

University of Alberta Student Chapter

Institute of Transportation Engineers -University of Alberta Student Chapter

ANNUAL REPORT

February 01, 2019 – January 31, 2020

March 2020

Photo by Alex Pugliese on Unsplash



EXECUTIVE MESSAGE



2019-2020 was another wonderful and productive year for the Institute of Transportation Engineers -University of Alberta Student Chapter (ITEUA). With the tremendous efforts of the executive members both executive teams (2018-2019 and 2019-2020), several events like the student-industry mixer, technical tour, student competition were organized successfully. Our frequent presence in social media like Facebook and LinkedIn, has made it easy to reach out to a larger crowd. And we observed a boost in student involvement in chapter activities like technical tours and seminars. We also had a record number of industries participate in our annual student-industry mixer. This has motivated us to launch our very own website (https://sites.ualberta.ca/~iteua/).

CITE Annual Meeting 2019 was the most rewarding experience for ITEUA this year. Our student chapter secured the CITE Student Chapter Activity Awar 2019. The long-cherished dream of winning the Canadian District Collegiate Traffic Bowl finally came true at CITE 2019. kudos to the ITEUA Traffic Bowl team 2019- Bryan, Cai, and Connor. It was an honor to represent the Canadian district at the Joint ITE International and Texas District Annual Meeting and Exhibit 2019.

We look forward to another year of challenges and fun events, and to a year of continued and increased collaboration with the Northern Alberta Section of ITE (NACITE), who is a partner in so many of our endeavors. Finally, we would like to thank everyone for supporting us in our growth and learning.

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Sabrena Jahan Ohi, President On behalf of the ITEUA executive team



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ACTIVITIES SUMMARY – YEAR IN REVIEW

February '19* Guest Speaker Series: Dr. Suliman Gargoum* NACITE Luncheon	March '19* Guest Speaker Series:* Dr. Anne Goodchild* Annual Student-Industry Mixer* NACITE Luncheon	<u>April '19</u> ★ Mentorship Program: Speed Mentoring
<u>May '19</u> * Mentorship Program Ends * Traffic Bowl Prep * NACITE Luncheon	June '19 * Guest Speaker Series: Sudip Barua * CITE Conference * Traffic Bowl	July '19 * ITE Austin 2020 * Traffic Bowl * NACITE Luncheon
<u>August '19</u>	<u>September '19</u>	October '19* Annual General Meeting and Election* ITEAU and NACITE Executive meetings* Field Trip: LRT Tour
 <u>November '19</u> Guest Speaker Series: Debi Larkin NACITE year-end social event 	<u>December '19</u>	 <u>January '20</u> Student Presentation Competition NACITE Luncheon

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ORGANIZATION – EXECUTIVE TEAM



David Mason Event Planner

David is a 2nd year, Master of Engineering Student at the University of Alberta. As an event planner, David is responsible for planning outreach events to students, planning the Student-Industry mixer, and planning industry field trips.

Sabrena Jahan Ohi President



Ohi is currently working towards her PhD. As President, her responsibility is to provide direction to the executive team and oversee all activities of the student Chapter. She is the representative for ITEUA at the Students Union, the department and the NACITE.



Arun Garg Treasurer

Arun is a Master of Engineering Student. He is in charge of organizing funds for chapter activities, approving spending, working with president on fundraising, and managing sponsorship deals.

Mingjian Wu Marketing Specialist

Mingjian is a PhD student. As a marketing specialist, he enjoys reaching out to the students by advertising ITEUA events through posters, Facebook and several student newsletters.





Cai Lin Yang Vice President

Cai Lin is currently finishing her final year of Civil Engineering co-op undergrad at the University of Alberta. Cai works directly with the chapter President to provide support to the rest of the executive team.

Atm Abir Secretary

Abir is a Master of Engineering Student. He acts as the executive meeting moderator. He reserves the venue for the events, completes the meeting minutes and provids support to the group with all assigned tasks.





