

# Annual Report 2017-2018



Dedication to Professional Development, Social Enrichment, and Service through Transportation Engineering



## Annual Report of Student Chapter Activities For the Period April 1, 2017 to March 1, 2018

Student Chapter of:				
The University of Texas at Austin				
1. Chapter Officers				
President	Adam Nodjomian			
Vice President: Publicity	Michael Dunn			
Vice President: Membership	Cesar Yahia			
Vice President: Operations	William Alexander			
Treasurer	Yorguo El Hachem			
Secretary	Srijith Balakrishnan			
2. Student Chapter Membership				
Number of Student Chapter Members: 42				
Number of Student Members of the Institute: 42				
Number of Students eligible to be Student Member of Institute: 929				
3. Information on Transportation Engineering Enrollment				
Number of undergraduate students in academic department: 815				
Department: Civil, Architectural & Environmental Engineering				
Full Time: <b>752</b>	Part Time: 63			
Does your curriculum allow Undergraduate students to major or minor in Transportation: <b>No</b>				
Number of Graduate Students in Transportation:	Full Time: 53	Part Time: <b>0</b>		
4. Student Chapter Activities Summary – see attached (Refer to Pages 4-16)				
5. Roster of Student Chapter Members – see attached (Refer to Page 17)				

Report Submitted by Approved By

Adam Nodjomian Dr. Chandra Bhat

Student Chapter President Student Chapter Advisor Email: adam.nodjomian@gmail.com Email: bhat@mail.utexas.edu

Submitted: March 1, 2018



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### **Message from the President**

The University of Texas at Austin Institute of Transportation Engineers Student Chapter (UTexas ITE) is pleased to submit our Annual Report for the 2017-2018 academic year. It is an exciting time to be in the field of transportation engineering. To highlight this, UTexas ITE seeks to serve its members by engaging them with experienced members of the profession, fostering social engagement, and serving the university and local communities. The current board of officers was assembled in October and immediately got to work establishing the following goals for UTexas ITE over the coming months:

- ❖ Invite diverse guest speakers from multiple backgrounds to foster professional development
- Encourage collaboration and camaraderie between members
- ❖ Increase membership and encourage sustained member involvement
- Serve the community in a meaningful and effective manner
- ❖ Adequately fundraise to support activities for members

Over the past year, UTexas ITE has provided numerous opportunities for our members to grow, learn, and network. We have hosted nine guest speaking engagements and five technical events, with topics ranging from resume improvement to a visit to the local traffic management center. Furthermore, our members traveled to conferences and meetings around the country to grow their knowledge and experience, and to share their own contributions to the field. Outside of the classroom and industry focus, our members had the chance to escape day-to-day stressors with social activities and community service opportunities. Through these events, members have built stronger relationships with their peers and enjoyed valuable opportunities to explore the city of Austin and all it has to offer. Through regular and unique events, we hope to encourage members to stay engaged with UTexas ITE during their time as students as UT Austin.

Also over the past year we have continued our partnership with the professional CAS-ITE chapter, including partnering with them on a local road cleanup project. We were ecstatic to win the TexITE Traffic Bowl in 2017, and had the honor of representing the Texas District at the International Meeting last summer. At this summer's joint meeting in Keystone, CO we hope to find similar success. On behalf of the officer team, I would like to thank TexITE, CAS-ITE, and the Center for Transportation Research (CTR) for their continued support of UTexas ITE. We are grateful for the guidance that our faculty advisor, Dr. Chandra Bhat, and Department Director, Dr. Zhanmin Zhang, have provided and the generous involvement by all the transportation engineering faculty and staff. It has been my distinct pleasure to serve as president of UT's ITE chapter over the past few months. I am excited to see how my fellow officers and our members continue to excel in the field of transportation and even more excited to witness the future contributions they make to society.

Best regards,

Adam Nodjomian
The University of Texas at Austin ITE President



#### **General Meetings**

UTexas ITE hosts general meetings with the objective of providing our members an opportunity to share input regarding the direction of our chapter and grow as future members of the transportation profession. Newly elected officers took charge from the outgoing officers in October 2017. As part of the transition, the outgoing officers detailed their responsibilities and expectations, and outlined ways by which the members can effectively contribute to the development of the organization.

