



## November Luncheon

Tuesday, November 14, 2017

### Detecting water pollutants with plants, cellphones, drones and citizens

**Joel G. Burken**

**Missouri University of Science and Technology**

A series of new methods have been developed or are under development at Missouri S&T to assess environmental pollutants in novel ways. Methods of using plants as environmental sensors will be presented, known as Phytoforensics. As plants interact actively and intimately with the subsurface environment, new analytical and remote sensing methods have been developed to use plants as biosentinels by detecting pollutants in the plant tissues. New approaches in this field are effective, rapid and efficient indicators of not only groundwater pollutants, but also vapor intrusion potential and human exposure. Unmanned aerial vehicles are also being utilized to detect plant stress from environmental pollutants. These approaches use hyperspectral imaging methods to isolate specific stress indicators, allowing methods to discern stress from drought or from organic pollutants. Methods have been applied for landfill leachate, explosives and other organic pollutants.

A new project will also be presented that is developing portable water quality assessment tools that integrate with cell-phone platforms to have rapid data assessment and transmission. These methods are being developed to utilize citizen scientists to collect and transmit data at critical times when interest is greatest in water quality. The Water Citizen Science project, or WatCitSci, has the ultimate goal to be a communications platform for outreach during the crisis window when public opinion and decision makers' attention is peaked. Collectively the topics presented offer a new insight on approaches to not only detect pollutants, but to protect human health and created a better informed society on our water resource critical topics.

#### **Time, Date, Location**

11:30am to 1:00pm, November 14, 2017, at The Engineering Center, 4359 Lindell, St. Louis 63108. Registration starts at 11:30am and lunch is served at 11:45am. The program will begin promptly at 12:00pm. One (1) PDH is available.

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**Cost** \$15/person, students and members in transition \$5 (checks payable to ASCE).

**Registration** Please register and pay online by November 10<sup>th</sup> at [Register Now!](#)

Or call the Engineering Center at 314-533-9333, or by email: [info@engineersclub.net](mailto:info@engineersclub.net) for reservations by **4:00pm, Friday, November 10<sup>th</sup>**. ASCE is charged for all reserved lunches. If you've signed up and can't make it, please cancel by Friday before the meeting or we may have to charge you for the meal.

**Joel Gerard Burken, Ph.D., P.E., F.  
AEESP, BCEE**

Dr. Burken received his PhD from the University of Iowa in 1996, where he conducted some of the initial research on phytoremediation. He has been at Missouri University of Science and Technology (formerly University of Missouri – Rolla) since 1997. He currently serves as Chair and Curators' Distinguished Professor of the Civil, Architectural and Environmental Engineering Department, and is a member of the US EPA Science Advisory



Board. Dr. Burken has also held temporary positions at: EAWAG in Zurich Switzerland (research intern), at the National Environment Research Institute (NERI) in Denmark (visiting researcher and OECD Fellow) and at the University of Canterbury, New Zealand as an Erskine Fellow.

Joel's research has focused upon low impact and natural treatment systems since 1991. In that time, terms of sustainable-remediation, green infrastructure, and green-remediation have evolved and now promote the same fundamental aspects surrounding water quality and water resource management. His research in phytoremediation of organic contaminants and pioneering work in Phytoforensics have led to over 80 publications, a patented environmental assessment method, and international recognition with multiple research, teaching and service awards. This recognition includes twice winning the ASCE Rudolf Hering Medal, an NSF Career award, and being appointed a Fellow of the Association of Environmental Engineering and Science Professors (AEESP). Dr. Burken has received the highest Missouri S&T awards for teaching, service, advising and has received the Faculty Excellence award 7 times. Dr. Burken was appointed as a Distinguished Curator's professor at Missouri S&T in 2015. His publications include 6 articles cited over 100 times each, one article that was highlighted in the American Academy for the Advancement of Science (AAAS) journal *Science*, and 4 feature or cover articles in top ranked international journals, such as Environmental Science and Technology.

