ground response to any type of excavation marks changes in stress fields which results in large amount of displacement within and sometimes below and adjacent structure or ground. In the present scenario of socio-economic factors combined with Clients wishes, engineers do not have choice to select best possible grounds for their project but are left to deal with available strata to make them safe and stable. With advancements taking place in excavation techniques, equipment design and monitoring techniques, lot of changes have also taken place in construction of underground structures. However, in spite of these developments, instances of failures and accidents continue to create havoc at many sites across the world due to lack of awareness and preparedness.

The conference is intended to bridge the gap between the designers and field practitioners working in the field of underground excavations and bring them to a common platform where they can share their actual problems and challenges they have passed through while executing different types of projects. Besides this, the conference will also provide opportunity to instrument developers and technologists to showcase their products and equipments, which can change the future of underground excavations and make them more sound and safe in future.

ABOUT ORGANISERS

The Central Board of Irrigation and Power (CBIP), since its inception in 1927, is engaged in the dissemination of information regarding recent technological advancements in the disciplines of water resources, dam engineering, tunnels and underground works including mining, rock mechanics, geosynthetics, power and renewable energy. Besides, it provides a forum for exchange of experiences, facilitating flow of technology through the organisation of symposia, seminars, workshops, training courses, both at national as well as international levels, in liaison with international organisations.

The CBIP acts as Secretariat of the Indian Chapter as well as Indian National Group of many international organisations like International Society for Rock Mechanics (ISRM), International Water Resources Association (IWRA), International Commission on Large Dams (ICOLD), International Geosynthetics Society (IGS), International Tunnelling and Underground Space Association (ITA), World Water Council, etc.

Indian National Group of International Society for Rock Mechanics (ISRM, India) has been involved in dissemination of information on rock mechanics, mining, rock slope stability and tunnel engineering by organising symposia, seminars, workshops, and training courses, both at national as well as international level, in liaison with international organizations, since its inception in 1991. ISRM India also publishes a Journal, bi-annually. The Secretariat of ISRM is in Lisbon (Portugal). ISRM has 53 countries as its National Groups, with India being one of them.

Indian Geotechnical Society (IGS) Delhi Chapter was established in 1982. The Delhi Chapter is affiliated to parent/national body-Indian Geotechnical Society (IGS), which was established in 1948. This Chapter is very active in disseminating knowledge to the industry and academia. IGS Delhi Chapter main objective is to provide eminent forum to the engineers, scientists, industrialists and others who are actively associated with the geotechnical works to come together to interact and thus to collect, synthesize and collate valuable information on geotechnical engineering. The Delhi Chapter is the largest Chapter of the Indian Geotechnical Society and has a membership exceeding 1000 life members. The Chapter received the best chapter award in 2014, 2015 and 2016.

About ISRM Commission on Hard Rock Excavation

The ISRM Board has appointed several Commissions for the period 2015-2019 in order to study scientific and technical matters of topical interest to the Society. ISRM Commission on Hard Rock Excavation is one of the 17 ISRM Commissions. Dr. Manoj Verma from India is the President of the Commission. The purpose of the Commission,:

- Compiling case histories of hard rock excavation projects, especially those from the Himalayas, the Alps and the Andes;
- Documenting problems faced during hard rock excavation, particularly in difficult ground conditions;
- Recommendations for avoiding the problems faced;
- Producing a report highlighting the lessons learnt from excavation projects in hard, faulted, water bearing rock with possible squeezing or rock burst.

As part of the product of the Commission, following two books will be published:

- Lessons Learnt from Case-histories of Tunnelling in Difficult Ground Conditions
- Best Practice Guide for Tunnelling in Difficult Ground Conditions

TOPICS

- Deep Excavations for Infrastructure Development

- Excavations and Slope Stabilisation in Hilly & Snowy Terrain
- Tunneling in Difficult Ground Conditions
- New Technologies and Equipment for Underground Construction.
- Role of Geotechnical Monitoring in Underground Excavations.
- Challenges, Problems and Issues in Underground Mines through difficult Geological Condition
- Risk Management in Underground Excavations
- Case Histories in Underground Excavations in Difficult Ground Conditions.