Through general meetings, our officers can steer the organization in a direction which matches the objectives and interests of our members. Continuing the efforts of past leadership, our officers have reached out to undergraduate students to tell them more about our ITE student chapter and promote the exciting field of transportation engineering. We collected contact information from interested incoming engineering students at our organization's informational booth at Gone to Engineering orientation at the start of the Fall 2017 semester. Some of those undergraduate students are now contributing to this year's Traffic Bowl.

During both the fall and spring, our general membership had the opportunity to hear from a diverse set of speakers. For example, as part of our CTR Seminar Series, Dr. Jeff LaMondia (Auburn University) shared some of his latest research. In addition to other research-based events, UTexas ITE had the honor of hosting members of industry, including Dr. Meredith Celebak and Hamza Khan, all of whom provided fresh perspectives on everything from public engagement to transitioning to industry.

Members were treated to technical-themed events as well. The fall semester saw a demonstration of engineering software from Transoft Solutions. Furthermore, many members enjoyed the unique opportunity to tour the City of Austin's Traffic Management Center (TMC). Our visit to the TMC was a great chance to see transportation engineering concepts in action and learn more about the day-to-day operations of a citywide network.

Going forward, UTexas ITE is seeking to further tailor events towards the interests and objectives of our members. By matching member interests to hosted events, we can ensure prolonged engagement and greater value for all involved. Of particular interest to our members are workshops aimed at teaching both soft and technical skills, including public speaking and computer programming. In addition to our successful track record of guest speakers and technical sessions, we hope to incorporate more of these workshops in the coming months.



### **Professional Development**

In keeping with ITE's mission to foster professional development, the Chapter offered a diverse selection of learning opportunities involving some of the most pressing contemporary issues in transportation. These opportunities included participation at various technical conferences, networking events, and hosting transportation leaders through our speaker series.

#### **DISTINGUISHED GUEST & TECHNICAL SPEAKERS**





Hamza Khan, a traffic analyst at Kimley-Horn, gave a lecture on the applications of microscopic traffic simulators in the traffic engineering industry. He provided details of several traffic models developed by his team using VISSIM to find solutions to various traffic engineering problems. The focus of the presentation was on the development of the I-35 Central Corridor Model, the challenges encountered during the development stage, and preliminary findings from the model.

#### Nicola Gheno | April 27, 2017



Nicola Gheno, is a Project manager at Stantec with expertise in traffic engineering. She has worked in both the public and private sectors. In the talk, she provided an overview of several recent projects such as the 11-acre Plaza Saltillo mixed-use development project. The session was helpful for our members to understand and appreciate the complex nature of large projects where the interests of multiple stakeholders need to be brought into consideration.

#### Lauren Gardner | August 1, 2017



Lauren Gardner discussed with us her interests in resource allocations models for large scale biosecurity events. She is a Senior Lecturer in the School of Civil, and Environmental Engineering at UNSW, a CSIRO Visiting Scientist, a Research Fellow in the Faculty of Medicine at UNSW, and a member of the Research Centre for Integrated Transport Innovation (rCITI). Her presentation showed us that it is imperative to develop predictive integrated models which are able to quantify the risk of importing infected passengers and vectors in new regions, as well as the expected impact an infectious disease would have on a given region once introduced.



#### Jeff LaMondia | October 5, 2017



Jeff LaMondia is an Associate Professor in Civil Engineering at Auburn University. His research interests are in multimodal transportation planning and safety, travel demand modeling, and travel behavior analysis. Dr. LaMondia's expertise is in the development and application of discrete choice models, which he has applied in a variety of applications. His talk focused on recent efforts to collect long-distance and overnight travel data for an entire year through the Longitudinal Study of Overnight Travel (LSOT) survey as well identify important trends in long-distance travel behavior using a variety of annual national travel surveys.