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Lyle Simonton  
Subsurface Constructors, Inc.  
101 Angelica St.  
St. Louis, MO 63147  
Phone: 314-421-2460 x101  
Fax: 314-421-2479  
E-mail:  
[lsimonton@subsurfaceconstructors.com](mailto:lsimonton@subsurfaceconstructors.com)

### President-Elect

Chad Schrand  
Horner & Shifrin, Inc.  
401 S. 18th St., STE. 400  
St. Louis, MO 63103-2296  
(314) 335-8670  
E-mail: [cmschrand@hornershifrin.com](mailto:cmschrand@hornershifrin.com)

### Vice President

Brent Vaughn  
Department of Civil Engineering  
Southern Illinois University Edwardsville  
Campus Box 1800  
Edwardsville, IL 62026  
Phone: 618-650-3533  
Fax: 618-650-2555  
E-mail: [brent.vaughn.asce@gmail.com](mailto:brent.vaughn.asce@gmail.com)

### Secretary

Jordan Pettibone  
Horner & Shifrin, Inc.  
604 Pierce Blvd., Suite 300  
O'Fallon, IL 62269  
Phone: (309) 369-5776  
E-mail: [jepettibone.asce@gmail.com](mailto:jepettibone.asce@gmail.com)

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500 North Broadway, Suite 1340  
St. Louis, MO 63102  
E-mail: [jweiland@wadetrim.com](mailto:jweiland@wadetrim.com)

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## President's Message



This month's newsletter celebrates all of the award winners who were recognized at our Annual Dinner in September. If you haven't had a chance to attend an ASCE St. Louis Section Annual Dinner, I highly recommend it. It is always exciting to see the future civil engineers get to take home some hardware, or greenware, as in scholarship money. In 2017, the Section awarded 10 scholarships for a total amount of over \$20,000! That is some serious acknowledgement of excellent students and we at ASCE are happy to do it. We look forward to having these engineering students join us in the professional

world.

As we engage and reward the civil engineering students of the area, we think about ways to maintain, or more importantly increase, the number of students going into the STEM fields, and civil engineering specifically. The US Department of Education website states that only 16 percent of American high school students are proficient in math and interested in the STEM fields. The data also shows that STEM careers were anticipated to increase 14% to 62% (depending on the field) from 2010 to 2020. We need to encourage our young students to start thinking about STEM!

As I recently submitted our Outstanding Section Application, I had the opportunity to reflect on the number of activities our section members have participated in with St. Louis area middle and high schoolers, and junior college students. Some of these are:

- Monetary sponsorship and brief presentation at the Worldwide Youth in Science and Engineering (WYSE) Academic Challenge Competition held at SWIC in Belleville, IL.
- Eureka High School – ASCE member John Weiland attended Eureka High School's Project Lead the Way (PLTW) classes to discuss careers in civil engineering.
- Rockwood Summit High School Sophomore Career Fair
- Ritenour High School – ASCE members Brandi Jones and Chance Liley participated in a grading panel for the Ritenour High Schools' EDD Engineering Design and Development final presentations.
- Chaminade Middle School Career Exploration Day
- Set-up a display for Engineers' Week at the St Louis Science Center.
- Set-up a display and participated in the annual National Society of Black Engineers (NSBE) "Walk for Education" day at Florissant Valley Community College.
- Dream Big at the Science Center – Attended by over 100

area middle / high schoolers

- Dream Big Event at Southwestern Illinois College STEM Scholar Program

Hopefully you are as impressed as I am with our member's willingness to give their time to promote our profession. I'm sure many of you are doing this at your children's schools as well. Keep in mind that ASCE has many resources to help you promote civil engineering and other STEM fields. Please reach out to any of our Board Members if you'd like more information on setting up an event at a local school, and as always, please feel free to contact me anytime. I'll see you at the November luncheon!

Respectfully,

Lyle Simonton, P.E.

