

VOLUME VII  
ISSUE I  
WINTER 2013

# ite DRIVER

## SOUTH CAROLINA SECTION

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### IN THIS ISSUE

## 2013 SCSITE BOARD

Based upon the November 2012 elections, your 2013 board members are...



**PRESIDENT**  
Jennifer Bihl, P.E.  
Bihl Engineering, LLC



**VICE PRESIDENT**  
Joe Sturm  
SCDOT Traffic Engineering



**SECRETARY/  
TREASURER**  
Valerie Holmes, P.E.  
City of Greenville



**PAST PRESIDENT**  
Liz Carpenter, P.E.  
AECOM



**AFFILIATE DIRECTOR**  
Jae Mattox, P.E.  
SCDOT Program Manager



**SDITE SECTION REPRESENTATIVE**  
Lori Elliot, P.E., PTOE  
Stantec



## PRESIDENT'S MESSAGE

### Jennifer Bihl, P.E.

It's hard to believe it is already the end of February! First I would like to thank everyone for their support of my presidency, as always we have great officers and board and are set to have an amazing year!

The board met in late January to finalize the goals for this year. These include providing an excellent slate of meetings, continuing to provide additional opportunities for fellowship and training, partnering more with our fellow organizations such as ASCE, and continuing to focus on increasing our student participation.

The SCSITE spring meeting will be held on March 13th in Columbia (more info on this meeting is inside the newsletter). We will be helping prepare the South Carolina traffic bowl team for their competition at the Southern District Meeting in April. We will start the meeting with some short presentations from students and then let loose with a traffic bowl competition between students and practitioners... needless to say, it should be exciting!!

Between April 7th and 10th, the annual Southern District meeting will be held in Charlotte. I hope that everyone takes advantage of it being close by to stop in and be a part of it. It is a really exciting conference with information sharing from around the section and is always a good time.

This year, SCSITE will be hosting the Leadership Training Program developed by Southern District for transportation professionals in South Carolina. Other sections have implemented it to great success and have recommended that we roll out the program to our section. We are really excited to be able to bring this opportunity to our members and hope that you can attend!

On May 7th, SCSITE will host Vendor Day. For those of you that have not attended before, it provides a forum with the vendors and the application of their technology is presented for the engineers and technicians in our field. Southern District has taken notice of this event and other chapters have started doing their own Vendor Day using ours as a model. Way to set the bar South Carolina!

These are just the few items that are planned in the short term and as you can see it is shaping up to be a very exciting year! I encourage everyone to get involved and look forward to seeing you at these events!



*Jennifer*

### DID YOU KNOW...

I-95 crosses 15 States and the District of Columbia, the most by any Interstate!

I-90 crosses the second most States at 13.



## 2012 CHRISTMAS PARTY! Liz Carpenter, P.E.

Thank you to everyone who attended the Christmas Party, I think we have found the perfect spot! The room was private, everyone was comfortable, the food was good, the drinks were good, and the presentation of awards was well heard and respected (winners detailed below!).

Our new Chapter officers were recognized. Jennifer Bihl was initiated as our 2013 Chapter President, Joe Sturm moved into the 2013 Vice President role, and Valerie Holmes was congratulated as the new SCSITE secretary/treasurer.

It was great to see those of you that attended the Christmas Party and if you couldn't make it this year, we hope to see you next year!

## SCSITE 2012 SCHOLARSHIP & MEMBER AWARDS!



< SCSITE Stafford-Clark Scholarship  
Katelyn Nicole Love,  
Clemson University

SCSITE Gilbert Rowe Scholarship >  
Michael William Wissehr,  
The Citadel



< Life Member Award  
Howard Chapman, for 25 years of service to our Chapter and Int'l ITE

Presidents Award >  
Jae Mattox, for 6 years of dedication and hard work as SCS newsletter editor, winning the Int'l District and Section Newsletter Award in 2009.



## SPRING MEETING

Please mark your calendars for the spring meeting! The Clemson Traffic Bowl team, which will represent the state of South Carolina at the Southern District event in Charlotte, will challenge members from our section in a South Carolina traffic bowl! In addition, student members will also present current research on which they are currently working. Lunch will be catered by Centerplate Catering. Please RSVP to Valerie Holmes by March 6th at [vholmes@greenvillesc.gov](mailto:vholmes@greenvillesc.gov)



**WHERE:** McGuire Room at the Colonial Life Arena in Columbia

**WHEN:** Wednesday, March 13, 2013 from 10 AM to 2 PM

**COST:** Members: \$15, Government Members: \$10, Students: \$5

**Presenting Students & Traffic Bowl Students – FREE**

Please also let Valerie know if you are interested in competing in the Traffic Bowl. We will form teams to determine if the practicing professionals have a better understanding of traffic engineering principles than the freshly trained students!

