

TTC PARTICIPATES IN GLOBAL ENGINEERING AND MANAGEMENT FORUM

by Dr Tom Iseley and Saleh Behbahani, TTC at LA Tech

TTC has been invited to participate in the Global Leadership Forum for Construction Engineering and Management Programs (GLF-CEM) 2020. The GLF-CEM is intended to bring together professors from leading universities around the world who play a leadership and/or administrator role in their respective programs.

The objective of this forum is to establish a body of academic leadership in the area of construction engineering and management to discuss and share issues of common concern in research, teaching, academic administration and opportunities for collaboration.

The first global leadership forum for GLF-CEM was hosted by Purdue University on 20–22 March 2011. This event was organised and sponsored by the Division of Construction Engineering and Management (CEM) at the College of Engineering, Purdue University.

The CEM at Purdue was established in 1976 as a standalone degree granting division within the College of Engineering. The GLF 2020 was conducted on 9–10 June 2020 and Dr Tom Iseley and Dr John Matthews will represent the Trenchless Technology Centre (TTC).

The session describes TTC, how it was set up and the main reason it was able to sustain its operations for more than 30 years. Dr Iseley speaks on 'Promoting Innovation through University-Academic Partnerships' and describes the TTC background, TTC Specialty Schools and the Barbera Education, Research & Training (BERT) Facility.

Dr Matthews will speak on TTC operations and research including TTC Industry Advisory Board (IAB) and TTC Municipal Forum.

THE TTC

The TTC was initiated as the Trenchless Excavation Center in 1989 by Dr Iseley and formally became the TTC in November

1991. TTC was established to promote research, development and technology transfer in the trenchless industry.

In addition to its research activities, a strong effort has been focused towards the education of engineers, contractors, government agencies and others about the availability and capability of trenchless methods for the solution of difficult underground infrastructure problems. The TTC has worked with various organisations in evaluating and developing new technology for the industry.

The Industry Advisory Board (IAB) plays a pivotal role for TTC by investing financial support to provide leadership while accomplishing the mission of advancing the industry through research, education and technology transfer.

Education, training, work force development and so on are critical components to insure proper technical solutions have been selected and implemented safely. Organisations like the Louisiana Contractors' Educational Trust Fund play an important role in supporting the TTC.

TTC has served as a global leader for the development of technologies influencing almost every aspect of trenchless construction methods. During the past six years, TTC has devoted more effort to develop a wide range of educational and training programs such as Auger Boring School (ABS), the Utility Investigation School (UIS) and the Certificate of Training in Asset Management (CTAM).

TTC ABS and UIS were established in

2015 and 2016 respectively. In 2015 for the ABS, TTC invited Mr Leo Barbera – who formed American Augers in 1991 – as a consultant for a couple of months. During this five-day training school, different aspects of auger boring projects from design to construction were taught by the foremost auger boring experts in industry.

On 2–6 March, TTC hosted its first 2020 UIS developed with ASCE's Utility Engineering and Surveying Institute (UESI). The class was intended to address the two performance goals of ASCE 38: how can a project be designed so as to have minimal utility issues during project development, and how can the professionals protect themselves against utility-related claims.

Chair ASCE 38 and 2018 UESI President Jim Anspach developed the school curriculum. TTC/UESI UIS provided attendees the knowledge and tools to provide competent utility investigations in accordance with accepted national standards.

The course covered geophysics, utility systems construction and configuration, ASCE 38 risk-based presentations and professional liability issues. In addition to the classroom lectures, a practical session was held where participants were offered hands-on experience with the ground penetrating radar, pipe cable locator and more.

A total of 20 students attended this school from A/I/ATA, Cobb Fendley & Associates Inc., Ground Penetrating Radar Systems, LLC, KCI Technologies, Inc., NTB Associates, Inc., Procimec, SJB Group, LLC, Stiffler McGraw, Surveying & Mapping,

LLC and Upper Trinity Regional Water District. Sensors & Software Inc. ImpulseRadar US were the industry partners and sponsors for this school, while Great Southern Press was one of its media partners.

LIFETIME ACHIEVEMENT

Vic Weston, who retired as the President and Owner of Tri-State Road Boring Inc., based in Baton Rouge, Louisiana served as the seventh TTC UIS banquet guest speaker. Mr Weston has served on the Associated General Contractors (AGC) of Louisiana board of directors for more than 20 years, including a year as the organisation's State President.

He was selected as the 2018 UCTA MVP (Most Valuable Professional) by the Underground Construction Technology Association (UCTA). During the TTC UIS banquet, Mr Weston was introduced by Louisiana Tech University President Dr Les Guice and Dr Iseley and presented with the TTC Lifetime Achievement Award.

Mr Weston played a major leadership role in generating millions of dollars of construction industry support for construction education programs, something that has played a major role in increasing impacts across the state and nation.

Mr Weston has also been a strong supporter for innovations that institutions could bring to Louisiana's construction industry, such as the support he helped secure for the TTC. He and the construction industry that he leads have been role models for industry and academia collaborations – support that is now being replicated by other industries and states.

Mr Weston assisted to make the Contractors Educational Trust Fund (CETF) a reality. The LA CETF is funded through the fines imposed by the Louisiana State Licensing Board of Contractors to contractors' violations inside of Louisiana.

CETF is a private board whose primary mission is to identify and fund educational programs that support the goals of the Louisiana construction industry. CETF was created by the LA Associated General Contractors (LAGC), through the state



Practical session at TTC/UESI Utility Investigation School 2020 – Using GPR to locate the buried utilities.



Les Guice (left) and Tom Iseley (right) present Vic Weston with the Lifetime Achievement Award.

Licensing Board for Contractors. Dr Iseley held the CETF professorship for 6 years at Louisiana Tech University.

BAMI-I PARTNERSHIP

TTC established a partnership with Buried Asset Management Institute International (BAMI-I), in which Dr Iseley serves as Chair, to continue to develop a comprehensive approach for utilising best business practices in managing the CTAM course.

In 2010, BAMI-I launched the first CTAM online course that has now expanded to four courses taken by individuals from 15 countries. The three levels of certification are designated for CTAM Program, which include Certificates of Completion, the Associate Water Asset Manager (AWAM) and Professional Water Asset Manager (PWAM) designations. To date, 217 AWAM and 18 PWAM certifications have been awarded.

As a result of industry demands, BAMI-I conducts CTAM classroom training. So far, BAMI-I has conducted four 4-day CTAM training courses for North Carolina Department of Environmental Quality, Raleigh, NC; Rural Community Assistance Partnership, Columbus, OH; Upper Trinity Regional Water District, Lewisville, TX; City of Atlanta Department of Watershed Management and a single day CTAM 100 workshop for New Jersey Water Environment Association.

Additionally, on 16–19 December 2019, BAMI-I teamed up with ASCE's UESI to hold the sixth UESI UIS at Colorado School of Mines. On 23 January 2020, BAMI-I, TTC, Fracta, Inc. and Applied Engineering & Science teamed up to offer a Lunch & Learn session on asset management developments and how artificial intelligence, machine learning and America's Water Infrastructure Act of 2018 are impacting the future of the asset management. 📍

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