

INSTITUTE OF TRANSPORTATION ENGINEERS



**Texas A&M University Student Chapter
2012 – 2013 Annual Report
Submitted: April 1, 2013**



Annual Report of Student Chapter Activities 2012-2013

1. STUDENT CHAPTER OFFICERS

President: Xiaosi Zeng Membership Sec.: Yanfen Zhou
VP for Technical Activities: Brad Brimley Treasurer: Santosh Rao
VP for Outreach: Gregory Larson Public Relations Dir.: Adel Khodakarami
Corresponding Sec.: Zhi Chen Librarian: Hadi Kharazee
Webmaster: Liteng Zha

2. STUDENT CHAPTER MEMBERSHIP

Number of Student Chapter members: 44
Number of Student members of the Institute: 29
Number of Students eligible to be a Student member of the Institute: 44
Number of faculty members who are current ITE members: 5

3. INFORMATION ON TRANSPORTATION ENGINEERING ENROLLMENT

Number of undergraduate students (Sophomore-Senior years) in Civil Engineering Department:
Full-Time: 625 Part-Time: 58

Does your curriculum allow an undergraduate student to major or minor in Transportation? Yes,

Number of Graduate Students in Transportation:
Full-Time: 46 Part-Time: 0

4. STUDENT CHAPTER ACTIVITIES SUMMARY—See attached report for summary

5. ROSTER OF STUDENT CHAPTER MEMBERS—See attached roster at end of report

Report Submitted by:

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A Message from the President

Howdy! As the president of the Texas A&M University Student Chapter of the Institute of Transportation Engineers (TAMUite), I am pleased to submit our *2012-2013 Annual Report of Student Chapter Activities*. 2012 was a busy and exciting year for all TAMUite student members. Among the highlights of the last year:

- Andrew Card, the former US secretary of transportation, visited the chapter.
- The chapter completed a traffic count project for the city totaling 223 man-hours of work.
- The chapter initiated an elementary school outreach program that educates more than 200+ school children about transportation safety and operations.
- The chapter had a strong presence at TexITE meetings and the annual meeting at Atlanta.

2013 has been and will continue to be a great year for TAMUite. As the chapter president, I plan to further our efforts to improve the overall operations of the organization, including better membership management, better student service, better officer collaboration efficiency, and better communications with members. To encourage member participation in all events, the leadership has established a participation award for most active members. Facebook has been introduced as a new and effective tool to communicate and engage with student members. Also, to better prepare students for a growing ITS industry, the chapter is in the process of establishing an ITS committee that adds ITS elements to various ITE technical activities.

I would like to acknowledge the contributions of TAMUite Past-President Lisa Larsen for her leadership during the calendar year of 2012 and our Faculty advisor Dr. Lord Dominique for his continued support and guidance. Most importantly, I would like to thank all the TAMUite members, whose enthusiastic participation in Chapter activities makes TAMUite the great organization that it is. TAMUite strives for excellence, fosters academic and personal growth, and promotes the transportation profession.

Xiaosi (David) Zeng



President, Texas A&M University ITE Student Chapter

president@ite.tamu.edu

STUDENT CHAPTER MEETINGS

BUSINESS OFFICER MEETINGS

2012: May August November December
 2013: January February March

GENERAL CHAPTER MEETINGS

2012: May June July September
 October November December
 2013: January February March 5 March 19



April 24, 2012: Ed Hard, Program Manager, Transportation Planning, TTI

Mr. Ed Hard from TTI spoke with TAMUite members about the process of transportation planning. TTI is involved quite extensively with a rotational travel survey program in Texas. He focused on the important role that travel surveys play and how technology is shaping travel surveys of the future.



June 5, 2012: Tara Ramani, Program Manager, Air Quality, TTI

Sustainability is a hot topic, and to provide students the background of how to apply sustainability in practical projects, particularly in several facets of transportation, TAMUite invited Ms. Tara Ramani from TTI to speak to us about her involvement with a recent sustainability project.

July 3, 2012: Troy Rother, Traffic Engineer, City of College Station

Mr. Troy Rother from the City of College Station spoke with TAMUite members about the role traffic engineers play their at a city level. Troy spent time discussing his involvement with some recent traffic projects in College Station and his speech provided a great opportunity for our students to learn about working for a city.



