

Design and construction of road tunnels

Dubai – 18 - 25 October 2022 – On line (GST time)

Day 1 : 18 October 2022 - Session 1 – Tunnelling in urban areas - methods and specificities

This session aims to describe the principles and methods for carrying out underground works in urban areas. Tunnel boring machines (TBMs) now offer new perspectives for faster construction work with limited impact on neighbouring buildings. This overview, with a technical content, will provide the basic elements for understanding the issues of urban tunnelling.

13.00 – 15.15 : Tunnelling construction methods (Piergiorgio Grasso)

15.15 : Q/A – Discussion

15.30 : End of the session

Day 2 : 19 October 2022 - Session 2 – Specificities of road tunnels

Road tunnels require special attention to safety issues during operation. This leads to the provision of appropriate measures during the design stage. This is the case, for example, for fire behaviour of the tunnel in the event of a vehicle fire, particularly a heavy vehicle. This session aims to describe how to take these specificities into account and to consider very early, in the preliminary design phase, all the needs of the operating phase.

13.00 - 15.15 : Structural design associated to the risk of fire in road tunnels (Catherine Larive)

15.15 : Q/A – Discussion

15.30 : End of the session

Day 3 : 24 October 2022 - Session 3 – Tunnel project management

This session is primarily intended for public authorities and project owners who are responsible for managing the entire design, construction and operation process. It gives the keys to how to articulate the different phases and understand the role of each of the stakeholders. It will also provide a good knowledge of the risk management approach and will enable the attendees to be ready to tackle the contractual aspects in the next session.

13.00 - 15.15 : Tunnel project management – key aspects (Elena Chiriotti)

15.15 : Q/A – Discussion

15.30 : End of the session

Day 4 : 25 October 2022 - Session 4 – Contractual aspects and worksite organisation

This session deals with governance and contractual aspects, thus synthesising the contents of the previous sessions. The speaker's experience will illustrate the subject with examples from many other countries and regulations. It is also important to devote some time to safety issues during the works, as all the stakeholders are concerned, as well as all the study, contracting and works phases.

The final part of Q/A will also be an opportunity to discuss with ITA president more general questions about the professional underground community.

13.00 - 14.00 : Health & Safety issues – (Donald Lamont)

14.00 – 15.15 : Contractual aspects and governance (Arnold Dix)

15.15 : Q/A – Discussion

15.30 : End of the session