ACTIVITIES

Guest Speaker Series

Suliman Gargoum, Chief Research Officer at Nektar and past ITEUA president who has recently obtained his PhD came back to the UofA on February 15, 2019, to share his knowledge and experience in graduate school. With its broad topic, the seminar attracted students from various disciplines. Dr. Gargoum addressed two major topics in this presentation: elements to consider when choosing whether to pursue graduate studies and tips to be a successful graduate student once graduate studies have started. The very practical approach to the seminar was well received by students in attendance.





Dr. Anne Goodchild is a Professor of Civil and Environmental Engineering at the University of Washington. In this talk, Dr. Goodchild gave her perspective on the current and future challenges to delivering a safe, sustainable, and efficient urban freight system. Based on the work she had designed and led in the Urban Freight Lab over the last 2.5 years, Dr. Goodchild shared her discoveries in terms of current operations and challenges, as well as the results of tests of innovative solutions.

She described not only the technical approach, but process for defining an arc of research that was needed to move research forward in this new field. The urban freight system is delivered by both public and private entities. Dr. Goodchild also touched on her approach to engaging public and private sector actors that had resulted in a novel and productive organizational approach to research.



Guest Speaker Series (Contd.)



Mr. Sudip Barua who is the Transportation Safety Engineer for the City of St. Albert. He has eight years of experience in collision prediction modelling, statistical collision analysis, road safety review, safety management process and collision data management. And his topic for this seminar was Traffic Safety Issues, Initiatives and Evaluation of City of St. Albert. It was a very attractive presentation as traffic safety is the main concern of every transportation engineer.

Debi Larkin, the Senior Application Development Specialist from 3M Canada, was invited to give us a talk on "3M Canada: Infrastructure Needs for Connected Roads".

With over 30 years' experience in new product and application development, Debi offers astute perspective and expertise when deconstructing industry insights to develop new-to-the-world technologies. Her ground-breaking achievements have been recognized on a global scale - Debi is a recipient of the 3M Circle of Technical Excellence and Innovation Award.

This talk was very impressive, which introduced a lot of new techniques to the attendees. We are hoping our transportation environment can be improved by applying them in practice.





Student–Industry Mixer

Annual Student-Industry Mixer is the flagship event hosted by ITEUA. The Mixer offers a platform for direct interaction between the industry representatives and students. Students from any discipline at any point in their educational careers are able to mingle with professionals from the transportation industry in a relaxed setting. This helps students connect with professionals from the industry while also assisting them in developing their interpersonal skills.



Mixer organizing team

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The Mixer was held in the University of Alberta's Donadeo Innovation Center for Engineering, which overlooks the river valley. Thanks to the generous support from industry representatives, food, beverages, and light snacks were all served during the event. ITEUA's Executive members used their connections to attract sponsors to the Mixer. Additionally, NACITE also assisted to promote the Mixer during its recent Luncheon and in its industry mailing list. Outreach to students was conducted through numerous channels within the University, including ITEUA's student mailing list, the Engineering Employment Center, weekly posters placed events listing, on campus, and announcements made in several undergraduate and araduate courses.

We received an overwhelmingly positive response from the industries and a record number of fourteen organizations signed up for the 2019 Mixer. The event was a great success and heavily attended by both students and industry. Over 40 professionals representing the participating companies attended the Mixer and interacted with over 70 students including 3rd, 4th and 5th year undergraduates as well as PhD and MSc students. Transportation Engineering professors of the University of Alberta, Engineers-in-Training and Professional Engineers from non-sponsoring companies were also present during the event.



Students and professionals are busy networking at the Mixer

Upcoming ITE events, including the Traffic Bowl competition, and ITEUA's mentorship program were all advertised in the Mixer and Students were also reminded to sign up for ITE's free membership.





Technical Tour



Courtesy of Valley Line LRT Booklet, City of Edmonton

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This year's field trip was graciously hosted by TransEd Partners for a tour of the Edmonton Valley Line LRT Southeast, while under construction! This 13.1 km stretch from Edmonton's downtown core to its residential areas to the southeast is the first stage of the City's long-term LRT Network plan. This event was a joint organization between the 2018-19 and 2019-2020 executive committees, by handing-off the final stages of planning. It also presented as the first test of the new executive for event planning which would involve off-campus activities and require risk assessment planning under requirements of the University of Alberta.

