





REGISTRATION FORM (Closing for Registration:) TWO-DAY SHORT COURSE ON PRINCIPLES FOR TUNNEL DESIGN 20th & 21st April 2017

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No	Name(s)	M'ship No.	Grade	Fee (RM)*			
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TWO-DAY SHORT COURSE ON PRINCIPLES FOR TUNNEL DESIGN

Organised by: IEM Academy Sdn Bhd

: 20th & 21st April 2017 (Thursday & Friday) Date

Venue : Intan Suite, East Wing, Level 1, Hilton Petaling Jaya, Selangor

Time : 8.00 a.m - 6.00 p.m

> **BEM Approved CPD/PDP Hours = TBC** Ref. No:

Grade	Fees	
IEM Corporate Members	RM1,060.00	
Non IEM Member	RM1,378.00	

Terms & Conditions:

- Closing date:
- Payment via CASH / CHEQUE / BANK-IN TRANSMISSION / WALK-IN
- FULL PAYMENT must be settled before commencement of the course, otherwise participants will not be allowed to enter the hall. If a place is reserved and the intended participants fail to attend the course, the fee is to be settled in full.
- Fee paid is not refundable. Registration fee includes lecture notes, refreshment.
- IEM Academy Sdn Bhd reserves the right to cancel, alter, or change the program due to unforeseen circumstances. Every effort will be made to inform the registered participants of any changes. In view of the limited places available, intending participants are advised to send their registrations as early as possible so as to avoid disappointment.

CANCELLATION POLICY

IEMTC reserves the right to postpone, reschedule, allocate or cancel the course. Full refund less is 30% if cancellation is received in writing more than 7 days before the start of the event. No cancellation will be accepted prior to the date of the event. However, replacement or substitute may be made at any time with prior notification and substitute will be charged according to membership status.

Objective

To provide design and construction elements to young professionals related to the best practice of tunnel design

Speakers



Professor Jinxiu Yan is currently the Vice President of the International Tunnelling and Underground Space Association(ITA); Vice President of the Chinese Tunnelling and Underground Works Society and Deputy General Manager of China Railway Academy Co., Ltd. Prof. Yan has worked as consulting engineer for many major tunnel projects for 30 years. In the past 3 years, she has delivered 10

international Keynotes or lectures in Asia, Europe, America and Middle East. As research team leaders or experts appointed by the governments or the project owners, she have been involved in the construction of many major railway, highway tunnels and metro projects as well as long subsea tunnels in China.



Davorin Kolić, PhD, MSc, BSc, PE, CE has earned PhD level from Faculty for Civil Engineering, University Zagreb with the core methodology using and developing risk analysis techniques. In 2000, he was awarded first price for the best international consultant of Austria as a member of a team for the Wanjiazhai Yellow River Diversion Project in China. He has been active in underground projects with special expertise in risk analysis and risk management

since 1990. He is recently a project manager on project preparation and risk analysis of a new mostly underground railway line Divaca-Koper, Slovenia.

He is a co-author of the Austrian guidelines on "Cost Estimation for Transport Infrastructure Projects Considering Project Relevant Risks" and an author of more than 100 scientific and technical papers, 3 guidelines on design and construction of underground structures in Austria and EU. He is also a president of Croatian association for tunnels and underground structures ITA Croatia and a member of Executive Council of ITA-AITES.



Dr. Noppadol Phienwej, a faculty member at Asian Institute of Technology, has 29 years of experience in geotechnical engineering as an academician and consultants. His areas of interest and expertise are underground excavations, tunnelling, dam engineering and slope stability. He is now the president cum the honorary secretary of the Southeast Asian Geotechnical Society. He

was the past chairman of Thailand National Group of the International Tunnelling and Underground Space Association (TUTG). He was also the past chairman of the Geotechnical Committee of the Engineering Institute of Thailand. He has been involved with a number of major infrastructure development projects in Thailand and Southeast Asian countries (building foundations, hydropower dams, irrigation dams, transport and utilities tunnels, long water diversion tunnel projects, MRT projects, airports, etc.).



Dr. Harald Wagner is a Civil Engineer, M.Sc., Ph.D. (Dr.Techn.Science, Suma cum Laude), Government Counsellor, appointed by President of Austrian Republic, Chartered Expert at Court, and consultant to the World Bank. He is an international Consultant for Underground Infrastructures with more than 40 years of Professional Experience in Tunnel Design, Construction and Consultancy. He was a former

Assistant Professor at Technical University Graz in Austria on Soil Mechanics & Foundation Engineering for Architects. Besides, he is also a Vice President of ITA (International Tunnelling and Underground Space Association) and an Expert member of ITA's Executive Council, who has worked throughout his career as a designer & consultant in more than 35 countries.



Gus Klados is the Director, Tunnels for the Underground Works Package Contractor MMC Gamuda KVMRT (T) Sdn. Bhd. for the Sungai Buloh – Serdang – Putrajaya (SSP) Line and has been the Project Manager for the Sungai Buloh – Kajang (SBK) Line in Kuala Lumpur. Gus has forty plus years' experience in tunnelling and related construction worldwide on major infra-structure projects.

