



CENTER FOR UNDERGROUND
INFRASTRUCTURE
RESEARCH AND EDUCATION



NORTH AMERICAN SOCIETY FOR
TRENCHLESS TECHNOLOGY



UNIVERSITY OF TEXAS AT ARLINGTON
NASTT STUDENT CHAPTER

ABSTRACT

NASTT – UTA Student Chapter is to advance the knowledge of Trenchless Technology and its applications by research and industry practices followed among the student community of the University of Texas at Arlington.

**Dr. Mohammad
Najafi, P.E; F.
ASCE**

Faculty Advisor

- **OUTLINE: - NASTT – Student Chapter UTA**

The objective of NASTT- Student chapter at UTA is to train graduate and undergraduate students in the field of Trenchless technology and to provide educational outreach programs through the field trips. We at UTA host the industry experts as our guest speakers to introduce the industry practices among the students.

With our dedicated student members in the organization we would like to provide you with an insight of the practices and the accomplishments from past 12 years starting from Fall 2006 with the help of this report. And why NASTT - UTA wants to be a part of the the next upcoming event of the NASTT's 2019 NO – Dig Show at Chicago, IL.

Dr. Mohammad Najafi, P.E., F. ASCE

Advisor

Dr. Mohammad Najafi, P.E., F. ASCE, is Director of the Construction Engineering and Management Area and Director of the **Center for Underground Infrastructure Research and Education (CUIRE)** at the **Department of Civil Engineering** at **The University of Texas at Arlington**.

Dr. Mohammad Najafi, P.E., F. ASCE, is Director of the Construction Engineering and Management Area and Director of the **Center for Underground Infrastructure Research and Education (CUIRE)** at the **Department of Civil Engineering** at **The University of Texas at Arlington**.

He is founder and Editor-in-Chief of **ASCE Journal of Pipeline Systems**.

Dr. Najafi is an author and co-author of many publications and manuals of practices, one of his the recognized books includes the "**Trenchless Technology Planning, Equipment, and Methods**" "**Trenchless Technology Piping: Installation and Inspection**," published in 2010 by McGraw-Hill, and "**Trenchless Technology: Pipeline and Utility Design, Construction and Renewal**," published in 2005 by McGraw-Hill.

Faculty advisor and board member of **Underground Construction Technology Association (UCTA)**, and a **No-Dig Program Committee** member of the **North American Society for Trenchless Technology (NASTT)**.

With his active industry experience and current research activities in this field the student community is well to be said in the right hands as the advisor for the NASTT student chapter UTA.

Following are the current officers of the NASTT Student Chapter – UT Arlington organization:

- President: Vijay Thakkar
- Vice President: Nikhil Pudale
- Secretary: Dhawani Shah
- Treasurer: Vinayak Kaushal

- **NO – Dig Show:** -

- 2017: - Washington, D.C; April 9th – 13th, 2017
NASTT – UTA had the largest number (#30) of student attendees along with faculty advisor Dr. Najafi.
- 2018: - Palm Springs, CA
NASTT – UTA secured 3rd place at the No – Dig show 2018 for the student chapter presentations. No of student attendees – 20.

- **Student Chapter Meetings:** -

- Recently we had a guest speaker Mr. Ronald Weniek from IKT (Institute for Underground Infrastructure) from Germany.
- Hosted Mr. Mark Wade from Bluewater Solutions Group Inc., as a guest speaker.

- **Education:** - **Trenchless Technology Class**

- Until now, more than 850 students have taken this course here at UTA.
- In Fall 2017 two Ph. D students graduated in December 2017 focusing on Trenchless Technology.

- **Outreach:** -

- **The Second Trenchless Technology and Pipeline Conference (TTP)**
The University of Texas at Arlington, June 20, 2017
- This event was sponsored by South Central Chapter of NASTT
- Technical Sessions were held in two sections:
 1. Pipeline New installations
 2. Pipeline Renewal, Rehabilitation and Replacement.
- 25 Companies exhibited their works and products and had 150 attendees.
- The various aspects of this workshop were:
 1. Soil Pressures and other geotechnical considerations
 2. Soil Compaction, foundation and bedding
 3. External Loads on buried rigid and flexible buried pipes
 4. Structural Design Rigid and Flexible Buried Pipes
 5. Trenchless Technology Rehabilitation/Renewal/Replacement
 6. Pipeline Foundation, Bedding, Embedment and Backfill
 7. Acceptance and Inspection
- **American Society of Civil Engineers Conference – ASCE 2017 Phoenix, AZ, August 6 - 9, 2017.**
Promoting Dr. Najafi’s book “*Trenchless Technology Installation and Inspection.*”

- **International Conference on Pipelines and Trenchless Technology – ICPTT 2017. Wuhan, China October 18th – 21th, 2017**
- **CUIRE School in Conjunction with UCT 2018 New Orleans, LA, January 29 - February 1, 2018**
- **CUIRE held 7 Trenchless Technology Training and Certification Schools**
 1. Geotechnical School:
 2. Pilot Tube and Micro Tunneling School.
 3. Pipe School
 4. Pipe Lining and Renewal School
 5. Advanced HDD School.

- **Field Visit:**
 - TxDOT – Highway 360 Construction – Mansfield, Texas

- **Research:**
 - **Evaluation of Potential Release of Organic Chemicals in the Steam Exhaust and Other Release Points during Pipe Rehabilitation using the Trenchless Cured-In-Place Pipe (CIPP) Method.**
 - **Structural Design Methodology for Spray Applied Pipe Liners in Gravity Storm Water Conveyance Conduits**

- **Conclusions:**
 - NASTT Student Chapter at UTA is one of the most active student associations among NASTT student chapters.
 - Now it has more than 45 student members.
 - The students are introduced to trenchless technology by classroom instructions, field trips, and guest speakers.