September 20, 2012: Mark Kranz and Omar Venzor, From Savant Group

To provide students an opportunity to learn about what to expect as they transi-

tion from student to young professional, TAMUite invited recent graduates Mr. Mark Kranz and Mr. Omar Venzor to share their experiences in this transition within the context of some of their projects .

October 25, 2012: Brian Shamburger , Kimley-Horn & Associates

To introduce TAMUite members to some new safety concerns, TAMUite invited Mr. Brian Shamburger to have lunch and give a speech at an October joint BVITE meeting. He gave a presentation about different design configurations designed to better accommodate vehicular, bicycle and pedestrian traffic along a segment located at the north end of Texas A&M’s campus.



November 4, 2012: Srinivasa Sunkari , Research Engineer, Translink, TTI



Intelligent Transportation Systems (ITS) are innovative ideas and methods to operate and manage our traffic life today, which take advantage of computer and communication technology. To provide TAMUite members a general background of how ITS could change traditional traffic operation methods and what benefits it could bring to us, Mr. Srinivasa Sunkari of the Texas A&M Transportation Institute was invited to share his experience with ITS related projects.

December 4, 2012: Andrew Card, Former US Secretary of Transportation

TAMUite had the unique opportunity to hear from former U.S. Secretary of Transportation—now Acting Dean of the Texas A&M Bush School—Andrew Card. Professors and professionals were also attracted to this meeting. Dean Card provided insights into his experiences in public service and discussed transportation issues that he feels will be important to address in the future. He stressed the importance of being ethical and displaying integrity in our work and encouraged public service.



January 29, 2013: Dan Middleton, Research Engineer, TTI

To make students more familiar with different methods of vehicle detection and to introduce the cutting edge of detection technologies, TAMUite was fortunate to feature Dan Middleton. He talked about detection systems and pointed out some new trends in detection, offering a unique prospective regarding the poten-

tial for connected vehicles.

February 25, 2013: Gary Schatz, Assistant Director, City of Austin

TAMUite officers held a joint meeting with BVITE and provided pizza dinner for the attendees. The objective of this meeting was to help students learn to think outside the box and train their minds to simplify difficult problems. The meeting featured Gary Schatz of the city of Austin, who talked about Innovative Solutions in Austin. He presented several creative solutions that the City of Austin adopted to overcome problems concerning pedestrian, bicycle and transit transportation in urban environments.



March 5, 2013: Cameron Gordon, University of Canberra, Australia



TAMUite had a rare chance to listen to Dr. Cameron Gordon from Australia during his short trip to the US. Dr. Gordon is a professor at the University of Canberra, and he is a renowned financial economist in Australia. The chapter members enjoyed his explanation of project risks and how to handle them in general engineering practices.

March 19, 2013: Karen Dixon, Program Manager of the Roadway Safety Program, TTI

Dr. Dixon was a full professor at Oregon State University before she joined TTI. She has many years of engineering experience in the private sector before entering academia. She gave a speech on how to provide better driveway access to improve traffic safety and operations. Her years of experience with safety research on access management at both national and regional levels provided invaluable insights to TAMUite members.



TECHNICAL PROJECTS

TURNING MOVEMENT COUNT (FUNDRAISER)

In March, TAMUite completed a fundraiser that gave our chapter members real field experience in transportation engineering. We collected traffic count data of vehicles, pedestrians, and bicycles at 11 intersections throughout College Station during the morning, afternoon, and evening peak hours. Many of our chapter members had never previously participated in a traffic count project, and the officers were able to train them on proper safety and counting protocol, and how

to use a JAMAR count-board. Considering only the participation of members doing the counts at the intersections, this project required 188 man-hours of work, with 35 more for compiling the data and organizing the logistical components. We raised enough funds to support some members to attend the ITE Annual Meeting held in Boston later this year.



