

CUIRE Laboratory Receives a 330-kip Actuator

In February, CUIRE purchased a 330-kip actuator from MTS Company for its soil box testing of underground pipes. This actuator will be used for the NCHRP SAPL Project to develop structural design methodology for Spray Applied Pipe Liners (SAPLs) in gravity stormwater conveyance conduits through actual size soil box testing.

This project is led by the Ohio Department of Transportation (DOT) with participation of six other state DOTs (Delaware, Florida, Minnesota, New York, North Carolina and Pennsylvania). After completion of testing, a set of design equations for both rigid (cementitious and geopolymer) and flexible (polyurethane and polyurea) will be developed. Additionally, the CUIRE team will prepare SAPL performance specifications.

For more information on participation in this important project, please call CUIRE at (817) 272-9177 or email CUIRE@UTA.EDU.

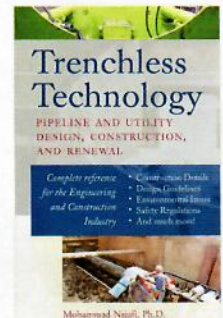


Najafi to Receive TTC's Distinguished Alumni Award

In its 30th year of operation, the Trenchless Technology Center (TTC) at Louisiana Tech University has decided to award the first Distinguished Alumni Award to Dr. Mo Najafi, director of CUIRE.

This inaugural award is based on the recommendation of the TTC's Industry Advisory Board (IAB). Najafi completed his doctoral degree in May 1993 under the supervision of Dr. Tom Iseley, then director of the TTC and professor of civil engineering at Louisiana Tech.

Najafi was the first doctoral graduate of TTC, as well as the first known graduate with a focus in trenchless technology, as he completed his dissertation on development and evaluation of a new propulsion system for microtunneling. He will be honored at a dinner on Oct. 23 at the annual TTC IAB Meeting in Ruston, La.



Trenchless Book Goes Into 2nd Edition

The most comprehensive and popular trenchless technology book available today, published in 2005 by McGraw-Hill, goes into its second edition in late 2020. The new edition will include the latest methods and materials for trenchless pipe installation, renewal and replacement, as well as hybrid methods, such as direct pipe and pilot tube. Design and construction considerations will be included. For more information and to include new technologies, contact CUIRE at (817) 272-9177 or email CUIRE@UTA.EDU.

No Dig India Show 2019

No Dig India Show (NDIS) 2019 will discuss core issues where trenchless technology can provide sustainable solutions for underground space, a most vital asset for any smart city and smart society. NDIS 2019 will be held Dec. 11-13 at Aerocity, New Delhi, India.

CUIRE is proud to be a Sector Partner of NDIS, which has the theme of Sustainable Underground Development through trenchless technology. CUIRE will assist the U.S.-based trenchless consultants and trenchless companies in offering their services in the Indian market through the conference presentations, product and service display and meetings.

CUIRE will also assist U.S.-based companies, who do not have Indian presence, in expanding their business horizons in Southeast Asia and India, and to assist with the growth of trenchless industry in these growing areas. Interested persons may contact Dr. Mo Najafi, CUIRE Director at cuire@uta.edu or (817) 272-9177 for further details.



CUIRE Holds Annual Conferences

CUIRE Schools at UCT

CUIRE held its 17th annual trenchless technology inspector training and certification schools on Jan. 28–29, at the Fort Worth (Texas) Convention Center in conjunction with the Underground Construction Technology (UCT) conference.

This year's program included two sessions focused on geotechnical, advanced HDD and a pipe school. In addition, half-day pilot tube and microtunneling, and pipe lining and renewal courses were offered.

There were 63 professionals attending these courses. The instructors were industry experts and included CUIRE board members and friends.



