

Thai Underground & Tunnelling Association (TUTG) under Engineering Institute of Thailand under H.M. the King's Patronage (EIT)

3 DAY SEMINAR
Chiang Mai, February 2020

CONTRACTING PRACTICES

New Technologies impacting Contracts in Design & Construction

SYNOPSIS - DRAFT

The choice of Tunnelling Contracting Method and the evaluation of Tunnel Behaviour in Practice means estimating the interaction between project owner and contractor, as well as equipment and ground. For the designer it means production of specs and drawings to visualize a structure which later results as a tunnel.

The tunnel designer becomes the manager of tunnel contracting including many its risks, as his choice of contracting and design becomes a management tool in construction.

This seminar on the principle choice of tunnel contracting for e.g. SE ASIA's future Infrastructure and for contract management by design, summarizes the state of the art for both conventional (NATM) and mechanized (TBM) tunnelling.

Detailed lectures will be provided in regard to Infrastructure and the Choice of Tunnel Contracting, Principles of CTM Tunnelling, Principles of TBM Tunnelling, Monitoring for CTM and TBM Tunnelling, CTM Tunnelling in Soft Ground & Hard Rock. Issues of lectures focus generally to underground contracting including claim practices, Hydro Tunnelling, Floodwater Control Tunnels, design stages, contractual applications, and construction organization. All lecturers are to be determined.

THE PROGRAMME – DAY ONE

Session 1: Introduction to the context

08:30 Registration and Morning Coffee

09:00 Opening and Welcome Remarks from Chairperson

09:20 Key Success Factors for an Underground Infrastructure Strategy

10:00 Construction Technology to Overcome Project Challenges

10:40 Morning Refreshments

11:00 Underground Space Developments – Challenges and Opportunities

11:40 Redefining Tunnels in Future Underground – Innovation Drivers

12:20 Networking Lunch

Session 2: New developments in design and construction

13:30 Ground Investigations – New developments

14:10 Developing the Use of Geological Models – Uncertainties management

14:50 Designing Innovative and Sustainable Underground Structures

15:30 Afternoon Refreshment

15:50 Leveraging Innovations – Data Collection, BIM, GIS, Drones, Laser Scanning,

16:30 Conventional method to Perform Tunnelling Works in Hard Soils/Weak Rocks

17:20 Designing and Construction of Rock Caverns

18:00 Questions and answers - Chairperson Closing Remarks – End of Day One

THE PROGRAMME – DAY TWO

Session 3: Contracting practices and risk management

09:00 Opening and Welcome Remarks from Chairperson

09:10 Risk Allocation for different project organizations

09:50 Coordination Issues between Designer and Contractor

10:30 Morning Refreshments

11:00 Risk management during construction – Contractual aspects

11:40 Coordination between construction and operation

12:20 Networking Lunch

Session 4: Examples and perspectives

13:30 Chairperson Opening Remarks

14:10 Mobilising Underground Space – Solving Planning Challenges

14:50 Integrating underground Space and Adding Value

15:30 Afternoon Refreshment

15:50 Case study 1: Contract for Specifying and Delivering the Right Tunnelling Works

16:30 Case study 2: Claim practices

17:20 Questions and answers - Chairperson Closing Remarks – End of Day Two

THE PROGRAMME – DAY THREE

All day trip to Construction Site of Mae Tang – Mae Ngud – Mae Kuang Water Diversion Tunnel at Chiangmai City.

WHO SHOULD ATTEND

- CEO's, MD's, Heads, Vice Presidents, Directors, Managers, Senior Executives, Engineers & Technical Specialists of following divisions
- Engineering & Construction
- Tunnel Engineering & Tunnel Design,
- Geotechnical & Ground Engineering,
- Structural Engineering,
- Architecture & Planning,
- Infrastructure & Projects.

LOCAL GOVERNMENTS, DEPARTMENTS, AGENCIES & AUTHORITIES

- Governments – Federal, States & Local Councils,
- Ministry and/or Department of Works and Transportation,
- Construction,
- Transport Authorities,
- PPP Units/Economic Planning Units,
- Public Works.

ENGINEERS, CONSULTANTS, PROJECT MANAGERS, CONTRACTORS

- Engineering & Construction Firms,
- Structural, Civil & Geotechnical

TECHNICAL SPECIALISTS

- Drill & Blast,
- Technical Superintendents,
- Health & Safety,
- Operations, Fire & Security,
- Project Managers,
- Technical Service Managers,
- Rock Engineering Specialists,
- Ground Improvement Specialists,
- Tunnel Maintenance/Tunnel Asset Management