[lsimonton@subsurfaceconstructors.com](mailto:lsimonton@subsurfaceconstructors.com)

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## ASCE Recent Events

Michael T. Buechter, PE (MO), D.WRE, Program Manager, Metropolitan St. Louis Sewer District and Past President of the St. Louis Section of ASCE was recently named a **Diplomate, Water Resources Engineer (D.WRE)** of the **American Academy of Water Resources Engineers (AAWRE)**, a subsidiary of the American Society of Civil Engineers (ASCE). In support of AAWRE's mission in 'Elevating level of Standards' – to broaden and deepen the body of knowledge for practicing engineers, AAWRE's certification was developed to improve the practice, elevate the standards and advance the profession of water resources engineers. The D.WRE represents strong professional ethics and a commitment to life-long learning and continuing professional development. Since the start of AAWRE's Diplomate, Water Resources Engineer (D.WRE) program in October 2004, only over 700 water resources engineers worldwide have qualified for the Diplomate, Water Resources Engineer credential

## ASCE St. Louis Section Annual Awards Dinner 2017

The 2017 Annual Awards Dinner was held on Friday, September 22 at the Jefferson Ballroom at Moulin. Special thanks to Britt Marron, the Annual Dinner Chair for a wonderful evening!

### ASCE ST. LOUIS SECTION SCHOLARSHIPS

The ASCE St. Louis Section Annual Scholarships are awarded in recognition of membership in an ASCE Student Chapter, enrollment as a civil engineering student, excellence in academic performance, and active participation in issues reflecting the role of engineers in the advancement of our society. Each of the Section's colleges is solicited for nominations. The scholarship awards were presented by Past President Michael Buechter.

***Claire McLaughlin***  
***St. Louis University***



***Chance Liley***  
***Southern Illinois University – Edwardsville***



***Jacob Kaltenbronn***  
***University of Missouri - Columbia***



***Jessica Wignes***  
***Southern Illinois University – Carbondale***



***Hayder Alghazali***  
***Missouri University of Science and Technology***





## 2017 SEI ST. LOUIS CHAPTER STRUCTURAL ENGINEERING SCHOLARSHIP

The Structural Engineering Institute (SEI) scholarship is awarded in recognition of an individual pursuing a Master's Degree in Structural or Civil Engineering with a structural emphasis at a Midwestern university as well as a passion for the discipline and a desire to promote the profession, specifically through the Structural Engineering Institute of ASCE.

***Akash Jain***

***Southern Illinois University – Edwardsville***



## 2017 MIKE ALIZADEH / GEOTECHNOLOGY SCHOLARSHIPS

The Mike Alizadeh scholarship is awarded due to a generous endowment by the Alizadeh family, in recognition of pursuing a Master's Degree in Civil or Geological Engineering with a geotechnical or environmental emphasis at a Midwestern university.

***1<sup>st</sup> Place – Mehrad Ansari***

***Missouri University of Science and  
Technology***



***2<sup>nd</sup> Place – Sean Hayter***

***University of Illinois***



## PROFESSIONAL RECOGNITION AWARDS

### ***Josephine L. Emerick, P.E. - Professional Recognition Award***

The Professional Recognition Award recognizes the importance of professional attainment in the advancement of the science and profession of engineering and is presented to a Member of the St. Louis Section of ASCE who has made substantial contributions to the engineering profession and the St. Louis Section. This year's Professional Recognition Award goes to Josephine (Jo) Emerick.

Jo has been a member of the St. Louis Section of ASCE since she graduated from the University of Missouri in 1978.



**Jo Emerick receives the Professional Recognition Award from President Matt Harper**

Jo has worked for several engineering firms, all in the St. Louis area, including Parsons Brinckerhoff (formerly Booker Associates), HDR and AECOM (formerly URS Corporation). In her over 30 year career, she has been involved in a number of significant projects. These include multiple projects at Lambert-St. Louis International Airport, MetroLink Light Rail System and Metro's Long Range Plan, Moving Transit Forward.

Jo has given back to the engineering profession in many ways, but perhaps most significantly by serving for 8 years on the Missouri Registration Board for Architects, Professional Engineers, Professional Land Surveyors and Landscape Architects. She served several years as the chair of the Engineering Division of the Board.

Jo has also been active in a number of professional organizations in addition to ASCE. These include:

- The National Society of Professional Engineers
- Engineers' Club of St. Louis
- American Council of Engineering Companies of Missouri
- Institute of Transportation Engineers
- The American Public Works Association.

