



IACIP NEWSLETTER ISSUE 2

Greetings from IACIP

Warm greetings and best wishes for Christmas
and the New Year!

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Awards

International Award for Innovation in Unsaturated Soil Mechanics



Drs. Xiong Zhang, Lin Li, Gang Chen and Robert Lytton received the International award for innovation in unsaturated soil mechanics, recognizing their outstanding contribution to the development of a photogrammetry-based method to measure total and local volume changes of unsaturated soils during triaxial testing.

This innovation was led by Prof. Zhang during his tenure at the University of Alaska – Fairbanks. The award was presented at E-UNSAT in September 2016 by the Technical Committee on Unsaturated Soils in International Society of Soil Mechanics and Geotechnical Engineering (ISSMGE). Prof. Zhang is also one of the board members of IACIP.

(Photo for the ceremony, Left: Dr. Xiong Zhang; Right: Dr. David Toll, the Chair of TC 106 Committee on Unsaturated Soil Mechanics of ISSMGE)

2017 ASCE Martin S. Kapp Foundation Engineering Award



Dr. Han has been informed to receive the 2017 Martin S. Kapp Foundation Engineering Award from the American Society of Civil Engineers (ASCE).

The Martin S. Kapp Foundation Engineering Award is a memorial in recognition of the outstanding professional accomplishments of Martin S. Kapp, F.ASCE. This award is given to an individual on the basis of the best example of innovative or outstanding design or construction of foundations, earthworks, retaining structures, or underground construction. Dr. Han is the first and only Chinese receiving this award since the establishment of this award for more than 40 years.

Design and Construction Group Practice-Ready Paper Award for 2016

Mehari T. Weldu, Jie Han, Sayed Mustapha Rahmaninezhad, Robert L. Parsons, Jamal I. Kakrasul, and Yan Jiang was notified to receive the design and construction group practice-ready paper award of 2016. Their TRB paper number 16-4760, *Effect of Aggregate Uniformity on Pullout Resistance of Steel Strip Reinforcement* was presented at the 2016 TRB Annual Meeting, and published in the 2016 Transportation Research Record Volume 2579, Geological, Geoenvironmental, and Geotechnical Engineering, Vol. 2. Their paper was reviewed by the Standing Committee on Transportation Earthworks (AFS10) and nominated for award consideration by the Geotechnical Engineering Section (AFS00). Upon further review the Design and Construction Group selected their paper to receive the Design and Construction Group Practice Ready Paper Award for 2016.

The Practice Ready Paper Award certificate will be presented by a representative of the Design and Construction Group at the Transportation Earthworks (AFS10) Committee meeting during the TRB Annual Meeting in January, 2017.

Awards

Best Conference Paper Award

The paper by Jiale Li, Ph.D Candidate and Xiong (Bill) Yu, Professor and IACIP Vice President, "Feasibility studies to integrate renewable energy sources and electric vehicles into smart grid based on a microsimulation", received the best paper award at the 2016 IEEE Energy Tech Conference.

News

Prof. Kelvin Wang became the president of the Transportation and Development Institute



Professor Kelvin C.P. Wang (王彬平), Gilbert, Cooper, and W&W Steel Chair at Oklahoma State University and board member of IACIP, has become the president of the Transportation and Development Institute (T&DI) of the American Society of Civil Engineers (ASCE) since October, 2016. The T&DI has 16,000+ members and a mission of promoting the welfare and status of transportation and development professional and advancing the state-of-the-art and state-of-the-practice of planning, design, construction, operations, maintenance, and research in support of sustainable transportation and development. Professor Wang is known in the transportation infrastructure community for his innovations in automated distress technologies. He also serves as a 1000-talent adjunct chair professor at Southwest Jiaotong University in China.

