

ITACET FOUNDATION

ANNUAL ACTIVITY REPORT

JULY 2025 - JUNE 2026

**TRAINING & DEVELOPMENT
EMPOWERING GROWTH & SUCCESS**

Date :

JULY 2026

Table of Content

Presidents messages	01
Council of the Foundation	02
Council Meetings 2025-2026	03
Training activities	05
NTA, Kathmandu, Nepal	06
WTC 2026, Montreal, Canada	09
Lunchtime lecture series	12

Presidents' messages

The ITACET Foundation continuously supports programmes that help train new tunnelling engineers and keeps the industry's knowledge up-to-date across the globe. We remain committed to expanding these efforts, helping develop the next generation of tunnelling professionals.

Abdullah A. Almogbel

Founder President



The field of underground works is experiencing significant growth, made possible by technological developments and high-performance solutions. Awareness of the latest case studies, sharing experience and disseminating knowledge are key to the success of projects.

Michel Deffayet

President



Council of the Foundation and Executive board

The Council of the ITACET Foundation provides the strategic direction and governance of the Foundation, ensuring that its educational activities, financial management and long-term development remain aligned with its mission of promoting education and training in the tunnelling and underground construction industry.

Composition of the Foundation Council:

- **Abdullah Al-Mogbel** – Founder President
- **Michel Deffayet** – President
- **Martin Herrenknecht** – Vice-President
- **Felix Amberg** – Secretary and Treasurer
- **Andrea Pigorini** – Council Member (ITA President)
- **Piergiorgio Grasso** – Council Member
- **Danny Elias Aoun** – Council Member

Executive Board:

- **Robert Galler** – Chairman of the Executive Board
- **Michaela Daguzan** – Executive Director



Council meetings 2025-2026

During the 2025–2026 reporting period, the ITACET Foundation Council met three times — in Milan in July 2025 and online in October 2025 and March 2026 — to review the Foundation’s activities, financial position, training programmes and long-term strategy. During the meetings, the Council’s discussions increasingly focused on expanding international training, strengthening cooperation with the ITA and its Member Nations, developing training opportunities for blue-collar workers, and securing the Foundation’s long-term financial sustainability.

Training activities

The Council reviewed the progress and results of the Foundation’s training activities throughout the year. The Lunchtime Lecture Series continued to attract strong international participation, and the WTC 2025 training course in Stockholm received excellent feedback. The Council also reviewed the successful training activity in Nepal, delivered in cooperation with local associations, as well as support for the AMITOS symposium in Mexico.

Preparations for future activities were followed throughout the year, particularly the Mexico training course and the WTC 2026 Training Course in Montréal. These activities confirmed the Foundation’s role in providing international education and supporting training capacity for ITA Member Nations.

Cooperation with the ITA and development of training standards

The Council discussed strengthening cooperation with the International Tunnelling and Underground Space Association (ITA), with the objective of expanding access to high-quality tunnelling education worldwide.

A particular priority identified was the development of international training programmes for blue-collar workers. The Foundation and the ITA agreed to continue working together, including through the ITA-CET Committee and existing training centres, to develop common training standards and broaden access to professional training.

Long-term strategy and fundraising

Financial sustainability and fundraising have become a central element of the Foundation's strategy. In July 2025, the Council endorsed the development of a fundraising programme to attract new donors and support the long-term continuation of ITACET's educational activities. The Council supported a structured fundraising approach designed to diversify the Foundation's financial resources, strengthen its partner network and provide funding for new and continuing educational initiatives. In particular, the strategy focuses on expanding long-term training programmes for ITA Member Nations, especially in emerging economies, and establishing a global training initiative for blue-collar workers through a network of ITA-endorsed training centres.

Governance, financial management and compliance

The Council reviewed the Foundation's financial position and budget during the reporting period. In October 2025, following recommendations from the external auditor, it confirmed the Foundation's governance structure, approved the audited financial statements for 2024–2025, and endorsed measures to strengthen transparency and statutory compliance.

Training activities



The ITACET Foundation has continued to strengthen its role as a global provider of tunnelling training. Over the past year, the Foundation organized several training sessions, including at the WTC Montreal, Canada, a two-day session in Kathmandu, Nepal, and supported training efforts in Mexico. The Foundation also organized 10-episodes of the Lunchtime lecture series.