During her professional career, Jo has always made time to reach out potential engineers by participating in grade school and high school level activities introducing students to the opportunities a career in engineering will bring.

At another level, she was very pleased to be asked to be the keynote speaker at the University of Missouri's College of Engineering December 2010 Convocation as well as the Missouri Registration Board's Newly Licensed Professional Engineers Ceremony Keynote Speaker in 2015.

## PROJECT OF THE YEAR AWARD

### ***St. Louis Section Project of the Year – 101 & 107 Frontenac Forest Storm Improvements***

Civil Engineering achievement within the St. Louis Section is recognized annually by ASCE with the selection of a “St. Louis Section Project of the Year Award”. The Award is given for achievement—not to an individual—so that the many individuals who have worked on the project are recognized as having contributed. Basis for the Award is “an engineering project that demonstrates the greatest engineering skills, and represents the greatest contribution to civil engineering progress and mankind”.

This year’s Project of the Year Award goes to the “101 & 107 Frontenac Forest Storm Improvements” project to address chronic and often severe flooding in a neighborhood within the City of Frontenac, Missouri.

The 101 & 107 Frontenac Forest Storm Improvements project involved enhancing the existing drainage infrastructure in the Frontenac Forest Subdivision. There is approximately 200 acres draining to the problem area. EDM’s work included a hydraulic and cost study to review alternative solutions, leading them to recommend a solution with the least downstream impacts and a cost savings of \$250,000 over the most expensive option.

The solution involved conversion of a railroad tie-wall channel to a meandering channel with added capacity, as well as the addition of a 60-inch storm sewer to relieve the existing 48-inch pipe, and a large junction chamber to connect to the 84-inch pipe downstream.



**Project of the Year Award presented to Len Madalon, EDM Incorporated, by President Matt Harper  
Owner: City of Frontenac  
Engineer: EDM Incorporated  
Contractor: Ideal Landscape Construction**



## SPECIAL RECOGNITION

**Alison E. Graves, P.E.** – 2017 Region 7 Outstanding Younger Member Award Recipient. Congratulations Alison!

**Brandi Jones** – Special recognition in appreciation for her valued service in the successful implementation of the “Dream Big” movie event.



Thank you Brandi for a successful Dream Big event!

**ASCE St. Louis Section** – 2017 Section & Branch Diversity and Inclusion Award Winner!

## INSTALLATION OF ASCE ST. LOUIS SECTION 2017-2018 OFFICERS



Officers sworn in for the 2017-2018 St. Louis Section Board by Region 7 Director Marsia Geldert-Murphey. Pictured left to right are: Matt Harper (Past President), Melantha Norton (Director of Administration), Lyle Simonton (President), John Weiland (Treasurer), Brent Vaughn (Vice President), Jordan Pettibone (Secretary), Christopher Toenjes (Director of Tech. Development). Not pictured: Chad Schrand (President Elect), Alison Graves (Director of Prof. Development).



Passing of the gavel from Matt Harper to Lyle Simonton

## 2017 Annual Mid-American Environmental Engineering Conference



The St. Louis Chapter of EWRI was pleased to sponsor this one-day conference held on Saturday October 7<sup>th</sup> at Washington University in St. Louis, for graduate students in civil and environmental engineering from six universities to share educational experiences and research. Faculty advisors and representatives of EWRI-STL Leadership were also present, for a total of about 60 attendees. Dr. Ranny Reible, Kappe Lecturer and Donovan Maddox Distinguished Chair at Texas Tech University, led the opening keynote. Awards were given to two of the fifteen presentations. Attendees were from the following six universities:

- Southern Illinois University Edwardsville
- Washington University in St. Louis
- Missouri University of Science and Technology
- University of Missouri Columbia
- Southern Illinois University Carbondale
- Saint Louis University



### *Award winner: Xuesong Liu (MS&T)*

Xuesong Liu is currently a doctoral student at Missouri S&T in Environmental Engineering. He received a B.S. in Environmental Engineering at Hohai University in Nanjing, China and a M.S. in Environmental Engineering at University of Delaware in Delaware, U.S. His Masters thesis was about heavy metal adsorption. His currently work is related to synergistic toxicity of heavy metal and nanomaterials.

