

University of Arkansas Institute of Transportation Engineers Student Chapter

2021-2022 ANNUAL REPORT



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Introduction

Greetings! This is Sanjeev Bhurtyal, a PhD student in the Department of Civil Engineering at the University of Arkansas, Fayetteville. I am honoured to serve as President of the UA-ITE student chapter. It's an honor to be a part of such a vibrant and enthusiastic group of students.

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.

Unlike previous years, past year has been a little different because of an unanticipated COVID-19 pandemic. However, our chapter still strived to continuing our regular meetings, events and activities even if we had to do it through virtual platform. During the 2021 MOVITE spring meeting, we got the opportunity to show off our leadership and teamwork skills. Just to mention some of the highlights and accomplishments at this conference, the chapter was pleased to represent Arkansas at the 2021 Collegiate Traffic Bowl Championship, in which we took 1st place. In addition, the members from the chapter were actively involved in the conference with their research presentations and posters.

This year's objectives are to continue connecting with professional chapter members in the region in order to keep up with the implementation of outreach initiatives at off-campus events, as well as to involve our student chapter members in more leadership and competitions. The UA-ITE student chapter organization had a fantastic year last year, and we intend to make 2022 even better by expanding our presence on campus.

We look forward to continued success and building up of the chapter in the coming year! Sincerely,



Sanjeev Bhurtyal

ITE Student Chapter President
University of Arkansas

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 21-22, and (4) an outlook on next year's activities. Questions and suggestions should be directed to the Student Chapter President, Sanjeev Bhurtyal (sbhurtya@uark.edu), or Advisor, Sarah Hernandez (sarahvh@uark.edu).

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 21st 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 21st century (TL21) is the parent organization of the UA-ITE Student Chapter at the University of Arkansas. All members of UA-ITE are encouraged to become national members of ITE, by explaining to members 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 a national ITE member in order to join UA-ITE, 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 UA-ITE and call special meetings as needed
- 2. organize any elections associated with UA-ITE 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 of recruitment and outreach to new or continuing students
- 3. maintaining or finding a volunteer to maintain the UA-ITE social media accounts
- 4. manage and collect pictures of UA-ITE 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 UA-ITE
- 2. develop and produce an Annual Report detailing UA-ITE 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. They or another member uses a simple majority to vote in new officers who were nominated.

The officers are elected in the fall semester and serve for one year. The officers for the 2021-2022 calendar years are as follows:

Role	2021 Fall Officers	2022 Spring Officers	
President	Sanjeev Bhurtyal	Sanjeev Bhurtyal	
Vice President	Role absorbed by President	Fariha Tasnim	
Treasurer	Kwadwo Amankwah-Nkyi	Kwadwo Amankwah-Nkyi	
Event Coordinator	Role absorbed by President	Lizbeth Juarez-Bartolo	
Faculty Advisor	Sarah Hernandez (Associate 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 UA-ITE general 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, a student coordinator who is not serving as an officer will chair Pillar II. 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 event is described in this section.

Officers Meetings

Officer meetings are usually held a week before the general student chapter 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 student chapter, and then the president would relay that information to the officers. The officer meetings also were to clarify and assign tasks to the officers, which include but were not limited to email announcements to the undergrad and graduate student bodies announcing upcoming general meetings. Our goal for this year and the upcoming years are to create a more solid and organized foundation for the UA-ITE student chapter.

General Meetings

For the past four years, UA-ITE, previously known as TL21, has held general meetings to engage with the student body. 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. The fourth year (2019) general meeting was held on 15th of October and 12th of November. However, no general meetings could be organized in 2020-2021 because of the COVID situation. The consistency in the meeting day/time is important for attracting students to the meetings, and therefore, the chapter will resume regular general meetings in 2022.

Student Participation In Events

Media Recognition

UA-ITE students were recognized by the Arkansas Newswire for winning multiple accolades in the 2021 Missouri Valley District of the Institute of Transportation Engineers (MOVITE). University of Arkansas News highlighted the victory of the chapter in MOVITE Traffic Bowl along with the chatper's video submission.

ITE Student Chapter Earns Victory at Traffic Bowl

June 07, 2021

At the spring 2021 meeting of the Missouri Valley District of the Institute of Transportation Engineers (MOVITE), teams from the University of Arkansas, Washington University and the University of Kansas competed in the annual Traffic Bowl. This was the inaugural competition of this "Jeopardy" style quiz game, witnessed by more than two hundred professional MOVITE chapter members.

The Arkansas team, mentored by civil engineering assistant professor Sarah Hernandez, consisted of undergraduates Mir Ali, Mariah Crews, Simon Rothwell, and Ph.D. student Sanjeev Bhurtyal. Along with their victory in the Traffic Bowl, the team tied for 1st



Photos Submitted

Top row, from left: Mir Ali and Mariah Crews; bottom: Sanjeev Bhurtyal and Simon Rothwell.

place with their chapter video submission. The video can be viewed on YouTube.

2021 MOVITE Meeting

ITE student chapter members from the civil engineering department at the University of Arkansas presented their work at the 2021 MOVITE Spring meeting, held from April 7 to 9. UA ITE members, Karla-Diaz Corro, Sharif Mahmud, Sanjeev Bhurtyal, Farzana Mehzabin Tuli, Mariah Crews, Simon Rothwell, Mir Ali participated in 2021 MOVITE Spring meeting. Karla, Sharif, Sanjeev And Farzana presented their research work in the meeting.