ITACET main objective: encourage the education and professional training of specialists in underground space use all over the world.

01

LEARN

Tailored On-site and Online training courses

02

SHARE

Balanced training between theory and hands-on expertise in order to create effective learning experiences.

03

CONNECT

Connecting with people to provide a bespoke and personal learning experience

NTA, Kathmandu, Nepal

4 - 5 September 2025



On September 4th & 5th, 2025, the ITACET Foundation in partnership with the Nepal Tunnelling Association (NTA), organised a major two-day training session in Kathmandu, Nepal. The event, titled 'Conventional Tunnelling and Recent Innovations', spotlighted traditional tunnelling techniques and cutting-edge developments in underground construction.

The training session aimed to:

- Reinforce understanding of conventional tunnelling methods, particularly in complex geological environments, such as those in Nepal's Himalayan terrain,
- Present recent advancements in the field – including drilling & blasting technologies, shotcrete and concrete innovations, and integrated monitoring systems,
- Facilitate knowledge exchange between local professionals and international experts.

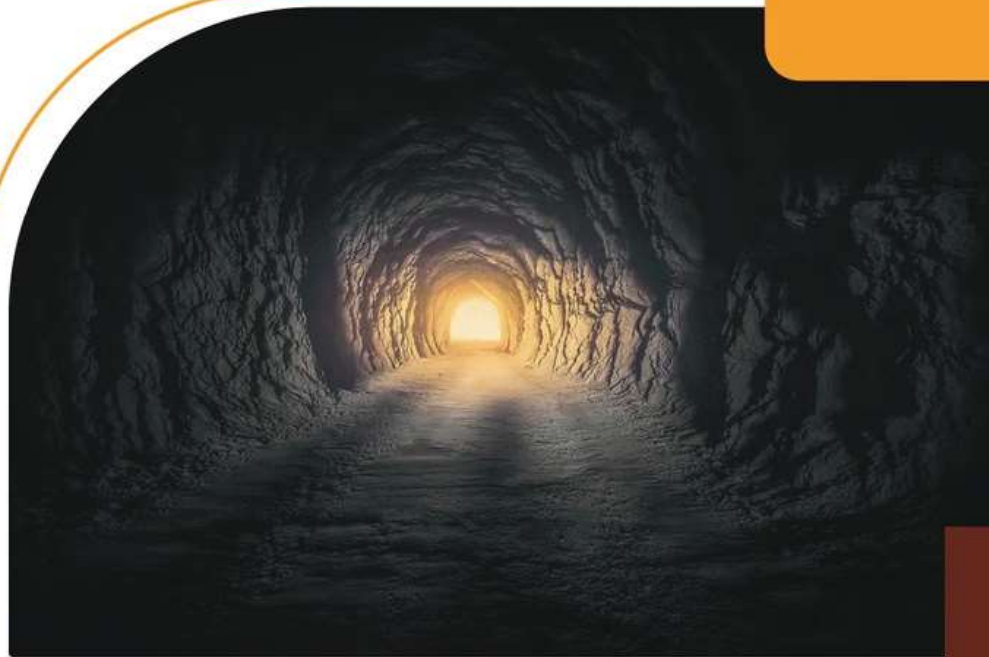
The training program represented a significant step in bridging traditional tunnelling know-how with modern techniques, benefitting Nepal's ongoing and upcoming underground infrastructure projects. More than 120 participants took part in the event, all eager to learn from renowned international and local experts in the tunnelling field. This event not only strengthened professional capacity but also set the stage for future partnerships and knowledge sharing in tunnelling and underground space development in Nepal.