WEBSITE IMPROVEMENTS & FACEBOOK GROUP

Our ITE website is a great way to communicate with both the chapter members and non-members. This year, the chapter leadership created a webmaster position that is dedicated for website improvements. The ITE calendar (ite.tamu.edu/2013calendar) was created to give all website visitors a glimpse of what is going on with the chapter. Another improvement is an updated student resume service that collects and posts student information for potential employers to view. Our Public Relations Director also actively engages with students on TAMUite Facebook group (www.facebook.com/groups/TAMUite/). In event general meeting, we set up a food poll on Facebook and ask members to vote for their favorite food and to RSVP to the meeting. By doing this, members feel more involved with ITE. More improvements are underway.

ITE TECHNICAL CONFERENCES

ANNUAL ITE MEETING AT GEORGIA

The chapter cosponsored ten chapter members to attend the International ITE Annual Meeting. The meeting was held in Atlanta, Georgia, and it was a unique opportunity to network with members of other ITE student chapters, and to hear from ITE International leadership. The chapter's Traffic Bowl team participated in the international Traffic Bowl competition with nine other teams and fought through the second round in a tight match to a third place finish. All students actively engaged in a variety of events at the conference, such as technical presentations, product exhibitions, and tours that explore Atlanta. Texas A&M University was well represented by all participants from our chapter.



TEXITE FALL MEETING AT FORT WORTH

The TAMUite chapter sponsored seven students to attend the Fall 2012 TexITE meeting at Fort



Worth in August. Chapter members utilize this opportunity to participate in the technical breakout and plenary sessions, and to socialize with Texas transportation professionals. The Chapter Membership Secretary at the time mentioned one of the most interesting panel discussions he heard was on putting engineering judgment back into practice. TAMUite received a plaque for

having represented the Texas District at the International Traffic Bowl Competition.

TRB ITE STUDENT MEMBER RECEPTION

Chapter members attended the reception at the ITE headquarters in Washington, D.C. during the 2013 TRB Annual Meeting. During this event, Victor M. Mendez, from FHWA, discussed how technological innovations used in transportation engineering practices help shape communities and make them safer, more mobile and livable. We enjoyed this reception where we could meet students from other universities and share knowledge, contacts, tasty food and laughter.



FIELD TRIPS

PORT OF HOUSTON

On August 8, TAMUite organized a field trip to the port of Houston, where chapter members had the opportunity to learn about the operations of cargo transportation in and out of the harbor. The students also took a 30-min boat tour along the waterway and witnessed the operations in action.



HOUSTON TRANSTAR

Houston TranStar is a consortium of four government agencies that come together for providing Transportation Management and Emergency Management services to the Greater Houston Region. On October 19, the chapter sponsored a tour to TranStar, where the TranStar public info



officer, Dinah Massie, and the center director guided the tour for 18 chapter members. This trip gave the students firsthand knowledge of how the state-of-the-art technologies work together to seamlessly coordinate management efforts across different agencies for events as small as data collection to as large as hurricane evacuations.

HARRIS COUNTY TOLL ROAD AUTHORITY

The student chapter members visited the incident management command center of the Harris County Toll-Road Authority in Houston on October 19. The assistant chief, Randy Johnson, talked to the students about the center history, functionalities, and specifically the wrong-way warning module that helped save several potential fatal crashes.



CITY OF COLLEGE STATION



On Feb 21, eight chapter members made a field trip to a local signalized intersection and learned the components of a signal cabinet and how a signal controller operates in the field. The tour was guided by a city engineer, Garrett Martin. On March 21, chapter members visited the Public Works Department at College Station to learn how a central signal controller communicates with all the signalized intersections in the city, how traffic engineers control signals for different times of the day and for special occasions, and how to program signal timing plans. These two trips provided TAMUite members a great opportunity to better understand signal control operations.

COMMUNITY SERVICE ACTIVITIES

ADOPT-A-HIGHWAY

TAMUite volunteers to collect trash and clean a two-mile stretch of roadway in Bryan, Texas. This is a highway that provides access to a major recreation spot in the Bryan-College Station area, so it not only tends to have a large amount of trash, but the group feels it is important to clean so that visitors have a nice experience in Aggieland.



On April 14, June 2, and November 10 in 2012, and January 26 in 2013, the chapter members went out to work for keeping Texas clean. It is voluntary for those that decide to help, but is organized by the Chapter. The good Aggie spirits help bond fellow transportation students together while giving back to the local community. The event usually starts the collection at nine in the morning on a scheduled Saturday and is done by noon. The April event coincides with the “Don’t Mess with Texas Trash-Off,” which is the nation’s largest community improvement project.