CUIRE Research Team with UCT Organizers

First Annual

UESI Conference

On March 11–12, CUIRE teamed up with the Texas Chapter of the Utility Engineering and Surveying Institute (UESI) of ASCE to hold its first annual UESI conference in Texas. More than 250 professionals, in addition to 30 exhibitors and 18 sponsors, attended this conference. Sessions were divided into four tracks of Utility Engineering and Specialization I and II, Surveying and Pipelines. A reception was held on the evening of March 11 at the exhibit hall and more than 70 people attended this event.

TTP 2019

On May 22, the South Central Chapter of NASTT (SC-NASTT) and CUIRE held the fourth Trenchless Technology and Pipe Conference (TTP 2019) at the University of Texas at Arlington (UTA) campus, with more than 150 people attending. The sessions were divided into three tracks: new installations, renewal and replacement, and geotechnical impacts of pipeline installations.

At the beginning of the conference, a plenary session was held with welcome presentations by Alan Goodman, president of SC-NASTT, Dr. Mo Najafi, CUIRE director, Dean Peter Crouch, UTA College of Engineering, Dr. Ali Abolmaali, chair of Civil Engineering and Michelle Hill, NASTT Program Director.

Three student scholarships of \$2,500 each, were awarded by SC-NASTT. Travis Andrews, assistant water director for Fort Worth presented a keynote regarding the city's trenchless projects.

Upon completion of above events, attendees received a certificate of completion and a PDF copy of all presentations on a USB drive. For more information on future events, call CUIRE at (817) 272-9177 or email cuire@uta.edu or visit www.cuire.org.



TTP 2019 Organizers with Scholarship Recipients



NASTT Student Chapter Members Visit Dallas Tunneling Site

In May, 42 construction engineering and management students, and members of the North American Society for Trenchless Technology Student Chapter at the University of Texas at Arlington (UTA) visited the construction site for the Mill Creek Tunnel in Dallas. This 37-foot-diameter storm tunnel is being built by the city of Dallas and the contractor is Southland Contracting. The lead construction manager and consultant is Black & Veatch Corporation.

The specifics of tunnel include:

- Length: 5 miles
- Depth: 120 to 180 feet
- Tunnel Bore: 32.6 to 37.6 feet
- Tunnel Excavation: 1,100,000 CY
- Geology: Austin Chalk
- Final Lining: 30 to 35 feet inside diameter with 15-inch thickness cast-in-place concrete
- Shafts: 7 total, 12.5 to 40-foot finished diameter
- Dewatering Pump Station: 30,000 gpm capacity
- Construction Cost: Approximately \$207,000,000

The 14th Annual Trenchless Technology Class is Offered

This summer, the 14th annual trenchless technology and pipeline construction course was offered at the University of Texas at Arlington. With more than 50 construction engineering and management, and senior civil engineering student registering, the weekly class began June and was completed in early August.

The book by Najafi and Gokhale, *Trenchless Technology: Pipeline and Utility Design, Construction and Renewal*, published in 2005 by McGraw-Hill, was used as a textbook. Dr. Najafi is the main instructor for the course with support and guest lectures from CUIRE board members and friends, including Board Members of the North Texas Underground Construction Technology Association (NT-UCTA). For more information, please contact CUIRE at (817) 272-9177 or CUIRE@UTA.EDU.

Topics covered in this course include:

- Overview of Trenchless Technology
- Pipeline Asset Management, Inspection and Cleaning
- Design Considerations for Trenchless Pipeline Construction Methods (TCMs)
- Design Considerations for Trenchless Pipeline Renewal Methods (TRMs)
- Pipe Materials
- Horizontal Auger Boring
- Pipe Ramming
- Pipe Jacking and Utility Tunneling
- Horizontal Directional Drilling
- Microtunneling Methods
- Pilot Tube
- Cured-in-Place Pipe
- Sliplining
- Close-fit Pipe
- In-line Replacement (Pipe Bursting)
- Lateral Renewal
- Modified Sliplining
- Localized Repairs
- Coatings and Linings (Spray Applied Pipe Linings/Spray-in-Place Pipe)
- Manhole Renewal

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