*Cancellations will be accepted until March 6th, you will be charged for lunch if you have reserved a spot and cannot attend after this date.*

Please follow these links for more information regarding the traffic bowl:

<http://www.ite.org/trafficbowl/default.asp>

<http://www.ite.org/trafficbowl/rules.pdf>

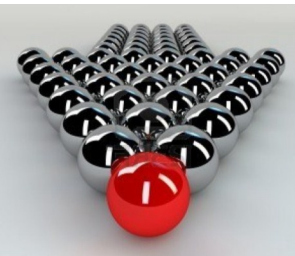


## SOUTHERN DISTRICT LEADERSHIP TRAINING

Southern District ITE has developed a leadership program for the transportation professionals in the District. Other sections have implemented it to great success and have recommended that we roll out the program to our section. We are really excited to be able to bring this opportunity to our members! Some quick facts on what to expect:

This training is comprised of 14 modules that cover key leadership characteristics and practices, including:

- |                                                        |                                                                         |
|--------------------------------------------------------|-------------------------------------------------------------------------|
| <input type="checkbox"/> Leadership Overview           | <input type="checkbox"/> Effective Relationships with Elected Officials |
| <input type="checkbox"/> Having a Positive Influence   | <input type="checkbox"/> Dealing with Difficult People                  |
| <input type="checkbox"/> Creating a Shared Vision      | <input type="checkbox"/> Effective Leader Communications                |
| <input type="checkbox"/> Developing Leaders            | <input type="checkbox"/> Mentoring Employees                            |
| <input type="checkbox"/> Creating Positive Change      | <input type="checkbox"/> Developing Vision and Action Plans             |
| <input type="checkbox"/> Demonstrating Character       | <input type="checkbox"/> Identifying and Engaging Stakeholders          |
| <input type="checkbox"/> Conducting Effective Meetings | <input type="checkbox"/> Evaluating Leadership Effectiveness            |



Training will be facilitated by senior professionals from South Carolina and other nearby sections, including Richard Atkins and former SDITE president Jim Westmoreland from North Carolina, who both developed the leadership training program for Southern District.

The training will be held as a retreat over two full days beginning on either a Thursday evening or Friday morning and continuing through Saturday afternoon. Once the date and location has been determined, the cost for participants, if any, will be determined, but it is not expected to exceed \$100 per person for lodging, meals and training.

To allow for creativity and interaction among participants and facilitators, there is a maximum number of members that can attend each training session. The program will be offered again in the future if we are unable to accommodate all interested members this session.

Please let Lori Elliott, [lori.elliott@stantec.com](mailto:lori.elliott@stantec.com), and Jennifer Bihl, [jennifer@bihl-engineering.com](mailto:jennifer@bihl-engineering.com), know by **Friday, March 8th** if you are interested in participating in this program.

**2013  
SAVE THE  
DATES**

**SPRING MEETING  
March 13, 2013**

**(Wednesday)**  
McGuire Club Room,  
Colonial Life Arena,  
Columbia

**SOUTHERN DISTRICT  
ITE MEETING  
April 7–10, 2013**  
Charlotte, NC

**ITE TECHNICAL CON-  
FERENCE & EXHIBIT  
May 3–6, 2013**  
San Diego, CA

**VENDOR DAY  
May 7, 2013 (Tuesday)**  
Brookland Banquet  
Conference Center,  
Columbia

**GOLF TOURNAMENT  
September 5, 2013  
(Thursday)**  
Northwoods Golf Club,  
Columbia

**CHRISTMAS PARTY  
December 5, 2013  
(Thursday)**  
Sheraton Downtown  
Hotel, Columbia



## PAY YOUR DUES ONLINE WITH PAYPAL

Now you can conveniently pay your Section Dues online through PayPal using your credit card!

If you have not yet paid your section dues for 2013, please visit the section's website at [www.SCS-ITE.org](http://www.SCS-ITE.org), click on the PayPal link, and follow the simple on-screen instructions. The entire process is quick and easy to follow. If you are unsure if your section dues are current, please send Valerie Holmes an email at [vholmes@greenville.org](mailto:vholmes@greenville.org) and she will let you know your status.



## JOIN SCS-ITE TODAY!

Membership forms are available at:

[www.SCS-ITE.org](http://www.SCS-ITE.org)

Dues are only \$20 annually!



## TREASURER'S REPORT Joe Sturm

In my last act as treasurer, I write to you about the financial status of our section. As of 1/24/2013, we have **\$9,591.02** in our section's checking account. This amount enables us to set a similar budget as last year, provide a sizable contribution to our scholarship accounts, and meet the wide-ranging goals of our section. We have many exciting things planned for the coming year, and we thank you for your support!

Without these funds, we would not be able to offer the educational and networking opportunities that are beneficial to us all.

The scholarship balances, as of 1/29/13, are as follows:

- ◆ Rowe **\$29,337.50**
- ◆ Stafford Clark **\$32,219.01**

Our PayPal account, which we can draw from at any time, has a balance of **\$133.84** as of 1/24/2013, which is the result of some section members paying annual dues through the website. If you have not yet paid dues for 2013, you have a few options: pay the new section treasurer Valerie Holmes at the address below, at an upcoming section meeting, or through PayPal. Thanks!

