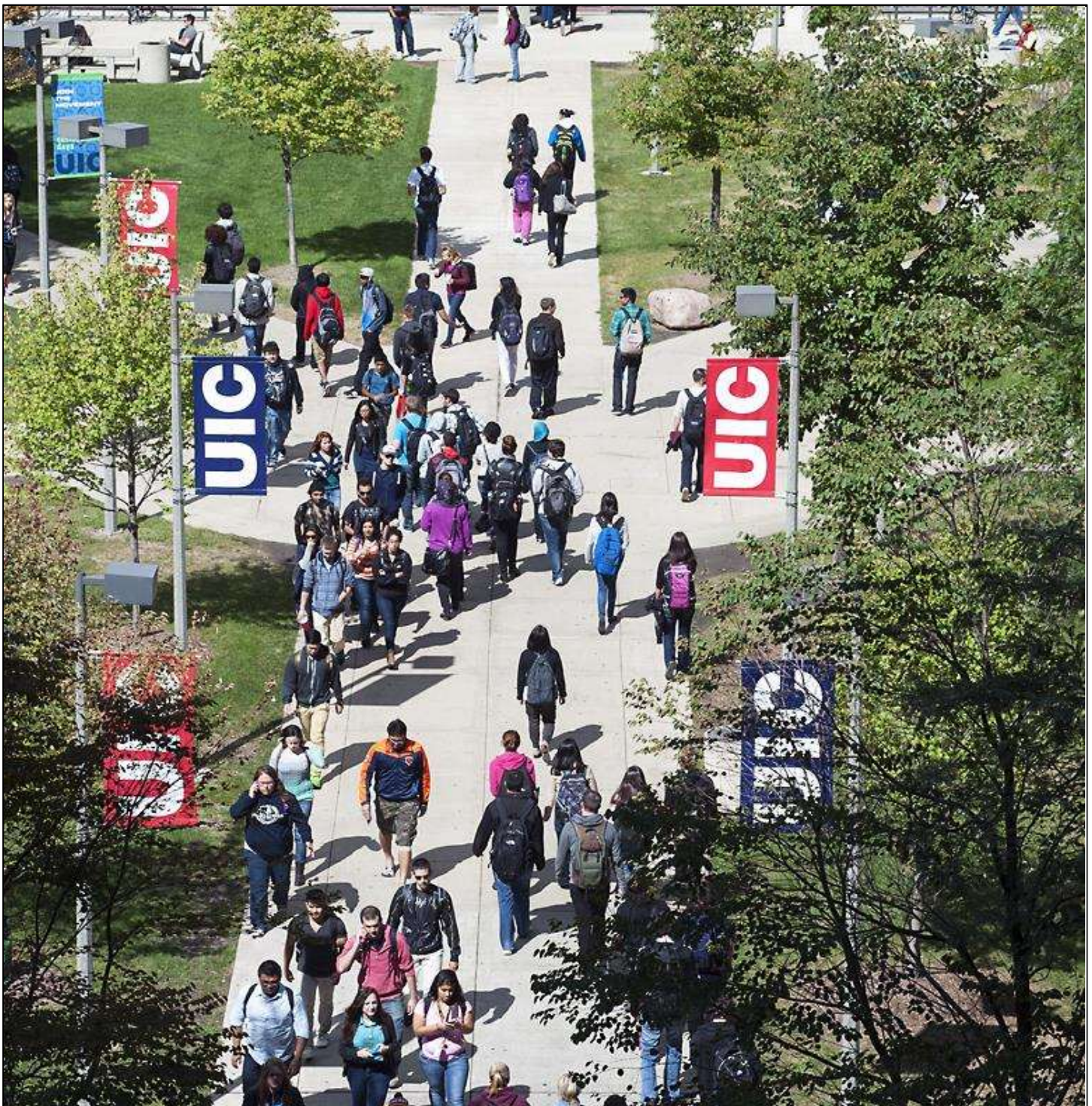




ANNUAL REPORT 2017-18

University of Illinois at Chicago ITE Student Chapter

Institute of Transportation Engineers
ANNUAL REPORT OF STUDENT CHAPTER ACTIVITIES
From April 1, 2017 to February 28, 2018
STUDENT CHAPTER AT *THE UNIVERSITY OF ILLINOIS AT CHICAGO*

