# University of Arkansas Institute of Transportation Engineers Student Chapter

2018-2019 ANNUAL REPORT





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#### Introduction

Over the past year, as an official Registered Student organization, the goal of the University of Arkansas (UA) Institute of Transportation Engineers (ITE) Student Chapter has been to expose and engage the UA ITE Student Chapter student members with the local community. For example, this year, the student officers participated on outreach activities to engage with the local communities through K-12 classroom visits during summer camps at the University of Arkansas.

Goals for this year are to continue engaging with the professional chapter members in the region and in Arkansas, to keep up with the implementation of outreach activities on off-campus events, and involve our student chapter members in more leadership activities. As we begin this year, a series of activities are planned considering the proposed goals. This upcoming semester we are honored to provide the location for the Transportation Leadership Summit in, Fayetteville, Arkansas, hosted by the Southern Plains Transportation Center (SPTC). In this event, UA ITE Student Chapter will be in charge of coordinating a series of activities including resume development, special lectures from transportation leaders from the Arkansas Department of Transportation (ARDOT), as well as receiving training on the development and implementation of outreach activities for local communities. Every semester, the student chapter plans to host three general meetings. In these meetings, professional chapter members talk to student chapter members about their experiences in the workforce and address current transportation issues. In addition to inviting ITE professional members as speakers to our monthly meetings, we plan to host a resume and interview seminar to prepare our student members for the STEM Career fair and continue with our program on outreach training to the student chapter members.

This annual student chapter report is organized as follows: (1) chapter organization, (2) summaries of officer and general meetings, and highlights from the conferences in which our student chapter members participated, (3) the budget for fiscal years 19-20, and (4) an outlook on next year's activities. Questions and suggestions should be directed to the Student Chapter President, Karla Diaz-Corro (kjdiazco@email.uark.edu), or Advisor, Sarah Hernandez (sarahvh@uark.edu).



ITE Student Chapter President
University of Arkansas

Karla J Diaz-Corro

### Chapter Organization

In this section, the history of our chapter is presented followed by a description of our organization structure and list of our officers.

#### ITE History

Although the University of Arkansas (UA) has offered a strong Civil Engineering program since 1897, it wasn't until October 29, 1993 that the ITE Student Chapter was first established under the MOVITE Section. The original student chapter advisor was Dr. Jim Gattis (Emeritus Faculty, UA). Upon its initial founding and for several years beyond, the student chapter was very active. However, the chapter became dormant over time. In 2015, the UA Civil Engineering Department hired Dr. Sarah Hernandez, who specializes in transportation systems engineering and planning. Dr. Hernandez, being a member of

ITE, organized, with the help of Dr. Hall, a new student organization called Transportation Leaders of the 21<sup>st</sup> Century (TL21). TL21 is a product of the USDOT University Transportation Center (UTC) program, specifically, the Southern Plains Transportation Center (SPTC) housed at the University of Oklahoma. Dr. Hernandez proposed transitioning the TL21 group to an ITE Student Chapter in 2016. The new ITE Student Chapter created a constitution, assigned leadership roles, and began interacting with the professional ITE chapter members through monthly meetings and off-campus conferences. TL21 and ITE aiming to a similar objective. Both groups seek to introduce students to the transportation field and find



ways to address current transportation issues. TL21 officers voted to re-register TL21 as ITE so that the dormant student chapter of the University of Arkansas might be revived at the start of the Spring 2017 semester. The ITE Student Chapter is now a Registered Student Organization (RSO) at the UA.

#### ITE Organizational Structure

Transportation Leaders of the 21<sup>st</sup> century (TL21) is the parent organization of the ITE Student Chapter at the University of Arkansas. All members of TL21 are encouraged to become national members of ITE, by explaining to member the importance of being a member of ITE in order to participate in ITE events such as national/regional conferences. While it is not required to be an ITE member in order to join TL21, every officer must register as a member of ITE. In addition to the faculty advisor, the leadership group consists of the following roles and responsibilities:

#### The President will:

- 1. chair all meetings of TL21 and call special meetings as needed
- 2. organize any elections associated with TL21 events
- 3. actively recruit new members on an event basis
- 4. maintain and update the constitution as necessary

#### The Vice President will:

- 1. chair any ad hoc committees or task forces of the organization
- 2. be in charge recruitment and outreach to new or continuing students
- 3. maintaining or finding a volunteer to maintain the TL21 Facebook page
- 4. manage and collect pictures of TL21 activities

#### The Secretary will:



- 1. create and maintain the organization's electronic membership directory that includes current names and email addresses
- 2. take, record, and file meetings minutes, produce all official correspondence for the organization

#### The Treasurer will:

- 1. maintain records and report on the financial transactions of TL21
- 2. develop and produce an Annual Report to SPTC, detailing TL21 activities conducted in the previous year

All officers and candidates for office must be currently enrolled, full-time students at the University of Arkansas with a minimum GPA of 2.50. Nominations for all offices open from the first week to the third week of the Spring semester. The President collects the names of the nominees and includes all nominees in the election ballot. Nominations close at the end of the third week of the spring semester. A simple majority is used to vote in new officers who were nominated by themselves or another member.