OFFICIAL LANGUAGE

English will be the official language of the Conference.

DATES AND VENUE

The Conference will be held at Conference Hall, CBIP Building, Malcha Marg, Chanakyapuri, New Delhi during 27-28 April 2017.

CALL FOR PAPERS/CASE STUDIES

Papers/Case studies on the topics proposed and allied topics are invited. Intending authors may send the full text of the papers/case studies, latest by **15 March 2017**.

The paper/case study shall contain a descriptive, but brief title, name(s) and affiliation of the author(s), address for correspondence (including fax numbers and e-mail addresses), detailed information about the objective, methods, results and conclusion, to enable a correct appraisal of the suitability of the proposed paper/case study for the Conference.

The full text of the papers/case studies, **not exceeding 08 pages of A4 size**, in single space and 10 Point Normal Times Roman Font, both in MS Word and PDF, need to be sent through e-mail only at uday@cbip.org. Only original contributions that have not been published or presented at any other forum are acceptable.

At the end of the references, the author(s) must furnish bio data not exceeding 100 words as per sample given below, along with a passport size coloured photograph:

“AAAAAA graduated in Civil Engineering from the University of P P P P P P in 1965. He obtained a Ph.D. in Civil Engineering at the University of Q Q Q Q Q Q. From 1969 to 1980 he worked for R R R R R R, specialising in design and construction of gates at hydro plants. In 1980 he joined S S S S S S Company as Hydraulic Design Chief Engineer, where he worked on civil aspects of the following hydro projects: xxxxx, yyyyyyy and zzzzzz. From 1988 he has been Professor of Hydraulic Engineering at the University of G G G G G G, where he specialises in analysis of model test procedures for hydraulic gates”.

A similar description should be given for each author. The author(s) need to submit a certificate, along with the text of paper/case study, as per the following format :

Certificate

The author(s) certify that the paper/case study titled “_____” and submitted for consideration for the International Conference on “**Underground Excavations in Difficult Ground Conditions: Issues & Challenges**”, to be held in New Delhi, during 27-28 April 2017, is in original and has not been published or presented at any other forum, in the present form. The Author(s) also hereby assigns to the Publisher, The Central Board of Irrigation and Power, Malcha Marg, Chanakyapuri, New Delhi (India), the copyright to the Contribution named above whereby the Publisher shall have the exclusive right to publish the said Contribution in print/electronic form, wholly or in part, in its other technical journals.

Signature(s)

Place

Date

The papers/case studies will be reviewed by the Technical Committee as to their suitability for presentation. A condition of acceptance of paper/case study will be that the author, or one of the authors in case of multiple authors, will attend the Conference and make the presentation.

All the accepted papers/case studies will also be considered for printing in the half-yearly journal of ISRM, India.

The papers/case studies accepted for oral presentation will be notified by **31 March 2017**.

REGISTRATION FEE

The registration fee for participation in the event is as under:

Member of CBIP/ISRM	Indian Rs. 9,000/USD 180 + Service Tax, as applicable (presently @ 15%)
Non-Member	Indian Rs. 10,000/USD 200 + Service Tax, as applicable (presently @ 15%)
Researcher/ Academicians/ Students	Indian Rs. 5,500/USD 100 + Service Tax, as applicable (presently @ 15%)

In case of 04 or more nominees from an organization, one nomination will be allowed free registration.

To avail the concession in the registration fee under Researchers/ Academicians/ Students category, the registration form/request will have to be submitted along with a certificate from the head of the Department/ Institute.

The registration fee covers the cost of registration kit, proceedings, and lunch and tea in-between the technical sessions. The participants will have to make their own

arrangements for travel and stay. No financial support will be provided by the organizers.

The last date for the receipt of filled-in registration form is **20 April 2017**. Photocopies of the registration form can be used for additional requirements, if any. Spot registration facilities will also be available, provided the prior information is received.

SPONSORSHIP/CO-SPONSORSHIP

The Conference provides an effective opportunity for organisations/ companies to sponsor/cosponsor the Conference by paying a fee of Indian Rs. 1,00,000/USD 2,000 and Rs. 50,000/USD 1,000, respectively. Sponsoring organisations will have the facility to promote their products/services among the participants besides working discussions with the utility engineers during tea/coffee and lunch intervals.

