

A. Training Programs with 16 Professional Development Hours Credit*

Stages	Description
Introductory Programs	<ol style="list-style-type: none"> 1. Basics of Trenchless Technology 2. Introduction to Subsurface Asset Development through Trenchless Technology 3. Introduction to Subsurface Asset Administration through Trenchless Technology 4. Introduction to Subsurface Asset Termination through Trenchless Technology 5. Waste Management in Trenchless Technology applications.
Planning Trenchless	<ol style="list-style-type: none"> 6. Trenchless Technology Selection Criteria; 7. Trenchless Technology Scope of Works; 8. Trenchless Technology Standard Operating Capabilities; 9. Trenchless Technology Risk Mitigation Measures; 10. Pipeline Condition Assessment Processes 11. Safety Issues in Subsurface Networks Development & Management 12. Detailed Project Report Development for Trenchless Technology Projects
Designing Trenchless	<ol style="list-style-type: none"> 13. Trenchless New Installation Techniques 14. Trenchless Pipeline Rehabilitation Techniques 15. Standard Method Statements for Trenchless Projects 16. Site Investigations for Trenchless Projects 17. Trenchless Project Supervision 18. Trenchless Project Management
Contracting & Execution	<ol style="list-style-type: none"> 19. Standard General Conditions for Construction Contracts Employing Trenchless Technology 20. Special Conditions in Construction Contracts Employing Trenchless Technology; 21. Schedule of Rates for Construction Contracts Employing Trenchless Technology 22. Model Consultancy Contracts for Trenchless Technology. 23. Third Party Inspection Processes; 24. Trenchless Arbitral Procedures and Dispute Resolution Systems 25. Trenchless specifications and codes for various trenchless techniques 26. Detailed Project Report Development for Trenchless Technology Projects
Advanced Topics	<ol style="list-style-type: none"> 27. Good Practices Guidelines for various techniques; 28. Technique Operation Guidelines for various techniques; 29. Buried Pipe Design and construction techniques; 30. Trenchless Project design and selection techniques; 31. Buried Utility Database Information Development and Management; 32. City & Urban Area Infrastructure Development and Management.
Other	<ol style="list-style-type: none"> 33. Operator Testing & Certification 34. Pipes Behaviour 35. Bentonite use 36. Equipment Program 37. Single Technique Programs 38. Practicum mode program covering problems 39. Trenchless Machine Operator Skill Evaluation Programs

* Credit hours are eligible for CPD Credits from the Engineering Council of India (ECI)

B. Training Programs with 2 Professional Development Hours Credit*

1.	HDD project design	2.	Tracking and surveying basics for HDD
3.	Basics of drilling fluids Part- I	4.	Uniform Sewer Condition Classification System
5.	Geotechnical investigations	6.	Geotechnical Investigation methods & procedures
7.	Selection of technology for Sewer Rehabilitation and Replacement	8.	Stress analysis for steel product pipe in HDD
9.	Subsurface Utility Engineering	10.	Grouting, Theory & Technology
11.	Pipeline Condition Assessment	12.	Stress analysis for plastic product pipe in HDD
13.	Fiber glass pipe design	14.	Retrieval of Stuck pipe in HDD
15.	Basics of drilling fluids Part- II	16.	Grouting operations
17.	Downhole Tools for HDD	18.	Grouting to shut off seepage & Grout curtain
19.	Drilling Operator Qualifications	20.	Basic formulas & calculation for drilling
21.	Maintaining Borehole stability	22.	HDD Contract Conditions
23.	Reinforced Concrete Pipe Design	24.	Basics of Drill string
25.	Basics of CIPP Technique	26.	Excavation safety
27.	Managing Drilling Operations	28.	Grouting in shafts & tunnels for strength
29.	Failures in plastic pipes	30.	Safety at street works
31.	Rehabilitation through Lining of Pipes	32.	Basics of Pipe Bursting Technique
33.	Specifications supervision and inspection of grouting	34.	Subsurface Asset Management Methods
35.	Drilling fluid Formula & calculation	36.	Confined Space Working
37.	Stresses around boreholes & borehole Failure criteria	38.	Water in surface & subsurface
39.	Stability during drilling in rocky strata	40.	Basics of slip lining
41.	Managing rehabilitation and renewal work sites	42.	Dispute resolution and trenchless contracts
43.	Moling and Pipe Ramming	44.	Basics of Auger Boring and Pipe Jacking
45.	Shafts construction for Trenchless Technology applications		

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C. Modular Training Programs with varying Professional Development Hours Credits

(These programs are structured in consultation with the Employer Organization to address specific training requirements. The hours assigned shall be eligible for CPD Credits from Engineering Council of India (ECI))

- Good Practices Modules
 - HDD good practices guidelines training program;
 - Microtunneling good practices guidelines training workshop;
 - Contractual Implications in Trenchless Technology Projects

- Masterclasses
 - Starter Masterclass
 - Introduction of Trenchless technology
 - Site Investigation Guidelines
 - Microtunneling & Pipe Jacking
 - Fundamentals of Large Dia Rehabilitation
 - Replacement Method
 - Utility Tunneling
 - Horizontal Directional Drilling
 - Molding & Pipe Ramming

 - Advanced Masterclasses
 - Utility Tunnelling
 - Advanced Tracking
 - Microtunneling and Pipe Jacking
 - Industrial Applications for Trenchless Technology
 - Pipe Bursting

- Geophysical Techniques for Trenchless Technology Installations

- Subsurface Utility Engineering Training Program
 - Level 1
 - Level 2
 - Level 3

- Online Training Program Trenchless Rehabilitation Planning
 - Basics of Trenchless Rehabilitation
 - Pipeline Cleaning
 - Project Preparatory Actions
 - Detection and Quality Designation of Pipelines
 - Renovation Method Selection
 - Project Front-End Engineering Design
 - Construction Methodology and Codes of Practice
 - Quality Acceptance Criteria
 - HSE Protection and Management
 - Trenchless Rehabilitation Planning

- Online Training Program on Developing Detailed Project Reports for Construction Contracts Employing Trenchless Technology
 - Overview of Trenchless Techniques
 - Trenchless Technology Selection Guidelines
 - Business Case Preparation for Trenchless Technology Project
 - Trenchless Project Proposal Development
 - Conduction of Feasibility Study for the identified trenchless technique set
 - Detailed Project Report Development for the feasible trenchless technique
 - Project Plan Development of the basis of developed Trenchless DPR
 - Invitation of Request for Qualification for meeting the project plan
 - Invitation of Request for Proposal/Quotation in line with the project plan
 - Development of Contract Documents for construction contracts employing trenchless technology