

On the Path to Success

*“You have brains in your head.
You have feet in your shoes.
You can steer yourself any
direction you choose.”*

-Dr. Seuss



**Texas A&M Student Chapter
Institute of Transportation Engineers
2011-2012 Annual Report**

STUDENT CHAPTER OF: Texas A&M University

1. STUDENT CHAPTER OFFICERS

President: Lisa Larsen

Membership Sec./Webmaster: Brad Brimley

VP for Technical Activities: Xiaosi Zeng

Treasurer: Carl Harline

VP for Outreach: Greg Larson

Publicity/Undergrad Rep: Elizabeth Chomistek

Corresponding Sec.: James Robertson

Librarian: Kai Yin

2. STUDENT CHAPTER MEMBERSHIP

Number of Student Chapter members: **34**

Number of Student members of the Institute: **34**

Number of Students eligible to be a Student member of the Institute: **34**

Number of faculty members who are current ITE members: **4**

3. INFORMATION ON TRANSPORTATION ENGINEERING ENROLLMENT

Number of undergraduate students (Sophomore-Senior years) in Civil Engineering Department:

Full-Time: **820**

Part-Time: **30**

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

Undergraduates in Civil Engineering can specialize in transportation

Number of Graduate Students in Transportation:

Full-Time: **50**

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:

Contents Approved by:



Lisa Larsen, TAMUite Student Chapter President
Phone: (801)-592-4209
E-Mail: L-Larsen@ttimail.tamu.edu
Date: March 31, 2012

Dr. Dominique Lord, Chapter Advisor
Phone: (979) 458-3949
E-Mail: d-lord@tamu.edu
Date: March 31, 2012

President's Message

Howdy! The Texas A&M University Institute of Transportation Engineers Student Chapter (TAMUite) is pleased to present our Annual Report for the 2011-2012 school year. We have had a successful year full of individual and collective progress and achievements. This Annual Report provides an opportunity to showcase our noteworthy accomplishments, which will be presented under the fitting theme of “On the Path to Success.” The goal of transportation centers on the safe and efficient *movement* of people and goods. Likewise, TAMUite provides a harbor for Texas A&M University transportation engineering students to learn, serve, and grow as they *move* along their path to becoming engineers with character, leadership, and vision. Comments from TAMUite members are interspersed throughout the report to provide a first-hand account of how TAMUite activities have assisted in these goals. Some of the noteworthy “mile markers” reached over the past year include:

- Won 2012 TexITE Traffic Bowl Competition
- Competed in 2011 International Competition in St. Louis, Missouri
- Named 2010-2011 “Student Chapter of the Year” by the Texas District of ITE
- Organized outreach activities with other student chapters
- Hosted 12 technical meetings and attended multiple Brazos Valley Section meetings
- Showed strong presence at state and national professional conferences
- Won Green Mobility Challenge student competition in Austin (included TAMUite team members)
- Provided service, social, field trip, and networking opportunities to our members

I would like to thank past President **Devin Moore**, for all of his efforts in helping TAMUite achieve excellence during his 2011 term as president. Texas A&M is heavily rooted in tradition, and TAMUite is no different. Devin did a remarkable job of building on the momentum of past TAMUite generations and leaving his mark on our student chapter. I would also like to thank our Student Chapter advisor, Dr. Dominique Lord, and the Zachry Department of Civil Engineering at Texas A&M University for their support of our organization.

On behalf of TAMUite, I hope that you enjoy learning about the “path to success” that TAMUite has sojourned over the past year. Thanks, and Gig ‘Em!

Lisa Larsen



President, Texas A&M University ITE Student Chapter

2012 TAMUite Goals

As newly elected 2012 TAMUite officers, we met to discuss our goals for the upcoming year. In evaluating what we wanted to accomplish in the year 2012, we decided upon the following goals, with the determination that every activity would be planned with at least one of these goals in mind:

"Our goals can only be reached through a vehicle of a plan, in which we must fervently believe; and upon which we must vigorously act. There is no other route to success."

-Stephen A. Brennan

The mission of the Texas A&M Student Chapter of the Institute of Transportation Engineers is to:

- Enable students interested in transportation to network with professionals and develop professionally;
- Provide meaningful service within the community;
- Foster social interaction amongst peers with a similar interest in transportation and;
- Further develop students' technical expertise within transportation through first-hand experiences.

