

Objective: To provide design and construction elements to young professionals related to the best practice of tunnel design.

Tentative Programme

Day 1

Session 1: Introduction and Overview on Tunnel Design

- 09.00 – 09.30: Welcome and Opening: ITA and local representatives
- 09.30 – 10.30: Design Philosophy: Tunnel Design and management by design
- 10.30 – 11.00: Coffee Break
- 11.00 – 11.45: Specificities and Stages of tunnel design
- 11.45 – 12.30: Geo-investigation and Tunnel Modelling parameters
- 12.30 – 14.00: Lunch

Session 2: General Aspects of Tunnel Design

- 14.00 – 14.45: Construction Methods and aspects affecting design (ventilation etc.)
- 14.45 – 15.30: Types and uses of Tunnels and Caverns
- 15.30 – 16.00: Coffee Break
- 16.00 – 16.45: Excavation in difficult ground (cavities, fault zones etc.)
- 16.45 – 17.30: Monitoring for Conventional and Mechanized Tunnelling
- 17.30 – 18.00: Questions and Answers

Day 2

Session 3: Conventional Tunnelling

- 09.00 – 09.45: Sequential excavation in soft ground and hard rock
- 09.45 – 10.30: Structural design (calculation, Dimensioning, Face stability)
- 10.30 – 11.00: Coffee Break
- 11.00 – 11.45: Ground reinforcement techniques
- 11.45 – 12.30: Water control and drainages
- 12.30 – 14.00: Lunch

Session 4: Mechanized Tunnelling

- 14.00 – 14.45: Types of machines and support systems
- 14.45 – 15.30: Interface between TBM and Lining
- 15.30 – 16.00: Coffee Break
- 16.00 – 16.45: Design of Face pressure, Soil condition, Backfilling
- 16.45 – 17.30: Segment lining design for soft ground and hard rock
- 17.30 – 18.00: Summary and Closing