ELEMENTARY SCHOOL OUTREACH

TAMUite also spent time volunteering at Pebble Creek Elementary School on two occasions. Because Pebble Creek Elementary is part of the local school district (College Station Independent School District - CSISD), it again provided a chance for the student group to give something back to the community. It was an opportunity for the graduate-level students to teach elementary school children that could be future transportation engineers.

The first visit involved with some of the school’s third and fourth graders, and 11 chapter members participated. The activities included introducing them to what transportation engineering is, what engineers do, and why transportation engineering is important. To accomplish this task, the volunteers played a game called “I’m Going on a Trip.” Af-



ter showing them a picture of where the group is traveling, the children were asked what the best mode of transportation is to complete the trip. Almost all trip modes were discussed. It allows the children to see how they are all affected by transportation. The game successfully connected them with our profession, and ignited their interests in our second activity.



The second activity used a web-based game Gridlock Buster, developed by University of Minnesota ITS Institute, where the students get to control traffic signals. It taught them to not focus on one direction and that all drivers feel they should be treated equally. Although it did not teach them about the technical portions of signalization, it showed them what engineers do in a general sense. It was a fun introduction to the realm of traffic engineering to get them thinking about what engineers do.

Overall, the kids found this activity fun and insightful. It also possibly started a connection between TAMUite and a local elementary school for future outreach. The group is beginning to realize that volunteering is more than picking up trash four times a year, although this is still an extremely important task. It is also the group’s responsibility to reach out to future generations and introduce them to transportation engineering.



The second trip TAMUite completed at Pebble Creek was a brief assembly about bike safety. Although the assembly was only six minutes long, it allowed Mr. Greg Larson, of TAMUite, to express safety as an important aspect of what transportation engineers do. He, who is also a bike enthusiast, gave a brief overview that covered topics such as wearing a helmet, using hand signals for turning and stopping, and general safety tips for properly using a bike in public. This was a small event, but also let the group show another aspect of transportation engineering. We hope to do future assemblies for pedestrian, bus, and car safety at this and other schools within the Bryan-College Station area.

THE BIG EVENT

The Big Event is a student-wide day of community service in Bryan/College Station. It is a time when students of Texas A&M get together to say a big “thank you” to the residents of Bry-

an/College Station by completing various projects for the people that live here full-time. This year the Big Event involved over 19,000 Aggie students gathered to help complete nearly 1,900 projects in the area. TAMUite joined with fellow aggies and gathered up a group of 10 students



to help an older couple in Bryan. The group completed various spring cleaning tasks that included clearing flower beds and washing the house windows. Not only was this again an opportunity for the group to get together and bond, but it was a time to help get to know a member of the community that we would not know otherwise. It was a worthwhile experience that we look to continue into the future since thank you can

never be said enough to the city.

CONNECTING WITH OTHERS

GRADUATE STUDENT COUNCIL DELEGATES

TAMUite maintains a close connection with other student groups at Texas A&M University. The chapter has two delegates participating in the bi-week meetings of the Civil Engineering Department Graduate Student Council (GSC). The purpose is to keep our members informed of ongoing activities of the department and the school, and to reflect our members' suggestions to the GSC. In this process, the Chapter voices transportation engineering concerns that may influence the department's decisions related to student activities.

ACTIVITIES WITH ITE SECTIONS

The Chapter always seeks to connect with other ITE chapters. On October 25, TAMUite cohosted a speaker event with Brazos Valley section of ITE; on December 4, the chapter invited members from BVITE and TTI for a TAMU ITE general meeting. Again, on February 25 more than 10 BVITE members joined us for another general meeting. In August 2012, the



chapter was scheduled to participate in a luncheon event at the Houston section of ITE; however, the event was cancelled. Our chapter is planning to connect with the Houston section again this summer. In addition, a social event with BVITE is currently being planned for June this year.

The chapter leadership considers these as excellent opportunities for our student members to network with the practicing engineers.

