

**TALK ON LEAKAGE DETECTION AND LOCALIZATION IN UNDERGROUND STRUCTURES:
FROM MOBILE MEASUREMENTS TO PERMANENT INTEGRITY CONTROL**

Organized by : Tunneling & Underground Space Technical Division, IEM

BEM Approved CPD/PDP Hours: 2 Ref No: IEM18/HQ/129/T

Date : 4 April 2018 (Wednesday)
Time : 5.30pm – 7.00pm (Refreshments will be served at 5.00pm)
Venue : Auditorium Tan Sri Prof. Chin Fung Kee, 3rd Floor, Wisma IEM, Petaling Jaya
Speaker : Dr. Ernst D. Geutebrück

SYNOPSIS

An increasing number of underground structures in urban areas often requires deep excavations below the groundwater table and therefore entails high technical and financial risks. The requirements for best quality and extended lifetime are very high for these types of constructions. A failure in the sealing system can cause severe damages on the construction itself and on neighboring buildings. Furthermore, substantial financial losses might occur due to an impairment of the building process and expensive repair works. Leakages in sealing walls, joints and bottom seals, e.g. natural geological sealing horizons, injection bases etc., are factors, which can substantially influence the technical and financial success of a construction project.

For almost all deep underground constructions, two categories of quality control of the sealing functionality in an early stage can be distinguished:

- ✓ Mobile investigation (one-time measurement) and
- ✓ Permanent integrity control

The speaker will talk on the self-developed technologies for mobile measurements and permanent integrity control based on years of research and field work. These monitoring systems are used for potentially risky environments such as storage basins for hazardous liquids, waste treatment sites, or in metro stations, tunnels, below floor construction, etc. Examples of leak detection works in metro stations in Bangkok (Thailand), Paris (France) and Tianjin (China) will be discussed.

BIODATA OF SPEAKER

Dr. Ernst D. Geutebrück graduated from University of Graz, Austria with Bachelor of Science degree in geology and paleontology. He obtained his MSc and PhD from University for Mining & Metallurgy, Leoben in 1976 and 1978 respectively. He was Geological Consultant and Assistant Professor in Institute for Prospection, Exploration and Mineral Economics. From 1980 to 1990, he was Head of Geophysical Department in OMV AG, European Oil Company, and Exploration - followed by managing an Environmental company in Austria. Between 1993 and 2005 he founded the Texplor companies in Austria, Germany and Netherlands, providing geophysical and hydrogeological technologies with a strong focus on leak detection and monitoring of sealing systems for the environmental-, chemical-, energy-, waste- and mining industry. Texplor's R & D lead to several European and International patents in leak detection and monitoring technologies. He is currently the CEO of TEXPLOR Group bv, The Netherlands. He has published around 60 publications and scientific reports.

ANNOUNCEMENT TO NOTE**EFFECTIVE 1st OCTOBER 2017****FEES FOR TALKS****Members:**

Registration Fee: No Charge
Administrative Fee
Online RM15
Walk-In RM20

Non-Members:

Registration Fee M50
Administrative Fee RM20

Limited seats are available on a "first come first served" basis (maximum 100 participants).

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Ir. Syed Rajah Hussain Shaib Bin A.H. Mohd Haniff
Chairman
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