Nepal Tunnelling Association and ITACET Foundation

**Jointly Organize
Two Days Training Program on**

“Conventional Tunnelling and Recent Innovations”



4th and 5th September 2025

The Everest Hotel, Kathmandu, Nepal

Day 1: 4th September 2025		
(Conventional Tunnelling)		
Session 1: Introduction and Site investigation		
08.30 – 09.00:	Welcome and Opening:	ITA and concerned country representative (NTA)
09.00 – 09.45:	Brief on Himalayan Geology and Tunnelling	Ram Hari Sharma & Kangada Prasai, NTA
09.45 – 10.30:	Principles of Conventional Tunnelling	Robert Galler
10.30 – 11.00:	Coffee break	
11.00 – 11.45:	Site Investigation (Nepal & Abroad)	Gyanendra Lal Shrestha and Subash C. Sunuwar, NTA & Giorgio Höfer-Öllinger *
11.45 – 12.30:	Design Parameters	Robert Galler
12.30 – 14.00:	Lunch	
Session 2: Design aspects		
14.00 – 14.45:	Layout Conception and Design Stages	Robert Galler
14.45 – 15.30:	Possible Hazards and Counter Actions in Soft Ground	Kurt Zeidler*
15.30 – 16.00:	Coffee Break	
16.00 – 16.45:	Possible Hazards and Counter Actions in Rock	Etienne Garin*
16.45 – 17.30:	Geotechnical and Structural Design Steps	Robert Galler
17.30 – 18.00:	Questions and Answers	
Day 2: 5th September 2025		
(Innovation in Tunnelling)		
Session 3: Materials		
9.00-9.45:	Innovations in Drilling and Blast Technology	Mark Ganster
09.45-10.30:	Innovations in Shotcrete, Concrete Material	Roland Mayr*
10.30-11.00:	Coffee break	
Session 4: Processes		
11.00-11.45:	Innovations in Monitoring and Monitoring Data Processing	Klaus Chmelina *
11.45-12.30:	Conventional Tunnelling Solutions for Small Cross Sections –	Andreas Wimmer
12.30-14.00:	Lunch	
14.00-14.45:	Logistics and Worksite Management – Health & Safety- New Tools	Michael Halwachs*
14.45-15.30:	New ITA Guidelines for BIM in Conventional Tunnelling	Vojtech E. Gall & Wojcieh Mleczko*
15.30-16.00:	Coffee Break	
Session 5: Maintenance and repair		
16.00-16.45:	Future Developments and Asset Management	Gorka Santamaria & Martina Puglia*
16.45-17.30:	Round table discussion “Tunnelling towards 2030”	
17.30-18.00:	Summary and Closing of the course	
18:00 Onwards	Dinner	

*Live Online

WTC 2026, Montreal, Canada

15 - 16 May 2026



Held on 15–16 May 2026 as part of the World Tunnel Congress 2026 in Montréal, Canada, the ITACET Training course once again demonstrated its role as a flagship educational event for the international tunnelling community. Organised by the Tunnelling Association of Canada (TAC) in partnership with the ITACET Foundation and the ITA-CET Committee, the two-day course welcomed more than 100 participants from around the world.

Under the theme “Building the Future – Delivering Tunnel Projects for the Next Generation”, the programme was designed to provide young professionals and experienced practitioners alike with practical knowledge, international perspectives, and the latest developments shaping modern tunnelling.