#### Muhammad Musa | October 13, 2017



Muhammad Musa is the Director of Traffic Engineering division at Landtech, Inc. His presentation focused on critical thinking. The talk specifically gave an overview of the critical thinking process, its relevance in day-to-day life and in the learning environment, components of the process, and its implications on effective dispositions or attitudes. In addition, he analyzed the workforce composition of the world and explained the classification of working professionals according to Revised Bloom's Taxonomy based on critical thinking skills. He also demonstrated the applications of problem solving and decision making skills in various professional fields.

#### Milos Balac | October 17, 2017



Milos Balac is a 5th year PhD student at the Institute for Transport Planning at ETH Zurich. His PhD topic focuses on the implementation of car sharing alternatives in Switzerland and its impacts. Milos' talk focused on parking policies aimed at alleviating the substantial effects parking has on the traffic in the urban areas. Difficulties of finding a parking space lead to long search times and increased congestion. These policies are evaluated using a multiagent transport simulation (MATSim) in the study area of Zurich, Switzerland.

#### Sandra Rosenbloom | November 3, 2017



Dr. Rosenbloom, a Professor of Planning at the University of Texas at Austin, is an internationally recognized expert on the transportation impacts of major societal trends such as the aging of the population; she has published 100+ peer-reviewed articles, monographs, and book chapters, and over 50 major research reports for major US agencies, multiple national governments, the US National Science Foundation, and many major foundations. Her talk focused on how the vision of a "perfect neighborhood" differs for seniors, as compared to prevailing theory from urban planners.



#### Meredith Celebak | January 31, 2018

Meredith Celebak is senior traffic and ITS engineer in Gresham Smith and Partners' Nashville office and a subject matter expert in big data, ITS and freight. Meredith joined us for a resume workshop. She discussed resume and interview do's and don'ts pertaining to the world of engineering consulting, and then spent time one-on-one with our members, looking over resumes and giving specific advice. She shared her insights into life as a consulting engineer with a focus on what to expect as a recently graduated engineer and what consultants are looking for in new hires.

#### Hamza Khan | February 7, 2017



Hamza returned this spring to present to us a second time. His talk explored the career of traffic engineers, particularly the most common project components in the traffic engineering world. He highlighted some of his recent projects as examples. Additionally, he discussed the lessons he learned during his experience in the industry, what he wished he had known at the time of his graduation and entering the field, as well as what he expects in the future for the traffic engineering field.

#### **CONFERENCES & MEETINGS**

University of Texas ITE Student Chapter members are highly encouraged to attend and present at transportation conferences to be on the cutting edge of research, foster their professional development, and network with transportation professionals and students.

#### **TexITE Spring 2017 Meeting**

Six members of our chapter attended TexITE's Spring 2017 Meeting in Frisco, TX. Between the poster presentations, exhibits, and technical sessions, the meeting provided our members with invaluable insights into professional practice, networking opportunities, and chances for discussion of the challenges facing transportation industry. Attending a Frisco Rough Riders minor league baseball game made the meeting all the more entertaining. One of our members, Rachel Hure, received the Outstanding







Student of the Year Award for her demonstrated academic and leadership excellence. She also went on to become the President of the Graduate Engineering Council at UT. UT's team competed and won the 2017 Texas District Intercollegiate Traffic Bowl, beating Texas A&M and UT Arlington in the district championship round.

#### **ITE International Annual Meeting**

ITE International held its Annual Meeting in August in Toronto, Canada. This was the first ITE Annual Meeting held outside the country since 2010, but with the generous support of TexITE and CAS-ITE, four members of our chapter were able to The meeting offered different attend. perspectives on transportation safety, adoption operations. and the autonomous vehicles. During the conference, our members competed in the



finals of the Traffic Bowl, placing second of the 72 schools that participated in the competition over the year. For the first time in team history, our chapter's team was coached by one of our own student members, Venktesh Pandey.