The officers are elected in the Fall semester and serve for one year. However, for the 2019 calendar year, based on the feedback from the 2018 officers and the reduced student membership, we decided to merge officer roles with Pillar Leaders. The officers for the 2018 and 2019 calendar years are as follows:

Role	2018 Fall Officers	2019 Spring Officers	
President	Kelly Overturf	Karla Diaz-Corro	
Vice President	James Igwe	Taslima Akter	
Secretary	Isabel Messina	Joshua Vines	
Treasurer	David Perez	Sharif Mahmud	
Outreach Chair	Josh Baker	Role absorbed by President	
Meeting Chair		Role absorbed by Secretary	
Faculty Advisor	Sarah Hernandez (Assistant Professor)		

In addition to the leadership positions, the group chose to include two additional leadership positions to carry out specific goals of the group. These specific roles are referred to as "pillars" of the organization and are as follows:

1. Pillar 1: Meeting with transportation leaders, Pillar I will be chaired by a student coordinator who is not serving as an officer. The student coordinator is responsible for communicating with the officers on the status and activities of the pillar. Pillar I activities will focus on two primary areas. First, invite transportation leaders to speak at TL21 meetings. Second, travel to local, regional, and state level transportation companies, agencies, and organizations to meet with transportation leaders. A key aspect of Pillar I is to expose students to transportation and leadership topics beyond the scope of typical required undergraduate courses.

2. Pillar 2: Outreach, Pillar II will be chaired by a student coordinator who is not serving as an officer. The student coordinator is responsible for communicating with the officers on the status and activities of the pillar. Pillar II will focus on three primary areas. First, visit local K-12 schools to expose students to transportation engineering concepts. Second, attend career days for local K-12 schools, Freshman Engineering Program (FEP) Informational Department Sessions, and other related informational department sessions around campus. Third, serve as active members of the transportation community on both the UA campus and the City of Fayetteville.

#### Chapter activities

The ITE Student Chapter at the UA hosts several different kinds of events each year including Officer Meetings to plan and organize group events, General Meetings for all members, and student participation in regional or national events. Each are described in this section.

#### Officers Meetings

Officer meetings are usually held a week before the general club meetings. The officer meetings are for the officers to come together, brainstorm about future meetings and give new ideas to make the club better. The President and the Advisor would discuss what was planned for the future of the club and then the president would relay that information to the officers. The officer meetings also were to clarify and assign tasks so things such as the email announcement to the undergrad students would go out at a time that gave students enough time to RSVP for the meetings. Our goal for this year and the upcoming years are to create a more solid and organized foundation for the club.

#### General Meetings

For the past three years, TL21 has had a general meeting, the first year (2016) the meetings were the first Thursday of every month, the second year (2017) the general meetings have been held on the second Thursday of every month, excluding January which there was no general meeting. The third year (2018) the general meetings were held on the fourth Thursday of every month. Consistency in the meeting day/time is important for attracting students to the meetings. It also aids in coordination with other student groups such as ASCE and Chi Epsilon.

Most of the meetings were held on the UA Campus in Bell Engineering in room 1108G, with few in different rooms in Bell Engineering because of other conflicting meetings, at 5pm. The majority of the meetings included guest speakers who present on different transportation topics, while other meetings were voting for new officers, skill workshops or interview and resume workshops for the upcoming Career Fairs. Typically, emails were sent to the Civil Engineering Undergraduate list server so all Civil Engineering students would have the information of the meetings. As well as the guest speakers, TL21/ITE officers talked about upcoming external events and transportation related internship and summer job opportunities.



Starting in Fall 2017, the officers of TL21/ITE created an electronic RSVP form that was sent out with the email announcements. The RSVP form is beneficial to regulating student attendance, keeping member information, budgeting efficiently for food, and creating an easier system for club members to voice their opinion on what they are wanting from the club, i.e. more field trips, more "real world" examples, etc. With adding the RSVP forms, we started creating more colorful flyers and hanging them around the Engineering Building about a week before our club meeting. In Figure 1, there is an example of our flyer for a meeting during Fall 2018.