Innovative Ideas

February 11, 2012: Joint Service Project with University of Texas Student Chapter of ITE

In an effort to reach out to other ITE student chapters, while simultaneously performing community service, TAMUite organized a joint service project with the University of Texas Student Chapter of ITE. Though the rivalry between the Texas Aggies and the Texas



Longhorns burns deep within our State, the opportunity to serve our fellow man can bring even the most divided people together. In the Fall of 2011, Bastrop, TX experienced large scale

wildfires, with several hundred homes burning to the ground and extensive property damage occurring. TAMUite contacted Stacey Bricka of TTI who is from Bastrop to see how we could help with the fire cleanup. Stacey put us in contact with Lynda McLoed, a volunteer firefighter whose home was spared but who had several trees burn down on her property. We were able to help rake and trim branches and roots from the burned trees and place them in burn piles. This type of collaborative effort was innovative, in that this type of joint service project had not been previously pursued. TAMUite would like to further facilitate a good relationship with the University of Texas and other student chapters in the future, and hopes that this initial effort will lead to further joint service opportunities.

“Do not go where the path may lead, go instead where there is no path and leave a trail.”
-Ralph Waldo Emerson

Reaching Out to Undergraduates

One of the main goals of the fall semester was to start to increase the amount of undergraduates involved with TAMUite. To accomplish this goal, Elizabeth Chomistek, the 2012 TAMUite Publicity Officer and an undergraduate student herself, was appointed to specifically seek out ways to recruit students who are working towards their engineering degree and to provide undergraduate perspective as the officers planned activities. Starting the TAMUite facebook group was an easy way to contact all the members of the chapter for disseminating important information. Another new idea that was implemented was announcing activities through the undergraduate civil engineering listserv, which is used to contact all civil engineering undergraduates and provide news the students may find useful. The final method we initiated to reach the undergrad students was to have various officers and the faculty advisor make important announcements in transportation classes to encourage more ITE activity attendance. Through

these efforts, the undergraduate involvement has risen from previous semesters and we hope for continued involvement and representation from this important subpopulation of our membership.

Stressing International ITE Membership

This year our chapter has adopted a new policy aimed at encouraging our members to be registered with ITE at the international level. We waived the local student chapter fee—advertising that by becoming an international ITE member they are automatically considered part of TAMUite. Since the first year of international membership is free, this approach provides a wonderful opportunity for our new members. At the ITE Student Reception at the January 2012 TRB Annual Meeting, we heard from Rock Miller and Zaki Mustafa about the importance of staying connected with ITE when we are no longer students. We strongly support this vision and feel that it will help ITE stay connected with the students after graduation.

Spotlighting TAMUite Members

In an effort to get to know our TAMUite members better, a questionnaire collecting information, ranging from the student's favorite ice cream to their proudest moment, was created. As of January 2012, a member spotlight is presented prior to introducing each speaker at our technical meetings. The spotlighted member is presented with a candy bar. This has added a personal touch to our meetings and allowed our members to learn some interesting facts about their peers.

Service

April 2, 2011; June 11, 2011; September 10, 2011; February 25, 2012: Adopt-a-Highway

Four times a year, TAMUite members pick-up trash along our assigned stretch of roadway near Lake Bryan. Participating in Adopt-a-Highway provides service to the community and is beneficial to the environment. It also is a great opportunity for TAMUite members to spend time together in a worthwhile



"I am happy to give back to the community through Adopt-a-Highway service."
-Kai Yin, TAMUite Member

pursuit that is directly tied to transportation. After Adopt-a-Highway, it is a TAMUite tradition to eat at a pizza buffet.

May 6, 2011: CSISD Intermediate School AVID Student Visit to TTI, Q&A

The Texas Transportation Institute (TTI) hosted a day for middle school students to come learn about transportation. As part of

the students' visit, five members of TAMUite participated in a question-and-answer session to discuss the importance of college and to relay how transportation is an interesting career option. Interacting with the students was a great way to promote transportation and to stress the importance of preparing for college by doing well in school and taking classes that will help in being prepared to pursue a meaningful degree.

May 12, 2011: Texas A&M Bike Clean-up

The Texas A&M Transportation Services tag abandoned bikes in an effort to clean-up campus. After a certain point, if tagged bikes are not claimed, the bikes are sold at an affordable price to interested students. TAMUite members Mark Kranz and Lisa Larsen participated in this activity. It contributed towards the betterment of Texas A&M and was directly tied to transportation.

