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Upcoming ASCE Events

- December 8**  
 Younger Members Meeting
- December 10**  
 ASCE Holiday Social
- December 17**  
 EWRI Monthly Speaker Series  
 Event



**Announcing the ASCE  
 Holiday Social  
 Thursday December 10, 2015**

Members are cordially invited to our Holiday Social; we welcome you to kick off the holiday season with fellowship, food and spirits.

**Location:** Schlafly Bottleworks  
 The Crown Room  
 7260 Southwest Ave. (at Manchester)  
 Maplewood, MO 63143  
 314-241-2337

**Time:** Appetizers from 7 pm to 10 pm.  
 Drink tickets will be distributed based on availability.

**Cost:** No Charge

**Parking:** Self parking - Free

**RSVP:** Reservations must be received no later than close of business Thursday, December 3. Please RSVP to Chris Toenjes at 314-753-5875 or by email at [ctoenjes@alberici.com](mailto:ctoenjes@alberici.com)

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## President's Message

*Michael Buechter*

With the activity of the Holiday Season upon us it can become difficult to stop and count our blessings. And it is even more challenging to maintain our perspective and to be thankful for the simple things in life. Perhaps luckily as Engineers we know not to take for granted many of the things so many in the industrialized world do, from clean water to a safe environment.

I was reminded of much of my own good fortune recently when talking with the ASCE Student Chapters at Saint Louis University and Southern Illinois University at Edwardsville. Both of these chapters cooperate with their Engineers Without Borders Chapters to undertake projects throughout the developing world. The projects undertaken by these students generally consist of the simple sort of infrastructure projects, clean water, simple buildings, that we in the industrialized world have long taken for granted. These projects serve not only their clients but give the students undertaking them real world project experience and expose the students to the world beyond campus.

In November, the St. Louis GeoInstitute graciously invited me to their Geoconfluence 2015 event. The event was very well attended and featured speakers discussing everything from landslides to tunnels. In October the St. Louis SEI also held their SEI Day 2015 with a keynote address discussing "Qualifications for Structural Engineers." Both of these prestigious events reminded me of the gratitude I feel being able to work with outstanding Engineers both at the office and in ASCE. Accordingly, I congratulate Messrs. Randall Bernhardt, Nick Roth and Greg Hemen for yet again holding such quality events.

At a national level I was inspired by ASCE/EWRI member Daene McKinney, Ph.D., PE, D.WRE, M.ASCE, who has spent years studying high mountain lakes and the effects of climate change. After the April 25th 7.8 magnitude earthquake, Mr. McKinney led a two month research mission to Nepal. Once there Mr. McKinney and his team assessed the increased risk of flooding to villages downstream of high mountain lakes. You can follow Mr. McKinney's on line at: <http://blogs.asce.org/two-months-in-nepal-asce-member-leads-post-earthquake-assessment/>.

So if you are looking for a way to remember your good fortune and "give back" in the coming year, I would ask you to visit the Section website (<http://sections.asce.org/stlouis/index.html>). There you will note SIUE is currently searching for professionals to be part of their Mentor Program. Through the program, professionals can enhance the quality of a current student's academic experience by sharing their career experiences and knowledge with future SIUE graduates. For more information contact the SIUE Career Development Center directly at 618-650-3708, or [www.siue.edu/careerdevelopmentcenter](http://www.siue.edu/careerdevelopmentcenter).

On a personal note this Holiday Season I would point you to one of the great American poets, Ralph Waldo Emerson,

"Cultivate the habit of being grateful for every good thing that comes to you, and to give thanks continuously. And because all things have contributed to your advancement, you

should include all things in your gratitude.”

Finally, I hope to see you at the 2015 Holiday Social, Thursday, December 10, 2015 at Schlafly Bottleworks. To RSVP, contact Chris Toenjes at 314-753-5875 or [ctoenjes@alberici.com](mailto:ctoenjes@alberici.com).

Happy Holidays!