Valerie Holmes, P.E.  
City of Greenville  
P.O. Box 2207  
Greenville, SC 29602



## SCSITE WELCOMES NEW MEMBER PETER KURTZ!

Peter Kurtz is a Regional Manager with Quality Counts working out of their Carolina office in Charlotte. Peter graduated from the University of Oregon with a Bachelor's of Science in Business Administration and Economics and has worked with Quality Counts since its inception in 2003. Originally starting as a part time Technician and later an Intern while in college, he signed on as a full time Operations Manager upon his graduation 2009.

He relocated to the Carolinas shortly thereafter to start Quality Counts' Carolina office and now oversees all operations throughout the Southeast and recently became a partner of the firm. His personal interests include traveling, fishing, walking his dog, and most of all being a fan of the Oregon Ducks.





# VENDOR DAY 2013

**FREE** ADMISSION | **FREE** LUNCH | **DOOR PRIZES**

**WHEN:** MAY 7, 2013 – 9:00 AM TO 4:00 PM

**WHERE:** BROOKLAND BANQUET & CONFERENCE CENTER, WEST COLUMBIA

Don't miss a great opportunity to meet with local signal equipment, signing and marking, and safety field crews regarding the equipment they use on a daily basis in the field! There will be opportunities for PDHs and networking!

Two technical sessions with four presentations will begin at 9 AM and 2 PM.

**REGISTER AT:** <http://www.clemson.edu/t3s/ite/>



The "BEWARE OF CLOWNEY" sign should really be diamond-shaped, and the general information signs should be moved to a less critical location...



**ITE 2013 Technical Conference and Exhibit**

**March 3 - 6, 2013**

Sheraton San Diego Hotel & Marina, San Diego, CA



## SCSITE SHIRTS & VISORS FOR SALE!

Please contact Joe Sturm for an ITE Logo Shirt and Jennifer Bihl for an ITE Logo Visor!





## ERIC TRIPI SERVES ON ITE EXPERT REVIEW PANEL FOR TRIP GENERATION UPDATE

Eric Tripi, P.E., PTOE



In May of last year, ITE solicited experts to serve on an expert review panel to update the 2nd Edition of the Trip Generation Handbook (TGH) which was last published in 2004. Since I have a passion for all things Trip Generation-related, I decided to submit my qualifications. To my great delight I was one of 10 people selected to participate, what an honor!

The panel of 10 experts convened in Washington DC at ITE Headquarters the last week of May 2012 for two days of brainstorming and strategizing. ITE Executive Director/CEO Tom Brahms presided over the sessions and was intimately involved in the proceedings. Two other ITE staffers, Lisa Fontana-Tierney (Traffic Engineering Senior Director) and Jina Mahmoudi (Planning and Engineering Projects Director), also participated in the meetings.

Each chapter of the TGH was reviewed and analyzed. Opportunities for clarifying concepts, improving graphics and tables, and expanding on topics were considered. As an example, the 3rd edition will include more discussions on topics such as person-trip calculations, person-trip data collection, internal capture trips, and trucks.

I was appointed subcommittee chair for the Pass-by/Diverted Trips chapter. Our subcommittee made several recommendations, including clarifying the diverted trip concept, revising pass-by tables, and replacing an existing example problem with a new and improved example and graphic. We hope this will help make calculating pass-by and diverted trips simpler!

As a final remark, during our meetings ITE stressed over and over the need for more trip generation data to be submitted. Please know they are happy to receive it regardless of



format or completeness. Most of us have performed traffic counts for various land uses over the years; please consider submitting this data and future data to ITE!

Overall it was a fantastic experience and very rewarding. I never thought I would have the opportunity to actually contribute to the writing of a manual that has served as such an essential reference for me over the years.



## SUNNY NANDAGIRI, P.E., RUNNING FOR SOUTHERN DISTRICT ITE SECRETARY/TREASURER!



"I am honored to be nominated to run for the office of Secretary/Treasurer for Southern District ITE. I am very passionate about ITE. For 17 years I have enjoyed every opportunity to be associated with ITE and would like to continue to give back to the organization of my choice!"

Sunny has 17 years of experience in traffic and ITS engineering including project and program management, signal timing, traffic calming, signal design, signal system, ITS, impact analysis, planning, traffic control, and operations. He has also been an active member of ITE for 17 years and has significantly contributed to SCSITE during that time!

*Please vote Sunny for Secretary/Treasurer when the ballots are sent out to SDITE members in March 2013!*

## SELECT EXPERIENCE FOR SUNNY

- ◆ AECOM (2002-Current): Currently-AVP-Manage traffic engineering, ITS and construction projects across the SE; lead traffic & ITS practice for the Southern States (NC, SC, GA, AL, and TN) region.
- ◆ City of High Point (1995-2002): Traffic Operations Manager-led analysis and design projects; supervised four divisions of the Transportation Department for day-to-day operations.
- ◆ Student ITE member at Clemson University.
- ◆ NCSITE- Leadership positions including Council Director.
- ◆ Jay W. Quinn, Jr. Technical Excellence Award from NCSITE in 2010.
- ◆ SCSITE- Technical Committee Chair.
- ◆ SDITE- Strategic Plan Annual Meeting Committee member and Technical Knowledge Team member representing NC and SC.
- ◆ SDITE- Technical committee co-chair for the SDITE 2008 (Charleston, SC) and SDITE 2013 meeting (Charlotte, NC). Attended seven consecutive SDITE meetings.

