

Foundation for Education and Training on Tunnelling and Underground Space Use

Newsletter #31 December 2019

President's address



I would like to provide you with the latest news concerning the ITACET Foundation. This newsletter does however, come with the some rather sad news, as it was with deep sadness that we learnt of the recent passing away of our dear friend, Dr Sherif Wissa Agaiby.

Sherif Wissa Agaiby, as representative for Dar Al Handasah, was a founding member of the ITACET Foundation who had sat on the Foundation Council since its inception. He was an active member of the Council who provided valuable guidance and support to the Foundation, and he will be sorely missed.

Dr Agaiby had a prolific career as Director of the Geotechnical and Heavy Civil Engineering Department at Dar Al-Handasah Consultants, as well as having worked extensively as a university faculty member at the University of Cairo where he taught and conducted research.

His position in the Foundation Council will be taken over by Danny Aoun (<u>click here to see his CV</u>), also of Dar Al Handasah. We welcome Mr Aoun and look forward to working with him.

Eng. A. Al-Mogbel

ITACET Foundation President

Editorial



A message from the ITA President

Dear Colleagues

As you know, the mission of ITA is to promote the better use of tunnelling and underground space. To accomplish this mission, ITA always put great emphasis on knowledge sharing and exchange, which in recent years, have seemed to be more and more important as there have emerged so many new technologies and innovations well worth sharing. These innovations, such as new systems, new equipment and new materials all aim to make tunnelling safer, better and more efficient and will greatly benefit our industry.

As a useful way to encourage knowledge sharing, training and education have become an integral part of ITA activities. Over the past decade, the ITACET foundation and ITA-CET committee, have jointly made great efforts to organise 79 training courses in 28 countries with more than 8450 participants, thus transferring tunnelling knowledge from region to region, from country to country and from experienced professionals to young engineers. It is obvious that these activities have contributed a lot to the better use of tunnelling and underground space worldwide. So, ITA will continue to support such training and education not only for the increased use of, but also for the better and more efficient use of tunnelling and underground space.

I would like to take this opportunity to wish you all a very happy and prosperous New Year!

YAN Jinxiu

ITA President

Training session reports

INTRODUCTION TO TUNNELLING – FROM DESIGN TO CONSTRUCTION

Date: 04/12/2019 to 05/12/2019 Location: Nairobi, Kenya



After a first session dedicated to underground space use in 2018, the 2019 seminar aimed to go further in the tunnelling process by presenting the major issues related to the design and construction aspects. It helped the clients to understand how to manage underground projects and set up a suitable organisation...

THE MAIN TUNNELLING PROCESSES

Date: 16/10/2019 Location: Abuja, Nigeria



After a first event on "Underground Space Use" organised by the ITACET Foundation and the Tunnelling Association of Nigeria in 2018, a follow up seminar on "The Main Tunnelling Processes" was held on 16th October 2019, in Abuja. A total of 35 participants coming mostly from Ministry Parastatals attended and were treated...

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TUNNELLING 4.0: NEW TECHNOLOGIES & AUTOMATION

Date: 24/09/2019 Location: Buenos Aires, Argentina



The ITACET Foundation and the Argentinian Association of Tunnels and Underground Space (AATES) have worked together for many years now, hosting training sessions during the annual "Tunnelling and Underground Space Days". This year's training session took place during the 9th "Tunnelling and Underground Space Day"...

WTC2019: COMMUNICATION AND STAKEHOLDER ENGAGEMENT

Date: 04/05/2019 Location: Naples, Italy

Read more...



With the increasing number of underground works all over the world and a growing awareness of the need for efficient communication with the populations and the stakeholders concerned, engaging in dialogue has become necessary at all stages of a project: ideation, funding, design, construction and operation...

Read more

WTC2019: TUNNELLING 4.0

Date: 03/05/2019 to 04/05/2019 Location: Naples, Italy



For almost a decade now, the ITACET Foundation has been organizing training sessions within the scope of the annual World Tunnel Congress, in collaboration with the host Member Nation and the ITA-CET Committee. This year, the beautiful city of Naples was the backdrop for a two-day course entitled "Tunnelling 4.0"...

Read more...

Thank you to all those lecturers who presented on behalf of ITACET

At the WTC2019 (Tunnelling 4.0): Karin Bäppler, Heidi Berg, Salvatore Antonio Biancardo, Stefano Cespa, Angelo Ciribini, Paolo Cucino, Max Eckstein, Anna Ferrero, Vincenza Floria, Robert Galler, Javier Gonzalez-Marti, Jurij Karlovsek, Vincent Keller, Markus König, Donald Lamont, Ari Laitinen, Eric Odkrans, Klaus Pini, Paolo Pitolli, Klaus Rabensteiner, Alexander Radinger, Nicolas Ziv

At the WTC2019 (Communication): Han Admiraal, Georgia Aresu, Gordon Clark, Antonia Cornaro, Alessandro Distefano, Heinz Ehrbar, Roland Herr, Pietro Jarre, Anthony Kane, Roberto Mezzalama, Lorenzo Orsenigo, Federica Santini, Mario Virano, Chungsik Yoo, Raffaele Zurlo

In Argentina:

Vincenza Floria, Piergiorgio Grasso, Jurij Karlovsek, Carlos Lang, Sandino Leao, Ramon de la Torre

In Nigeria : Johann Brandl, Arnold Dix, Piergiorgio Grasso

In Kenya: Lars Babendererde, Maud Macary, Gérard Seingre

Forthcoming sessions



TUNNELLING 4.0 AND INTELLIGENT CONSTRUCTION

Date: 24/04/2020 Location: Shanghai, China

The ITACET Foundation will organise a 1-day training session on 'Tunnelling 4.0 and Intelligent Construction' in coordination with Tongji University in Shanghai. The aim of the session is to highlight some of the most advanced aspects of digital technology applications in the design and construction of underground facilities.

