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Attention Board Members
If you have a story about your products, services, or projects, please e-mail it to us and we will do our best to include it in future issues of Currently at CUIRE.

2009 Fall CUIRE Board Members
The CUIRE Board is the backbone of our organization, and we would like to recognize them for all their support and dedication.

Chris Brahler
Ralph Carpenter
Robert Carpenter
George Davis
Mark Dionise
Siggi Finnsson
Troy Freed
Bruce Kuffer
Dan Liotti
Joe Lundy
John Matthis
John Morgan
Mohammad Najafi
Gary Natwig
Lynn Osborn

TT Technologies, Inc.
AMERICAN Ductile Iron
Underground Construction
Missouri DOT
Michigan DOT
Digital Control, Inc.
WRSCOMPASS
Plastic Pipe Institute
Midwest Mole, Inc.
Hanson Pipe & Precast
UT Arlington
CANTEX
UT Arlington
3M Water Infrastructure
Insituform Technologies, Inc.

From the Director
Dear Colleagues and Friends,

As 2009 draws to a close, I would like to wish you a happy holiday season and thank you for your continued support to CUIRE, the only known industry, government, university association to cover research, education, and outreach services in all areas of underground infrastructure construction and renewal. We appreciate your contributions to CUIRE at this challenging time, and try our best to advance the science and disseminate new technological breakthroughs in the area of civil and construction engineering.

This newsletter provides you with updates on some of our activities. We would like to invite you to attend a special CUIRE meeting on Friday, May 28, 2010, 8:00 AM – 4:00 PM, in CUIRE headquarters at UT Arlington. During the meeting, we will update you on our past and current activities, and seek your feedback for future plans and directions. This meeting will be in conjunction with 50th anniversary of UT Arlington College of Engineering. During the meeting we recognize those of you who have been instrumental in foundation and growth of CUIRE. Please email me any suggestions for the meeting agenda.

On behalf of our students, associate faculty and all of us at CUIRE, thank you again and we look forward to being working with you in the coming year!

Warm Regards,

Mohammad Najafi
CUIRE Director
najafi@uta.edu

For More Information Regarding CUIRE: www.cuire.org
CUIRE Sponsors Pipelines and Trenchless Technology Conference in Shanghai, China

On October 19th through 21st, 2009, Center for Underground Infrastructure Research and Education (CUIRE) at the Department of Civil Engineering sponsored the first International Conference of Pipelines and Trenchless Technology (ICPTT) held at the Regal International East Asia Hotel in Shanghai, China, (www.icptt.org). CUIRE, under a grant from the U.S. National Science Foundation (NSF), joined forces with the Pipeline Division of American Society of Civil Engineers (ASCE), the China Society for Trenchless Technology, and China-U.S. Joint Center for Trenchless Research & Development (CTRD), to provide a world forum for 80 oral presentations and poster discussions of 227 papers published in the ICPTT Proceedings. The conference theme was ‘Advances and Experiences with Pipelines and Trenchless Technology for Water, Sewer, Gas, and Oil Applications.” This conference was a resounding success with more than 350 participants and over US $7 millions business transactions at this first ever historic event in China. Dr. Mohammad Najafi, Assistant Professor of Civil Engineering and Director of CUIRE, was the co-chair of the conference and also technical co-chair and editor. During ribbon cutting ceremonies, Dr. Najafi introduced the inaugural launch of the Pipeline Division’s new quarterly Journal of Pipeline Systems (JPS) in early 2010 and requested submission of possible Journal papers from ICPTT participants.

The technical program was a balance of pipeline oil, gas and water/sewer related scientific and practice presentations focusing on asset management, geographic information systems, corrosion analysis, planning, design, and construction, hazard inspection, and risk management. “The evolution of trenchless products, processes, and projects and critical infrastructure issues were a highlight of the many speakers” says Najafi.