## LEGISLATIVE UPDATE Gaye Sprague, P.E.



*Sprague & Sprague*  
CONSULTING ENGINEERS

The South Carolina Legislative session began in January. The House Education and Public Works Transportation Subcommittee held a meeting on Wednesday, January 16th to consider this legislation proposed for texting while driving:

**H 3121 General Bill, By Bowen, Daning, Henderson and Southard - A BILL TO AMEND THE CODE OF LAWS OF SOUTH CAROLINA, 1976, BY ADDING SECTIONS 56-5-3890, 56-5-3895, AND 56-5-3897 SO AS TO PROVIDE THAT IT IS UNLAWFUL FOR A PERSON TO USE AN ELECTRONIC COMMUNICATION DEVICE WHILE DRIVING A MOTOR VEHICLE UNDER CERTAIN CIRCUMSTANCES, TO PROVIDE A PENALTY, AND TO PROVIDE FOR THE DISTRIBUTION OF MONIES COLLECTED FROM FINES ASSOCIATED WITH VIOLATIONS OF THESE PROVISIONS; AND TO AMEND SECTION 56-1-720, RELATING TO THE ASSESSMENT OF POINTS AGAINST A PERSON'S DRIVING RECORD FOR CERTAIN MOTOR VEHICLE VIOLATIONS, SO AS TO PROVIDE THAT POINTS MUST BE ASSESSED AGAINST THE DRIVING RECORD OF A PERSON CONVICTED OF IMPROPER USE OF AN ELECTRONIC COMMUNICATION DEVICE WHILE DRIVING A MOTOR VEHICLE.**

Please call me if you have thoughts about this, 864-242-3106, or e-mail at [gayesprague@cs.com](mailto:gayesprague@cs.com)

# DIPAK PATEL, P.E. WINS AASHTO'S 2012 PRESIDENT'S NATIONAL TRANSPORTATION AWARD!

*Dipak M. Patel, P.E., Technical Applications Director with SCDOT, received the 2012 AASHTO President's National Transportation Award in recognition of outstanding leadership and innovation in research.*

*AASHTO's President's Transportation Award recognizes individuals, programs, or teams for improving environmental conditions, utilizing technology, implementing excellent executive management skills, increasing efficiencies, and making effective use of taxpayer dollars.*

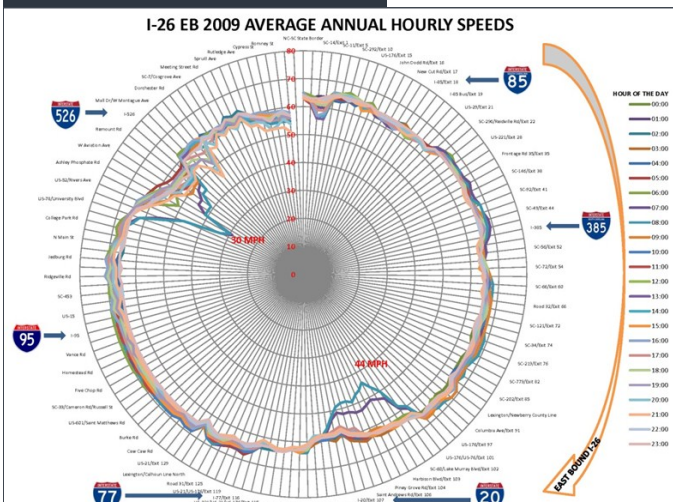


Dipak utilized INRIX technology, a tool used to examine traffic flow and average speed data, to produce an entire year's worth of traffic information in a single image. His innovative tool saves money and other resources by providing accurate traffic information for future highway improvement projects.

SCDOT's Incident Management unit received the rights to use INRIX data in 2007. The initial purpose was to use this GPS-based data to calculate travel times for motorists and display them on message boards along interstates in the state. The historical data was then recognized as a valuable asset that could lead to huge cost savings by solving congestion problems with pinpoint solutions for problem areas versus miles of wholesale widening and applying the information captured in this data into the entire spectrum of SCDOT's Planning operations.

*INRIX partners with more than 400 customers in the Automotive, Mobile And Public Sector Markets to collect speed and travel time data. Data is recorded for all sections of a roadway every few seconds, 24 hours a day, 7 days a week, 52 weeks a year.*

Dipak began using INRIX data while developing the Interstate Corridor Management Plan for the I-20 and I-26/I-126 corridors in Columbia, commonly referred to as "Malfunction Junction" by motorists. Dipak wanted more accurate data than the information gathered by the traditional methods, such as AADT, delay, travel times, LOS, which are generally based upon small samples that are then extrapolated to a future year, exponentially increasing the error.



