



ARABIAN TUNNELLING
CONFERENCE & EXHIBITION



4th ARABIAN TUNNELLING CONFERENCE 2017 & 20th GULF ENGINEERING FORUM

21 - 22 February 2017 | Ritz Carlton DIFC, UAE

Advancing Underground Space

Conference Program



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ORGANIZED BY

PARTNER



Conference Secretariat: Tel: +971 4 311 6300, Fax: +971 4 311 6301, Email: atc@mci-group.com

Agenda

Tuesday, 21 February 2017

08:00-09:00 Registration & Welcome Coffee

09:00-09:15 Opening Ceremony under the patronage of
H.H. Sheikh Hamdan bin Rashid Al Maktoum, Deputy Ruler of Dubai and Minister of Finance
Welcome, Eng. Dawoud Al Hajri, President, Society of Engineers-UAE
Welcome, Mr. Olivier Vion, Executive Director, ITA
Welcome, Eng. Kamal Abdullah Al-Hamad, Secretary General, Gulf Engineering Union

09:15-09:30 Awards & Honoring Ceremony

09:30-10:00 Opening of Exhibition

09:50-10:00 Coffee Break

Technical Session 1

Chair: Dr. Zahid Khan, Assistant Professor, American University in Sharjah

10:00-10:30 **Keynote:** Prof. Tarcisio Celestino, President, ITA-AITES
Urban and Geotechnical Conditioning Factors for Metro Stations

10:30-11:00 **Government Keynote:** Dr. Bassam Ghulman, Vice Chairman, Saudi Council of Engineers
Special Specification Considerations for GCC Infrastructure Projects

11:00-11:30 **Government Keynote:** Eng. Ahmed Abdalla Ahmed Alhammadi, Director of Roads Department
Ministry of Infrastructure Development
The Ministry Experience of Aqah Tunnel Project in Fujairah

11:30-12:00 **Keynote:** Eng. Ho Kee Sang, Deputy Director Tunnelling, Land Transport Authority Singapore
Represented by Eng. Ramesh Nair, Deputy Director Tunnelling, Land Transport Authority Singapore
Urbanised Tunnelling in Singapore

12:00-12:20 Dr. Ilias K. Michalis, Associate Technical Director, Arcadis
The Application of Tunnel Stability Factor (TSF) in Weak Rock Tunneling

12:30-14:00 Lunch Break

Technical Session 2

Chair: Eng. Wolfgang Angerer, Tunnel Design Manager, CH2M HILL

14:00-14:30 **Keynote:** Eng. Martin Knights, Owner, Martin Knights Consulting
The Kishanganga Hydro Electric Project Kashmir India

14:30-14:50 Eng. Markus Schönwälder, Senior Tunnel Project Manager, Heitkamp Construction Austria
Excavation of Cross Passages During TBM drive

14:50-15:10 Dr. Karin Böppler, Head of Geotechnics & Consulting, Herrenknecht AG
Viable TBM Applications for Short Tunnel Drives < 900 meters

15:10-15:30 Eng. Fatma Zohra Belhadj, Lecturer, Faculty of Earth Science, University of Khemis Miliana
Tunnel Excavation on Loose Soil - Case Study Tunnels Oued Djer

15:30-16:00 Coffee Break

Technical Session 3

Chair: Dr. Alaa Ashmawy, Dean of Engineering, American University of Dubai

16:00-16:20 Eng. Leopold Winkler & Eng. Melanie Piskernik, Research Assistants, TU Wien
Cooperative Knowledge Management Systems for Grouting Works at Tunnel Sites

16:20-16:40 Dr. Wisam Farjow, Vice President Systems Engineering, The PBE Group & Ryerson University
Technological Advancements in Tunnels' Control Systems

16:40-17:00 Eng. Mukesh Singh Tomar, Mechanical Engineer – Fire, Dar Al Handasah
Theoretical Approach to Evaluate Peak HRR in Road Tunnel Fires

17:00-17:20 Eng. Dirk Schmitz, Chairman, One Seven Middle East Safety Equipment
Fire Incident in the Jagdbergtunnel