#### **TexITE Fall 2017 Meeting**

TexITE held its Fall 2017 meeting in San Marcos, just a little ways south of UT Austin. The proximity allowed many of our members to participate, and some even volunteered to help run the AV equipment. The meeting provided an opportunity for new members to engage with industry leaders and for established students to display their work. UT ITE, with the help of Jason Crawford, coordinated with student chapters around the state to organize the annual Student Leadership Summit. The Summit included mock interviews with professionals, a team hackathon,



and presentations from Jason Crawford and Dave Carter about leadership in the industry.



#### **ITS Annual Meeting**

The Texas Chapter of the Intelligent Transportation Society held its annual meeting in November 2017. Seven of our members traveled to Houston to attend the conference, where there was discussion about the role transportation engineers play after major disasters like Hurricane Harvey, the security challenges posed by autonomous vehicles, and the technical challenges involved in transit signal priority. Four members received awards at the conference, and the attendees were able to network with professionals from around the state.

#### 97th Annual Meeting of the Transportation Research Board

The 2018 Transportation Research Board Annual Meeting was held in Washington, D.C. from January 7th to the 11th. Many of our UT ITE Student Chapter members attended, presenting at lecture and poster sessions and engaging with student peers and professionals from around the country and the world. Some of our officers attended the reception at ITE Headquarters and met with ITE International leaders. The UT ITE Student Chapter assisted in putting on the eighth annual UT Alumni Reception, which gave our students a great opportunity to connect with UT alumni. Additionally, UT ITE joined with the UT ITS and WTS Student Chapters to host a student happy hour, providing fellowship and fun for all members attending the conference.











#### TECHNICAL EVENTS



**Big Jump Initiative** 

Austin made the cut as one of the 10 cities in the US to receive funding from People for Bikes to augment infrastructure and increase bicycle ridership rates in the next few years. UTexas ITE is a proud sponsor of the Big Jump Initiative and serves on Austin's Advisory Council that organized a series of community engagement workshops and brainstorming sessions to lay out the roadmap for the ambitious objective to propel Austin as a premier bike-oriented city. Student members Neil Quarles and Pragun Vinayak, as our representatives, attended the Partner's Reception at the Mayor's Office and Community Benefits Workshop to shape a biking encouragement campaign for Austin.



#### **TMC Visit**

In both the spring and fall of 2017, members of UTexas ITE had the opportunity to tour the City of Austin's Traffic Management Center (TMC). After learning so many transportation engineering concepts in a classroom setting, this experience provided our members the chance to see those concepts in practice. Our hosts talked about the unique challenges facing Austin, mostly stemming from major events like the Austin City Limits Music Festival and SXSW, in addition to day-to-day incident management.



#### **Transoft Solutions Webinar**

Transoft Solutions is a Canadian-based company that develops and supports innovative CAD-based software for engineers, architects, and drafters for their civil and infrastructure design and planning needs. Their products are used by the departments of transportation of many state and national agencies throughout the world. Hannah Khosravi and Andres Velez conducted a webinar for our members, where they walked through some of Transoft's most innovative pieces of transportation software, including AutoTURN, a vehicle turn simulator used for roadway design, and TORUS, a roundabout design tool.



#### **Social Enrichment**

Over the past year, ITE played an instrumental role in developing a friendly and supportive community for our transportation engineering family. Our ITE student chapter actively offered a variety of social events for undergraduates, graduates, and faculty members.

#### **SOCIAL EVENTS**

#### **CASITE Traffic Bowl Scrimmage**

UT ITE continued its close association with the Capital Area Section with scrimmages before both the TexITE Spring Meeting and the ITE International Meeting. There was high attendance from both organizations, and the events provided our members with an opportunity to meet local professionals in a casual setting. Special thanks go to Jake Gutekunst and Valerie Kaiser of CASITE for their help coordinating the events.



#### **Cap City Stand Up Comedy Show**

Student members had a comical treat in store right before diving into the academic rigors of the summer semester. Notwithstanding the hilarious terms and conditions of free tickets won by one our members who's a regular at the club, ten members showed up at the stand-up comedy evening starring Chris Cuban, a local favorite known for his out-ofwork Santa look and his trademark punchlines on social taboos.

