

DR TOM LEAVES THE TTC TRENCHES

Trenchless International sat down with the Trenchless Technology Center's Dr Tom Iseley to discuss his next steps in the industry after a recent appointment to Purdue University's Lyles School of Civil Engineering.



Dr Tom Iseley has been an instrumental member of the trenchless industry with his involvement recognised at events across the globe.



Dr Iseley is now the Beavers Heavy Construction Distinguished Fellow with an academic rank of full Professor of Engineering Practice in the Construction Engineering and Management Division (CEM) at the Lyles School of Civil Engineering, Purdue University. The Fellow position was established in honour of Dr Donn E. Hancher, a visionary pioneer in developing construction engineering programs that are still recognised at major universities across America today. Dr Iseley says Dr Hancher was his major professor when he received his PhD degree back in 1988, making accepting this position which honours Dr Hancher's legacy extremely special.

"It was Dr Hancher who introduced me to Dr Les Guice at Louisiana Tech University in 1988," says Dr Iseley, explaining Dr Guice – who is now President of Louisiana Tech University – was Head of the Department of Civil Engineering at the time and hired Dr Iseley as an Assistant Professor.

ESTABLISHING TTC

The Trenchless Technology Center (TTC) was established in 1989 by Dr Iseley, Dr Guice and the assistance of several graduate students. In 1994, Dr Iseley had the opportunity to become a Department Chair at the Purdue School of Engineering and

Technology in Indianapolis, and Dr Ray Sterling followed him as TTC Director. "For the next 14 years, TTC expanded tremendously as a global leader. In 2014, I was invited to return to TTC as Director to ensure that the focus remained committed to advancing the science and practice of trenchless technology through research, education and technology transfer utilising the industry/university/government cooperative research centre model," says Dr Iseley.

In 2017, Dr Iseley suggested to Dr Guice that a younger individual should become the TTC Director, someone with the ability to continue keeping TTC as an international leader. Their first choice, Dr John Matthews, assumed the position in March 2017.

"Dr Matthews was our first choice, and we were delighted when he assumes this position in March 2017. At that time, I moved into a new position as Associate Director of International Operations, which I held until I retired from my academic responsibilities at Louisiana Tech University in August 2019.

"In December 2019, I returned to assist TTC as Director of Development and was honoured when the civil engineering faculty recommended me and the president approved to receive an appointment as Professor Emeritus."

PURDUE UNIVERSITY RESEARCH

Dr Iseley says he is excited to be moving to Purdue University, a prominent public institution founded in 1869, with its research exceeding US\$347.1 million a year using more than 400 research labs and its Purdue Civil Engineering specialty ranked as a top 10 undergraduate program for more than a decade.

"Purdue's water related activities involve nearly 100 academic faculty, researchers and students. These professionals are working to address the grand challenge of protecting the future of our water resources.

"Broad areas of research include water use; water pollution; aquatic ecosystems; human dimensions; and water, sanitation, and hygiene (WASH). WASH includes drinking water, wastewater and storm water conveyance systems."

THE BEAVERS

"The fact that this Fellow position is sponsored by the Beavers organisation makes it very special," says Dr Iseley.

"The Beavers, Inc. (The Beavers) is a heavy engineering construction association. It is a social, honorary organisation formed in 1955. It was organised and continues to be managed by construction companies and individuals who are or have engaged in heavy engineering construction."

The Beavers conduct two major events each year: a Beavers Awards Dinner conducted mid-January in Los Angeles with more than 2,200 attendees while the mid-year meeting – the Beaverdilly – is held in August in Napa, California with more than 1,600 attendees.

"Transitioning into this the Beavers Heavy Construction Distinguished Fellow will have a huge impact on my life as well as the trenchless technology industry internationally. The fact that I was selected is an indication of how trenchless solutions have gained recognition as providing benefit to the triple bottom line on the global heavy construction industry," says Dr Iseley.

EXPERIENCE BUILDS EXPERIENCE

Dr Iseley says he has been blessed over the years to have gained a tremendous amount of experience, with this new appointment presenting a unique blend of hands-on construction and engineering design as well as education, training and research experience.