Using the historical data, Dipak create a Radial Graph using Excel to display an entire year's worth of traffic data representing the average annual speeds for each hour of the day on one page. The radial graph shows the speeds from 0-70 MPH in the middle; the different colored lines represent an hour of the day, and the circumference slices the face into segments representing sections from interchange to interchange. Comparisons of multiple years of data can show changes in Average Speeds or Travel Times in a pinpointed area that are either satisfactory, or bear watching due to a drop in average speeds, or calls for measures to relieve the problems sooner rather than later.

The problems that are identified can potentially be solved with less costly measures. Dipak noted that typical solutions for interstate congestion include a wholesale widening of a significant section of interstate that might cost in the \$200-\$300 million range or more. That answer to the problem might help, but it might also simply move the congestion problem "downstream." SCDOT's early innovative use of this data made available to

the agency in 2007 took what was intended to be message board information to higher levels in all phases of project and program planning. What started out as a convenience for drivers is becoming an effective tool for gathering a larger and more accurate database, and potentially saving the taxpayers millions of dollars by applying available funding resources to more high-priority projects.





# WETLANDS PROTECTION

Ross Oakley, P.E., LEED Green Associate

As developable land around us with the infrastructure available to support development becomes scarcer, we, as engineers, face challenges in promoting economic growth. We are constantly being presented with more regulatory hurdles to jump and less space to plan and design projects that enhance the community and promote job growth. Our challenge is to develop within these constraints that are ever changing and toughening. One of these is wetlands and the necessary regulations surrounding them. As one of our most valuable resources, we must protect them, and when necessary to disturb them, we must limit the impacts. Described below are several methods for wetland protection during the construction phase of a project.

## Detailed Pre-Bid and Pre-Construction Conference

It is very important to start out on the right foot when beginning a project once the permitting is complete. This begins at the Pre-Bid Conference, where all contractors bidding on a project are gathered together. It is crucial to point out on the plans where the wetlands, wetland buffers and wetland/buffer signage are located. Once a contractor is selected, a Pre-Construction Conference should be held on or near the project site. It is very important to go over the Construction Sequence and Phased ESC Plans to ensure BMPs are implemented correctly and effectively. For example, all wetland signs should be installed in the locations as shown on the plans prior to any land disturbing activities, including silt fence.

## Perimeter Control Practices Along Wetland Buffer Boundaries

Once wetland signage is in place, perimeter ESC controls should be installed. Perimeter controls are typically placed on the upland boundary of streams and wetlands during the active construction phase of a project. These include sediment traps and basins, diversions and dikes, berms and silt fences. It is recommended that perimeter controls be installed along the boundary of any required wetland buffer, rather than at the wetland boundary. This allows for additional sediment filtering in the wetland buffer in case the perimeter control fails. If the design of the site does not allow for a wetland buffer or adequate spacing between silt fence and wetlands, a double row should be installed. These BMPs should be reflected in the SWPPP kept on-site. It is important to check these from implementation through the construction to ensure they are installed correctly and working properly.

## Rapid Stabilization near Wetlands

Immediate soil stabilization on a construction site is important to reduce sediment inputs to wetlands on exposed slopes near wetlands. Engineers and Inspectors should encourage contractors to permanently stabilize upland areas near wetlands as soon as possible after completion of ground disturbing work and to use temporary seeding and stabilization if disturbed areas will be left exposed longer than 14 days. The most effective means of stabilization is to establish a hearty grass cover to prevent erosion from occurring. Where practical, a native wetland seed mix should be used immediately adjacent to wetlands. During Construction Observation it is important to observe and note exposed disturbed areas and how long they have been left exposed. It is also important to note grassed areas that do not seem to be germinating properly and to notify the contractor of these areas in order for the situation to be remedied.

## Construction Phasing

The best way to reduce sediment inputs to wetlands is to prevent erosion from occurring at the construction site in the first place. Engineers can help prevent erosion by encouraging construction phasing. Construction site phasing is a process of disturbing land on a site in distinct phases. Under construction site phasing, a portion of the site is cleared and graded, infrastructure is installed, and the disturbed soil is stabilized before work begins on the next phase. Since the amount of soil exposure is limited, this is a preventative approach to ESC. When in the field conducting Site Observations, it is important to ensure the contractor is following the construction phasing, as shown on the phased ESC plan.

## Frequency of Site Observations

Typical Site Observations are scheduled once every week or within 24 hours of a one-half (1/2)-inch rainfall event. The frequency may vary depending on the project type or requirements. An important part of any ESC program is frequent inspections and enforcement. During the rainy season and when construction activities are in or near wetlands, it is recommended to increase the frequency of site observations to ensure ESC practices are operating properly and that no unauthorized construction or land disturbance is ongoing in the sensitive areas.

We find that it is always a balancing act with effective and frequent Site Observations and budget, but going into a project knowing the construction timing and sensitive areas, such as wetlands, it is easier to plan and budget for a successful project that minimizes adverse impacts to our valuable wetland resources.



