



**Trenchless Technologies 101
Workshop @ The ORCGA Symposium**

February 11th 09:00-16:00

**The Fairmont Chateau
Laurier**

2020



Trenchless Technologies 101

Course Description

Trenchless technologies include tools and techniques for condition assessment, rehabilitation, and installation of underground pipelines and utilities, and subsurface utility engineering. This course introduces subsurface utility engineering principles and techniques, and pipeline installation using horizontal directional drilling, pipe jacking, microtunnelling, and pipe bursting methods. Furthermore, trenchless rehabilitation of pipeline using various types of lining techniques are presented. In particular, material properties, lining technologies, and their benefits and limitations are discussed. Relevant case studies show the range of applications, advantages and limitations, and best practices for various trenchless techniques.

Introduction	<ul style="list-style-type: none">• An overview of trenchless technologies• How trenchless pipeline construction is different from the traditional open-cut construction?• Subsurface Utility Engineering
Trenchless Pipelines Replacement	<p>Introduction to principles, suitability and limitations, geotechnical requirements, equipment, processes, QA/QC, and relevant case studies for trenchless pipe replacement using:</p> <ul style="list-style-type: none">• Horizontal Directional Drilling• Pipe Jacking and Microtunnelling• Pipe Bursting
Trenchless Renewal	<p>Cured-in-Place Pipe (CIPP); Spray-on Linings; Sliplining; Fold and Form (deform/reform), Spiral Wound</p> <ul style="list-style-type: none">• Materials properties<ul style="list-style-type: none">◦ Structural vs. non-structural lining• Lining technologies• Benefits and limitations• QA/QC• Case studies

Who Should Attend?

Municipal engineers, technologists, technicians, operators, engineering consultants, contractors, suppliers, and pipe manufacturers.

What is Included?

- Continuing Education Units (CEUs), Professional Development Hours, Canadian Construction Association Gold Seal Credits
- Course material

About CATT

Centre for Advancement of Trenchless Technologies (CATT), established in 1994 at the University of Waterloo, serves the Canadian municipalities and advances the trenchless technology industry by: offering high quality training and education programs; fostering the next generation of trenchless experts; organizing trenchless technology conferences; developing industry specifications; carrying out state-of-the-art research and development; and providing expert services to address buried infrastructure challenges, protect environment, and save money.