Michael T. Buechter, PE

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## EWRI St. Louis



## EWRI St. Louis News

### EWRI St. Louis Monthly Speaker Series Event

The St. Louis Section of EWRI is pleased to announce our eighth webinar **jointly sponsored by Missouri University of Science and Technology on Thursday, December 17, 2015 at 11:30 am-12:30 pm.**

This presentation will be broadcast live over a webinar. Registration is free for in-person (at USGS in Rolla) or webinar attendance. **Advance registration is required by end of business on Tuesday, December 15, 2015.** Please register online in advance at the following link:

[https://docs.google.com/forms/d/16FjuqJxQaapedlsuLCNjwTRF4alok3LIWjK826f08CQ/edit?usp=sharing\\_eid&ts=56532fae](https://docs.google.com/forms/d/16FjuqJxQaapedlsuLCNjwTRF4alok3LIWjK826f08CQ/edit?usp=sharing_eid&ts=56532fae)

Registrants will receive detailed login & dial-in information or directions for in-person attendance prior to the event.

#### **EWRI November Speaker Series Topic: “What is the Future for Missouri Stormwater Regulations”**

This webinar will review the most recent draft of Missouri’s Municipal Separate Storm Sewer System (MS4) General Permit, provide an update on federal rulemaking for MS4s, and discuss recent MS4 inspections performed by the Missouri Department of Natural Resources (MDNR). On November 5, the MDNR released a “pre-public notice draft” of the permit and announced it would have a meeting on November 30<sup>th</sup> to review it with the public. At the federal level, Environmental Protection Agency (EPA) staff has stated that it will propose a new rule in December 2015 to address public notice requirements for permittees. Stormwater Management Plans (SWMPs), and indicated the agency will finalize and implement the rule by late 2016. EPA also recently finalized an E-Reporting rule, which affects how states and permittees report their permit compliance data. Finally, St. Louis County and a number of municipalities’ MS4 programs were recently inspected by MDNR for compliance with the current MS4 permit and SWMP, and we will share that experience and lessons learned.

**Speaker: Jay Hoskins** *Jay Hoskins is Program Manager of Environmental Compliance Programs at the Metropolitan St. Louis Sewer District (MSD), where he manages the at MSD that address compliance with a broad range of environmental issues. He is also adjunct professor in the Saint Louis University Civil Engineering Department. Thank you joint seminar sponsor, **Missouri University of Science and Technology!***



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*Please contact Terry Entwistle ([terry.entwistle@aecom.com](mailto:terry.entwistle@aecom.com)) or Dr. Robert Holmes ([bholmes@usgs.gov](mailto:bholmes@usgs.gov)) with any questions, if you are interested in presenting, or have an idea for a topic.*

## ASCE Younger Members

### **December YMG Meeting:**

Tuesday, December 8, 2015

#### **Nick's Irish Pub**

6001 Manchester Ave., 63110

6 pm to 8 pm

<http://www.nicksirishpub.com/>

- [Operation Food Search](#) December 11, 1-3pm
- Central Region Younger Member Council (CRYMC) Conference will be held January 15-16 in Chicago IL. (Along with the Student/other leadership conferences in concurrence with ours).
- [Alberici Fabrication Shop Tour](#): January 22, 2016
- [TRIVIA TRIVIA TRIVIA](#): February 26, 2016

We need help getting our annual trivia night off the ground. This is will a big part of the discussion on Tuesday. In particular, we need people to create questions and gather auction items. I have 3 people getting questions together...I need 7 more.

## Networking Events

4<sup>th</sup> Annual



# Transportation Infrastructure Conference



## PROGRAM

Friday, December 4, 2015

Allied Health Multipurpose Room, Room 3040, Allied Health Professional Building  
Saint Louis University, St. Louis, MO