Xiong "Bill" Yu named a fellow of the American Society of Civil Engineers

Xiong "Bill" Yu, professor of civil engineering, Case Western Reserve University and Vice President of IACIP has been elected to fellowship in the American Society of Civil Engineers (ASCE). ASCE fellows are elected for celebrated contributions and developed creative solutions that change lives around the world. It is a prestigious honor held by fewer than 3.5 percent of ASCE members. Yu was recognized for his research contributions to the design and application of innovative sensors and geophysical technologies to assist civil engineering research and practice, particularly, the innovative applications of time domain reflectometry principles as a sensing platform to understand the fundamental properties and processes in soils and concrete that affect their performance and durability. Yu is also recognized as a pioneer in the development and applications of structural health monitoring technologies for pavement, bridges and other civil infrastructure.

News

Computer model to help cities maintain drinking water infrastructure

A team led by Xiong “Bill” Yu, professor of civil engineering, Vice President of IACIP and involved Dr. Xianming Shi, member of IACIP board and Chair of IACIP Fund Raising Committee, is creating a computer model to help cities make the right decisions when it comes to drinking water. Funded by Critical Resilient Interdependent Infrastructure Systems and Processes grants from the National Science Foundation totaling \$2.5 million, the researchers will build a model that integrates the effects of water-related decisions on residents and businesses, including health implications—not just on costs to the water authority.

Students received innovation grants

Yang Yang, Ph.D. Candidate in Electrical Engineering and Jiale Li, Ph.D. candidate in Civil Engineering, both under the supervision of Dr. Xiong (Bill) Yu, Professor and IACIP Vice President, have both received the 2016 Sears Student Project Fund. The \$2,500 grants each are awarded to support innovative endeavors by undergraduate and graduate students based on University wide competition at CWRU. Yang plans to use the grant for prototyping innovative integrated sensor system for gesture monitoring. Jiale plans to use the award for prototyping an innovative blade structure.

Webinar

Planning and Preparation for an Academic Career (II)

Presenters

Zhanping You, Ph.D., P.E., Professor, Michigan Technological University (Moderator)

Jie Han, Ph.D., P.E., ASCE Fellow, Professor, University of Kansas

Jenny Liu, Ph.D., P.E., Professor, University of Alaska Fairbanks

Linbing Wang, Ph.D., P.E., Professor, Virginia Polytechnic Institute

Time

Tuesday, November 15th, 2016

9:30 - 11:00 AM Alaska Time

Abstract

As the second webinar on Planning and Preparation for an Academic Career hosted by CESTICC and International Association of Chinese Infrastructure Professionals (IACIP), this webinar focused on the process of preparation and application for academic jobs. Attendees joined a panel composed of a group of renowned professors in civil engineering programs to gain insight on the academic jobs and what they need to know during their preparations. The panel gave an overview of academic job application process, and share experience and thoughts on how to prepare your application package and how to get ready for interviews.

Highlights of Dr. Xianming Shi



Dr. Xianming Shi, P.E., a Member of IACIP Board of Directors, has spearheaded research related to understanding and mitigating the potential risks posed by the use of chemical deicers. His research has been widely covered in national and regional news media, such as Time, NPR, Scientific American, USA Today, The Washington Times, The Seattle Times, LA Times, CBS News, H2O Radio, KLEW TV, etc. In collaboration with Dr. Xiong (Bill) Yu at Case Western Reserve University and others, Dr. Shi was recently awarded a project sponsored by the National Science Foundation, entitled "CRISP Type 2/Collaborative

Research: Multi-Agent Sustainable Water Decision Theory (MUST): Nexus of Water, Road, and Hierarchic Social Contractual Systems", in which his team will focus on modeling the fate and transport of road deicers in the surrounding environment and the subsequent implications to the integrity of underground water pipes.

In 2016, Dr. Shi's group has published a few papers on such topics, most of which were funded by the State Departments of Transportation and the Center for Environmentally Sustainable Transportation in Cold Climates (CESTiCC). Dr. Shi's publications can be found at his webpage:

<https://ce.wsu.edu/faculty/shi/>.

Conference and Workshop



The 2017 ICTIM Conference

The 2017 ICTIM conference will be held in Qingdao, China from June 9 to 12, 2017, which is jointly organized by IACIP and the Qingdao University of Technology (QUT) and co-sponsored by TRB and ASCE. This ICTIM will cover a broad range of topics related to transportation infrastructure and materials.