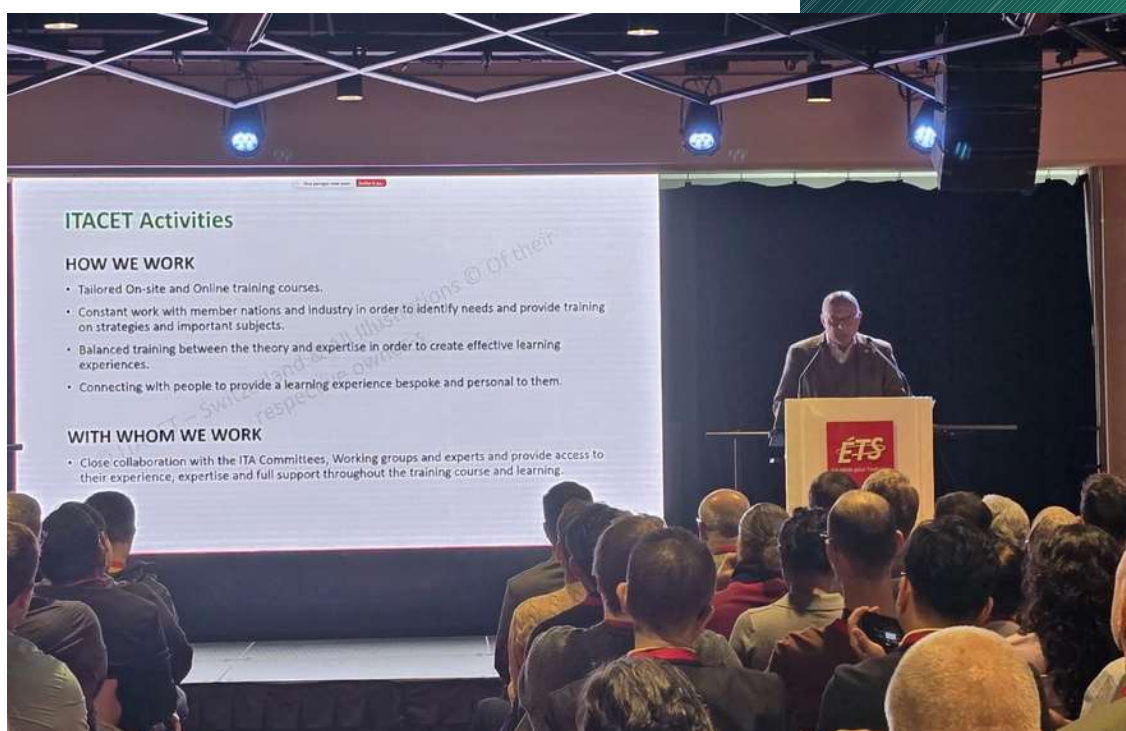
The course was structured around four key themes covering the complete lifecycle of tunnel projects:

- Site investigation and geocharacterisation, highlighting the importance of understanding ground conditions, planning investigation programmes, and translating geological information into reliable tunnel design.
- Excavation and ground control methodology, focusing on the selection of excavation methods, tunnel support systems, and practical lessons learned from projects worldwide.

- Contracting and project delivery, exploring procurement strategies, risk allocation, collaborative delivery models, and case studies from major international infrastructure projects.
- Safety, sustainability and innovation, addressing tunnel rehabilitation, embodied carbon, safety in design and construction, and the growing role of artificial intelligence and machine learning in tunnelling engineering.

The programme featured an outstanding line-up of internationally recognised experts from industry, academia, project owners and ITA Working Groups, who shared their experience through technical presentations, project case studies and interactive panel discussions. The networking event held after the first day provided participants with an excellent opportunity to continue discussions with lecturers and colleagues in an informal setting, strengthening professional connections across the global tunnelling community.

Beyond the technical content, the course reflected ITACET's mission of supporting continuous professional development and encouraging knowledge transfer across generations. By combining practical engineering experience with emerging topics such as sustainable project delivery and digital innovation, the training equipped participants with valuable insights to help address the challenges of future underground infrastructure projects.



Friday May 15 - AM

SITE INVESTIGATION / GEOCHARACTERIZATION

TIME

8:00 AM-8:45 AM	Registration
8:00 AM-9:00 AM	Breakfast for all attendees
9:00 AM-9:15 AM	Welcome remarks - Connor Langford (Training Course Chair) and Michel Deffayet (ITACET Foundation President)
9:15 AM-10:00 AM	Planning site investigations for tunnel ground characterization and performance prediction - Nick Vlachopoulos (RMC)
10:00 AM-10:45 AM	From ground to alignment: turning geo-characterization into reliable tunnel design - Giuseppe Gaspari (AECOM)
10:45 AM-11:00 AM	Coffee Break
11:00 AM-11:45 AM	A sequential, early-stage investigation strategy - focus on investigation needs for the design of underground structures over centennial timescales - Jad Zghondi (Andra)
11:45 AM-12:30 PM	Panel Discussion: Geocharacterization for Geotechnical Baseline Reports - Randy Essex (Retired), Brigitte Gagne (EXP)