### *Award winner: Ahmed Abokifa (WashU)*

Ahmed Abokifa is a Ph.D. candidate in the Energy, Environmental, and Chemical Engineering Department at Washington University in St. Louis. He obtained a B.Sc. and M.Sc. in Civil Engineering from Cairo University before joining the graduate program at WashU. His research is focused on the multi-scale modeling and simulation of water chemistry. He studies the formation and fate of harmful contaminants in the drinking water supply system, such as disinfection byproducts (DBPS) and toxic heavy metals.

## ASCE Younger Members Group

### *See you at McGurks!*

Thanks to everyone who came out to our meeting at Urban Chestnut last month! Join us for our next meeting at McGurks in Soulard! Plan on attending? E-mail [Melissa.Marks@ch2m.com](mailto:Melissa.Marks@ch2m.com)

### **November YMG Meeting:**

Thursday, November 9, 2017

McGurks

1200 Russell Blvd, 63104

6 pm to 8 pm

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



### **Check it out – President Elect Kemper came to SIUE!**

Thanks to President-Elect Robin Kemper for speaking to our YMG and students at SIUE and SLU on SIUE's campus last Friday. A great message from ASCE for our students!



### **Operation Food Search – Volunteer Opportunity**

Our Younger Members Group will be volunteering at Operation Food Search on December 15<sup>th</sup> from 3-5 PM. Operation Food Search is a non-profit dedicated to ending hunger in the St. Louis Area. Please e-mail Melissa at [Melissa.Marks@ch2m.com](mailto:Melissa.Marks@ch2m.com) if you are interested in volunteering!

Stay connected with us on Facebook at <https://www.facebook.com/ASCEStLYMG/>



## *EWRI St. Louis Monthly Speaker Series Event*

*The St. Louis Section of EWRI is pleased to announce our monthly webinar, **jointly sponsored by Missouri University of Science and Technology, on Thursday, November 16, 2017 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 Noon Monday, November 13, 2017** Please register online in advance at the following link:*

<https://goo.gl/forms/6aF39tothLrZ4AKh1>

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

### ***Meramec River Floods of 2015 and 2017 and the Flood Inundation Mapping Tool***

*The Meramec River is one of the longest free-flowing rivers in Missouri and has experienced frequent flooding through history. Flooding during the winter season of 2015-2016 and subsequent spring season of 2017 impacted commercial and residential communities, water supply and treatment facilities, and transportation infrastructure along the lower Meramec River. Despite the known hazards of flooding, emergency management and mitigation officials and teams typically suffer from a lack of information related to the location, water depth, and water velocities of inundated areas both during and after floods. Industries and residents have to make quick and expensive decisions regarding evacuation of people and removal of equipment and property. Because of the large number of people and industries along the Meramec River, the National Weather Service (NWS) issues peak stage forecasts at five streamgages in the lower Meramec River during high water. However, knowing the stage (water-surface elevation) at selected locations does not readily provide information about the areas between streamgages that may be inundated. The USGS Missouri Water Science Center (MOWSC) has developed an online flood inundation mapping tool (FIM) to facilitate deterministic layers of flood inundation along a 50 mile reach of the lower Meramec River from the City of Pacific down to the mouth at the Mississippi River.*

**Speaker: Paul Rydlund, PLS** is the Surface Water Program Manager and Data Chief for the U.S. Geological Survey (USGS) Missouri Water Science Center. During times of flooding he serves as the State Flood Coordinator for all data collection activities among the cooperative water community. Paul has a background in surface water hydrology and hydraulics, groundwater, and business finance with degrees from the University of Missouri at Rolla and Northwest Missouri State. He is a licensed surveyor who has authored numerous technical manuals, providing instruction and serving as a national technical lead for all surveying activities within the USGS.

Thank you to our joint seminar sponsor, **Missouri University of Science and Technology!**

Please contact 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.