CUIRE to Offer Three Trenchless Technologies Certification Schools

CUIRE will offer three trenchless technologies certifications schools on Sunday and Monday, January 17-18, 2010 in Tampa, Florida, in conjunction with Underground Construction Technology (UCT) 2010. The schools that will be offered are "Advanced Horizontal Directional Drilling (HDD) School", "Trenchless Technology Pipe Lining, Renewal & Replacement Methods", "Trenchless Technology New Construction Methods". "Advance HDD School" will present planning, contract and specifications, alternative project delivery methods, old & new pipe site investigations, QA, QC, new equipment & methods, and case studies. "Trenchless Technology New Construction Methods” will present an overview of different new installation technologies, planning, design, and construction concepts, contracts, specifications and inspection issues, application assessment, geotechnical and site investigations, QA/QC, alternative project delivery methods, new equipment & methods, and case studies.


New Manuals from ASCE

**CUIRE Receives a Second Phase to Existing Research Grant from 3M**

With U.S. water infrastructure expenditures expected to reach billions of dollars annually, 3M in cooperation with the Center for Underground Infrastructure Research & Education (CUIRE) at the Department of Civil Engineering, is developing a new water pipe renewal product. The first phase of this research contract was awarded in March 2009, and the second phase was announced on July 31, 2009. The cooperation between 3M and CUIRE includes development of design and construction guides, specifications, short term and long term testing and field evaluations for the new spray-on structural enhancement product in final stages of development. The contract will be awarded in different phases, and expected to reach hundreds of thousands of dollars in multiple years. Dr. Najafi is the principal investigator of this important research program.

**Testing of Bulldog Restraint Joint System for Trenchless Applications**

In past year, CUIRE has conducted pipe testing for different pipe manufacturing companies at its new laboratory facility at the University of Texas at Arlington. Tests for various strength parameters of different pipes and their joints have been conducted. Bulldog Restraint Joint System (BRJ) for PVC pipes are being tested for use in trenchless applications. PVC pipes assembled with BRJS have been tested for axial tensile loads. Results and reports are available at www.cuire.org. The tests will continue with axial tensile tests of larger diameter pipes and also simultaneous bending and axial loads.

**Preparation of a Manual of Practice for Potable Water Pipeline Renewal Methods**

On November 17, 2009, CUIRE hosted the first meeting for preparation of manual of practice at the Civil Engineering Laboratory Building at UT Arlington. The topic of renewing potable water pipelines was brought up at the PINS meeting during the ASCE Pipelines Conference 2009 in San Diego. A task committee was formed to look into writing a Manual of Practice on this topic. Mario Perez (3M) was elected as the task committee chair. Among the attendees of the first meeting were Leonard Assard (Heitkamp), Luc Lupien (Sanexen), Dudley Primeaux II (Primeaux Associates), Jim Scott (Aquapipe), Steve Leffler (Sekisui NordiTube), Ralph Carpenter and Richard Bonds (American Ductile Iron Pipe, Richard made it to Arlington but was ill for the meeting), Lynn Osborn (Insituform), Dr. Mohammad Najafi, Abhay Jain, Mustafa Kanchwala and Trupti Kulkarni (CUIRE), Gary Natwig and Mario Perez (3M). Table of contents for the MOP was discussed and tasks were assigned. The next meeting was proposed to be held at UCT 2010, Tampa, Florida.

**Midwest Mole (CUIRE Board Member) Announces a Redesigned Website**

Midwest Mole, Indianapolis based leader in trenchless technology, unveils a new company website. The new website will feature industry information, company news and events, with a focus on services that they offer. The 27 year old, family-owned company has grown and changed from a small local firm, to one of the recognized leaders in the boring, jacking and tunneling industry as well as other various trenchless technology services. In June 2009, they announced their rebranding and now they intend to go further by offering an advanced interactive website. The rebranding initiative serves to convey their expanded services and territory, with a commitment to their roots and to the trenchless industry.

