

**ONTARIO CHAPTER** 

Tunnelling Association of Canada Association Canadienne Des Tunnels

# **INVITATION**

## **SEMMERING BASE TUNNEL – 17 Miles of Challenging Conditions**

	Presenters:	Erich Neugebauer, iC Canada
	Date & Time:	Thursday, June 27, 2019 Doors and registration: 5:30pm Presentation: 6:00pm
iC interdisciplinary consultants canada Itd	Location:	Lone Star Texas Grill 930 Dixon Rd, Toronto, Ontario
	Cost:	TAC Members: \$5 at the Door Non-Members: \$10 at the Door Government Employees: \$5 at the Door
	RSVP:	It isn't required to RSVP, but please notify onttac@gmail.com if you plan to attend.

#### **Presentation Overview**

#### SEMMERING BASE TUNNEL – 17 Miles of challenging conditions

The Semmering Base Tunnel is a major railway infrastructure project in Austria, Europe. It consists of two 17 miles long single track tunnels, numerous cross passages and a complex underground emergency station including caverns, passages, supplementary tunnels and two 1,315 ft deep ventilation shafts. Construction access to the base tunnel is provided from the portals and from two intermediate access points, at one point by a 1.1 mile long temporary tunnel together with two 820 ft. deep subsurface shafts and at the other point by two temporary shafts of about 1.315 ft depth directly from surface, used later as permanent ventilation shafts together with large underground caverns at the base. The maximum tunnel overburden amounts to about 2,850 ft. The ground conditions along the base tunnel are characterized by difficult, frequently changing geological conditions with large fault zones and extensive water inflow up to 300 l/s requiring special grouting and support measures. The underground construction works using SEM and TBM methods commenced in 2014 and are expected to be completed by 2026.

### **Speaker Bios:**

Erich is a civil and structural engineer with more than 25 years of experience in design and construction of international underground projects, including techno-commercial project management, arbitration advice, design management, lead geotechnical and construction supervision, geotechnical monitoring. He has worked on tunnel and shaft design and construction projects using various construction methods such as New Austrian Tunnelling Method (NATM), Tunnel Boring Machines (TBM) and Cut & Cover, both in hard rock and soft ground conditions. Erich has a strong background in both design and construction works since he worked in his professional career also for contractors.

In addition to having broad design and onsite construction experience he has provided expert reporting and advice on temporary and permanent support measures during construction and design implementation.