Figure 1 Example of Event Flyer for Fall 2018 Meeting Dates



In addition to monthly general meetings, students also attended external events. In addition, all five of the 2018 officers attended the Southern Plains Transportation Center Transportation Leaders of the  $21^{\rm st}$  Century (TL-21) Regional Student Meeting at UT El Paso from February 8- $10^{\rm th}$ , 2018; two members of TL21/ITE attended the Midwest and Great Lakes District Student Leadership Summit at Minneapolis from August  $20^{\rm th}-23^{\rm rd}$ , 2018; eight student members, including one officers, attended to the Missouri Valley Institute of Transportation Engineers (MOVITE) Fall meeting from October 3rd through 6th, 2018, in Lexana, KS (Figure 2). Each of the 2018 events are summarized below.



Figure 2 Group of Students that Participated in the 2018 MOVITE Fall Meeting

March 29<sup>th</sup>, 2018

Karla Diaz-Corro, UA ITE Student Chapter Member

Ms. Diaz-Corro has been an active member of the ITE student chapter since Fall 2016. Her presentation was focused on the involvement of students in outreach activities and providing training tools for future events and classroom visits. Ms. Diaz-Corro talked about the implementation and development of educational outreach for middle and high school girls. This project was part of her undergraduate thesis which as a primary intended application of the learning module is to provide an outreach activity for active transportation professionals and students chapters to use for "teach-ins" or other STEM outreach community events.

October 22<sup>nd</sup>, 2018

Brian Vines, HALFF Firm, Traffic Signaling

Mr. Vines met the ITE Student Chapter officers at the MOVITE Fall Meeting in Hot Springs, AR. The faculty advisor invited Mr. Vines to visit our campus and talk about his work at our October meeting. He participated as a guest speaker on an introduction to Transportation System lecture at the UA. Mr. Vines gave a fascinating presentation about traffic signalization. His presentation included many pictures of interesting traffic signal configurations and installations.

November 19<sup>th</sup>, 2018

Andy Brewer, Assistant Division Engineer – Transportation Planning & Policy, Arkansas Department of Transportation

Mrs. Brewer participated in a class presentation where students were able to make questions related to the transportation workforce and policy making. In his presentation, Mr. Brewer briefly mentioned some of the activities that he oversees such as long-range planning, project planning, policy analysis, performance management, public transportation, and traffic safety.

# Student Participation in Regional Events Midwestern ITE Annual Awards, 2018



#### Midwestern District Student Paper Award

This award is given annually for a significant paper prepared by a student member of the Midwestern District. The 2018 winner is **Taslima Akter**, from the University of Arkansas for "Leveraging Open-Source GIS Tools to Determine Freight Patterns from Anonymous GPS Data."



#### Midwestern District Rising Star

The Rising Stars Program is intended to identify the next generation and new faces of the transportation profession and is designed to recognize members under the age of 35 who have already made an impact on the profession, have demonstrated the ability to lead the next generation, and have implemented innovative techniques to solve transportation problems.

The 2018 Midwestern District Rising Star is **Sarah Hernandez, PhD.** Since joining staff of the University of Arkansas in 2015 as an instructor and researcher, Sarah has established a robust freight transportation research program. The outcomes of her research have helped the Arkansas Department of Transportation determine solutions for topics such as truck parking and evaluating WIM auto-calibration practices. Sarah also leads STEM outreach events for middle school and high school girls, as well as serving as the faculty advisor for the University of Arkansas' ITE Student Chapter.

Full description of awards can be found at: <a href="http://midwestite.engr.wisc.edu/resources/awards/">http://midwestite.engr.wisc.edu/resources/awards/</a>

#### Media Recognition

Taslima Akter and Magdalena Asborno, two UA ITE student members, were recognized by the University of Arkansas in their Newswire feed for their excellent performance and participation in the student competition award directed by MOVITE. The participation of both represents a pride for the UA ITE student chapter as they reflect the primary goals of this chapter engaging with the community and contributing to the transportation sector. As we become more active, we hope that more students in our chapter feel motivated to participate in conferences, presenting their work.

#### Civil Engineering Graduate Students Earn Top Spots at Transportation Conference

April 11, 2018





Taslima Akter and Magdalene Asborno

Two civil engineering graduate students, Taslima Akter and Magdalene Asborno, both advised by Sarah Hernandez, were recently awarded top honors in from the Missouri Valley Section Institute of Transportation Engineers.