#### The Longhorn Run

ITE members participated in the annual tradition of the UT Longhorn Run. The Longhorn Run is a university tradition where students, faculty, and staff race around campus. The ITE team was led by Prof. Stephen Boyles who finished the 5K race ranked 6th among male faculty and staff. Chapter members and faculty also enjoyed post-race celebration activities in front of the iconic UT Tower.





#### **Kayaking at Texas Rowing Center with UTUCI Interns**



Summer in Austin without kayaking? No way! The chapter took the new UTUCI summer interns to the famous Texas Rowing Center at the Lady Bird lake to have a break from the busy academic schedule. IT was a great opportunity to enjoy nature and share with the interns a small piece of the Austin lifestyle.

#### **Winter Holiday Potluck**

Chapter members gathered together to celebrate the end of a grueling semester by sharing food, drinks, and games. The cold was no deterrent to our members, as all were ready to shake off the chains of the exams and enjoy a good time. Carolina Baumanis, a chapter member, graciously opened her home to us, and the dishes which were brought in for the potluck kept everyone full and happy.



#### **WTS Social at Hopfields**



In collaboration with the Women in Transportation Society, the chapter joined together for drinks and birthday cake to celebrate another complete trip around the sun for chapter Secretary Srijith Balakrishnan. Students and faculty shared a nice evening with laughs, snacks, and lots of cake.



#### **UTexas ITE Social at the TRB Annual Meeting**

As part of the University of Texas' trip to the Transportation Research Board annual conference, students and friends of the program gathered at the Capitol City Brewing Company to take a break from the excitement of the research being presented. As some 40 students packed into a corner of the restaurant, appetizer plates and beverages were downed quickly and the warm interior provided much needed relief from the chilling weather of Washington, D.C.





#### **Bowling Night**

To cap off another week of classes, 24 student members gathered in the Texas Union Underground bowling alley to knock down some pins and celebrate member Robert Evans' birthday. Spread across four lanes, each with a different theme, students showed their ten-pin prowess (or lack thereof), and afterward headed out to enjoy a night on Austin's famous Drag.



#### INTRAMURAL SPORTS



As an integral part of the Longhorn experience, Intramurals at The University of Texas promote sportsmanship and engage students in physical activity. The chapter promotes the opportunity for members of the organization to participate in teambuilding and learning experiences through sports. We were excited to field a co-ed intramural soccer team this spring to represent the Chapter. We had great exercise and even more fun, practicing, scrimmaging, and playing against other UT student teams. The cheer "OOTEETAY," a comical mispronunciation of UT ITE,

was heard ringing across the intramural fields many nights.



#### RECRUITMENT, ORIENTATION, & GRADUATION EVENTS



#### **Prospective Student Visit**

Graduate Recruiting Weekend offers current students the opportunity to showcase the program and welcome prospective students to campus. In addition to housing and transportation, our ITE Student Chapter provided social activities, a campus tour, and an insider's perspective to the school.

#### Fall 2017 Graduating Student Send-Off

Our graduating students gathered to celebrate the memories of the time spent together at UT Austin. We said goodbye to each other with joy and nostalgia, talked about the happiness and pressure of our studies and work, and shared memories of the past and the hopes for the future. We wish the many graduating students good luck in their new endeavors!



#### Fall 2017 New Student Welcome

Our University of Texas ITE Student Chapter also played an active role in welcoming incoming graduate students to campus this August. Unfortunately, due to extreme weather phenomena because of Hurricane Harvey, we were not able to perform many outdoor activities. However, we still managed to hold a variety of social and orientation events in order to introduce the new students to the Austin lifestyle, and give them a great start to their first semester of graduate studies at UT!

#### **Spring 2018 New Student Welcome**

After returning from a successful TRB annual meeting, the chapter welcomed three new graduate students joining our program with a round of drinks at Crown and Anchor pub. After a few beers and a few games of billiards, the new students were well acclimated to the UT Austin transportation community.





### **Community Service**

Community service is an integral part of the mission at our University of Texas ITE Student Chapter because we see it not only as a way to give back to the community, but also as an effective way to enhance awareness about the importance of transportation in everyday life. As such, each year our members participate as volunteers in various activities through the University and the city of Austin.