9:00 – 9:15	Welcome - <i>Kamal H. Khayat, Chairman, Missouri S&amp;T</i>
	Opening Remarks
<b>Session #1 - Moderator: William Stone, MoDOT</b>	
9:15 – 9:55	<b>Keynote Speaker – David Ahlvers, Missouri Department of Transportation</b> Research to Implementation
9:55 – 10:35	<b>Keynote Speaker – Dr. Imad L. Al-Qadi, Director, IL Center for Transportation</b> Development of Illinois Asphalt Concrete Potential Cracking Test (IL-SCB) and Flexibility Index
10:35 – 11:00	BREAK / POSTER SESSION
<b>Session #2 - Moderator: Riyadh Hindi, St. Louis University</b>	
11:00 – 11:25	Application of Active Microwave Thermography for Inspection of Rehabilitated Cement-Based Structures <i>Dr. Kristen Donnell, Assistant Professor, Electrical and Computer Engineering, Missouri S&amp;T</i>
11:25 – 11:50	Detection of Instability of Civil Large-Scale Space Structures <i>Dr. Grace Yan, Assistant Professor of Civil, Arch. And Environmental Engineering, Missouri S&amp;T</i>
11:50 – 12:15	Smart Rocks as Field Agents for Bridge Scour Detection in Real Time <i>Dr. Genda Chen, Robert W. Abnett Distinguished Professor of Civil Engineering, Missouri S&amp;T</i>
12:15 – 1:30	LUNCH / POSTER SESSION
<b>Session #3 - Moderator: Kamal H. Khayat, Missouri S&amp;T</b>	
1:30 – 2:10	<b>Keynote Speaker - Priscilla A. Tobias, Illinois Department of Transportation</b> Title TBD
2:10 – 2:35	Tier 1 UTC RE-CAST Studies: Use of UHP-FRC and FRCM Products for Infrastructure Renewal <i>Dr. John Myers, Professor of Civil Engr. and Associate Dean for the College of Engr. &amp; Computing, Missouri S&amp;T</i>
2:35 – 3:00	A Practical FEA Modeling Approach for Transfer Length Using End-slip Methodology <i>Dr. Chris Carroll, Assistant Professor of Civil Engineering, St. Louis University</i>
3:00 – 3:20	BREAK / POSTER SESSION
<b>Session #4 - Moderator: John Myers, Missouri S&amp;T</b>	
3:20 – 3:55	MoDOT Workzone Simulator Project <i>Dr. Suzanna Long, Asst. Professor and Interim Department Chair, Engr. Management and Systems Engr.</i>
3:55 – 4:20	Autonomous Vehicles: Challenges and Opportunities for Transportation Infrastructure <i>Dr. Jalil Kianfar, Assistant Professor of Civil Engineering, St. Louis University</i>
4:20 – 4:45	Use of Magnesium Oxide-based additives to Reduce Concrete Shrinkage Cracking in Bridge Decks <i>Karen Hendrix, Premier Construction Products Group</i>
4:45 – 5:00	Closing Remarks – <i>Kamal H. Khayat, Missouri S&amp;T</i>

Geo-Institute SIUE chapter presents:

## Geotechnical Workshop - 10 PDH Credits



**Title:** Introduction to Computational Geotechnics (GW0116)

**Date:** January 22 & 23, 2016

**Time:** 10 AM to 4 PM

**Location:** School of Engineering, Southern Illinois University, Edwardsville, IL

### Registration:

Please fill the registration form: [www.zamiran.net/GW0116.html](http://www.zamiran.net/GW0116.html)

No registration fee is required!

### Workshop Objectives:

This course is an introduction to modeling geotechnical problems using commercially available geotechnical software. Different geotechnical programs and numerical methods will be discussed and compared with each other. Principles of numerical modeling will be described. The modeling procedure for several practical geotechnical examples will be demonstrated using FLAC and GeoStudio software package.

The workshop is very useful for students and professionals in the field of civil, geotechnical, and mining engineering.

### Instructor:

Siavash Zamiran,  
Ph.D. Candidate, Instructor  
President, Geo-Institute SIUE  
Southern Illinois University

### Contact Information:

Phone: 618-334-4572  
Email: [zamiran@siu.edu](mailto:zamiran@siu.edu)  
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[www.linkedin.com/in/zamiran](http://www.linkedin.com/in/zamiran)



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Geo-Institute of ASCE – St. Louis Chapter

Presents a webinar titled

## Approaches to Grouting in Karst

Michael J. Byle, P.E., D.GE, F.ASCE

**DATE AND TIME:** Thursday, January 28, 2016, Doors open at 10:00 for registration  
Webinar 10:30AM to 12:00PM

(Pizza and soda/water will be provided toward the end of the program)

**LOCATION:** Geotechnology, 11816 Lackland Road, Suite 150 Saint Louis, Missouri 63146

**COST:** \$10.00

**RSVP:** Please register at the event site at the following link or by emailing [pmk@shanwil.com](mailto:pmk@shanwil.com).