17:20-18:00 **Panel Discussion:** Tunnel Construction Techniques - TBM vs. NATM
Moderator: Eng. Jonathan Cottam, Managing Director, Gulf Rock Engineering

19:00-21:30 Gala Dinner

Other Activities

10:00-19:00 Exhibition

13:30-14:00 Posters

14:00-17:00 Gulf Engineering Forum Meeting (Closed Session)

14:00-17:00 **Young Engineers Forum**

Program may be subject to change



Wednesday, 22 February 2017

8:00-9:00 Registration & Welcome Coffee

Technical Session 4

Chair: Eng. Jonathan Cottam, Managing Director, Gulf Rock Engineering

9:00-9:30 **Government Keynote:** Eng. Sulaiman Al Hajri, Director, RTA Sharjah
Tunnelling in the UAE

9:30-9:50 Eng. Alaeden Jlelaty, Senior Project Manager, Skanska USA
New York City- Second Avenue Subway Tunnel

9:50-10:10 Eng. Benoit De Rivaz, Global Business Manager, Bekaert Maccaferri Underground Solutions
Innovative FRC Design for Underground Application Using New Generation of Fiber

10:10-10:30 Eng. Petr Salak, Senior Engineer & Design Manager, Dr. Sauer & Partners
Optimised Openings in Steel Fibre Reinforced, Sprayed Concrete Lined Tunnels

10:30-10:50 Eng. Diletta Traldi, Segment Manager Underground Construction – Italy
BASF Construction Chemicals Europe
Investigation of the Interface Behaviour Between a Sprayed Double Bonded Waterproofing Membrane in a Composite Shell Structure

10:50-11:10 Coffee Break

Technical Session 5

Chair: Eng. Paul Groves, Head of Tunnels and Ground Engineering, WS Atkins

11:10-11:40 **Keynote:** Eng. Han Admiraal, Chair & Antonia Cornaro, Vice Chair
ITA Committee for Underground Space
Towards an Urban Underground Future

11:40-12:00 Dr. Francesco Arneodo, Professor, New York University Abu Dhabi
Underground Physics Laboratories

12:00-12:20 Prof. Youssef Diab, Professor of Engineering, University Paris Est / EIVP
Development of Underground Space for Cities : From Sustainability to Resilience

12:20-12:40 Eng. Pedro Franca, Associate Tunnel Project Manager, CJC Engenharia e Projetos Ltd.
Large Diameter Shafts In Urban Areas

12:40-13:00 Eng. Adam Thomas, InSAR Surveying Manager, NPA Satellite Mapping, CGG
*Mapping Tunnel-related Ground Deformation using Satellite InSAR:
From Pre-Construction Baseline and Post-Construction Monitoring*

13:00-14:00 Lunch Break

Program may be subject to change



Technical Session 6

Chair: Eng. Nick Chittenden, Regional Manager, Underground Construction, Middle East

- 14:00-14:20 **Keynote:** Eng. Anthony Harding, Global Lead Technologist – Tunnels, CH2M
New Metro in Car City: The Purple Line Extension in Los Angeles
- 14:20-14:40 Dr. Davorin Kolic, President, ITA Croatia
Risk Management for Underground Transit Projects
- 14:40-15:00 Eng. Thomas Konstantis, Risk Engineering Consultant, Marsh Construction
Tunnel Failures Insight: Prominent Causes, Mitigation Factors and Risk Engineering Contribution
- 15:00-15:30 **Panel Discussion:** What is the Impact of Risk Sharing on the Effectiveness and Efficiency of Managing UPCs – Unforeseen Physical Conditions?
Moderator: Eng. Nick Chittenden, Regional Manager Underground Construction
BASF Construction Chemicals
- 15:30-16:00 Closing Ceremony

Other Activities

8:30-16:00 Exhibition

13:30-14:00 Posters

DFI Workshop

09:00-09:15 Registration and Networking

09:15-10:00 Strategies and Legislations
Bashar Taha, RTA

10:00-10:45 Techniques And Tools
Amod Gujral, Encardio-rite Geosystems
Prateek Mehrotra, Encardio-RITE Geosystems

10:45-12:15 Case Histories
Steve Meller, GTC Lab | Scott Stewart, COWI

12:15-12:30 Networking

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