



# Trenchless Technology Center *Newsletter*

S E P T E M B E R 2 0 1 4

## Director's Vision: Advancing Industry Leadership

It is wonderful returning to the Trenchless Technology Center (TTC) after 20 years. I arrived at Louisiana Tech University (LA Tech) in 1988 from Purdue University with a vision for establishing an industry/university/government cooperative research center. I had seen how centers like this had provided much value for other industries. I was convinced that the underground utilities infrastructure industry needed a similar mechanism to advance trenchless technology principles and practices.

I have been asked many times "Why LA Tech?" It gets to the heart of commitment. Prior to accepting the position as an assistant professor of civil engineering, I had several phone calls and a meeting with Dr. Les Guice, Civil Engineering Department Chair; and Dr. Barry Benedict, Dean of the College of Engineering. They seemed to relate to my desire to start something that did not exist in an industry with little awareness in 1988. They made a commitment to work with me to make this vision a reality. Their support exceeded my expectations, and the TTC was established 1989. I am pleased to report that Dr. Guice is now president of LA Tech. Some of you will remember that trenchless publications he authored during the early days of TTC.

In 1994, I moved into a department chair position at the Purdue School of Engineering and Technology, IUPUI. This allowed me to continue my research activities on an international level with a strong focus on pipeline condition assessment. From 1998 until 2007, I moved out of the world of academia to focus on developing and commercializing advanced trenchless technologies. During this time, I was appointed by Commissioner Jack Ravan, Department of Watershed Management for the City of Atlanta, to serve as a senior advisor to establish what became the water asset management program, which gave birth to the Buried Asset Management Institute-International (BAMI-I). BAMI-I was selected for an EPA grant in 2006 to look at what water utilities need to develop and implement asset management programs.

In 2007, I moved back into academia at IUPUI where I continued to serve as the BAMI-I project manager for the EPA grant. This effort led to the development of the Certification of Training in Asset Management (CTAM) online training and certification program which has about 400 enrollees from 12 twelve countries.

On July 1, I had the opportunity to become the director of TTC. During the last 20 years, many advancements have occurred in the trenchless industry, and TTC has expanded. TTC has been blessed with excellent leadership. I am aware of the shoes that I must fill. Even though I have learned much during these 20 years by being exposed to technology development and commercialization, as well as being a member of the senior management team for a city challenged with the largest and most complex federal consent decree, I cannot accomplish TTC's potential without industry partners. It was the industry partners that got TTC started and kept TTC at the forefront through the years.



With my commitment to return to TTC, I am issuing a call for industry support. We need all sectors represented. We have about 45 organizations serving as active members of our Industry Advisory Board (IAB). Please consider getting your organizations involved. My vision is to see the IAB increase to about 100 in the near future. I have already been encouraged with several commitments at the full-member level even with firms based overseas.

When I think about the past, present and future of the trenchless industry, I am convinced that the need for TTC to expand its international leadership potential is essential. With all the trenchless work that has been done over the past 50 years, the trends are all moving in the wrong direction. When I consider the past, I describe it as dynamic and expanded rapidly; and I consider the present, it is even more dynamic and expanding even more rapidly; and when I consider the future, I can only see the trenchless industry being more dynamic and expanding much more rapidly. This will happen simply because the challenges facing our underground infrastructure industry are expanding at an increasing rate. For the most part, these challenges must be met by the trenchless industry. This drives the question as to whether the industry will be ready.

### TTC Going Forward

What does this mean for TTC? It means that the vision for TTC must continue to be dynamic and expand into a more comprehensive role. Every time that I walk through our multiple labs at TTC and see the work being done by our staff of technicians, research faculty and scientists, I get emotional because all of this work is being done with many industry partners working hard to expand their technical envelope or develop new technical solutions. This translates directly to industry dynamics required to meet future challenges. TTC has been doing this faithfully for almost 25 years. Dr. Shaurav Alam is on the LA Tech faculty and serves as the TTC research program director.

Where is TTC headed? TTC will continue to do what it has been doing to serve our industry partners and conduct research for governmental and professional associations. However, TTC will become more involved with the integration of technical solutions with the growing demand for increased awareness and support with comprehensive water asset management programs. This is being done through a merger of the BAMI-I CTAM program into the TTC operation. This initiative is being headed up by Dr. Ashik Islam. Dr. Islam is a TTC research associate and adjunct professor. He has already made tremendous progress with this transition. The CTAM program will be a partnership between BAMI-I, TTC and Benjamin Media Inc.

Why is the CTAM program important for TTC? TTC realizes that the advancement on this industry depends on innovation, valida-

tion and education. TTC has certainly made major contributions in the areas of innovation and validation. This continues on a daily basis. However, all of these contributions need to be integrated into an international education and certification program. This will allow TTC to continue to expand its leadership and meet industry needs.

How will TTC expand on its product validation efforts? When I returned to academia in 2007, I had a desire to get my students more engaged with the City of Indianapolis Department of Public Works. Through the efforts of John Morgan, who currently serves on our TTC IAB and many others, we developed a formal New Product Review (NPR) program designed to allow my students to conduct technical reviews and develop technical reports and presentations. Within a year, Fort Wayne, Ind., and Zionsville, Ind., joined this program. This program received much national and international interest. In discussing this program with multiple universities in North America, it was decided that a national and international program needed to be developed to accomplish the goal of rapid, accurate and thorough new product evaluations and validations. The Institute of Product Validation (IPV), a non-profit organization was established several years ago; however, no progress has been made until recently. TTC is starting to energize the IPV initiative.

The TTC challenge: visit [www.ttc.latech.edu](http://www.ttc.latech.edu) and learn more about TTC and how you can become engaged. For almost 25 years, the firms that join the IAB understand that it takes commitment (yes even financial commitment) to make big things happen. You firm is committed to being a leader, you need to be involved. When you go to that website, please check out how the Municipal Forums have transformed our industry with eight to 12 being conducted annually for 14 years. Be sure to check out the most comprehensive library dedicated to trenchless technology. After you have studied the website, make plans to visit the TTC and see for yourself the largest lab space ever dedicated to our industry.

## Trenchless Technology Center (TTC) Researchers Participate in the HDPE workshop

On Aug. 21, a group of research professors and graduate students from the Trenchless Technology Center (TTC), Louisiana Tech University participated in the HDPE workshop in Shreveport, La. At the beginning of the workshop, Peter T. Dyke, the executive director of the Alliance for PE Pipe (event organizers), welcomed the TTC delegation and emphasized the importance of professors and students participating in industry roadshows and workshops.

The participants were able to see physical models and samples of parts, connections, fittings and transitions. Also, live fusion demonstrations and training were exhibited. Five presentations from 7:30 a.m. to 1 p.m. were presented on "Features and Benefits



From left to right: Dr. Arun Jaganathan, Dr. Shaurav Alam, Yu Yan, Ms Xiaonan Wu, Dr. Tom Iseley, Dr Ashikul Islam, Xuanchen Yan and Saleh Behbahani.

of HDPE Pipe," "Pipe Bursting," "Pipe Fittings, Transitions & Repair," "Manager Accountability" and "An Engineer's View - In Depth." During the workshop, there were discussions related to design issues, service life, test methods, etc. for HDPE pipe. After the workshop, TTC director Dr. Tom Iseley discussed future cooperation related to HDPE materials and test methods between TTC and the Alliance for PE pipe.

## Industry Advisory Board

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September 2014

### Trenchless Technology Center

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The TTC Newsletter is published as a department within *Trenchless Technology*. All newsletter materials are prepared by TTC. Communications should be directed to the center.