



Tunnelling Supervision Fundamentals: Conventional Tunnelling, NATM & Mining Methods – 21st & 22nd October 2026

Course Proposal for ITA

1. Course Overview

This course provides a practical and technical foundation for the supervision of underground construction works, integrating conventional tunnelling (Drill & Blast), NATM, and mining-based excavation methods. The program focuses on real-world decision-making, risk control, and supervision practices.

2. Target Audience

Civil Engineers, Mining Engineers, Geotechnical Engineers, Site Supervisors, Project Managers.

3. Learning Objectives

Understand supervision roles, interpret geotechnical conditions, supervise tunnelling operations, manage risks, and make field decisions.

4. Course Structure

Day 1 – 21st October (8:45 - 16:30 CDMX time/16:45 – 00:30 CEST time)

08:45 - 09:00 - Opening of the training event

09:00 – 10:45 Module 1 — Overview of the underground tunnelling methods

09:00 – 09:45 - Choice of the tunnelling methods- main criteria in rock and soils (Laurence Delplace)

09:45 – 10:30 - The need for conventional method – Principles and needs (Etienne Garin)

10:30 – 10:45 - Questions & Answers



10:45 – 12:30 Module 2 — Conventional Excavation Methods (Conventional, NATM, Mining)

10:45 – 11:30 - Classical conventional principles and means (Robert Galler)

11:30 – 12:15 - Auxiliary methods in challenging conditions - freezing, umbrella bolts, divided excavation phase (Robert Galler)

12:15 – 12:30 - Questions & Answers

12:30 – 13:00 Break

13:00 – 14:45 Module 3 — Support Systems and Quality Control

13:00 – 13:45 - Design aspects of the support systems for hard rock/soft ground and squeezing ground (Camilo Marulanda)

13:45 – 14:30 - Quality control (Andres Marulanda)

14:30 – 14:45 – Questions & Answers

14:45 – 16:30 Module 4 — Field Decision-Making and Case Studies

14:45 – 15:30 - The construction on-site management (Jose Francisco Suarez Fino)

15:30 – 16:15 - Case studies (Etienne Garin)

16:15 – 16:30 – Questions & Answers

DAY 2 – 22nd October (09:00 - 16:30 CDMX time/17:00 – 00:30 CEST time)

09:00 – 10:45 Module 5 — Geotechnical Control and Monitoring

09:00 – 09:45 - Geotechnical survey (Alexander Poisel)

09:45 – 10:30 - On-site Monitoring (Alexander Poisel)



10:30 – 10:45 - Questions & Answers

10:45 – 12:30 Module 6 — Role of the Tunnel Supervisor

10:45 – 11:30 - Engineering company point of view in Europe, client's requirements
(Dietmar Bach)

11:30 – 12:15 - Engineering company point of view in South of America (Andres Marulanda)

12:15 - 12:30 - Questions & Answers

12:30 – 13:00 Break

13:00 – 14:45 Module 7 — Safety and Risk Management

13:00 – 13:45 - Main risks in conventional tunnelling (Michael Halwachs)

13:45 – 14:30 - Organisation and roles on site (Michael Halwachs)

14:30 – 14:45 – Questions & Answers

14 :45 – 16 :30 Module 8 — Environmental Management

14:45 – 15:30 - Main environmental impacts of conventional tunnelling (Carmine Todaro)

15:30 – 16:15 - Use of low-vibration excavation techniques for a reduced environmental impact: case studies (Luca Perazzoni)

16:15 – 16:30 – Questions & Answers



5. Duration

2 days online short course format.

6. Deliverables

Certificate of completion, technical materials.

7. Differentiation

Integration of mining and tunnelling practices, strong supervision focus, real-world application.