Friday May 15 - PM

EXCAVATION AND GROUND CONTROL METHODOLOGY / SELECTION

TIME

12:30 PM-1:30 PM	Lunch
1:30 PM-2:15 PM	From ground investigation to method selection: evaluating mechanized tunnelling solutions - Laurence Delplace (Amberg)
2:15 PM-3:00 PM	Tunnel design criteria - mechanisms and supports / ground control - Francois Martin and François Laigle (WSP)
3:00 PM-3:15 PM	Coffee Break
3:15 PM-4:00 PM	Practical lessons from project experience in selecting excavation methods and ground support for tunnels, shafts and caverns worldwide - Luis Pinillos Lorenzana (Mott MacDonald)
4:00 PM-4:45 PM	Project Example: TBM, D&B, Roadheader - the Blue Line Experience - Patrick Chandonia (EBC)
4:45 PM-5:30 PM	Open Q&A with all Speakers
5:30 PM-7:30 PM	Networking Event (drinks and appetizers provided) - Lovat Family Foundation and Mott MacDonald (Industry Sponsors)

Saturday May 16 - AM

CONTRACTING / DELIVERY METHODS

TIME

8:00 AM-8:45 AM	Registration
8:00 AM-9:00 AM	Breakfast for all attendees
9:00 AM-9:15 AM	Welcome remarks - Tunnelling Association of Canada
9:15 AM-10:00 AM	The delivery decision: how procurement models shape underground project outcomes - Andrés Marulanda (Chair of ITA Working Group 3)
10:00 AM-10:45 AM	Risk informed decision making on large civil infrastructure projects - Connor Langford (Mott MacDonald)
10:45 AM-11:00 AM	Coffee Break
11:00 AM-11:45 AM	Contract Packaging & Delivery Approaches for VTA's BART Silicon Valley Phase II Extension Project - Ronak Naik and Sarah Wilson (VTA)
11:45 AM-12:30 PM	Owner Panel: Driving success in project delivery - Will Close (Bechtel), Joe Gildner (Sound Transit), Sarah Wilson (VTA), Hamed Nejad (Gateway)