## Asphalt Conference



### 60th ANNUAL MISSOURI S&T ASPHALT CONFERENCE November 28-29, 2017

The 60th Annual Missouri S&T Asphalt Conference will be held on Tuesday and Wednesday, November 28-29, 2017, at the Missouri University of Science & Technology in Rolla, Missouri.

Presentations at the conference include: warm mix overlays in cold weather, proper use and storage of emulsions, undersealing, MoDOT's asset management plan, maintenance treatments for low volume roads, new patching material products, high friction surface treatments, MoDOT's increased density initiative, high air void- designed mixes, longitudinal joint construction and preservation, new longitudinal joint enhancement products, nuclear density testing, pavement economics: the cost of quality, MAPA update, balanced mix design, paving geosynthetics, intelligent compaction, micro-surface specification changes, MoROAD, performance testing in Missouri, and new binder requirements.

The conference should be of interest to contractors, public agencies, consulting engineers, testing labs, aggregate producers, asphalt binder suppliers, and equipment technical reps. **Personal Development Hours (PDH) will be awarded.**

For conference program information go to <http://asphalt.mst.edu/> or contact Dr. Dave Richardson, Conference Director (573-341-4487; [richardd@mst.edu](mailto:richardd@mst.edu) ) and for registration information contact Professional & Continuing Education, 216 Centennial Hall, 300 W. 12<sup>th</sup> St., Rolla, MO, 65409 (573-341-4200; [pce@mst.edu](mailto:pce@mst.edu)). If you are interested in being a sponsor, please contact Latesha Zach: [zachl@mst.edu](mailto:zachl@mst.edu) 573-341-4278.



## Employment

Civil Engineer – Entry Level to 5+ years

Oates Associates is an established engineering practice offering civil and structural engineering services for transportation, site and building projects. To accommodate the continued growth in our civil engineering department, we are seeking entry level to 5+ years civil engineers. Work will be out of our Collinsville, IL and/or our St. Louis, MO offices. The ideal candidate will possess the following:

- Bachelors in Civil Engineering;
- EIT certificate;
- 0 – 5+ years civil engineering experience;
- MicroStation / Geopak / AutoCAD Civil D3D is a plus;
- Strong writing and presentation skills;
- Desire and focus on technical skills in one or more of the following areas:
  - Hydrology and Drainage Design.
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The firm is an equal opportunity employer that offers competitive salaries, an excellent benefit package, great working environment in new office space, flex-time, opportunity for quick advancement and ownership potential. We seek to develop a more diversified workforce and welcome female, minority and veteran candidates for this position. Please send resume and salary history to:

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618.345.2200

618.345.7233

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[www.oatesassociates.com](http://www.oatesassociates.com)

## Structural Engineer – 5 to 10 years

Oates Associates is an established engineering practice offering civil and structural engineering services for transportation, site and building projects. To accommodate the continued growth in our building and site department, we are seeking a structural engineer for a project engineer/manager position. Work will be out of our St. Louis, MO office. The ideal candidate will possess the following:

- Bachelors in Civil or Architectural Engineering – Masters is a plus;
- PE license – SE license is a plus;
- 5 - 10 years of engineering experience;
- Proficient in AutoCAD and Microsoft Office;
- Strong writing and presentation skills;
- Experience performing construction administration tasks;
- Working knowledge of structural engineering software (RAM, RISA) - REQUIRED;
- Working knowledge of building codes (IBC, ASCE, ACI, AISC) - REQUIRED;
- Construction Drawing and Specification Preparation - REQUIRED.
- Strong Technical skills in the following areas is a plus:
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  - Reinforced Concrete Design.
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The firm is an equal opportunity employer that offers competitive salaries, an excellent benefit package, great working environment in new office space, flex-time, opportunity for quick advancement and ownership potential. We seek to develop a more diversified workforce and welcome female, minority and veteran candidates for this position. Please send resume and salary history to:

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- B.S. in Civil Engineering
- Missouri PE license
- Minimum of five years of experience in transportation/land development design

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- B.S. in Civil Engineering
- Missouri PE license
- Minimum of five years of experience in water/wastewater design and permitting