1. STUDENT CHAPTER OFFICERS

President: Mohamadhossein Noruzoliaee

Vice President: Ramin Shabhanpour

Treasurer: Noosheen Nazari

Secretary: Sudheer Ballare

2. STUDENT CHAPTER MEMBERSHIP

Number of Student Chapter members: 28

Number of Student members of Institute: 20

Number of Students eligible to be a Student member of the Institute: approx. 100

Number of faculty members who are current ITE members: 1

3. INFORMATION ON TRANSPORTATION ENGINEERING ENROLLMENT

Number of undergraduate students (Sophomore - Senior years) in your academic department.

Full time: approx. 70 Part time: Nil

Does your curriculum allow an undergraduate student to major or minor in Transportation? **No**

Number of graduate students in Transportation.

Full time: approx. 15 Part time: Nil

4. SUMMARY OF STUDENT CHAPTER ACTIVITIES

Please see attached supplemental report.

5. ROSTER OF STUDENT CHAPTER MEMBERS

Please see attached member roster.

Report submitted by:



Name: Mohamadhossein Noruzoliaee

UIC ITE Student Chapter President

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February 28, 2018

Contents approved by:



Name: Dr. Bo Zou

UIC ITE Student Chapter Faculty Advisor

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February 28, 2018

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President's Message

As the president of the ITE-UIC Chapter, it is my privilege to serve a student organization that plays an active role in advocating transportation engineering at UIC and uniting the interested undergraduate/graduate students. 2017 has been a rewarding year for ITE-UIC after a promising relaunch of the Chapter in 2016 with the efforts of our faculty advisor, Dr. Bo Zou. In its first participation, the Chapter settled for the second place in the ITE Collegiate Traffic Bowl during the ITE Midwestern District Conference 2017 at Madison. The board and student members won several scholarships and awards including the IL-ITE Graduate Student Scholarship for 2017-18. Within the past 11 months of the Chapter's history, UIC-ITE regularly organized programs, seminars, and competitions to reach out to the student members.

I am deeply grateful to our faculty advisor, Dr. Bo Zou, and my executive team who contributed to our student organization and always supported my decisions and helped to implement all of our planned activities. I would also like to express my gratitude to Prof. Kouros Mohammadian, the CME department head, for his continued support of the Chapter. Last but not the least, I appreciate my predecessor and my good friend, Dr. Nabin Kafle, for his leadership and outstanding contributions in reviving the chapter during his presidency in 2016.



Mohamadhossein Noruzoliaee

President, UIC-ITE Chapter

2017-2018



2017 -18 Lookback

Sr. No.	Activity	Date
Technical Activities		
1	Seminar - Understanding Cities through Data and Embedded Systems (Mr. Charlie Catlett)	04/28/2017
2	Seminar - Engineering Challenges and Solutions in the Aviation Industry (Mr. Jim Chilton)	10/10/2017
3	Seminar - Shared-Use Mobility Center (SUMC) (Mr. Albert Benedict and Mr. Colin Murphy)	11/07/2017
4	Seminar - Critical Infrastructure Systems for the 21st Century - embracing uncertainties, decentralization and revolutionary technologies (Dr. Zhaomiao Guo)	11/15/2017
5	Seminar - Planning Reliable Service Facilities against the Threat of Disruptions and Congestion in A Continuous Space (Dr. Yanfeng Ouyang)	11/17/2017
6	Seminar - Design and Operations of Autonomous Car-Sharing Systems (ACCS) (Dr. Jee Eun (Jamie) Kang)	12/01/2017
7	Seminar - Urban Crowd-sourcing: Exploring Its Potential and Value for Planning and Emergency Response (Prof. Zorica Nedović-Budić)	02/23/2018
Executive Board Meetings		
	Meeting 1	04/28/2017
	Meeting 2	08/10/2017
	Meeting 3	09/13/2017
	Meeting 4	02/02/2018
Conferences		
	Transportation Research Forum 2017	04/20/2017
	Transport Chicago 2017	06/09/2017
	International Symposium on Transportation & Traffic Theory	07/24/2017
	INFORMS 2017	10/22/2017
	Transportation Research Board (TRB) 97th Annual Meeting 2018	01/07/2018
Involvement with ITE		
	ITE Midwestern District Conference and Traffic Bowl – Madison, WI	06/18/2017
	ITE IL Section officers visit to UIC	09/20/2017
General Body Meetings		
	Second General Body Meeting	09/20/2017