March 24, 2012: The Big Event

This year was the 30th anniversary of The Big Event—the largest student-run service day in the country. Texas A&M student organizations can sign-up to participate and are then assigned to help with service requests from members of the community. TAMUite had 14 students participate and were split amongst two yard work projects. It was a fun opportunity for

TAMUite members to be part of something bigger than themselves and to spend time together as friends while serving the community.



"I enjoyed participating in such a large service event with my fellow Aggies and giving back to the community."

-Lisa Larsen, TAMUite member

Socials

The following is a list of some of the social events that TAMUite members participated in the 2011-2012 school year:

- **April 9, 2011: Ultimate Frisbee Fun at Thomas Par**
- **October 1, 2011: Greater Houston Shrimp Boil**
- **February 7, 2012: Spring 2012 Opening Social**
- **Pizza Buffet after Adopt-a-Highway (April 2, 2011; June 11, 2011; September 10, 2011; February 25, 2012)**



"No love, no friendship can cross the path of our destiny without leaving some mark on it forever."
-Fancois Muriac

Field Trips

July 13, 2011: Houston Metro Field Trip

This field trip provided participating members with a great opportunity to learn about transit by asking transportation professionals questions and getting to see a transit system in action.

March 2, 2012: Visit to Riverside

TAMUite members went to the Texas A&M Riverside campus in hopes of viewing a crash test. Unfortunately, the test was postponed so in lieu of crash test viewing, we watched a movie on the history of crash testing at TTI. We were also able to ask questions about the tests performed, the agencies that sponsor crash testing, and the types of life-saving patents TTI has developed.

Competitions

Traffic Bowl

TAMUite competed at the 2011 International ITE meeting in St. Louis, having previously won the ITE Texas District competition in March 2011. Texas A&M continued the tradition of traffic bowl success by winning the ITE Texas District competition on March 29, 2012. They will compete at the 2012 International ITE meeting in Atlanta in August 2012.



"Traffic Bowl has given me an opportunity to review the principles of traffic engineering and make friends in new places."
-Brad Brimley, TAMUite Member

November 15, 2011: Green Mobility Challenge

Five A&M students (Scott Nelson, Lisa Larsen, Devin Moore, Ben Sperry, Jose Soto), several of whom are TAMUite members, competed in and won the student division of the Green Mobility Challenge. The competition

"The road to success is wherever people need another road."
-Robert Brault



involved making suggestions of how two transportation projects in the Austin, TX area could be designed to be more sustainable. Team members presented their findings to transportation professionals at the GMC Awards Banquet.

Conferences

April 15, 2011: SWUTC Student Symposium, Winedale, TX

Students from three schools (Texas A&M, University of Texas at Austin, and Texas Southern University) participated in the SWUTC Student Symposium. We had a strong showing of TAMUite members. Participants were divided into groups and assigned to discuss a specific topic in transportation. These groups were given time to research how the assigned topic should be approached in the future, and were then given the opportunity to present their findings.

August 13-16, 2011: ITE Annual Meeting, St. Louis, MO

Six students from TAMUite attended the ITE Annual Meeting held in St. Louis, Missouri. Four represented the chapter for the International Collegiate Traffic Bowl. Apart from the Traffic Bowl, the TAMUite members attended a number of technical sessions and participate in networking activities. While in St. Louis, we made our own technical tour by driving on the diverging diamond interchange in the city; one of the first of its kind in the country!

September 14-16, 2011: TexITE Fall Meeting, Garland, TX

Twenty students from TAMUite went to the Texas District Annual Fall Meeting held in Garland, Texas. All the students actively participated in the technical tour (showing new transportation

and development improvements to downtown Garland), multiple breakout sessions (showcasing topics from innovations in research to designing roundabouts), and poster sessions (featuring a number of our own students).

January 22-25, 2012: TRB Annual Meeting, Washington, D.C.

Several TAMUite students were partially funded by the Texas A&M Zachry Department of Civil Engineering to attend the 91st Annual Transportation Research Board Annual Meeting in Washington, D.C. The funded students presented either a poster or a podium presentation—providing the opportunity to hone their presentation skills and network with potential employers.

March 28-30, 2012: TexITE Spring Meeting, San Marcos, TX



Fourteen A&M students attended the Texas District Annual Spring Meeting held in San Marcos, Texas. This meeting contained breakout, plenary, and poster sessions. Two TAMUite

"Texas A&M's assistance for travelling to conferences allows me to connect with transportation engineers' application of state-of-the-art practice both on a regional and national scale. It is an invaluable supplement to my coursework."
—Mark Kranz, TAMUite Member

members (James Robertson and Brad Brimley) presented a poster on their research.

