

Recent Development in Rock Tunnelling

Risk management and design, Construction Methods, Maintenance and Rehabilitation

Sunday 16 – Tuesday 18 November 2014
Toaque palace – Diplomatic Quarter – RIYADH (KSA)

Sunday 16 November

08.00 – 09.00 Registration
09.00 – 09.30 Welcome and Opening

Overview and Design

09.30 – 10.00 Rock Tunnelling in Makkah city
10.00 – 10.45 Rock Tunnelling incl. Risk management and choice of the construction method
10.45 – 11.15 *Coffee Break*
11.15 – 12.00 Design Philosophy incl. management by design, special features, Geo-investigations
12.00 – 12.30 *Prayer*
12.30 – 14.00 Case Studies
14.00 *Lunch*

Monday 17 November

Construction Methods

09.00 – 09.45 Drill and Blast Rock Tunnelling
09.45 – 10.30 Mechanized Rock Tunnelling
10.30 – 11.00 *Coffee break*
11.00 – 12.00 Support and Grouting
12.00 – 12.30 *Prayer*
12.30 – 14.00 Case Studies
14.00 *Lunch*

Tuesday 18 November

Maintenance and Rehabilitation

09.00 – 09.45: Repair strategies, optimization and priority ranking of activities
09.45 – 10.30: Recommendations for planning and execution of works
10.30 – 11.00 *Coffee break*
11.00 – 12.00 Case Studies
12.00 – 12.30 *Prayer*
12.30 – 13.30 Case Studies
13.30 – 14.00 Questions/Answers and Closing Remarks
14.00 *Lunch*

More information and details of each lecture: visit <http://foundation.itacet.org>



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I am very pleased, as Mayor of Riyadh and President of ITACET Foundation for Education and Training, to announce the third 2014 training session for continuous education in the field of Tunnelling.

This three-day event jointly organized by the Riyadh Municipality and the ITACET Foundation will chiefly concentrate on giving high level information on the new scientific and technical developments in the field of Rock

Tunnelling. The program puts a special emphasis on the maintenance and rehabilitation of existing underground structures and a special focus on the Makkah Area.

As you can see in on the program of the training session, International and Saudi experts will give lectures on a wide range of topics related to Rock Tunnelling. In addition, delegates from major Tunnelling companies will come to share their experience and practical knowledge on the topic.

The course will benefit tunnelling professionals, engineers, planners or technicians. All interested parties involved in current or future underground works will also find the program of great interest.

Open discussion with the participation of the lecturers and Saudi experts will be held, attendees are welcome to bring interesting and challenging cases for discussion.

I extend a hearty welcome from Riyadh to international experts and to all concerned professionals in the Kingdom of Saudi Arabia and the Gulf countries.

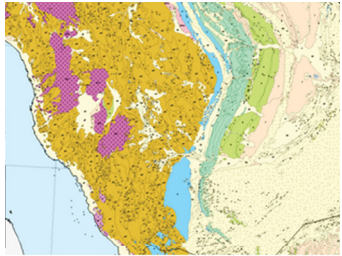
Eng. Abdullah Al-Mogbel
Mayor of Riyadh
President of the ITACET Foundation

Host and Organization

This event is hosted by H.E. Eng. Abdullah Al-Mogbel, Mayor of Riyadh and President of the ITACET Foundation and co-organized by Riyadh Municipality and ITACET Foundation.

Objectives and Development

The main objective of the seminar is to provide the participants with in depth information on the current state of knowledge (technical and scientific) on Rock Tunnelling with special emphasis on rehabilitation and maintenance and focus on Makkah area.



During the two first days of the training session, ITACET delegated experts will lecture on design, risk management and preparation phases followed by the choice of Tunnelling technics. The program and lectures of the third day will be aimed chiefly on the maintenance and rehabilitation of existing underground structures.

Invited delegates from major Tunnelling companies, will give the audience short lectures on their experience and knowledge. Each presentation will conclude with a "question and answer" session where every participant will be able to exchange with the lecturers.

Who should attend ?

The seminar will benefit tunnelling professionals, engineers, planners, and technicians. All interested parties involved in current or future underground works will also find the program of great interest.