The full schedule arranged with TransEd would make 4 separate stops along the alignment, highlighting major landmarks such as the Tawatinâ Bridge over the North Saskatchewan River and the elevated Davies Station, shown in the included picture. The other major organizing challenge was determining number of attendees. Initially receiving interest from 19 (plus executive), determining the timeslot for a variety of student demographics was difficult. In the end, we received 10 participants, plus 2 executives. This event was an amazing opportunity for students to directly observe the details and complexity of LRT construction projects.



ITEUA members at the technical tour



Mentorship Program



Mentorship Program Advertisement Poster for Mentees

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The ITEUA Mentorship program's main purpose is to develop the local transportation community by linking students with industry mentors. The appeal for student mentees is to gain further exposure to the wider transportation field and the development of soft skills, while providing leadership, professional development and volunteer opportunities for industry mentors. The program comprises of an early registration process, the pairing of mentors and mentees, and then a series of events and calendar slots organized by ITEUA as meeting opportunities. Once the structured program is completed, participants are encouraged to continue gathering for ongoing relationship and skill building.

As reported in the 2018-2019 year-end report, previous feedback informed the ITEUA to adjust the scheduling of the program from summer, to a winter/spring time period. This meant that the winter 2019 mentorship program was not fully competed at the time of that report. This scheduling adjustment appeared to be effective with an increase in enrollment from 9 pairings in 2018 to 16 matches in 2019.

After the completion of the program, the ITEUA petitioned participants for feedback on their experiences. From the 16 matches, we received feedback from 6 separate mentors and 4 mentees. Within the written feedback, a couple of themes emerged: 1) scheduling of meetings was a challenge for several groups, 2) the expectations of mentor/mentee did not always match, and 3) an improved structure or objectives would aid in discussions.

This program has proven to be valuable in growing the profile of ITEUA, and NACITE (our local chapter) while fostering a larger community of current and future transportation professionals. Planning for the 2020 edition of the program is currently underway for spring/summer 2020.



CITE Annual Meeting: Ottawa 2019

With the support from the student chapter and our sponsors, this past summer, several members from ITEUA had attended the 2019 CITE Conference in Ottawa. The conference was a great opportunity for our members to network and learn about the leading topics in the industry.

Over the course of the conference, our members attended events and sessions including the CITE Student Leadership Summit, speaker sessions, technical tours, poster presentations, the Traffic Bowl competition, Awards Luncheon, networking events, as well as the opening and closing receptions. The Student Leadership Summit, hosted by Carleton University was a great platform for ITEUA representatives to meet and connect with other likeminded student leaders from across the country, and discuss ways to improve our respective student chapters. The technical sessions and tours provided our members with the opportunity to learn about the emerging topics and state of practice in transportation, which in turn elevated everyone's interest in pursuing a career in the transportation field. At the annual Awards Luncheon, ITEUA was presented with the Student Chapter Activity Award to recognize our hard work in 2018, and our 2019 Chapter President – Laura Cabral was awarded with the John Vardon Memorial Transportation Scholarship to recognize her outstanding work and achievements!

As always, the best part of CITE Conferences has always been the people. The conference was a great way for our members to brush up their networking skills and create meaningful connections in the industry. Our members had greatly enjoyed the conference thanks to the warm hospitality of the conference organizing committee, the local CITE chapter and the hosting student chapter!



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ITE Annual Meeting: Austin 2019

As the winner of the 2019 CITE Collegiate Traffic Bowl, our team of executives, Bryan (2019 Vice President), Connor (2019 Secretary), and Cai Lin (2019 Communication Strategist) proudly represented the Canadian District at the 2019 ITE conference in Austin, Texas.

At the conference, our members had a great time meeting the other student chapters at the Student and Faculty Leadership forum, networking and connecting with industry professionals, as well as learning from the technical sessions. Outside of the conference, our team also had a great time exploring the local culture and trying out the abundance of e-scooters in Austin.

Our members would like to thank the 2019 ITE organizing committee for putting together such a wonderful conference!