Meetings

This past year, TAMUite has had the pleasure of engaging with 12 different speakers; including various Texas Transportation Institute Researchers, two ITE International Past Presidents, four current TexITE district or section officers, an executive vice president of the International Road Federation, a lawyer working in the Texas Attorney General's office, a director of research and development at General Motors, and a Lieutenant Colonel in the Texas Army National Guard.

Two of these speakers, Mike Dreznes of IRF and Nady Boules of GM, made special trips to College Station to give very interesting and well-attended presentations.

April 5, 2011: Kevin Balke, 2011 TexITE Section Representative, BVITE

To expose TAMUite members to the importance of Intelligent Transportation Systems in the future of transportation engineering, TAMUite officers invited Kevin Balke to speak at the April meeting. Kevin highlighted the important role technology plays in the transportation profession, noting technology's role in providing information vital for better route selection.

May 5, 2011: Robert Wunderlich, 2011 ITE International President

As transportation engineering students, our teachers expose us to the ‘technically’ correct way of designing transportation systems; we do not always have time for discussing design flexibility. TAMUite officers invited Robert Wunderlich to discuss this very important topic.

June 23, 2011: Brian Shamburger , 2011 TexITE District President

Brian Shamburger spoke with TAMUite members about how practitioners approach problems from a consulting perspective. Brian spent time presenting recent projects in the community surrounding Texas A&M University. He then proceeded to engage TAMUite members in a discussion about important factors a consultant needs to consider when given such projects.

July 13, 2011: John Sedlak, Former Vice President, Houston METRO

To increase TAMUite membership interaction with professionals, TAMUite joined the Houston Section of ITE for their meeting. After a lengthy period of interaction between TAMUite members and Houston Section Members, John Sedlak discussed the importance of public transportation in urban planning and development. A key point of his discussion was finding ways to work well with the public and elected officials to improve transportation systems.

Texas A&M University ITE Student Chapter

Annual Report

2011-2012

September 6, 2011: Dennis Christiansen, TTI Director, Past ITE International President

As part of TAMUite's goal of strengthening our relationship with the Texas Transportation Institute (TTI), TAMUite leadership invited Dr. Dennis Christiansen to speak at our first meeting of the 2011 fall semester. As a past ITE International President, Dr. Christiansen discussed ITE's role in his development as a leader within the profession and encouraged students to be an active part of ITE. As TTI Director, he spoke about the various opportunities for students within TTI and encouraged us to take advantage of these opportunities.

October 4, 2011: David Schrank, TTI Annual Urban Mobility Report

To provide TAMUite students with an example of how research can evolve over time, TAMUite officers invited David Schrank to discuss advances in the data used within the TTI Annual Urban Mobility Report. The Annual Urban Mobility Report represents the best available data and methods for evaluating congestion in the public sector. An important part of preparing each Annual Urban Mobility Report is the advancement of methods for measuring congestion.

October 28, 2011: David Strain, Texas Attorney General's Office Lawyer

Contributing to the variety of topics covered at TAMUite meetings, we were fortunate to have Mr. David Strain, a lawyer from the Texas Attorney General's Office, speak on tort liability. He discussed how we, as transportation engineers, can best defend against being the subject of legal action. Mr. Strain stressed the importance of documenting all engineering decisions.

November 1, 2011: Michael Dreznes, Executive VP, International Road Federation

Due to time constraints, transportation-engineering curriculum spends little time on roadside safety design; however, this is an important aspect of designing safe highways. For this reason, the chapter's officers invited Michael Dreznes, formerly of Barrier Systems, to introduce

TAMUite members to roadside safety design and barrier selection. As a passionate and informed speaker, Mr. Dreznes engaged us in a manner that gave us valuable information while keeping such a serious topic enjoyable.

December 6, 2011: Nikki Norton, 2011 BVITE Section Sec./Treasurer; City of Bryan

Seeing that many of our members will serve as public agency employees, or work for public agencies as consultants, TAMUite officers invited Mrs. Nikki Norton (City of Bryan) to discuss transportation engineering from the public agency perspective.

January 31, 2012: Nady Boules, Director of General Motors Research & Development

TAMUite officers and Dr. Dennis Christianson worked together to invite Dr. Nady Boules of General Motors Research & Development to speak about connected vehicles. Dr. Boules spoke to more than 100 TTI employees and chapter members about how technologies meant to prevent crashes lead to connected and self-driving vehicles. TAMUite officers also had an opportunity



to eat dinner with Dr. Boules, where they discussed the role of transportation engineers in an environment with self-driving vehicles.