The Missouri Valley Section of the Institute of Transportation Engineers, also known as MOVITE, covers the states of Nebraska, Iowa, Kansas, Missouri, Oklahoma, and Arkansas. MOVITE includes traffic and transportation professionals representing public agencies, academic institutions, private industry and consulting.

Akter won first place in the 2018 Thomas J. Seburn Student Paper Competition from MOVITE. This year, the evaluation committee selected her paper, "Leveraging open-source GIS tools to determine freight activity patterns from anonymous GPS data," as the most significant contribution to transportation engineering, earning her a prize of \$1,500. The award will be presented at the 2018 fall MOVITE meeting in Lenexa, Kansas Oct. 3-5. Akter will attend the meeting and present her paper.

Akter also recently won the 2018 GIS for Transportation Symposium's Best Student Paper Award from the American Association of State Highway Transportation Officials.

Asborno's paper, "Using State Travel Demand Data for Transload Facility Location Planning," took second place at the 2018 Thomas J. Seburn Student Paper Competition at MOVITE. Her paper was presented at the 2018 Transportation Research Board's annual meeting in Washington, D.C. The paper is based on a research project carried out by a multidisciplinary team at the University of Arkansas and titled "Locating Transload Facilities to Ease Highway Congestion and Safeguard the Environment." The

evaluation team selected her paper as a significant contribution to transportation engineering based on originality, significance, scope, validity and applicability.

MOVITE also awarded Asborno the 2018 Jan Kibbe Student Scholarship. The evaluation team awards this scholarship annually. Magdalena's selection is based on her proposed program of study, career objectives and recommendations.

Micah Hale, head of the Department of Civil Engineering, praised the accomplishments of both students.

"The Department of Civil Engineering is very proud of Ms. Asborno and Ms. Akter," Hale said. "Receiving these awards speaks highly of them and their research topics as well as Dr. Sarah Hernandez's research program."

This article was retrieved from: https://news.uark.edu/articles/41582/civil-engineering-graduate-students-earn-top-spots-at-transportation-conference

#### Student Leadership Summit, 2018

Written by Valeria Messina, Undergraduate Student



The 2018 ITE Student Leadership Summit consisted of meetings and presentations from graduate students and professionals in the field of transportation engineering at UTEP. The presentations on the graduate level were on different pavement studies at UTEP and the professional speakers focused on their technical practices like geoplastic material used to retain landfills and prevention of water contamination. We had the opportunity to tour the Center for Transportation Information Structures, which was a treat.

We interacted with 7 to 9 other chapters of ITE/TL21/ASCE students across the district to build a network to share ideas and improvements to our individual chapters. Each chapter gave a presentation on the work and success of their chapter on every campus; we had the opportunity to ask any questions and received advise from students and professors. The host campus gave us a taste of El Paso, TX which was an amazing experience

with it's beautiful landscape, culture and hospitality.

#### MOVITE Fall Meeting, 2018

Written by Sharif Mahmoud, PhD Candidate



Missouri Valley Section Institute of Transportation Engineers (MOVITE) Fall Meeting 2018 took place in Lenexa, Kansas from October 3 to 5. In this event, 160 transportation professionals and students from different parts of the country came together to share their knowledge and skills and thus advance the profession in the region. MOVITE president David J. Mennenga welcomed the participants while Lenexa Mayor Michael Boehmgave gave the keynote speech. The breakout sessions involved presentations on a diverse range of transportation issues like impacts of road diets with signal optimization, human driver communications during autonomous truck platooning, and connected roads. PhD candidates Taslima Akter and

Magdalena Asborno from the Freight Transportation Data Research Lab of Civil Engineering department at the University of Arkansas presented their work on freight activity patterns and commodity flow truck body classification.

This was my first participation in this event. It was fascinating to meet a large ensemble of energetic transportation professionals and know about their current initiatives and visions for the future. Some companies exhibited their state-of-the-art technologies related to traffic operations and road safety, which was exhilarating. Aside from the highly insightful technical sessions, I fondly remember the social hour at Lenexa Thompson Barn, where a handful of participants joined for dinner, trivia, and game show.