To see the detailed programme and to register, please visit: <u>https://www.itacet.org/session/tunnelling-40-and-intelligent-construction</u>



INNOVATIONS IN TUNNELLING – GEOTECHNICAL ENGINEERING AND PROJECT MANAGEMENT Date: 15/05/2020 to 16/05/2020 Location: Kuala Lumpur, Malaysia

At the occasion of the WTC2020 in Kuala Lumpur, Malaysia, the ITACET Foundation will organise a training session focused on 'Innovations in Tunnelling', in coordination with the Institution of Engineers Malaysia (IEM).

To see the detailed programme and to register, please visit: <u>https://www.itacet.org/session/innovations-tunnelling-%E2%80%93-geotechnical-engineering-and-project-management</u>

Other events in preparation

- Switzerland: "TBM Pilot training" Date to be confirmed
- Brazil: "Innovations in Tunnelling" Date to be confirmed
- Chile: "Mechanized tunnelling and shafts" Date to be confirmed
- Colombia: "Mechanized Tunnelling" Date to be confirmed
- India: "Structural use of fibre reinforced concrete in precast segments" Date to be confirmed
- Mexico: "Underground Urban Facilities" Date to be confirmed
- Thailand: "Contractual practices" Date to be confirmed

Visit the Foundation's web site for further updates.

Foundation scholarship recipients

UPDATE FROM OUR SCHOLARSHIP RECIPIENT IN ENGLAND



Annisa Renaningtyas Tadiyana, from Indonesia, was awarded an ITACET scholarship for the academic year 2019-2020. She has just completed her first term at the Warwick University on the 'Tunnelling and Underground Space ' Masters course. Here she gives us an update on her studies so far:

Early December 2019 was the end of my 1st term in the Tunnelling and Underground Space Course at the University of Warwick. The first term comprised of four modules: Geological Investigation and Ground Characterisation, Underground Construction Methods 1&2, as well as Communication and Leadership. Coming from a Mining and Engineering background, I learnt an extensive amount of new things and while it was a bit challenging at first, getting a chance to meet the professionals and experts from the industry through the lectures was the best thing that could happen to me this year!

Read more...

ITACET SCHOLARSHIP RECIPIENT COMPLETES THESIS ON 3D NUMERICAL METHODS



Daniela Zapata Franco, student at INSA, Lyon and originally from Colombia, received the ITACET Foundation scholarship for the year 2018-2019. The Foundation followed Daniela throughout her Masters and were lucky enough to attend her thesis defence back in September. Here she gives us a summary of the what her work entailed:

When a tunnel is excavated in urban areas, in order not to generate damage to the existing constructions caused by differential settlements, the technique of tunnel face bolting is very often used in the excavation of tunnels with conventional methods.

Read more...

UPDATE FROM A PREVIOUS SCHOLARSHIP RECIPIENT



Former Foundation scholarship recipient Rodrigo Winderholler lets us in on what he's been doing since finishing his Masters: After completing the T&TBM's Master course in Turin in 2016, I have been working for a Finnish design company called Rockplan (<u>https://www.rockplan.fi</u>) which is part of a consulting company network called Solwers.

Read more

Other news

TBM DRIVER CERTIFICATION SCHEME

The ITACET Foundation, alongside the ITA-CET Committee is embarking on a new type of training session – with TBM simulators at the core of the training...

TBM training simulators have become increasingly popular recently, with various advanced models having been developed. The Simulators have the advantage of helping trainee TBM drivers to acquire the correct reflexes for dealing with a wide variety of situations that they may come across in real-life excavation.

ITACET Foundation, c/o ITA-AITES, MIE 2, Chemin de Balexert 9, 1219 Châtelaine, Switzerland

Read more...

THE ITACET FOUNDATION 'PRIVATE AREA'

The Foundation's 'Private Area' now boasts close to 300 presentations given at past ITACET training sessions! Covering a diverse range of topics, new presentations are added on a continual basis and we hope that the Private Area continues to develop.

Read more...

OBITUARY - SHERIF WISSA AGAIBY

It is with great sadness that we learnt of the recent passing away of Dr Sherif Wissa Agaiby.

Dr Agaiby had a prolific career as Director of the Geotechnical and Heavy Civil Engineering Department at Dar Al-Handasah Consultants, as well as having worked extensively as a university faculty member at the University of Cairo where he taught and conducted research.

Read more...

PROFESSOR PELIZZA AND AFTES HONOURED WITH THE 2019 ITACET AWARDS

The WTC2019 in Naples played host to the annual ITACET Awards and, as is now customary, the Awards were given during the Opening Ceremony.

Sebastiano Pelizza (shown left) received an award in recognition of his continued support of the work of the ITACET Foundation. He has been an ITACET surveyor for many years and as such his support, guidance and involvement has been invaluable to the Foundation. Professor Pelizza was presented with the award by Felix Amberg, Secretary-treasurer of the Foundation, after which he gave a moving speech recounting his career and wishing the next generation of Engineers luck. His speech was proudly watched by many of his grandchildren in the audience.

Read more

SEE OUR NEW FLYER!

We are pleased to present our new flyer which has been produced in collaboration with the ITA-CET Committee.

This document explains the different roles of the Foundation and Committee and explains the training and education services that both offer.

Read more...

Finally, on behalf of all those at the ITACET Foundation, we would like to extend our Season's Greetings!



Photo by Andreea Radu on Unsplash



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