Top left: ITEUA Traffic Bowl team representing Canada; top right: ITE session; bottom left: round table discussion; bottom right: Traffic Bowl teams of participating student chapters



ITEUA Traffic Bowl Team 2019

Building on to our team's strong runner-up finish from the year prior in Edmonton, ITEUA had again assembled a strong team for the 2019 Collegiate Traffic Bowl. Our 2019 Traffic bowl team consisted of Bryan Tran (1st year MSc Student in Transportation Engineering), Connor Bayne (Final year BSc Student in Civil Engineering), and Cai Lin Yang (4th year BSc Student in Civil Engineering).



Together, with the help and support from our local CITE chapter – NACITE and the rest of ITEUA, our team took home first place at the CITE Traffic Bowl and went on to compete at the 2019 ITE Collegiate Traffic Bowl in Austin, Texas. Although our team was not able to advance into the final round in Austin, they nonetheless still had a great time to be able to represent the Canadian District!

ITEUA Traffic Bowl Team at CITE Ottawa 2019; from left: Bryan, Connor, and Cai Lin

All in all, our team would like to thank the judges and organizers of both the CITE and ITE competitions for organizing such a fun and engaging competition, as well as NACITE and CITE for supporting us on our journey to Austin. We look forward to another great tournament in Vancouver this May!

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ITEUA Traffic Bowl Team at ITE Austin 2019; from left: Cai Lin, Connor, and Bryan



Kick-off Event 2019

On September 17, 2019, the ITEUA held our annual kick-off event. As with previous years, the executive rents table space in high foot-traffic areas within the engineering complex to promote our group and attract students to join, while exposing them to the idea of Transportation Engineering as a field of study. We had members of the 2018-2019 executive and volunteers attend the table to respond to queries about our group.

To attract people to our table, we capitalized by displaying our set of awards recently earned at the CITE annual conference. We also produced a simple game of "Guess the Mode Share", using the City of Edmonton's Household Travel Survey report. Participants were encouraged to guess the correct mode split by dropping plastic train pieces into glasses for each type of travel mode, with the closest guess winning a gift card. Once we had participant's attention, we promoted the various activities of our student group, with the immediate focus on our upcoming Annual General Meeting and election. We also collected names and e-mail addresses for future promotional needs.



Kick-off event

Election and Annual General Meeting

The annual ITEUA election and AGM was held on October 2nd, 2019 at the University of Alberta. This event was open to all ITEUA members and students from the transportation research groups were invited to participate in the election, compete for positions, and vote for candidates. The outgoing president, Laura Cabral, gave attendees an overview of the past year's events and presented the different executive positions. She then proceeded to hosting the election using online voting portal. All the other attendees voted for the candidates and the corresponding positions, starting from the President's position. After the election, the old team hosted a short initial transition meeting.



From left to right: Atm Abir, incoming Secretary; Cai Lin Yang, incoming Vice-President; Sabrena Jahan Ohi, outgoing Treasurer, incoming President; David Mason, incoming Event Planner; Arun Garg, incoming Treasurer, and Mingjian Wu, outgoing marketing specialist, incoming marketing specialist.



Presentation Competition

ITEUA organized its second Student Presentation Competition on January 31, 2020 at the University of Alberta's Donadeo Innovation Center for Engineering. The competition provides the students, both graduate and undergraduate level, a platform to improve their presentation and public speaking skills while showcasing their research and ideas on different sectors of transportation. This year, we had separate categories for undergraduate and graduate students to ensure a level playing field. ITEUA and NACITE jointly awarded the winners a total of \$700 in prizes.



Competition participants with the judges

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The judging panel was comprised of three professionals from the transportation industry: Andrew Gregory (Manager, Transit Planning at Edmonton Transit Planning), Catherine Oberg (Principal, Regional Manager Northern Alberta at Bunt & Associates) and Clarence Wong (General Director, Subdivision and Development Coordination at City of Edmonton). The judges selected the winners based on the presentation skill (60% for graduate students and 75% for undergraduate students), technical contents (40% for graduate students).

Seven students from both undergraduate and graduate levels discussed their research and ideas regarding the impact of climate change on Canada's roads, winter road maintenance, LiDAR data, autonomous vehicles, traffic safety, Piezoelectric harvesters and collaborative transportation.