The website features a plan room for easy access to bidding information, services offered with large pictures to view, About section highlighting their employee and company story, Links to the industry, news/events on the company, a safety page to offer information on their safety standards and awards, a photo gallery that will showcase different services and locations, request a quote and contact to make contacting them easier, a newsletter sign up section, and view special videos on jobs and events that they have completed. “The company website needed to be more user-friendly and showcase what services we have to offer” said Dan Liotti president of Midwest Mole. “Please visit our website and see for yourself the advanced features it has to offer.” (The website was created by MLT Group, located at Rochester, MN).

**Pam Salvador Receives 2009 Texas Engineering Foundation Graduate Scholarship**

Pam Salvador, a graduate student in Construction Engineering & Management, recently received the 2009 Texas Engineering Foundation Graduate Student Scholarship. The $2,000 scholarship was well contested, and will be presented to Pam in Fall 2009. Pam received her undergraduate degree from the CE Department. She has been outstanding student in terms of her academic and extra-curricular achievements. Pam’s extra-curricular activities included Toastmasters, Chi Epsilon, Tau Beta Pi, SHPE and ASCE. Pam also received various student awards. Pam has been recognized as a good team player as an full time employee at Half Associates.

**About Midwest Mole**

Founded in 1982 by Len Liotti, Midwest Mole has become an established leader in the trenchless technology industry. Committed to safety, quality and customer satisfaction, their reputation boasts reliable, efficient and state-of-the-art trenchless services. After more than 27 years of service they are still one of the best in their field.

With services ranging from boring and jacking to tunneling and rehabilitation, Midwest Mole is recognized as one of the "Best Places to Work" in Indiana. Their focus on their employees has allowed them to build a staff with more than 450 years of industry experience insuring projects of all sizes are done efficiently, promptly and above industry standards.

For more information on Midwest more please visit www.midwestmole.com or call 1-800-274-MOLE, or e-mail: info@midwestmole.com.
Dr. Henry Liu, president of Freight Pipeline Company in Columbia, MO, passed away Tuesday, December 1. A fatal one-car crash took his life but not his legacy. He will be remembered among those of us who advocate underground freight transportation through research and development as a pioneer in the field.

Dr. Liu had Ph.D. and M.S. degrees in Civil Engineering from the Colorado State University and B.S. in Agricultural Engineering (Hydraulics) from the National Taiwan University. Dr. Liu had more than 37 years of teaching, research and development experience in civil engineering specifically serving the pipeline and underground infrastructure industry. He was an emeritus professor of civil engineering and founder and past director of the Capsule Pipeline Research Center at the University of Missouri—Columbia. He served as president of the Freight Pipeline Company in Columbia, Missouri. He was recognized as a world-renowned authority and leader in the field of pipeline engineering. He had authored three recognized books and more than 50 journal (refereed) research papers and more than 150 conference papers. He was a recipient of major research grants (totaling more than six million dollars) from federal, state and private agencies, such as the U.S. National Science Foundation and Department of Energy. He was a patent holder for more than 13 inventions.

Dr. Liu was a recipient of many awards, especially the prestigious Stephen D. Bechtel Pipeline Engineering Award in 1992. He organized and chaired many national and international conferences, short courses and was a frequently invited and keynote speaker for professional events. He was founder and chair of International Society for Underground Infrastructure Research and Education (CUIRE) in the Department of Civil Engineering at the University of Texas at Arlington. He has more than 28 years of experience of being a project manager and engineer, researcher, and consultant at numerous multi-million projects, research, and consulting assignments. Dr. Najafi is also a productive writer, who authored books such as "Trenchless Technology: Pipeline and Utility Design, Construction and Renewal" and published more than 100 papers and several manuals about trenchless technology.


CUIRE Remembers Dr. Henry Liu (1936-2009)

Dr. Henry Liu, president of Freight Pipeline Company in Columbia, MO, passed away Tuesday, December 1. A fatal one-car crash took his life but not his legacy. He will be remembered among those of us who advocate underground freight transportation through research and development as a pioneer in the field.

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