<http://events.constantcontact.com/register/event?llr=yonzmehab&oeidk=a07ebv2kg2zfa639e85>

# Introduce A Girl To Engineering Day



**Help get girls involved in engineering!**

Is she innovative? Is she curious? Does she like problem solving? Is she imaginative? Does she want to make a difference? If so, then this is the place for her!

- \* **Who:** girls 5<sup>th</sup> – 8<sup>th</sup> grade
- \* **When:** February 20<sup>th</sup>, 2016  
8:30 am – 3:00 pm
- \* **Make-up Date:** March 19<sup>th</sup>, 2016
- \* **Where:** SIUE School of Engineering
- \* **Registration:** \$15 includes activities, lunch, and a t-shirt



**Register at:** <https://sites.google.com/site/swesiue/igeday>

**SIUE**

**SIUE Society of Women Engineers**

SIUE School of Engineering Campus

Box 1801 Edwardsville, IL 62026

[swesiue@gmail.com](mailto:swesiue@gmail.com)

[www.facebook.com/swesiue](http://www.facebook.com/swesiue)

**Civil FE Exam – Review Course  
Fall 2015 / Spring 2016**

Schedule: TBD

Location: Saint Louis University  
3450 Lindell Boulevard,  
Saint Louis, MO 63103

*A review opportunity as a service to the Saint Louis Civil Engineering Community  
Brought to you by SLU ASCE Student Chapter*

**Course Description:** Review of all the FE Exam topics (18). The first part of the course will cover the topics from the general section: mathematics, probability and statistics, computational tools, ethics and professional practice, engineering economics, statics, dynamics, mechanics of materials, fluid mechanics. The second part of the course will address the civil engineering specific sections: materials, hydraulics and hydrologic systems, structural analysis, structural design, geotechnical engineering, transportation engineering, environmental engineering, construction, and surveying.

The course will emphasize on the following points:

- Main strategies and tricks to follow to prepare and pass the exam.
- Recommended bibliography and how to manage it.
- Key theoretical concepts within each discipline.
- Complete understanding of the handbook.
- Selected and concrete exercises necessary to understand the tricky concepts.
- Analysis of common and most repeated mistakes.

**Instructor Information:** Carlos A. Merino is a Civil and Territory Engineer graduated in 2014 from the Universidad Politécnica de Madrid (Madrid, Spain). He is currently doing his second year of his M.S. in Structural / Civil Engineering at Parks College of Engineering, Aviation, and Technology (Saint Louis University). He is also a graduate assistant carrying out research and teaching tasks within the Civil Engineering Department. He plans to graduate on May 2016 and he is on the process of obtaining his E.I. license after passing the Civil Engineering FE exam on July 2015. He is also a member of the ASCE and EWB SLU Student Chapters.

<b>Name:</b>	Carlos Alberto Merino, Civil and Territory Engineer. S.M. ASCE, 2 <sup>nd</sup> Year M.S. Civil Engineering Student, Graduate Assistant
<b>Contact information:</b>	<a href="mailto:merinoca@slu.edu">merinoca@slu.edu</a> 816-282-4290 (cell)

**Scope of the course:** the Civil FE exam is not hard to pass, but it takes time and effort to organize all the subjects and refresh your knowledge. This point is where this course can be useful. The course will provide the students an effective strategy to prepare the exam. In a review course of these characteristics, it would not be possible do a lot of exercises. Furthermore, based on my own experience, this has to be a responsibility of the student in order to face the exam with confident and to have higher chances of passing it. Because of



that, the course will emphasize on an effective management of the materials and different subjects in order to save study time and being in a good shape at the time of studying it.

**Notes and required materials:** The students will take their own notes. The FE Exam Handbook will be also followed in class to write down and mark important concepts and details on it. It is highly recommended to print it out to follow the classes efficiently. The handbook is the only resource provided on the test, so getting familiar with it is one of the keys to be successful when taking the test. Furthermore, the students will get guidance regarding recommended bibliography to prepare the exam. No printed handouts will be provided.