Benefits for the participants

- Be informed on all the different aspects of planning, design and construction of Rocks tunnels.
- Scientific, technical, and practical oriented lectures will help you Improve your knowledge on maintenance and rehabilitation of tunnels.
- Receive a Certificate of Attendance.
- Receive course and reference material. A notepad illustrated with all the slides shown during the training session, abstracts of the lectures, a short bio of the lecturers and a digital copy (USB Memory Key) of all slides shown during the seminar.
- Extend your social network by meeting well-known experts, delegates from major engineering companies, and fellow engineers.



Register to : ITACET Foundation, online registration form on www.itacet.org

Costs : Registration Fee is 1000 € / person



Payment:: Bank transfert to ITACET Foundation 1015 Lausanne - Switzerland
CREDIT SUISSE | BIC/SWIFT: CRESCHZZ80A | IBAN: CH78 0483 5042 6569 72000
CREDIT CARD AND PAY PAL : Payment services are available on www.itacet.org

Lecturers

In the order of their intervention



Søren Degn Eskesen (DK - COWI, ITA-AITES President)

Søren Degn Eskesen (MSc, BSc), has 30 years working experience as project manager and tunnel advisor in multidisciplinary projects for public as well as private clients and a consortia of international contractors. He has both technical & non-technical knowledge of development of projects from feasibility studies, to tender strategies, to detailed design & Construction Supervision. Søren Degn Eskesen is the current President of the ITA-AITES & President of the Danish Society for Tunnels & Undergrounds.



Felix Amberg (CH - Amberg Engineering group ltd)

Felix Amberg (MSc) is the President of the Amberg Group (Amberg Engineering Ltd, Amberg Technologies Ltd & Hagerbach Test Gallery Ltd). His special knowledge focuses on Road & Railway tunnel construction, Special Construction, Material Technology, Measuring Equipment for State Assessment of Tunnels, and Project Management & Safe & Security. He held several official function among them, treasurer & member of the ITA-AITES ExCo, Council member of the ITACET Foundation and tutor of ITA-AITES WG12 & ITACOSUF.



Piergiorgio Grasso (I - Geodata Spa)

Piergiorgio Grasso (MSc) is the founder, President and Principal Engineer of Geodata which is a consultancy specialised in the design and management of underground works, both in urban environments and in mountain areas since 1984, .

He is Vice President of the ITACET Foundation, and an ITA-AITES past Vice President. He also served the ITA Working Group 17 on "Long and Deep Tunnels".



Harald Wagner (A - Consulting Engineer)

International Consultant for Underground Infrastructures with more than 40 years of Professional Experience in Tunnel Design, Construction and Consultancy.

Consultant to the World Bank for more than 15 years. Former Assistant Professor at Technical University Graz in Austria on Soil Mechanics & Foundation Engineering for Architects, Vice President of ITA-AITES and Expert Member of ITA's Executive Council.



Michel Deffayet (F - CETU)

Michel Deffayet (MSc) is an engineer specializing in the field of underground, geotechnical design and civil engineering aspects. He has been involved in many French projects of road tunnels. He is the manager of tunnels Study Centre (CETU- French Government technical centre for road tunnels) with a personal involvement in all activities regarding civil engineering or equipment and operation – production of regulatory texts and guidelines, research and development in the field of underground, consultancy and assistance for owners, training and formation.

Guest Lecturer on: Tunnelling in the Makkha area

About The ITACET Foundation: Founded in 2009, it aims to be a center of Excellence for Education and Training on Tunnelling and Underground Space Use. The foundation organize specialized Training Sessions for the ITA-AITES Member Nations and Private Corporations. ITACET Foundation c/o EPFL, Station 18, CH -1015 Lausanne Tel. + 41 21 693 08 67 | www.itacet.org | secretariat@itacet.org

Credits: Pict. T. to B. USGS - CRERT Geology of Arabian Peninsula (extract) - Shis to Khorfakkan road tunnels project, Constructionweekonline.com ITP Publishing Group - © Flyer Design No³ A. Pilloud & D. Boyd for ITACET Foundation.