Honorable judges of the competition

Additionally, students and industry professionals in attendance took part in an online poll to select the people's choice winner. Congratulations to the best presenters: Amr Shalkamy (first place-Graduate Category), Vivienne Li (first place-Undergraduate Category), Maged Gouda (second place), Samaa Agina (third place), and Shuoyan Xu (people's choice). Overall, the event was a success. We have received great feedback from the judges and the audience which encouraged us to make this a recurrent annual event.



1Competition winners with the judges; from left: Maged, Catherine, Amr, Vivienne, Andrew, Samaa, Clarence, Shuoyan



NACITE Luncheon

NACITE hosts a luncheon most months of the academic year at the University of Alberta Faculty Club. At each luncheon, five seats are sponsored for students to attend. ITEUA acts as a liaison between NACITE and the University of Alberta students in promoting the luncheons. In the last year, various students attended the following luncheons.

Date	Торіс	Sponsor
February 6, 2019	Building the Walterdale Bridge	ISL Engineering and Land Services
March 6, 2019	Edmonton's Transit Priority Measures Study	IBI Group
May 1, 2019	Charging Stations and More: Infrastructure Planning for Electric Vehicles and E-Bikes	Watt Consulting Group
October 2, 2019	The Value of LiDAR in Transportation Projects	Nektar 3D Consulting
November 6, 2019	A Tale of Two Cities	IBI Group
December 4, 2019	Calgary's Plus 15 Network Study	McElhanney



NACITE Luncheon at University of Alberta



FINANCIAL REPORT

For record purposes and CITE annual report submission, ITEUA's fiscal year is from February 1, 2019 and ends on January 31, 2020 which led to some overlap of expenses funding between last year and this year's report. This past year, ITEUA has tried to expand his outreach over undergraduate and Urban planning students. As compared to last year, budget and expense was increased for speaker events, Student Industry mixer 2019, competitive events.

ITEUA gets the major funding from the biggest event "Student-Industry Mixer 2019". Around fourteen companies and government agencies participated and contributed a minimum of \$125.00 each to attend the event. In the last year May 2019, ITEUA student chapter won the CITE traffic bowl competition 2019 and later participated In the ITE event held in Austin. As the winner of the competition, ITEUA was awarded with the prize money of \$2850.00. ITEUA also received donation of \$1000.00 from NACITE and \$500.00 from Industry to sponsor the team to Ottawa and Austin.

ITEUA held its second edition of Student Presentation Competition in January 2020. NACITE partially contributed to awards fund for the winners of the competition. The event was a different one from last year as the competition was organized in two categories: Undergraduate and Graduate. The fiscal year started with a balance of \$1274.78 and ITEUA has had incoming funds of \$9375.00 since then. Table 1 summarizes the total funds raised during the 2019-2020 fiscal year.

SI. No.	Funding Organization	Event	Fund (CAD)
1	CITE Traffic Bowl Winner	CITE Traffic Bowl, Ottawa	4850.00
2	NACITE WATT Consulting group	ITE Traffic Bowl Austin	1500.00
3	 Fourteen industry players Al-Terra Engineering City of Edmonton CTEP Associated Engineering Stantec Bunt and Associates AECOM Canada Ltd. Nektar IBI Group ISL Engineering and Land Services Ltd. WSP CIMA+ Alberta Transportation NACITE 	Student-Industry Mixer 2019	1825.00
4	Centre of smart Transportation (CST)	Student support for research testing	800.00
5	NACITE Contribution	Presentation Competition 2020	400.00
	Total		9375.00

Table 1: Total Funds Received for the 2019-2020 Fiscal Year



ITEUA allocated the funds to different activities such as our guest speaker series, field trips, the 2019 Student-Industry Mixer, the mentorship program, Traffic Bowl and other competitions, to name a few. The total expenses for the year are summarized in the Table 2.