Saturday May 16 - PM

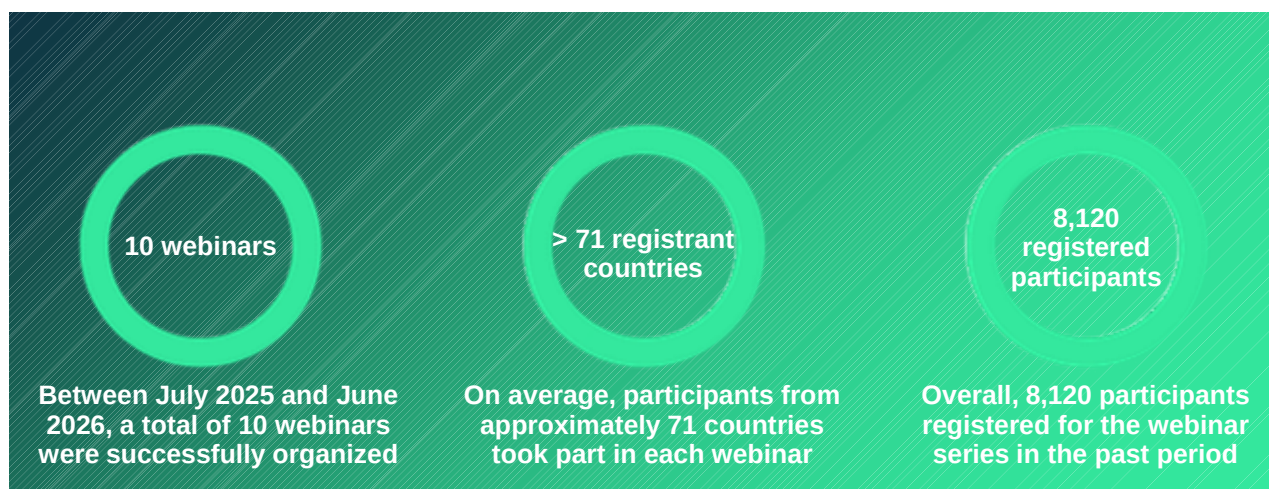
SAFETY, SUSTAINABILITY AND INNOVATION IN TUNNELLING

TIME

12:30 PM-1:30 PM	Lunch
1:30 PM-2:15 PM	Major rehabilitation of the Montreal Lafontaine Immersed Tube Highway Tunnel – implementation of innovative, resilient and sustainable solutions - Jean Habimana (Hatch)
2:15 PM-3:00 PM	Sustainability and embodied carbon: opportunities and challenges - Ian Whitehead (Member of ITA Working Group)
3:00 PM-3:15 PM	Coffee Break
3:15 PM-4:00 PM	Safety during tunnel design, construction and operations - Alastair Smith (Jacobs)
4:00 PM-4:45 PM	Responsible Machine Learning for tunnelling and rock engineering: case studies, pitfalls, and best practice - Josephine Morgenroth (BGC) and Jonathan Aubertin (ETS)
4:45 PM-5:30 PM	Open Q&A with all Speakers
5:30 PM-6:00 PM	Certificates available for pick up

Lunchtime lecture series

Online webinars organized every 2nd Tuesday of the month



Since February 2021, every 2nd Tuesday of the month the ITACET Foundation and ITA-CET Committee have been organizing 90-minute online webinars (referred to as the “Lunchtime lecture series”) in collaboration with ITA’s Working groups”. Each session usually features three presentations followed by a dedicated Q&A. The series provides a unique opportunity for participants to stay informed on the latest innovations, technologies, and best practices in tunnelling and underground space. As a result, participants gain practical insights from the most respected leaders in the field, empowering them to apply new knowledge directly to their projects and strategies.

This past year, we saw another successful run of the series, with the Lunchtime lecture series becoming increasingly popular. The diversity of topics reflected the sector’s evolving priorities, ranging from sustainability and urban resilience to digital innovation, asset management, and advances in construction techniques.

In the earlier session in July participants benefited from technical discussions on the Design of fibre reinforced segments and the Construction of tunnel segments, two sessions that attracted particularly strong interest from professionals. As urbanisation continues to reshape infrastructure needs, several lectures addressed the challenges of building beneath increasingly complex cities. Topics such as Pushing the limits in urban conventional tunnelling, Immersed tunnels as an innovative solution, and Single vs twin-tube tunnel configurations in urban environments provided valuable insights into innovative approaches to underground development.

The programme also reflected the sector's growing emphasis on digitalisation and long-term performance. Sessions on BIM in tunnelling and Recent international developments in life cycle management of underground assets demonstrated how technology and asset management strategies are transforming the way underground infrastructure is designed, operated, and maintained.

Other important themes included Health and Safety - fundamental requirements, reinforcing the industry's commitment to protecting its workforce, and Unlocking the underground: powering urban growth and climate resilience, which explored the critical role of underground space in addressing some of society's most pressing challenges.

The continued success of the Lunchtime lecture series is reflected not only in the breadth and quality of the topics presented, but also in the remarkable level of engagement from participants worldwide. Several sessions attracted close to or more than 1,000 registered participants, with recordings generating thousands of additional views. This sustained interest demonstrates the value of the series as an accessible global learning platform and highlights the international tunnelling community's commitment to continuous professional development and knowledge exchange.

Our participants come from all corners of the globe, representing a diverse array of countries and cultures. A truly international learning network!



The ITACET Foundation is truly pleased with how these webinars have grown, especially in terms of the rising interest and participation. When the Foundation began organizing these sessions, we never imagined they would become so popular, and we are deeply grateful for this incredible support and growth.

Over the course of **the last 10 episodes**, we hosted a range of Lunchtime lecture series:

June 2026

Single vs Twin-tube tunnel configurations in urban environments: A risk-informed, multi-criteria decision framework

- Problem statement – Wout Broere
- General multi criteria method – Giuseppe Gaspari
- Case histories from Asia and Europe – Pedro Ramírez Rodríguez
- Case histories from America – pros/cons – Sotirios Vardakos

1060 registred participants/360 live views/ 743 recording views

April 2026

Immersed tunnels as an innovative solution

- Introduction to immersed tunnels – Marcel 't Hart
- Immersed tunnelling in one of the most difficult geographies in the world; Khor al Zubair tunnel – Martijn Smitt
- Weserquerung, a challenging river crossing – Jens Classen