The conference has received 250 abstracts and more than 110 full paper submissions until 12/15/2016. Full paper submission will be reviewed and accepted until 2/15/2017. The conference proceeding will be submitted to EI for possible citation and selected papers after revision will be recommended to journals for possible publication. Keynote speakers in the areas of geotechnical and geoenvironmental engineering, pavement material, and infrastructure monitoring will deliver presentations in the opening lectures of conference.

Workshop and Conference

The 7th IACIP Annual Workshop Program (Part I)

Date	Sunday Jan 8, 2017 from 8:00 AM to 5:30 PM
Location	Shaw (M3) / Marriott Marquis, near the Convention Center at 901 Massachusetts Avenue, Washington, D.C.
8:00 – 8:20	Registration, Posters (Moderators: Dr. Zhen Liu and Dr. Shenghua Wu) Assisted by: Gang Xu, Mehdi Honarvarnazari, Siyu Chen
8:20 – 8:30	Conference Opening by Dr. Xianming Shi, Chair of IACIP Annual Workshop <ul style="list-style-type: none"> • Welcome everyone • Acknowledge the sponsors of the annual workshop • Introduction of Dr. Jie Han, President of IACIP
8:30 – 8:40	Dr. Jie Han, President of IACIP <ul style="list-style-type: none"> • Welcome everyone • Summary of his term • Introduction of Dr. Chung Wu, new President of IACIP
8:40 – 8:50	Dr. Chung Wu, new President of IACIP <ul style="list-style-type: none"> • Plan for the new Board of IACIP • Introduction of Dr. Kelvin Wang, President of ASCE T&DI
8:50 – 8:55	Dr. Kelvin Wang, President of ASCE T&DI <ul style="list-style-type: none"> • Introduction of ASCE T&DI
8:55 – 9:20	Keynote Speaker (Moderator: Dr. Chung Wu) Dr. Zhanmin Zhang, The University of Texas at Austin, “An Innovative Approach to Cross-asset Resource Allocation for Transportation Asset Management”
9:20 – 9:45	Posters Session (Moderators: Dr. Qingli Dai and Dr. Shihui Shen)
9:45 – 10:55	Session I: Behavior, Durability and Recycling of Asphalt Pavement (Moderators: Dr. Shenghua Wu and Dr. Zhen Leng) <ul style="list-style-type: none"> • Dr. Qingli (Barbara) Dai, Michigan Technological University, “Multiscale and Multiphysical Behaviors of Designed Asphalt Materials” • Dr. Nanxiang Zheng, Chang’An University, “Rutting Prediction Model of Semi Rigid Asphalt Pavement Based on Accelerated Loading Test” • Dr. Jenny Liu, University of Alaska, Fairbanks, “Critical Low Temperature, from Asphalt Binder to Mixture” • Dr. Jinhai Yan, JSTI Group, “Early-age strength and long-term performance of asphalt emulsion cold recycled mixes with various cement contents”

The 7th IACIP Annual Workshop Program (Part II)