He started in Budapest on the M2 and M3 metro lines. Later Gus worked in England on the Channel Tunnel, in South Africa on the Lesotho Highlands Water Project, in Greece on the Athens Metro Lines 2 & 3, in Singapore on the Deep Tunnel Sewer System and in Malaysia on the SMART project. Gus returned to Hungary, after 28 years as project director of the Client on the Budapest Metro M4 Line. In March 2011, he assists the MMC Gamuda JV to tender for, win and construct the underground works contract for the SBK Line and to win the tender and build the tunnels for the SSP Line, the first and second MRTs or heavy metro lines in the Klang Valley in Malaysia.



Piergiorgio Grasso graduated from the 'Politecnico di Torino' of Italy in civil engineering and starts his engineering career in 1975. He is the founder, President & Principal Engineer of Geodata since 1984, which is a consultancy company specialised in the design & management of underground works, both in urban environments & in mountain areas. He was part of the ITA Executive Council member and ITA past Vice President. He also served the ITA Working Group 17 on "Long and"

Deep Tunnels" as its animateur & tutor. Mr. Grasso is one of ITA expert & is ITACET Foundation Vice President.



Alain Poloni, born in France in 1961, is a civil engineer and director for major projects offers in the International department of Eiffage Infrastructures, a branch of EIFFAGE Group, a French company acting as a leader on the European market in concessions and public works sector. He has 30 years' experience in construction field, including 18 years in international projects performed in countries like Venezuela, Turkey, Malaysia, Egypt, etc., mainly in tunnelling activities with Tunnel Boring Machine or conventional

method. Alain Poloni was in charge until April 2014 of two major projects executed in Monaco (Downward tunnel and Third Source electric substation) both using Drill and Blast technic in very urbanized areas under drastic environmental constraints. For last two years Alain Poloni is in charge for the preparation of offers for major projects located mainly in Middle East and Africa.



Senthilnath gained his Bachelor's degree in Civil Engineering from Indian Institute of Technology, India in 2006 and Master's degree in Geotechnical engineering and TU Dresden, Germany in 2009. He was awarded with ITA's ITACET Scholarship to pursue 2nd Level Specializing Masters in "Tunnelling and TBMs" at Politecnico di Torino, Italy and is currently a Sr. Tunnel Engineer at Geoconsult in Singapore. He has more than 10 years' experience in construction industry and

around 7 years of experience in handling diversified Geotechnical projects including TBM and SEM/NATM Tunnels, deep foundations and excavation support systems for mining as well as transportation projects (road and rail tunnels).

He is an active member of the Singapore tunnelling society (TUCSS), rock mechanics society (SRMEG) and is committee member of Geotechnical Society of Singapore (GeoSS)'s youth wing. During ITA's World Tunnel Congress 2015 in Croatia, he was elected ITAYM Board Member. He was awarded the Hulme Prize 2015 by TUCSS and was recently named "Young Tunneller of the Year" at the NCE Tunnelling Awards 2016.

Course Schedule & Outline

Day 1: 2	0 th April	Day 2: 21st April		
	1: Introduction and Overview	Session	3	
on Tunnel Design		Methods		
09:00 - 09:15	Welcome and opening	09:00 -	Rock engineering design: H. Wagner	
09:15 -	Design philosophy:	09:45		
09:45	H. Wagner			
09:45 - 10:30	Risk analysis: D. Kolic	09:45 – 10:30	Analytical and numerical methods: P. Grasso	
10:30 - 11:00	Coffee Break	10:30 – 11:00	Coffee Break	
11:00 - 11:45	Geologic and geomechanical survey: P. Noppadol	11:00 – 11:45	Settlement design: P. Noppadol	

11:45 – 12:30	Specific parameters affecting design: J. Yan	11:45 – 12:30	Design of face pressure, soil conditioning and backfilling for TBM: D. Kolic
12:30 – 14:00	Lunch	12:30 – 14:00	Lunch
Session 2: Choosing The Appropriate Construction Method During Design		Session 4: Specific aspects of tunnel design	
14:00 - 14:45	Conventional tunnelling in hard rock: H. Wagner	14:00 – 14:45	Monitoring and control for conventional and mechanical tunnelling: J. Yan
14:45 – 15:30	Conventional tunnelling in soft ground P. Grasso	14:45 – 15:30	BIM and new design methods: P. Grasso
15:30 – 16:00	Coffee Break	15:30 – 16:00	Coffee Break
16:00 - 16:45	Mechanized tunnelling (TBM and support systems): D. Kolic	16:00 – 16:45	Smart Design Experience: G. Klados
16:45 – 17:30	Health and safety issues and impact on tunnel: design A. Poloni	16:45 – 17:30	Urban tunnelling in Singapore: S. Nath
17:30 – 18:00	Questions and Answers	17:30 – 18:00	Closing Remarks