Ross is a Project Engineer with Alliance Consulting Engineers, Inc. in Columbia and is a licensed Professional Engineer in South Carolina and is certified LEED Green Associate. He can be reached at [roakley@allianceCE.com](mailto:roakley@allianceCE.com)



## NEWS FROM THE CLEMSON STUDENT ITE CHAPTER WAYNE SARASUA, PH.D., P.E. & JENNIFER OGLE, PH.D.

The Clemson University Chapter of the Institute of Transportation Engineers (ITE) is gearing up for a busy and exciting spring semester. So far over the 2012-2013 academic year we have participated in numerous professional, philanthropic, and social events.

Our chapter held weekly meetings throughout the fall and included many great guest speakers, some of which were mentioned in our Fall Update. Recent speakers included Jae Mattox and Marco Friend. One of our big fall activities was the opportunity to give back to our community by participating in the Clemson Habitat for Humanity Homecoming Build. Many of our members participated in this event by helping build trusses for the home built on Bowman Field during the week of homecoming. The house was later moved to a neighborhood in nearby Central.



In December, we attended the annual SCSITE Christmas Party in Columbia. One of our undergraduate members, Katelyn Love, received the Stafford-Clark Scholarship which was presented at this meeting.

In January, over a dozen of our members attended the Transportation Research Board 92nd Annual Meeting in Washington D.C. While in the nation's capital, our students took advantage of the opportunity to hear numerous presentations, network with transportation professionals, and tour the historic city. One of the highlights of our trip was the ITE student reception where we heard from Victor Mendez, the Federal Highway Administrator. At the reception, members of our chapter used the platform to promote the chapter's ongoing efforts to raise awareness on the dangers of texting while driving, by distributing wrist bands with the text 'Stay Alive - Don't Text & Drive' to attendees of the reception.

The chapter will continue to hold weekly meetings over the course of the Spring semester hosting guest speakers from the transportation professional. Additionally, these weekly meetings will provide an opportunity to prepare for the Traffic Bowl competition at the 60th Southern District Annual Meeting in April.

Finally, we want to mention that our chapter is in negotiations to sponsor a race car

owned by Dr. Fred Switzer, a Clemson applied psychology professor. We are in the process of planning an outing to the Atlanta Motor Sports Park in March to watch Fred race!





## NEWS FROM THE SOUTH CAROLINA STUDENT ITE CHAPTER NATHAN HUYNH, PH.D.



The University of South Carolina student chapter of ITE is looking forward to the spring semester of 2013. We will be hosting our first meeting with the USC student chapter of AREMA (The American Railway Engineering and Maintenance-of-Way Association) on January 30, 2013. The topic of discussion will be on the maintenance of railway systems. The presentation will be given by Mr. Dwight Clark, who is an Assistant Chief Engineer for the Union Pacific Railroad. USC ITE is excited about the joint meeting with AREMA, as it will help to broaden our student members understanding of transportation engineering as a whole.

Additionally, the USC student chapter is planning on holding a meeting and field trip at some point later this semester! Finally, we look forward to the election of our

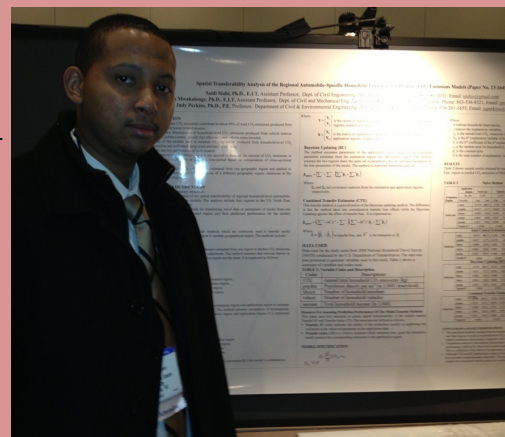
new officers, as all of our current officers plan on graduating this semester. As you can see, USC ITE will be very busy this semester, and we look forward to the continued growth and development of our chapter!



## NEWS FROM THE SOUTH CAROLINA STATE STUDENT ITE CHAPTER JUDITH MWAKALONGE, PH.D.



We bring you greetings from the SCSU ITE chapter! The fall semester was successful and productive. One member of the SCSU ITE Chapter, Mr. James Burgess, graduated in December 2012. The SCSUITE Chapter wishes him the best in his future endeavors! Two Masters students had their abstract accepted for presentation at the 54rd Annual Transportation Research Forum. Additionally, three Masters students will be presenting their research at the Southern District Institute of Transportation Engineers Annual Meeting in Charlotte, NC, April 7-10, 2013.



Seven Masters students traveled to attend the 2013 Transportation Research Board Annual meeting in Washington D.C. Five undergraduate students supported by the Dwight David Eisenhower Transportation Fellowship Program also attended this conference and presented their research. SCSU ITE student chapter president Andrew Brunner, also a 2012-2013 Minority Fellow, presented his research at a poster session entitled, "The Effects of Urban Sprawl on Daily: Atlantic Station Implementation." His research was well received and sparks some debate on Smart Growth Implementation!



# NEWS FROM THE CITADEL STUDENT ITE CHAPTER

## WILLIAM J. DAVIS, PH.D., P.E.



**ITE Journal, January 2013:** The Citadel achieved a milestone in the recent ITE Journal, Vol. 83, No. 1, by receiving three citations.

