

## Registration Form Online Training Program on Tunnels & Tunnelling

Name (Mr./Ms./Dr./Prof./Er.): .....

Organization: .....

Designation: .....

Address: .....

City: ..... State: ..... Pin Code: .....

Ph (O): ..... Ph (R): ..... Mobile: .....

Email 1: ..... Email 2: .....

Mode of Payment: DD No. .... Bank: .....

GST Number: .....

### Online Transfer Details:

**Name of the Bank:** ICICI Bank Ltd

**Address of the Bank:** ICICI Bank, 9 A, Phelps Building, Connaught Place, New Delhi- 110001

**Name of the Account holder:** AQUA FOUNDATION

**A/C No.:** 000701260885

**IFSC Code:** ICIC0000007

**Swift code:** ICICI NBB CTS

### Fee Structure:

Description	Government	PSU, Boards, Private	Students/ Full time research Scholars
Full Programs (core plus optional)	INR 10,000/ USD 200	INR 17,000/ USD 350	INR 7,000/ USD 140
Core Segment Only	INR 6,000/ USD 120	INR 10,000/ USD 200	INR 4,000/ USD 80
Optional Lecture (Each)	INR 150/ USD 3	INR 250/ USD 5	INR 100/ USD 2

- GST will be charged extra as applicable (present rate of GST is 18%).
- In case of multiple registrations same form to be photocopied.

**Option 1 : Full program (Core plus all optional)**

**Option 2 : Core segment only**

**Option 3 : Core plus selected optional lectures as under :**

- |  |  |
|--|--|
| <input type="checkbox"/> Rock Mechanics inputs : Laboratory tests on rocks 3   | <input type="checkbox"/> Ventilation & Lighting during construction of Tunnels   |
| <input type="checkbox"/> Rock Mechanics Inputs : Shear strength of intact rocks  | <input type="checkbox"/> Dewatering during construction of Tunnels   |
| <input type="checkbox"/> Rock Mechanics Inputs : Shear strength of joints  | <input type="checkbox"/> ViD: Vibration induced Damage assessment for underground structure                                      |
| <input type="checkbox"/> Rock Mechanics Inputs : Shear strength of rock mass 1   | <input type="checkbox"/> TBM bored tunnels Part-1  |
| <input type="checkbox"/> Rock Mechanics Inputs : Shear strength of rock mass 2   | <input type="checkbox"/> TBM bored tunnels Part-2  |
| <input type="checkbox"/> Advanced exploration techniques (Geophysics)  | <input type="checkbox"/> Tero-technological aspects and disc cutter refurbishment  |
| <input type="checkbox"/> Aeromagnetic surveys  | <input type="checkbox"/> Necessity & efficacy of pre-grouting  |
| <input type="checkbox"/> In-situ rock mechanics tests 1  | <input type="checkbox"/> Installation / placement of Primary support   |
| <input type="checkbox"/> In-situ rock mechanics tests 2  | <input type="checkbox"/> Special support elements in weak strata – Forepolling, RRS, Lattice girder, Pipe roofing                |
| <input type="checkbox"/> Stability analysis of tunnel portals – Swedge, RocPlane, RocTopple  | <input type="checkbox"/> Deformation monitoring and optimization of rock support system  |
| <input type="checkbox"/> Options for selection of rock support elements : rock bolts, rock anchors, cable anchors, RRS, Lattice girders, precast concrete segments, shotcrete etc. | <input type="checkbox"/> Control of section and alignment – Use of lasers  |
| <input type="checkbox"/> Design of tunnel Portals  | <input type="checkbox"/> Record keeping and documentation  |
| <input type="checkbox"/> Types of lining – Plain, Reinforced concrete lining, Shotcrete lining, Steel lining – Special membranes   | <input type="checkbox"/> Construction of a DBM tunnel: Case Study, Tala Hydroelectric Project, Bhutan                            |
| <input type="checkbox"/> Design of Lining  | <input type="checkbox"/> Placing the lining – Choice of the system- Number & length of gantry                                    |
| <input type="checkbox"/> Drainage and Waterproofing of Tunnels   | <input type="checkbox"/> Practical problems vis-à-vis design assumptions – Kerb and related issue                                |
| <input type="checkbox"/> Contract Formulation for Tunnels – 1  | <input type="checkbox"/> Grouting behind concrete linings and treatment of joints in tunnel linings                              |
| <input type="checkbox"/> Contract Formulation for Tunnels - 2  | <input type="checkbox"/> Lining in TBM bored tunnels – Related issues and grouting   |
| <input type="checkbox"/> Geological Risk Assessment  | <input type="checkbox"/> As built Geology & support Installation   |
| <input type="checkbox"/> Risk Sharing Machanism - 1  | <input type="checkbox"/> Dewatering of tunnels for repair – limitations and practices  |
| <input type="checkbox"/> Risk Sharing Machanism - 2  | <input type="checkbox"/> Geophysical Investigations for existing Tunnels   |
| <input type="checkbox"/> Contract Management at Tala hydroelectric project, Bhutan   | <input type="checkbox"/> Monitoring: Surface observations – Measurements by targets; Piezometers and water pressure measurements |
| <input type="checkbox"/> Tunnel Construction Scheduling  | <input type="checkbox"/> O&M aspects of Hydro Tunnels  |
| <input type="checkbox"/> Overall planning for tunnel construction  | <input type="checkbox"/> O&M aspects of Highway Tunnels  |
| <input type="checkbox"/> Choice of conventional Tunnelling method : Case Study   | <input type="checkbox"/> O&M aspects of Metro Tunnels  |
| <input type="checkbox"/> Technological advancements in Rock TBMs : Case Study  |  |