# Budget Fiscal Year 2018-2019

**Table 1. Budget Summary** 

BUDGET	2016	2017	2018	2019	<b>TOTAL Budget</b>	TOTAL Exp	Balances
Supplies	0.00	4,000.00	4,000.00	10,233.48	18,233.48	4,214.21	14,019.27
Travel	0.00	1,000.00	1,000.00	12,000.00	14,000.00	10,180.03	3,819.97
Total	0.00	5,000.00	5,000.00	22,233.48	32,233.48	14,394.24	17,839.24

Table 2. FY 2019 Budget

Date	Vendor	Travel	Supplies	Description
09/05/2018	Hotels.com	332.40		Magdalena & Karla - Hotel - MOVITE - Lenexa, KS Rebecca, Taslima, Kelly - Hotel - MOVITE - Lenexa,
09/05/2018	Hotels.com	332.40		KS
09/05/2018	Hotels.com	332.40		Sharif, Josh, Fu - Hotel - MOVITE - Lenexa, KS
10/01/2018	Rebecca Hardwick	410.40		MOVITE
10/01/2018	Nathan Parnell Elvis Camarena	410.40		MOVITE
10/01/2018	Castillo	410.40		MOVITE
10/01/2018	Karla Diaz Corro	410.40		MOVITE
10/05/2018	Enterprise	136.86		MOVITE
10/05/2018	Enterprise	162.31		MOVITE
10/05/2018	Sharif Mahmud	61.89		MOVITE
10/05/2018	Taslima Akter	94.77		MOVITE
10/05/2018	Karla Diaz Corro Magdalena	57.00		MOVITE
10/05/2018	Asborno	130.67		MOVITE
10/05/2018	Fu Durandal Zhang	68.96		MOVITE
10/05/2018	Rebecca Hardwick	56.33		MOVITE
10/05/2018	Kelly Overturf	57.13		MOVITE
10/05/2018	Sarah Hernandez	784.04		MOVITE
10/12/2018	Univ of OK	(100.00)		Reimburse travel
10/25/2018	Univ of OK	(400.00)		Reimburse travel
01/17/2019	Karla Diaz Corro	615.62		TRB

Table 3. FY 2018 Budget

Date	Vendor	Travel	Supplies	Description
09/14/2017	Walmart		1.08	TL 21 Student Group Meeting
09/14/2017	Walmart		10.40	TL 21 Student Group Meeting
09/14/2017	Chick-Fil-A		102.81	TL 21 Student Group Meeting
10/25/2017	Walmart		4.17	TL 21 Student Group Meeting
10/26/2017	Jimmy Johns		113.29	TL 21 Student Group Meeting
11/14/2017	Walmart		4.17	TL 21 Student Group Meeting
11/16/2017	Papa Johns		76.03	TL 21 Student Group Meeting
11/14/2017	Amazon		221.25	Engineering Pads
01/09/2018	Sarah Hernandez	1,646.07		MOVITE - Hot Springs, AR
01/09/2018	Taslima Akter	156.26		SPTC 2017 Summer Symposium
01/16/2018	Magdalena Asborno	131.54		SPTC 2017 Summer Symposium
01/17/2018	Elvis Camarena	2,185.55		TRB
02/10/2018	Johnson Baker	412.50		SPTC TL21 Student Meeting
02/10/2018	James Igwe	430.50		SPTC TL21 Student Meeting
02/10/2018	Valeria Messina	529.00		SPTC TL21 Student Meeting
02/10/2018	Kelly Overturf	438.14		SPTC TL21 Student Meeting
02/10/2018	Joshua Perez	412.50		SPTC TL21 Student Meeting
03/27/2018	Dunkin' Donuts		32.60	TL 21 Student Group Meeting
03/27/2018	Walmart		2.60	TL 21 Student Group Meeting
04/25/2018	Univ of OK	#######		Travel assistance
04/25/2018	Univ of OK		(1,000.00)	Assistance
04/01/2018	Subway		42.46	Refreshments for ITE March meeting
04/12/2018	Walmart		14.54	Refreshments for ITE April meeting
04/12/2018	Walmart		25.85	Refreshments for ITE April meeting

# Student Members

Aaliyah Sutherland

Fu Durandal

Jacob Maez

Jacob Murray

Joshua Haley

Karla Diaz Corro

Madeline Giebler

Magdalena Asborno

Phyllis Greene

Sanjeev Bhurtyal

Sharif Mahmud

Taslima Akter

## **Upcoming Events and Goals**

In addition to becoming more active, having a bigger presence on campus and our three general club meetings for the semester, the ITE Student Chapter at the University of Arkansas is also planning to include at least one outreach "training" to other student chapters per semester. This is a great opportunity for students to hone their communication skills, and practice leadership in their community. Another goal that we want to accomplish is to have for the first time a team competing in the Traffic Bowl at the Joint International/Midwestern District/Great Lakes District Meeting. We are strongly encouraged by the Arkansas ITE Chapter members to attend the District meeting and are looking forward to participating. Students and officers are excited about the opportunity to grow within ITE. Finally, we would like to address that as a student chapter, we would like to be more engaged in the activities within the ARITE chapter.