Organization: About the UIC ITE Student Chapter

UIC-ITE Student Chapter is a group of students interested in entering the field of transportation planning and engineering. The chapter is organized and operated by students under the supervision of the faculty at the Department of Civil and Materials Engineering (CME) at the University of Illinois at Chicago. The Chapter introduces students to the transportation profession and promotes the advancement of the profession by fostering close association of students with practicing engineers, educators and researchers from other institutions, and local and national chapters of ITE. The Chapter also aims to develop professional spirit, acquaint students with topics of interest in transportation, and promote common interests among students. The UIC-ITE Chapter belongs to the Illinois Section Institute of Transportation Engineers. All full-time UIC students in good academic standing are welcome to become members of the UIC-ITE student chapter. Membership in the UIC-ITE student chapter is free.

Figure 1. illustrates the current organization structure of the ITE-UIC Board.

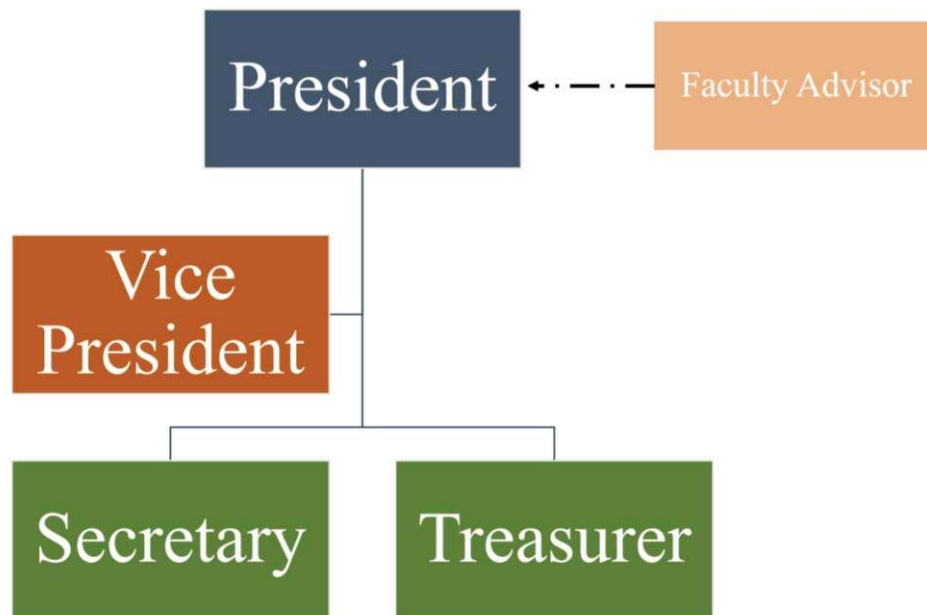


Fig 1: UIC-ITE Student Chapter Executive Board structure

Organization: Meet the Executive Board

Faculty Advisor – Dr. Bo Zou

Dr. Zou is an Assistant Professor in the Department of Civil and Materials Engineering at University of Illinois at Chicago (UIC). Dr. Zou is affiliated with the Center for Supply Chain Management and Logistics, UIC Urban Transportation Center, the National University Rail Center, the Center of Excellence for Airport Technology.