MEMBERS SERVING ON ITE COMMITTEES

We are proud of our members who strive for excellence and leadership qualities. Many of our members are actively seeking for chances to serve in various ITE and TRB committees and task forces. For example, Mr. James Robertson has been a member of the ITE standing committee on Ethics since May 2011, while MR. Brad Brimley is a member of the Traffic Engineering Council Committee 111-03. James co-authored an article with Mr. Michael Sanderson on promoting the institute new leadership for the Leadership ITE Task Force, and Brad is writing an informational report on the differences of the definitions of signs and markings between state manuals and the MUTCD. TAMUite encourages student members to serve on various ITE taskforces and committees as a way to contribute to ITE operations and to develop their own leadership skills.

SOCIAL ACTIVITIES

“HAVE A BALL” BOWLING

For the fall opening social on September 15, TAMUite members “had a ball” bowling. This was a fun activity to socialize and get to know new members better, while showing-off their bowling skills. This was a great way to begin the new semester. Students were also introduced to the ITE international organization and the officers helped them to sign up to become a member.



LUNCH AFTER CLEAN-UP



Picking up empty soda cans, cigarette butts, shredded paper, beer bottles and other trash under the sun is hard work that requires lots of stamina. Nothing is more refreshing than a lunch gathering and socializing with fellow trash-pickers after this intense work-out. Across the year, four lunches are sponsored by the chapter for members to enjoy some fellowship and laughter on April 14, June 2, and November 10 in 2012, and January 26 in 2013.

THE “GUESSING” GAME

TAMUite chapter organized the Spring Opening Social on January 22. Close to 30 student members attended the event for food from Jason’s Deli and three fun card games. Among these, Taboo was the most popular game, and the members learned a valuable lesson that we are so lucky to be able to speak. At the end of the gathering, several members expressed interest in joining ITE International.



GATHERING AT THE BRIMLEYS’



We wanted to improve the bond of friendship we feel among members of TAMUite and decided the best way to do that is to see each other outside of ITE activities. On March 8, our Vice President, Brad Brimley, initiated monthly “unofficial” TAMUite social activities. We invited all members to gather for food and games on a Sunday evening of each month and had an enjoyable time at the first gathering. Our goal was for more people to come that are not officers than are officers, and it was a success from that point of view. We look forward to more “unofficial” socials with the Chapter.

FINANCIAL REPORTS

Beginning Balance (09/01/2012)			\$8,405.32
Income	Funding from Civil Engineering Department	\$5,000	
	Funds from City Traffic Count Project	\$7,120	(Pending)
Total Income (without Pending)			\$5,000
Expenditure	Reimbursements for FY 2011-12	(\$1,362.29)	
	General Meetings	(\$906.65)	
	Social Events	(\$543.05)	
	Conferences and Field Trips	(\$549.42)	
	Traffic Count Project	(\$1,674.29)	
	School Outreach Program	(\$80.75)	
	Administrative Expenses (Office Supplies)	(\$244.41)	
	Miscellaneous	(\$28.54)	
Total Expenditure			(\$5,389.4)
Closing Balance (03/31/2013)			\$8,015.92