Table 2: Expenses for the 2019-2020 fiscal year

SI. No.	Activity	Expense (CAD)
1	4 Guest Speaker Seminars	412.56
2	1 Field Trips	34.66
3	Student-Industry Mixer 2019	772.94
4	CITE conference and Traffic bowl	4815.60
5	Kick-off Event & AGM	64.18
6	Mentorship Program	31.49
7	Presentation Competition 2020	874.31
8	Student Participation CST (Centre of Smart Transportation)	300.00
9	Office supplies (Banner, name tags, etc.)	41.85
10	Maintenance fee + bank charges for the e-transfer	34.00
	Total	7377.59

We have prepared a balanced budget for the next fiscal year which considers expansion of annual activities to promote transportation engineering more among undergraduate students. Preparations for our major annual event, the Student-Industry Mixer 2020, have already started. Several industry players have already registered for the Mixer while we are waiting for others to respond. We have already held our first guest speaker seminar of the new fiscal year on February 10, 2020. We plan to continue to operate as a financially transparent student group and build a trustable supporting network of companies to maintain our group's activities in the future.



MEMBER ROSTER

Undergraduate members (38)

Aaron Liu Akash Bajaj Alana Benoit Ankit Parshant Arancha Bebany Ava Hosseinpoor Brianna Jackson Cai Lin Yang Chen Yuan Coen Durant Connor Bayne David Ren Ellis Jayakaran

Graduate members (30)

Abdullah Al Zahid Amr Mohamed Andy Wong Arun Garg Atm Abir Bryan Tran Can Zhang Davesh Sharma Gloria Duran Castillo Jagseer Singh Maan Faris Erfan Hok Nam Joey Ting Ivy Naling James Cook Jeffrey Zellweger Jenny Si Jerry Zhang Jess Wei John Moussa John Paul Lelis Kyle Spellman Liang Yin Lucy Zhang

James Helberg Jiangchen Li Jianjing Jin Julian Faid Karim Habib Kaleab Yirgu Madeleine Cline Maged Abdelkader Mingjian Wu Mohammed Ahmed Mark Gebert Mark Phillipos Mary Bachynsky Michael Tang Naomi Hui Nikita Nineza Olamide Olaleye Qiaoxuan Ji Sophie Shi Taher Rangwala Terenz Mamotos

Vivienne Li

Mudasser Seraj Qi Chen Sabrena Jahan Ohi Samaa Agina Simita Biswas Sining Li Shuoyan Xu Tasnia Nowrin Yuwei Bie Zhenning Liu



Alumni members (80) Adrian Wong Ahsan Ahmed Ai Teng Aksana Engel Amanda Gadowski Brett Newstead Brittney Lopushinsky **Cameron Snider** Chen Oiu Cheng Lan Chenhao Wang Christina Kong **Colton Mozak Danyang Sun** Difei He Dina McCurdy Dylan Evans Elena Yin Fanghui Liu Gang Liu Guanghan Wen Haohui Chen Huanan Li Iftikhar Hassan Isaac Tomas Jingxuan Liu Kasra Rezaee Kasturi Mahajan Kathy Hui

Keita Hill Kent Ruggles Kexin Ren Kyle Samonte Laura Almeida Laura Cabral Laurel Flanagan Lian Gu Lin Shao Linda Shao Ling Shi Lloyd Karsten Matthew Woo Matthew Zilinski Md Ahsanul Karim Md Hadiuzzaman Md Rokibul Hossain Khan Md Tazul Islam Mehedi Kabir Melody Kallenbach Michelle Ting Mohamed Hussein Mostafa Mohammed Naomi Li Negar Tavafzadeh Haghi Nicole Williams Pauline Fuentebella

Qian Fu Rajib Sikder Ran Li **Raphael Porras** Rokib S A **Ruolin Shi** Sadia Chowdhury Sahar Salimi Samira Abbasian Shijie Wang Shivraj Walia Sudip Barua Suliman Gargoum Sushmitha Karunakaran **Timothy Robinson** Tuan Anh Nguyen Tyler Donovan Vadim Uritsky Vishal Vadhadia Xiaobin Wang Xu Wang Yahui Ke Ying Luo Yinqi Xu Yuechuan Yin Yunzhuang Zheng **Yusuf Soliman**