<p>10:55-12:20</p>	<p>Session II: Sustainable Asphalt Pavements (Moderators: Dr. Xianming Shi and Dr. Feipeng Xiao)</p> <ul style="list-style-type: none"> • Dr. Wei Zhou, JSTI Group, "Study on the void reduction behavior of porous asphalt pavement based on discrete element method" • Dr. Hainian Wang, Chang'An University, "Comprehensive Performance Evaluation of SBS Modified Bio-asphalt Binders and Mixtures" • Dr. Zejiao Dong, Harbin Institute of Technology, "Comprehensive Performance Evaluation and Improvement Comparison of Asphalt Binder Blended with Multi-Source Bio-Asphalt" • Dr. Kun Zhang, Washington State University, "Numerical Investigation of Dry and Wet Mixing Processes to Improve the Performance of RAP Mixtures" • Dr. Shihui Shen, Pennsylvania State University, "Long-term Field Aging of Warm Mix and Hot Mix Asphalt Binders"
<p>12:20 – 1:35</p>	<p>Lunch Break</p>
<p>1:35 – 2:05</p>	<p>Keynote Speaker (Moderator: Dr. Xianming Shi)</p> <ul style="list-style-type: none"> • Dr. Jason Weiss, Oregon State University, "Toward Performance Specifications for Concrete Durability"
<p>2:05 – 3:15</p>	<p>Session III: Sustainable and Resilient Transportation Infrastructure (Moderators: Dr. Penkun Hou and Dr. Yudong Dang)</p> <ul style="list-style-type: none"> • Dr. George Wang, East Carolina University, "Construct Sustainable Transportation Infrastructure -Materials and Methods Aspects" • Dr. Jian Ouyang, Dalian University of Technology, "A viscosity prediction model for cement paste with nano-SiO₂ particles" • Dr. Xiaochao Tang, Widener University, "Developing Low-Cost Sensor Units for Transportation Infrastructure Monitoring" • Dr. Renguo Gu, South China University of Technology, "Multiscale problems of soil mechanics and multiscale analysis of geological hazard"
<p>3:15 – 3:45</p>	<p>Posters Session (Moderators: Dr. Xinyu Gu and Dr. Yingwu Fang)</p>
<p>3:45 – 5:20</p>	<p>Session IV: Planning, Preservation and Operations of Transportation Infrastructure (Moderators: Dr. Xiong Yu and Dr. Junliang Tao)</p> <ul style="list-style-type: none"> • Dr. Shaozhi Hong, Tongji University, "Collaboration Management Model of Large Airport Terminal Rehabilitation & Expansion Project without Suspending Air Flights: Based on Shanghai Practice" • Dr. Feipeng Xiao, Tongji University, "Functional Layer Material Designation of Combined Chip Seal and Slurry Seal in Airport Pavement" • Dr. Qiao Dong, The University of Tennessee, "Influence of Materials and Construction Practices on the Performance of Slurry Seals in the LTPP Database" • Dr. Joshua Q. Li, Oklahoma State University, "Pavement surface safety analysis with data from different devices" • Dr. Zhongren Wang, California Department of Transportation, "Development of the 2017 Ten-Year Pavement Management Plan using PavemM"
<p>5:20-5:25</p>	<p>Workshop Adjoin: Dr. Chung Wu</p>

The 7th IACIP Annual Workshop Program (Part III)

BANQUET

7th IACIP Annual Banquet

Sunday Jan. 8, 2017 from 7:00 PM to 9:00 PM

Chinatown Garden (龙之味), 618 H Street, N.W., Washington, D.C.

REGISTRATION

1. Professionals with IACIP membership registration only (attending the workshop only and not attending the banquet): \$20
2. Students with IACIP membership registration for workshop only: \$5
3. Professionals with IACIP membership registration and banquet ticket: \$30
4. Students with IACIP membership registration and banquet ticket: \$15
5. Banquet ticket only/separately (at workshop or restaurant): \$25
6. Complimentary workshop registration and banquet for speakers, representative from sponsors, one student or young professional for each poster, and organizing committees (including student members).

Sponsors

FSCE Journal
(Frontiers of Structural and Civil Engineering, Transaction of Chinese Academic Engineering)



FAHE Roadway Technology & Equipment



About IACIP



The International Association of Chinese Infrastructure Professionals (IACIP) is a US registered non-profit professional organization with its members working or studying in the fields of Civil Infrastructure and Systems (CIS) and related areas who are interested in CIS development and related issues. A group of such professionals met during the Transportation Research Board (TRB) 89th Annual Meeting at Washington DC, January 2010 and had a consensus to establish the IACIP.

The group discussed the needs for such an organization and the potentials for its development. This organization will provide such a forum and platform that each participant can have a better opportunity to collaborate with others in corresponding professional areas. Therefore, IACIP, through its members, will gather and disseminate information for Civil Infrastructure professionals and aims to facilitate the advancement of knowledge and technology in the areas of Civil Infrastructure and Systems through education, technology transfer, and research at an international level. The vision of IACIP is to be one of the leading professional organizations in Civil Infrastructural Engineering worldwide.

Website: <http://www.iacip.org/>

We are soliciting for news and information to be included in future newsletters.

Please send your information to Prof. Hui Li at the following email address: hli@tongji.edu.cn