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618.498.6410 (F)  
resume@heneghanassoc.com

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Centralia, IL 62801  
(P) 618-533-6525  
(F) 618-533-6652

□ 310A Vision Drive  
Columbia, IL 62236  
(P) 618-281-8133  
(F) 618-281-8290

□ 5213D Mae Drive  
Godfrey, IL 62035  
(P) 618-466-8076  
(F) 618-466-8078

□ 1004 State Highway 16  
Jerseyville, IL 62052  
(P) 618-498-6418  
(F) 618-498-6410

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## **CIVIL ENGINEER Design – Capital Projects**

The Metropolitan St. Louis Sewer District (MSD) is a Missouri State special purpose political subdivision that is responsible for the St. Louis area's storm water and sewer collection and treatment. MSD ranks in the nation's top wastewater utilities, and is making a significant investment in capital infrastructure and asset sustainability over a multi-decade period.

The District is seeking an individual to fill a position within the Engineering Department - Design Division. This Project Manager position in the Capital Projects group will be responsible for coordinating the work of outside consulting firms. Duties will include, but not necessarily be limited to oversight of the design of storm, sanitary/combined sewers, and green infrastructure improvements; review plans, specifications and cost estimates; address concerns of impacted property owners; participation in meetings with public officials and the public at large to answer questions about the construction project; and other matters associated with the successful completion of the District's capital construction program.

Must be a graduate from a recognized college or university with major course work in civil engineering; and four years of progressively responsible related engineering experience, including at least two years of experience in sewer plan design and review and/or construction. Must be a licensed professional engineer in the Missouri or have the ability to become licensed within six (6) months of the date of hire.

Excellent compensation/benefits program. For more information and to apply go to [www.stlmsd.com/careers](http://www.stlmsd.com/careers) under Civil Engineer.

### **Metropolitan St. Louis Sewer District**

Human Resources  
2350 Market St.  
St. Louis, MO. 63103

EEO M/F/V/H



# **FALL 2017 FE REVIEW SESSIONS**

## **ATTENTION SENIOR OR GRADUATE CIVIL ENGINEERING MAJORS\*\***

<u>Date</u>	<u>Subject</u>	<u>Instructor</u>	<u>Time</u>	<u>Place</u>
Mon. 10/02/17*	Dynamics*	Dr. Yan	4:30 – 6:00 PM	EB 0160
Wed. 10/04/17*	Surveying/Construction*	Prof. Sherrill	6:15 – 7:30 PM	EB 0160
Mon. 10/09/17	Statistics/Math	Dr. Chew	4:30 – 6:00 PM	EB 0160
Wed. 10/11/17	Environmental Engineering	Dr. Zhou	4:30 – 6:00 PM	EB 0160
Mon. 10/16/17	Engineering Materials	Dr. Huang	4:30 – 6:00 PM	EB 0160
Wed. 10/18/17	Mechanics of Solids	Dr. Panahshahi	4:30 – 6:00 PM	EB 0160
Mon. 10/23/17	Structural Analysis	Dr. Cross	4:30 – 6:00 PM	EB 0160
Wed. 10/25/17	Structural Design: Concrete	Dr. Panahshahi	4:30 – 6:00 PM	EB 0160
Mon. 10/30/17	Computational Tools	Prof. Vaughn	4:30 – 6:00 PM	EB 0160
Mon. 10/30/17	Geotechnical Engineering	Dr. Osouli	6:15 - 7:45 PM	EB 0160
Wed. 11/01/17	Engineering Economics	Dr. Eneyo	4:30 – 6:00 PM	EB 0160
Mon. 11/06/17	Fluid Mechanics	Dr. Celik	4:30 – 6:00 pm	EB 0160
Wed. 11/08/17	Transportation Engineering	Dr. Qi	4:30 – 6:00 PM	EB 0160
Mon. 11/13/17	Statics	Dr. Fries	4:30 – 6:00 PM	EB 0160
Wed. 11/15/17	Hydraulics/Hydrologic Systems	Dr. Benjankar	4:30 – 6:00 PM	EB 0160