860 registered participants/ 250 live views/ 1159 recording views

March 2026

BIM in tunnelling

- Introduction to WG22 – Florent Robert
- Overview & History – Jurij Karlovsek
- Presentation of the Guideline – Vojtech Ernst Gall
- Demonstration video of TBM & Conventional Tunnelling model – Wojciech Mleczko & Maja Mijalna
- Further Developments – Jure Cesnik

959 registered participants/ 380 live views/ 878 recording views

February 2026

Recent international developments in life cycle management of underground assets

- Evolving approaches for tunnel management – Leo McKibbins
- Recommendations on life cycle costing of tunnels – Urs H. Grunicke
- The Netherlands: Cross-sector learnings for smart sustainable asset management – Paul Van Kempen

628 registered participants/ 220 live views/ 563 recording views

January 2026

Construction of tunnel segments

- Introduction and detailed design and construction considerations – Verya Nasri
- Tunnel segment formwork systems – Stefan Medel
- Tunnel segment connections and accessories – Christophe Delus
- Tunnel segment sealing gaskets – Andreas Diener
- FRC quality control – latest developments – Benoit De Rivaz

1170 registered participants/ 480 live views/ 1529 recording views

December 2025

Settlement monitoring and control in TBM tunnelling

- Settlement control main issues and prediction in TBM tunnelling – Felix Amberg
- Settlement monitoring in TBM tunnelling – Zhangwei Ning
- TBM driving parameters for a good settlement control – Gonzague Bracq

983 registered participants/ 380 live views/ 1198 recording views

November 2025

H&S – Fundamental requirements

- Health & Safety – Essential considerations for underground construction sites – Michael Halwachs
- Fundamentals of emergency management during the construction of a long and deep tunnel: the Montcenis base tunnel in NW Alps – Achille Sorlini
- Challenges with implementing Health and Safety on subsurface construction sites from the perspective of a young professional – Christine Johansson

430 registred participants/ 140 live views/ 360 recording views

October 2025

Pushing the limits in urban conventional tunnelling

- Introduction to the new guideline for the conventional tunnelling in an urban setting – Etienne Garin
- Case study – Vojtech Gall
- Shotcrete: recent developments – Robert Galler

676 registered participants/230 live views/ 633 recording views

September 2025

Unlocking the underground: Powering urban growth and climate resilience

- Energy transition and the potential of the underground – Antonia Cornaro
- Young professional think deep programme – recent YPTDP in Hong Kong – Petr Salak
- Underground space use for climate – responsive cities and regions – Mahak Agrawal

362 registered participants/ 140 live views/ 267 recording views

July 2025

Design of fibre reinforced segments

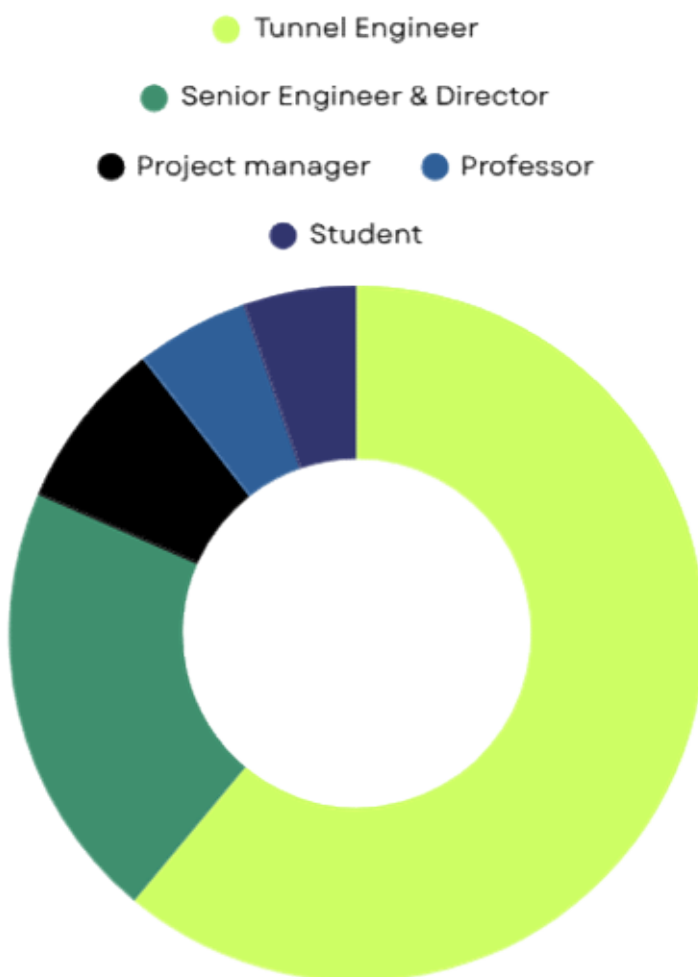
- Design and construction considerations for FRC tunnel segments – Verva Nasri
- Design of fibre reinforced segments against concrete bursting and splitting – David Oliveira
- The Lee Tunnel – Steel fibre segmental lining and other innovations – Charles Allen