"As someone who is very interested in ITS, interacting with Dr. Boules helped me to gain a more in depth understanding of where the future of the transportation industry is going."
-Xiaosi Zeng, TAMUite Member

February 29, 2012: Jim Cline, Lieutenant Colonel, Texas Army National Guard

For a joint meeting with the Texas A&M University Student Planners Association, TAMUite and SPA brought in Lieutenant Colonel Jim Cline of the Texas Army National Guard and President

of the Denton County Transportation Authority (DCTA). While Colonel Cline discussed his position at DCTA and experience as a public works experience in Irving, the focus of his presentation was to discuss and compare his experience as an engineer in the United States to his experience as a public works director in Afghanistan.

March 27, 2012: Dustin Qualls, 2012 TexITE Greater Houston Section President

We were fortunate to have Mr. Dustin Qualls from Traffic Engineers, Inc. come speak to our chapter. Our members learned about several interesting traffic engineering projects in Texas. Mr. Qualls' discussion of the signing of HOT lanes in Houston was of particular interest.

Papers/Presentations

-Ben Sperry; Examining the Influence of Transit Service on Travel at Mixed-Use Developments; ITE 2011 Annual Meeting and Exhibit, St. Louis, Missouri, August 2011

-James Robertson; Perceived Impacts of Frontage Road Conversion on Business Owners/Mangers and Customers, TexITE 2012 Spring Meeting in San Marcos, TX, Poster

-Brad Brimley; Calibrating Safety Performance Functions in the HSM and Developing new Crash Prediction Models, TexITE 2012 Spring Meeting in San Marcos, TX, Poster

-Kai Yin; An Approximate Bernoulli Process for Information Propagation along Two Parallel Roads. *Transportation Research Part C: Emerging Technologies*

-Lu Lu; Scheduling Multiple Vehicle Mobility Allowance Shuttle Transit (m-MAST) Services. *14th International IEEE Conference on Intelligent Transportation Systems*

-Lingzi Cheng; Examining the Poisson-Weibull Generalized Linear Model for Analyzing Crash Data, TRB 2012

-Xiaosi Zeng; Guidelines for Choosing Hot-Spot Analysis Tools on Data Characteristics, Network Restrictions, and Time Distributions, TRB 2012

-Lisa Larsen; Equity Evaluation of Vehicle Miles Traveled Fee in Texas, TRB 2012

Membership

This is a list of the Texas A&M students that are International ITE members (and thus local members as well).

Number	First Name	Last Name	Degree	Expected Graduation
1	Mehdi	Azimi	Ph.D.	May-12
2	Brad	Brimley	Ph.D.	Aug-14
3	Justin	Carlton	M.S.	Aug-13
4	Courtney	Carr	M.E.	Dec-12
5	Zhi	Chen	M.S.	May-13
6	Lingzi	Cheng	M.S.	May-12
7	Elizabeth	Chomistek	B.S.	Dec-12
8	Leslie	Doodoo	B.S.	Dec-12
9	Ryan	Friesenhahn	B.S.	Dec-12
10	Chayi	Gu	M.S.	May-12
11	Carl	Harline	M.E.	May-13
12	Daniel	Herrig	B.S.	Dec-12
13	Jon	Howson	B.S.	May-12
14	Ruoxin	Jiang	M.S.	Aug-13
15	Tanvir	Khan	B.S.	Dec-12
16	Hadi	Khazraee	Ph.D.	May-15
17	Adel	Khodakarami	Ph.D.	May-14
18	Kyungki	Kim	M.S.	May-14
19	Mark	Kranz	M.S.	May-12
20	Lisa	Larsen	Ph.D.	Aug-14
21	Greg	Larson	M.S.	May-13
22	Lu	Lu	M.S.	May-12
23	Devin	Moore	M.S.	Aug-12
24	Subrity	Rajbhandari	M.S.	May-11
25	James	Robertson	Ph.D.	Dec-13
26	Carl	Schwarzer	M.S.	May-12
27	Ben	Sperry	Ph.D.	May-12
28	Geng	Tang	M.S.	May-13
29	Weiling	Wu	Ph.D.	May-14
30	Kai	Yin	Ph.D.	Aug-13
31	Salar	Zabihi	M.S.	Dec-13
32	Xiaosi	Zeng	M.S.	May-13
33	Tianmin	Zhou	Ph.D.	May-14
34	Hongmin	Zhou	Ph.D.	May-13