\* IF YOU WISH TO PURCHASE A CIVIL (OR MECHANICAL OR INDUSTRIAL) ENGINEERING FE REVIEW MANUAL (PUBLISHED BY BRIGHTWOOD ENGINEERING EDUCATION) FOR A SPECIAL DISCOUNT RATE OF \$60 AND SAVE ON SHIPPING COST, PLEASE E-MAIL OR CALL ERICH KOPP, CHI EPSILON PRESIDENT, AT [ekopp@siue.edu](mailto:ekopp@siue.edu) OR (815)

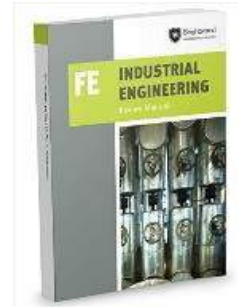
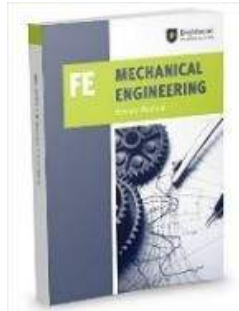
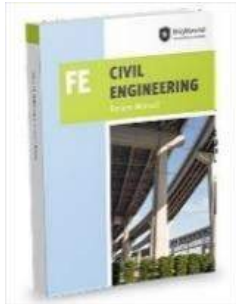
**585-1653** AND MENTION THE TYPE OF MANUAL YOU WILL NEED. THEN BRING **\$60** (CASH OR CHECK PAYABLE TO "CHI EPSILON") TO THE FIRST OR SECOND REVIEW SESSION ON **MONDAY, 10/2/17**, OR ON **WEDNESDAY**,



**10/4/17, TO GET YOUR MANUAL.**

ALL SESSIONS ARE **FREE** TO CURRENTLY ENROLLED **SIUE** STUDENTS AND COST **\$15** PER SESSION FOR OTHERS. FOR MORE INFORMATION PLEASE CONTACT ERICH KOPP, [ekopp@siue.edu](mailto:ekopp@siue.edu) OR **(815) 585-1653**.

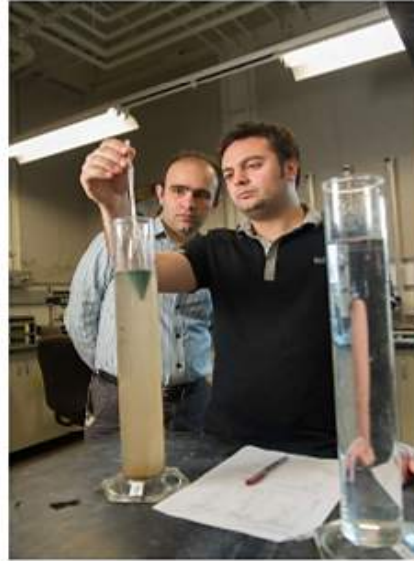
**\*\* Mechanical and Industrial Engineering majors – many of the review session topics are also applicable to your major’s FE Exam. Please feel free to attend them as well.**



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CE 548 Finite Elements  
CE 592-11 Geotechnical Earthquake Engineering

If you are interested in the Civil Engineering graduate program, contact Dr. Ryan Fries at [rfries@siue.edu](mailto:rfries@siue.edu). For information on the geotechnical specialization, contact Dr. Reza Osouli at [aosouli@siue.edu](mailto:aosouli@siue.edu).

[siue.edu/grad/civil-engineering](http://siue.edu/grad/civil-engineering)

## Call for Concrete Canoe Judges

**Southern Illinois University Carbondale** is hosting this year's Mid-Continent Student Conference April 19-21, 2018. We are in search of engineers within the St. Louis ASCE section that might be willing to donate their time and expertise in judging the student competitions. We welcome all professionals and especially those with past concrete canoe or geo-wall judging experience. If interested in judging either of the competitions, please email Addison Jobe at [jobey248@siu.edu](mailto:jobey248@siu.edu)

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Environmental Engineering (MS)  
Explosives Engineering (MS)  
Geotechnics (ME)  
Industrial-Organizational Psychology (MS)  
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