992 registered participants/ 400 live views/ 1164 recording views

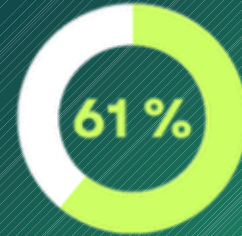


Professional roles of webinar participants

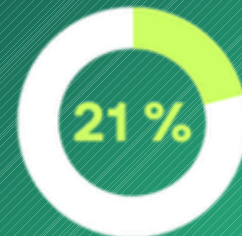
The majority of our webinar participants are tunnelling and geotechnical engineers. Specifically, about 61% are tunnelling and geotechnical engineers, 21% senior engineers and directors, 8% project managers, 5% professors, and 5% students.



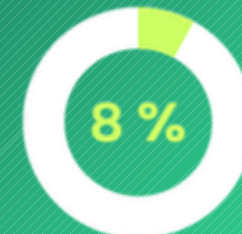
Tunnel and Geotechnical Engineer



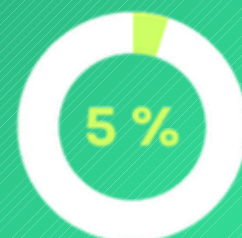
Senior Engineer & Director



Project manager



Professor



Participants feedback

Adam M.

Thank you for this amazing opportunity to deep dive into various tunnelling subjects. These lecture sessions are extremely insightful and educative.

Camilo Q.

Congratulation for organizing and maintaining the lunchtime presentations. This helps keeping the industry in contact.

Adriane B.

Very good presentations and organization. Thank you to all the presenters and organizers for sharing their time and knowledge.

SJ G.

Really appreciate the ITACET for this free online lunchtime lecture, it is a very good sharing session across the globe

Gabriele M.

Great webinar series to learn about different topics. Very well presented and hosted, thank you!

Mohamed T.

Keep up the good work, I truly enjoy these lunch time lectures!



Contribution from our Sponsors

We would like to extend our deepest gratitude to our sponsors, **Herrenknecht, Bouygues Construction, Amberg Group and Bekaert**. Their generous contributions are vital to the sustainability of these online webinars, ensuring consistently high-quality sessions. Thanks to them, these webinars remain free of charge for participants from all corners of the world, enabling them to grow professionally without any cost, and making the Lunchtime lecture series a powerful resource for individuals from any country, culture, or background. This ensures that everyone, regardless of their circumstances, can improve their professional skills without any financial burden. Thank you for making this possible every month!

The December 2025 session focused on “Settlement monitoring and control in TBM tunnelling”, prepared in close collaboration with the sponsors, was exceptionally well-received, attracting 983 registered participants and over 1,198 views of the recording. This session was a standout success!



Each of these monthly online webinars is an opportunity to officially reaffirm our sponsors and express our gratitude for their support every single month. **Thank you, on behalf of the entire professional tunnelling community!**

Thank You!

The ITACET Foundation would like to extend its warmest thanks to all **Lecturers**, **Working groups** and **Committees** involved in the ITACET training sessions & Lunchtime lecture series!

We would like to extend a special thank you to our Sponsors: **Herrenknecht**, **Bouygues Construction**, **Amberg Group** and **Bekaert**.

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