Following facilities will be extended to sponsors:

Facility	Sponsor	Co-sponsor
Complimentary Registrations	5 representatives	3 representatives
Distribution of promotion literature among the participants	Allowed	Allowed
Table top display of products/services	Allowed	NA
Time for commercial presentation	Allowed	NA
Company name and logo on banners, etc	Allowed	Allowed

EXHIBITION

The Conference will provide a very good forum for display of equipment/activities by the agencies involved in equipment manufacturing, construction, etc. The rate for table top display of products is Indian Rs. 30,000/USD 600/- + Service Tax, as applicable (presently @ 15%). One representative of the Exhibiting Agency will be extended one complimentary registration.

PAYMENTS

All payments can be made by one of the following methods:

- Bank draft/cheque payable at par at New Delhi in favour of “Central Board of Irrigation and Power”.
- By bank transfer in favour of “Central Board of Irrigation and Power”, the Secretariat of the Indian National Group of ISRM, as per details given below:
 - Name and address of Bank : HDFC Bank Limited, 209-214, Kailash Building, 26 K.G. Marg, New Delhi 110 001
 - Account Holder Name : Central Board of Irrigation & Power
 - Account No. : 00031110004411
 - Swift Code: HDFCINBBDEL
 - IFSC: HDFC 0000003
 - MICR Code : 110240001

In case of payments by bank transfer, bank commission, as applicable, will have to be borne by the concerned. The details of such transfer should be mailed to the Conference Secretariat, to update the payment records.

ADDRESS FOR CORRESPONDENCE

All correspondences relating to the Conference should be addressed to:

Mr. V.K. Kanjlia

Secretary

Central Board of Irrigation & Power

Malcha Marg, Chanakyapuri, New Delhi 110 021, India

Contact Persons:

Mr. A.C. Gupta, Director (WR)

Mr. Uday Chander, Chief Manager

Phone : +91-11- 2611 1294/2687 5017, Extn. 114

Mobile: + 91 98996 53677 (Mr. Uday Chander)

+91 98719 95996 (Mr. A.C. Gupta)

Fax : +91-11-2611 6347

E-Mail: uday@cbip.org; cbip@cbip.org

International Conference on
UNDERGROUND EXCAVATIONS IN DIFFICULT GROUND
CONDITIONS : ISSUES & CHALLENGES

(As a part of the activities of ISRM Commission on Hard Rock Excavation)

27-28 April 2017, New Delhi

REGISTRATION FORM

(To be filled in block letters preferably typed)

1. Name of Participant _____
(Surname) (First Name) (Prefix Prof./Dr./Mr./Mrs./Ms.)

Designation: _____

Name of Organisation: _____

Mailing Address: _____

City _____ State _____

Country _____ PIN _____

Phone _____ Fax _____ E-mail _____

2. Accompanying Person(s)

(i) _____

(ii) _____

3. Passport details (only for foreign delegates)

Name	Passport No.	Date of issue	Place of issue	Valid till date
1.				
2.				
3.				

4. Payment details

- Registration Fee INR/USD
- Sponsorship/Co-sponsorship/Exhibition/Charges INR/USD
- Total** **INR/USD**

5. Arrival Details

Arrival at New Delhi	Departure from New Delhi
Date	Date
Flight/Train No.	Flight/Train No.
Time	Time
From City	To City

6. Payment details:

(i) Bank Draft/Cheque No. _____ dated _____ for USD/INR _____ drawn on Bank _____
_____ is enclosed/is being sent separately.

(ii) Payment has been transferred to CBIP Account No. 00031110004411, with HDFC Bank, on _____

Dated _____

Signature _____

Notes:

1. Registration Form duly filled in, together with necessary payments to be mailed to Mr. V.K. Kanjlia, Secretary, Central Board of Irrigation and Power, Malcha Marg, Chanakyapuri, New Delhi 110 021.
2. Last date for the receipt of the registration forms is **20 April 2017**. Spot registration facilities will also be available, provided prior information is received.