#### **ON-CAMPUS SERVICE**

#### **Introduce a Girl to Engineering Day**

ITE partnered with ITS and WTS to participate in the annual Introduce a Girl to Engineering day and Girl Day STEM festival. We planned activities to introduce young girls to transportation engineering. Chapter members explained traffic engineering concepts through fun games and toys. The event attracted young girls from a wise range of ages, who were all very excited to solve our traffic jam game. We hope that we were able to inspire some of these young women to become the next generation of transportation engineers.





#### **Edison Lecture**

As part of UT Austin's annual Edison Lectures, Vice President of Operations William Alexander and member Rahul Patel presented a series of intersection management techniques to future engineers. The lecture attendees consisted of middle and high school students from across the Texas Hill Country area, and they were entertained with demonstrations of a sophisticated autonomous intersection manager as well as a more mundane human-operated intersection.





#### **OFF-CAMPUS SERVICE**

#### **Fall and Spring Semester Road Cleanup**

The UT ITE Student Chapter was proud to partner with the Capital Area Section of Texas ITE to perform road beautification on 45th Street in Austin, both in the spring and fall. This provided an opportunity for our members to get outside, enjoy a beautiful Saturday, help out our community, and engage with transportation professionals in our own area. After the cleanup activities, we gathered at a nearby restaurant for food and fellowship.





#### **Student Recognition**

Stefanos Politis, Krishna Gurumurthy, Qichun Dai and Yorguo El Hachem won the 2017 ITS Texas Scholarship and were awarded at the 2017 Annual Meeting in Houston, Texas in November 2017.

**Krishna Gurumurthy** received the TexITE District Fellowship, as well as the CAS-ITE Scholarship.

**Natalia Zuniga Garcia** was awarded the 2017-2018 WTS Heart of Texas Diane Woodend Jones Leadership Legacy Scholarship, as well as the 2017-2018 WTS International Leadership Legacy Scholarship. **Natalia** also received the 2018 Women in Engineering Program Leadership Collaborative Leader Award.



## **Member Roster**

Sl. No.	Last Name	First Name	Undergraduate/Graduate
1	Agarwal	Swati	Graduate
2	Agrawal	Sudesh	Graduate
3	Al-Amin	MD.	Graduate
4	Alexander	William	Graduate
5	Alrashidan	A. J.	Graduate
6	Balakrishnan	Srijith	Graduate
7	Bassel	Emily	Undergraduate
8	Bujanovic	Pavle	Graduate
9	Chambers	Noah	Undergraduate
10	Chen	Amber	Graduate
11	Cheng	Christine	Undergraduate
12	Dai	Qichun	Graduate
13	Dias	Felipe	Graduate
14	Dunn	Michael	Graduate
15	Edgar	Christina	Undergraduate
16	El Hachem	Yorguo	Graduate
17	Evans	Robert	Graduate
18	Fu	Mengyu	Graduate
19	Gurumurthy	Krishna Murthy	Graduate
20	Најј	Ramez	Graduate
21	Hasan	Manar	Graduate
22	Huang	Yantao	Graduate
23	Hutchinson	Joseph	Graduate
24	James	Rachel	Graduate
25	Kilgore	Scott	Graduate
26	Lee	Jooyong	Graduate
27	Lim	Taehoon	Graduate
28	Nair	Gopindra	Graduate
29	Nodjomian	Adam	Graduate
30	Pandey	Venktesh	Graduate
31	Patel	Arpan	Graduate
32	Patel	Rahul	Graduate
33	Politis	Stefanos	Graduate
34	Quarles	Neil	Graduate
35	Singh	Abhilash	Graduate
36	Smith	Abigail	Undergraduate
37	Vinayak	Pragun	Graduate
38	Walthall	Rydell	Graduate
39	Yahia	Cesar	Graduate
40	Yan	Haonan	Graduate
41	Yoon	Sungun	Undergraduate
42	Zuniga	Natalia	Graduate