"I advanced from a labourer with a family water and sewer pipeline construction firm to owning and operating my own utility construction firm. I advanced from a junior draftsman to Vice President of Engineering for a consulting engineering firm, and advanced from assistant professor to a full Tenured Professor at Louisiana Tech University where I established the TTC in 1989," says Dr Iseley.

"Of course, this experience includes being one of the five founding directors of the North American Society of Trenchless Technology (NASTT). As a result of my efforts, I have received the highest awards in the construction industry having been inducted into the National Academy of Construction; the highest award in civil engineering having been inducted into ASCE as a Distinguished Member; and the highest awards in the trenchless industry having been inducted into the NASTT Hall of Fame and receiving the 1993 Trenchless Person of the Year.

"So, as a Professor of Engineering Practice,

I will be in a unique position to share this experience with undergraduate and graduate students and to mentor junior faculty members. I will continue to teach undergraduate and graduate courses."

Later this year, Dr Iseley will teach two courses: Pipeline Condition Assessment and Integrity Management; and Asset Management for Underground Infrastructure.

PROUD CAREER MOMENTS

Dr Iseley says he is extremely proud of so much of his and the team's work at TTC. "I am most proud of the undergraduate and graduate students who chose to work with me and continue to make the trenchless industry their career. It is so rewarding to see how these individuals have developed professionally and how their families have grown," says Dr Iseley.

"In addition, in 1991, TTC was selected for a US U.S. Army Corps of Engineers (USACE) Construction Engineering Productivity Advancement (CPAR) program. This was a partnership with the USACE Waterways Experiment Station (WES) in Vicksburg, Mississippi.

"Dr David Bennett and I served as co-principal investigators on this \$US1.2 million project which evaluated microtunnelling, horizontal direction drilling, and cured-in-place pipe. This was more than just a research project as it was the beginning of a continued friendship with Dr Bennett.

"In more recent years, I am proud of how the trenchless leaders have joined forces with TTC to invest in constructing a state-of-art field training facility, the Barbera Education and Research Training (BERT) facility. This is directly related to the successful TTC Specialty School programs established during the past few years."

The seventh Utility Investigation School was conducted at TTC this past March, while the fourth five-day Auger Boring School will be conducted in November 2020 and will be able to use the BERT facility.

"Last year, the TTC Industry Advisory Board (IAB) voted to make me an honorary

member. As I relocate to my new role at Purdue, I plan to continue to support Dr Matthews and TTC," says Dr Iseley, adding that during the past several years the TTC and Purdue have partnered on several funded research projects.

FUTURE GOALS

"In my new role at Purdue, I am really looking forward to working with and mentoring undergraduate and graduate students as well as the CEM faculty. As the Beavers Heavy Construction Distinguished Fellow, I will be responsible for introducing students, especially the first and second year civil engineering students, to heavy construction including the trenchless technology industry," says Dr Iseley.

Mr Saleh Behbahani, one of Dr Iseley's PhD students and close assistants for the past six years, will be transitioning to Purdue as well as Dr Hongfang Lu, who will be working at Purdue as a Post-Doctoral. Dr Iseley says he will continue to be involved in research work at Purdue with both Mr Behbahani and Dr Lu being a major part of these efforts.

"My focus will be more on applied research where I can expand on my relationship with industry. I believe that I can assist industry developers of technical and management solutions of overcoming barriers of market entry and market expansion. This is often done through creative technology evaluation and validation programs," says Dr Iseley.

Dr Iseley will additionally take on a leadership role in the Purdue Engineering, Procurement, Construction, Operation and Maintenance (EPCOM) Centre of Excellence to facilitate rapid improvement of operational excellence for members and clients.

Dr Iseley says he will also continue his involvement and commitment to the trenchless industry through his leadership role with the Buried Asset Management Institute-International and the ASCE Utility Engineering and Surveying Institute. For more information, please contact Dr Iseley at diseley@purdue.edu