- ◆ Pg. 27 – Richard A. Day, P.E., PTOE (F) was profiled as the Southern District Representative to the ITE Board of Direction. His biographical sketch provided an overview of his professional career and listed his academic degrees that include a BSCE from The Citadel.
- ◆ Pg. 16 – Cadet Kyle Taylor, Citadel ITE student member, was recognized through a two-page profile of his academic and professional activities, which include being named the first volunteer ambassador in South Carolina for the International Living Future Institute.
- ◆ Pg. 18 – An article entitled “Exploring Transportation’s Role in Reducing Childhood Obesity,” funded by a grant from the Robert Wood Johnson Foundation, was published, which recognized the work of ITE’s Technical Advisory Committee that includes William J. Davis, Ph.D., P.E.

**Citadel Delegation accepts 2012 Ridgway Award at ASCE Annual Conference:** Four students, an alumnus, faculty advisor, and Dean of Engineering traveled to Montreal, Canada to officially accept the 2012 ASCE Robert Ridgway Student Chapter Award recognizing The Citadel as the most outstanding chapter of the American Society of Civil Engineers which includes 28,000 student members in 281 chapters across the United States and 11 countries. The Citadel delegation joined over 600 conference participants from around the world and was recognized during the Leadership and Society Awards Presentation Ceremony. ASCE President Andrew W. Herrmann, Past-President Kathy J. Caldwell, and Executive Director Patrick J. Natale were on hand to present the award.



**2012 Gilbert H. Rowe Transportation Engineering Scholarship:** SCITE Scholarship Committee selected USN OC Michael W. Wissehr as recipient of the 2012 Gilbert Rowe Scholarship. Michael is a senior in civil engineering and studies an activity-duty student who will be commissioned in the US Navy upon graduation. Citadel graduate Jae Mattox was recognized with the SCITE President’s Award.





# JOB POSTING

## Civil Design Engineer/PM



Stantec's multi-disciplinary office in Charleston has an opportunity for a highly motivated and experienced Civil Engineer. We are seeking a candidate with experience in professional practice and project management related to land development design. This position requires the ability to handle significant projects, client and government agency responsibility and effectiveness in working with a team. Responsibilities include design and preparation of site, grading, drainage, erosion control and utility plans as well as design reports and knowledge of permitting requirements for residential, commercial, and industrial sites. The applicant must also have strong water, sewer, and hydrology design/modeling skills.

### Qualifications

- ◆ Bachelor's or Master's degree in Civil Engineering
- ◆ Minimum 6 years of experience in the profession of Civil Engineering
- ◆ Registered Professional Engineer in SC is an asset but not required
- ◆ Experience working in a professional office environment
- ◆ Experience with site and roadway geometrics, grading and utility design.
- ◆ Experience with water, sewer and storm water design and hydrology calculations/modeling.
- ◆ Experience working with junior staff, client relationships and complex projects
- ◆ Sound knowledge of industry practice and demonstrated commitment to excellence in customer service
- ◆ Knowledge of the permitting process in Coastal South Carolina.
- ◆ Experience with both private and public sector clients/projects
- ◆ Demonstrated ability to prioritize and multi-task in a fast-paced environment
- ◆ Excellent oral, written and graphic communication skills, including computer literacy in Civil3D 2009 or later version, Hydrology / Hydraulic design software, word processing, Excel and other standard office software.

Please contact Bryan Kizer, P.E. at [bryan.kizer@stantec.com](mailto:bryan.kizer@stantec.com) or (843)740-7700 for more information.

## LAST ISSUE'S TRIVIA ANSWERS

Congrats to our former trivia author, Alan Davis, for being the first to reply to the trivia questions from the last issue!

### QUESTION #1

I have two arms, but fingers I have none. I have two feet, but I cannot run. I carry well, but I have found I carry best with my feet off the ground.

A Wheelbarrow!

### QUESTION #2

Assume that  $a = 1$  and  $b = 1$ .  
 So,  $a = b$ .  
 Square each side of this equation:  $a^2 = b^2$   
 Move all terms to one side:  
 $a^2 - b^2 = 0$   
 Factor:  $(a-b)(a+b) = 0$   
 Simplify:  
 $(a-b)(a+b)/(a-b) = 0/(a-b)$   
 $1(a+b) = 0$   
 $(a+b) = 0$   
 $1 + 1 = 0$   
 $2 = 0$

This cannot be, so explain why?

It is a fallacy – this proof has an error in it because you are dividing by zero at one point in the operation “0/(a-b)” and that is UNDEFINED!

## TRIVIA!

### Joe Sturm

What are the numerical values of A, B, C, D, and E below, and why?

16	3	E	13
5	10	11	C
A	6	7	12
D	B	14	1

Be the first to answer correctly to be recognized in the next issue and receive a \$5 discount at the next meeting.

Email your answer to [sturmjp@scdot.org](mailto:sturmjp@scdot.org)





# VENDOR UPDATE

## Quality Counts

*"Americans will put up with anything provided it doesn't block traffic."*

- Dan Rather

### NEWSLETTER EDITOR

**RICK REIFF, P.E., PTOE**

Thank you again to everyone who has contributed to this month's issue! Please let me know if you have any project news, member announcements, job opportunities, or anything else you would like to contribute to the next newsletter! Anyone can submit material!