Graduate students Sanjeev Bhurtyal, and undergraduate students Mir Ali, Mariah Crews and Simon Rothwell won the first place in the Traffic Bowl



Figure: 2021 Traffic Bowl

Competition. In addition to presenting their work, the five students who actively participated in the ITE 2021 MOVITE Meeting enjoyed presentations made by transportation engineering professionals, attended MOVITE chapter meetings that helped them understand how the chapter is organized and how decision-making takes place.

101st TRB Annual Meeting

Two UAITE members, Kwadwo Amankwah-Nkyi and Adedolapo Ogungbire attended 101st TRB annual meeting held in person in Washington, DC, January 9-13, 2022. Adedolapo presented poster on impact of COVID-19 on ridesourcing usage authored by Anindya, Adedolapo, Dr. Suman Mitra and Vincent. He also presented a poster on examining the impact of COVID-19 on E-sooter usage authored by Farzana, Arna, and Dr. Suman Mitra.

Come as You Arkansas

UAITE officers Lizbeth Juarez and Sanjeev Bhurtyal participated in Come as You Arkansas event, a part of campus wide event in celebration of 150th anniversary of founding of University of Arkansas. The event was held on September 10, 2021. The two officers helped Dr. Hernandez set up booth with Transit Trouble, computer game that allows player to control traffic in an intersection.



Figure 1 Adolapo with his poster in 101st TRB



Figure: UAITE officer Lizbeth Juarez in Come as You Arkansas Event

2021 INFORMS Annual Meeting

UA ITE president, Sanjeev Bhurtyal, participated in 2021 INFORMS meeting held in Anaheim, California October 24-27,2021. He presented his research work on inland waterway freight transportation. He got the opportunity to learn about emergin methodologies and applications to optimize freight supply chain network.

Budget Fiscal Year 2021-2022

Below is a breakdown of the expenses and budget during 2021, and the projected budget for 2022.

Table 1. Budget Summary 2022

BUDGET	2021	2022	TOTAL Budget	TOTAL Exp	Balances
Supplies		TBD	\$292.04	\$0.00	\$292.04
Travel		TBD	\$0.00	\$0.00	\$0.00
TOTAL					

Table 2. FY 2021 Expenses Breakdown

Date	Vendor	Travel	Supplies	Description
TOTAL				

General Meeting Cost Breakdown

For general meetings, we usually serve pizza, soda, and bottled water to the attendees. **Table 3** gives a cost breakdown scenario for three levels of participation in a general meeting: 30, 40, and 50 participants. Here we assume that each student will consume three slices of a large pizza. A large pizza from Papa John's costs, on average, \$14.15 and each pizza has 8 slices. We computed the cost considering the number of participants and slices we need to serve all of them. Similarly, we estimated the cost of soda and water bottles. We plan to hold two meetings each semester; thus, we will potentially have six meeting in a year considering spring, summer, and fall semesters. The last row of the table shows the total cost of supplying food in six meetings across three levels of participation.

TABLE 3: General meeting cost

Food Item	Cost for 30	Cost for 40	Cost for 50
	Participants	Participants	Participants
Pizza	\$155.65	\$212.40	\$265.50
Soda	\$10.96	\$15.94	\$21.92
Bottled Water	\$18.98	\$18.98	\$28.48
Cost/Meeting	\$185.59	\$247.32	\$315.90
Extended Total (6	\$1,113.54	\$1,483.92	\$1,895.40
meetings)			

Finances and Fundraising

Office of Student Activities at the University of Arkansas provides funding for registered student organizations (RSOs) in the campus. A registered RSO can apply for and expend University funds as distributed through the Associated Student Government (ASG). ASG "promotes a diverse array of programs and events, facilitate intellectual engagement, encourage collaboration between students and/or student groups, and/or foster campus community." To finance our activities, we plan to apply for ASG funding. We are also considering asking for donations from the sponsoring agencies and individuals. For example, for general meetings, we will specify the details such as information about meeting place, time, attendance, speakers, and topics. We expect to get a major part of our funding from this source.

Student Members

Adedolapo Ogungbire

Anindya Debnath

Arna Nishita Nithila

Fariha Tasnim

Farzana Mehzabin Tuli

John Christopher Rothwell

Kwadwo Amankwah-Nkyi

Lizbeth Juarez

Sanjeev Bhurtyal

Vuban Chowdhury

Upcoming Events and Goals

For the 2022-2023 school year, our student UA-ITE chapter has set a few goals and objectives:

- UA-ITE has put together a team for the Student Design Competition that will take place during
 the 2022 Annual MOVITE District meeting. After competing in 2020 and taking the inaugural first
 place title, the University of Arkansas is excited to return to this competition and represent our
 school with backgrounds in landscape architecture, urban planning, transportation engineering,
 and transportation planning.
- 2. UA-ITE plans has put together a team for the 2022 MOVITE Traffic Bowl. Summer 2019 was the University of Arkansas's very first time competing in collegiate traffic bowl. The chapter is looking forward to defending the 2021 title.
- 3. UA-ITE plans to have at least one student participate in the Student Poster Competition.
- 4. UA-ITE has opened up the Thomas J. Seburn Student Paper Competition, the Jan Kibbe Student Scholarship, and the Technical Research Grant Application to all civil engineering undergraduate and graduate students at the university.
- 5. UA-ITE plans to conduct outreach in the local community. UA-ITE officers and colleagues conducted outreach programs at two schools in 2019, Leverett Elementary and Butterfield Elementary. We plan to continue to offer outreach programs for local schools as requested.