**Sessions:** The course will have 15 sessions of 1.5-2 hours per session.

**Fee (per student):** 60\$ total (for all the 15 sessions)

**Tentative Schedule:**

Week	Topics
1	Introduction, Units, Mathematics
2	Probability and Statistics
3	Statics, Computational Tools
4	Dynamics
5	Mechanics of Materials
6	Fluid Mechanics
7	Engineering Economics
8	Structural Analysis, Ethics
9	Hydraulic and Hydrologic Systems
10	Materials
11	Structural Design
12	Geotechnical Engineering
13	Transportation Engineering
14	Construction
15	Surveying, Environmental Engineering

**Enrollment:** If you are interested please send the following information to the instructor email

First and Last Name:	
Email address:	
University or Company Name	
Graduation Year (or expected)	
Preferred week days and time	

\*A minimum of 15 students will be required to offer the review course.

## Employment Opportunities

### **Water Resources Engineering Faculty Position**

The Department of Civil Engineering at Southern Illinois University Edwardsville is seeking to fill one tenure track position in Civil Engineering at the Assistant Professor level to begin August 16, 2016. The successful candidate must have the ability to teach undergraduate and graduate courses in civil engineering with emphasis in water resources and environmental engineering, establish and sustain an externally funded research program with emphasis in water resources and related areas, and participate in service activities. Candidates with a background in engineering hydrology, water resources, or watershed management are preferred. A background allowing candidates to work with existing civil engineering faculty, including across sub-disciplines is an asset. Candidates should have an educational background that would permit licensure as a professional engineer, must hold at least one degree in civil, water resources, or environmental engineering, and must be nearing completion of or already possess a doctoral degree in civil engineering or a closely related field. Information about the department can be found at [www.siu.edu/engineering/civilengineering/](http://www.siu.edu/engineering/civilengineering/).

Interested persons should send a letter of interest, the curriculum vita with a list of three references, teaching and research statement (one to two page each), with all of materials assembled into one PDF file to [ce-admin@siue.edu](mailto:ce-admin@siue.edu). Review of applications will begin on January 11, 2016 and will continue until the position is filled. Further information can be found at:

[www.siu.edu/employment/employmentopportunities/engineering/FY16-035.shtml](http://www.siu.edu/employment/employmentopportunities/engineering/FY16-035.shtml)

## To submit items to the newsletter...

*Please try to get all announcements for placement in the newsletter to the Newsletter Editor by the 15<sup>th</sup> of the month prior to publication. Items may be sent via e-mail to Joe Sturgeon at [wsturgeon@hntb.com](mailto:wsturgeon@hntb.com). MS Word files are the preferred file type. PDF files are also acceptable but may not look as sharp when inserted into the newsletter and hyperlinks might not carry through to the final version. For multiple page announcements, please consider providing a single-page flyer, concisely worded, with links provided to ancillary pages such as registration forms or other attachments. Also, please clearly include in the email subject line a concise title for the announcement and desired month(s) of publication.*

*Most news items will be available on the Section's Web Page, which can be reached via the link on ASCE National Website ([www.asce.org](http://www.asce.org)). Click on "Geographical and International Units" to link to the Section or go directly to our page at: <http://sections.asce.org/stlouis/index.html>. The Section's Website Editor is Jeff Smith e-mail: [JESmith@HNTB.com](mailto:JESmith@HNTB.com) or via feedback directly from our website.*

For more information and updates see our Web Page: [Http://sections.asce.org/stlouis/index.html](http://sections.asce.org/stlouis/index.html)

This newsletter will be sent to all Section members via e-mail. Delivery of the newsletter hardcopy by First Class mail will be made upon request. Members have the responsibility to keep their contact information in the ASCE national database up to date. Please note that the St. Louis Section is only provided with members' PRIMARY information on file at the Society level. To ensure that we can contact you, please edit your PRIMARY information to contain the information where you would like the section to contact you and how you would like your information to appear in our annual roster.

*Please be sure to keep your PRIMARY contact information up-to-date by contacting ASCE at <http://www.asce.org>, or call 800-548-ASCE (2723).*



**ASCE – St. Louis Section**  
c/o The Engineers' Club of St. Louis  
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