Please send any news, questions, or comments to my attention at [rick.reiff@stantec.com](mailto:rick.reiff@stantec.com)



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**Peter Kurtz**  
Office: 704.215.4616  
Mobile: 503.515.5084  
[pkurtz@qualitycounts.net](mailto:pkurtz@qualitycounts.net)

**Keith Ripperton**  
Office: 704.215.4616  
Mobile: 704.756.0975  
[kripperton@qualitycounts.net](mailto:kripperton@qualitycounts.net)

[www.QualityCounts.net](http://www.QualityCounts.net)



# Institute of Transportation Engineers South Carolina Section

## 2013 SECTION LEADERSHIP

### **PRESIDENT**

**Jennifer Bihl, P.E.**  
Bihl Engineering, LLC  
12 Park Square North  
Beaufort, SC 29907  
P: 843.637.9187  
[jennifer@bihl-engineering.com](mailto:jennifer@bihl-engineering.com)

### **VICE PRESIDENT**

**Joe Sturm**  
SCDOT Traffic Engineering  
955 Park Street  
Columbia, SC 29202  
P: 803.737.0137  
[sturmjp@scdot.org](mailto:sturmjp@scdot.org)

### **SECRETARY/TREASURER**

**Valerie Holmes, P.E.**  
City of Greenville  
P.O. Box 2207  
Greenville, SC 29602  
P: 864.467.4360  
[vholmes@greenvillesc.gov](mailto:vholmes@greenvillesc.gov)

### **PAST PRESIDENT**

**Liz Carpenter, P.E.**  
AECOM  
810 Dutch Square Boulevard, Suite 202  
Columbia, SC 29210  
P: 803.798.1073  
[elizabeth.carpenter@aecom.com](mailto:elizabeth.carpenter@aecom.com)

### **SDITE SECTION REPRESENTATIVE**

**Lori Elliot, P.E., PTOE**  
Stantec  
4969 Centre Point Drive, Suite 200  
North Charleston, SC 29418  
P: 843.740.7700  
[lori.elliott@stantec.com](mailto:lori.elliott@stantec.com)

### **AFFILIATE DIRECTOR**

**Jae Mattox, P.E.**  
SCDOT Program Manager  
955 Park Street  
Columbia, SC 29202  
P: 803.737.1805  
[mattoxjh@scdot.org](mailto:mattoxjh@scdot.org)

## ABOUT ITE

The Institute of Transportation Engineers is an international educational and scientific association of transportation professionals who are responsible for meeting mobility and safety needs. ITE facilitates the application of technology and scientific principles to research, planning, functional design, implementation, operation, policy development and management for any mode of transportation. Through its products and services, ITE promotes professional development of its members, supports and encourages education, stimulates research, develops public awareness programs and serves as a conduit for the exchange of professional information.

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## 2013 COMMITTEE CHAIRS

**Awards/Nominations:** Liz Carpenter – AECOM, [elizabeth.carpenter@aecom.com](mailto:elizabeth.carpenter@aecom.com)

**Membership:** Ryan Eckenrode – AECOM, [ryan.eckenrode@aecom.com](mailto:ryan.eckenrode@aecom.com)

**Newsletter:** Rick Reiff – Stantec, [rick.reiff@stantec.com](mailto:rick.reiff@stantec.com)

**Scholarship:** Rick Reiff – Stantec, [rick.reiff@stantec.com](mailto:rick.reiff@stantec.com)

**Social:** Mike Ridgeway – SRS Engineering, [mridgeway@srsengr.com](mailto:mridgeway@srsengr.com)

**Technical:** Sunny Nandagiri – AECOM, [sreekanth.nandagiri@aecom.com](mailto:sreekanth.nandagiri@aecom.com)

**Webmaster:** Berry Mattox – SCDOT, [mattoxtb@scdot.org](mailto:mattoxtb@scdot.org)

**Clemson Student Chapter Advisor:** Wayne Sarasua, [sarasua@clermson.edu](mailto:sarasua@clermson.edu)

**Clemson Student Chapter Advisor:** Jennifer Ogle, [ogle@clermson.edu](mailto:ogle@clermson.edu)

**The Citadel Student Chapter Advisor:** Jeff Davis, [jeff.davis@citadel.edu](mailto:jeff.davis@citadel.edu)

**USC Student Chapter Advisor:** Nathan Huynh, [huynhn@cec.sc.edu](mailto:huynhn@cec.sc.edu)

**SC State Student Chapter Advisor:** Judith Mwakalongo, [jmwakalo@scsu.edu](mailto:jmwakalo@scsu.edu)

**DRIVER** is the official publication of the South Carolina Section Institute of Transportation Engineers, the professional society for transportation engineers in South Carolina. It is affiliated with Southern District 5 ITE and International ITE.

Please submit any news on members, the section, or the profession to Rick Reiff at [rick.reiff@stantec.com](mailto:rick.reiff@stantec.com)