PUBLICATIONS AND PRESENTATION

- Brimley, B.K.**, Saito, M., and G.G. Schultz. Calibration of the Highway Safety Manual Safety Performance Function: Development of New Models for Rural Two-Lane Two-Way Highways. *Transportation Research Record*, No. 2279, 2012.
- Huang, C.** and Burris, M. Short-Run Impact of Gas Price Fluctuations on Toll Road Use. *Transportation Research Board*, No. 13-3717. Washington, D.C., 2013.
- Yin, K.**, X. Wang, Y. Zhang. Vehicle-to-Vehicle Connectivity on Two Parallel Roadways with a General Headway Distribution. *Transportation Research Part C*, volume 29, pp. 84–96, 2013.
- Fitzpatrick, Kay; **Robertson, James**; Park, Eun Sug; Irigavarapu, Vichika; McDaniel, Darren. Modeling Operating Speed using Traffic, Posted Speed Limit, and Geometric Characteristics. *Transportation Research Board*, No. 13-0391, Washington, D.C., 2013.
- Brown, L.** Best Oral Presentation Award. The Dwight David Eisenhower Transportation Fellowship Program. *92th Annual Meeting of the Transportation Research Board*, Washington, D.C., 2013.
- Larsen, L.K.**, M. Burris, D. Pearson, P. Elis. Equity Evaluation of Vehicle Miles Traveled Fee in Texas. *Transportation Research Record*, Issue 2297, 2012.
- Li, Y., **Miao, Q.** and Wang, X. Cruise Line Revenue Management at Disney World. *Transportation Research Board*, No. 13-5116, Washington, D.C., 2013.
- Z., Li, Liu P., Wang W., Xu C., **Zha L.** Application of Generalized Estimating Equations for Crash Frequency Modeling in Developing Countries. *92th Annual Meeting of the Transportation Research Board*, Washington, D.C., 2013.
- Mitchell, K.N., X.B. Wang and **M. Khodakarami**, Budget Allocation for Dredging Projects Selection to Maximize the Waterway System Capacity Improvement, 92th TRB Annual Meeting, 2013.
- Devarasetty, P. C.**; Burris, Mark W.; Arthur, Winfred; McDonald, Jennifer; Munoz, Gonzalo. Can Psychological Traits Help Predict the Use of Managed Lanes? *Transportation Research Board*, No. 13-3205, Washington, D.C., 2013.
- Zeng, X.**, and Y. Zhang. Development of Recurrent Neural Network Considering Temporal-Spatial Input Dynamics for Freeway Travel Time Modeling. *Computer-Aided Civil and Infrastructure Engineering*. Available online, January 2013.

ROASTER

This is a list of the Texas A&M students that are currently active ITE members, asterisk denotes members of ITE international, (thus automatically local members.)

Name	Degree	Exp. Graduation	Name	Degree	Exp. Graduation
Adel Kohdakarami*	Ph.D.	Spring 15	Liteng Zha*	MS	Summer 14
Aishwarya Sooresh	MS	Summer 13	Max Pedowicz	BS	Summer 13
Bo Wang*	MS	Summer 13	Narain Hariharan	MS	Summer 13
Brad Brimley*	Ph.D.	Summer 14	Negin Alemazkoo*	MS	Fall 14
Carl Harline*	MS	Summer 13	Paul Narciso	MS	Summer 13
Catie Reid	ME	Summer 13	Pooyan Kabir*	Ph.D.	TBD
Chao Huang*	Ph.D.	Spring 13	Prathyusha Vangala	MS	Fall 14
Chujun Zhong*	MS	Fall 14	Prem Chand Deva-rasetty	Ph.D.	Spring 13
David Zeng*	Ph.D.	Fall 13	Qing Miao	Ph.D.	Summer 13
Gary Chen	Ph.D.	Fall 15	Salar Siabil	Ph.D.	TBD
Greg Larson*	MS	Spring 13	Santosh Rao*	MS	Fall 14
Hadi Kharazee*	Ph.D.	Fall 15	Sarang Vasishth*	MS	Fall 14
Jack Bauer*	MS	Spring 13	Steve Swindell*	ME	Fall 13
James Anding	BS	Summer 13	Sunghoon Lee	Ph.D.	TBD
James Robertson*	Ph.D.	Fall 13	Tao Zhang	MS	TBD
Jesus Cervantes	BS	Spring 14	Tracy Zhou*	Ph.D.	Spring 13
Justin Carlton*	ME	Summer 13	Weiling Wu	ME	Spring 13
Kai Yin*	Ph.D.	Summer 13	Xiaohan Li*	MS	Fall 14
Kamontheop Tiapsert*	Ph.D.	Spring 16	Xin Sun*	MS	Fall 14
Lacy Brown*	Ph.D.	Spring 16	Yanfen Zhou*	Ph.D.	Spring 16
Lingtao Wu*	Ph.D.	Fall 2017	Yuan Yao*	MS	Fall 14
Lisa Larsen*	Ph.D.	Summer 14	Zhi Chen*	MS	Spring 13

TAMUite student members strive for excellence and have received various nationally recognized awards. The following members should be highlighted:

- 2012 Eisenhower Fellowships – Brad Brimley, James Robertson, Lacy Brown and Lisa Larsen
- TexITE student paper competition – Jinpeng Lv
- Student of the year for TAMUite – Lisa Larsen