President – Mohamadhosseini Noruzoliaee

Mohamadhosseini Noruzoliaee is a PhD graduate student in the Department of Civil and Materials Engineering at University of Illinois at Chicago (UIC). His research interests include (a) Application of operations research and game theory to transportation engineering, (b) Transportation network modeling and (c) Transportation systems modeling and analysis.



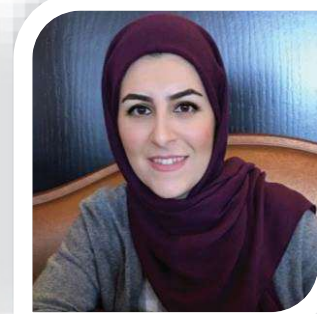
Vice President - Ramin Shabanpour

Ramin Shabanpour is a PhD graduate student in the Department of Civil and Materials Engineering at University of Illinois at Chicago (UIC). His research interests include (a) Activity-based Travel Behavior and Time Use Analysis, (b) Integrated Land Use, Transportation, and Environment Models and (c) Machine Learning and Big Data Analytics



Treasurer - Noosheen Nazari

Noosheen Nazari is a PhD graduate student in the Department of Civil and Materials Engineering at University of Illinois at Chicago (UIC). Her research interests include (a) Modeling energy consumption behavior in activity-based framework, (b) Household vehicular decision modeling considering new technology: electric vehicle and (c) Operations research in infrastructure management.

**Secretary – Sudheer Ballare**

Sudheer Ballare is a PhD graduate student in the Department of Civil and Materials Engineering at University of Illinois at Chicago (UIC). His research interests include (a) Urban Logistics, (b) Operations research and (c) Intelligent and sustainable transportation systems.



Technical Activities: Conferences

Transportation Research Board (TRB)

The Transportation Research Board (TRB) 97th Annual Meeting was held January 7–11, 2018, in Washington, D.C. More than 13,000 transportation professionals from around the world attended the conference. The conference program covered all transportation modes, with more than 5,000 presentations in over 800 sessions and workshops, addressing topics of interest to policy makers, administrators, practitioners, researchers, and representatives of government, industry, and academic institutions.



INFORMS

The INFORMS 2017 Annual Meeting took place in Houston, Texas, October 22-25, 2016. The INFORMS Annual Meeting, with more than 1,000 sessions and over 5,000 papers, covered the broad landscape of Operations Research and advanced Analytics research and practice.



Fig 2: INFORMS 2017 (image courtesy: INFORMS).

International Symposium on Transportation & Traffic Theory (ISTTT)

The 22nd International Symposium on Transportation & Traffic Theory (ISTTT22), was held from July 24 – 26, 2017 on Northwestern University's Evanston campus, in Chicago.



Fig 3: ITE-UIC Student Chapter faculty advisor Prof. Bo Zou at ISTTT 2018.

Transportation Research Forum

The 58th Annual Transportation Research Forum (TRF) was held on April 20-21, 2017, at the University of Illinois at Chicago.

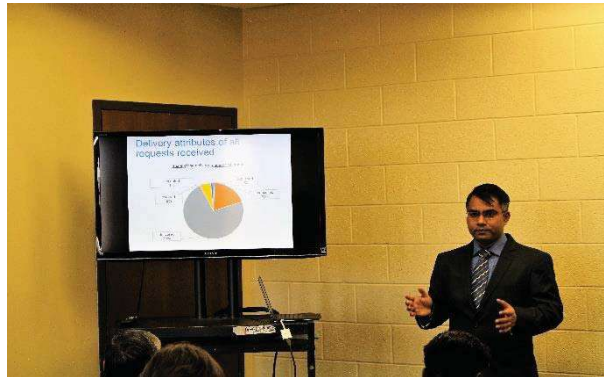


Fig 4: ITE-UIC Student Chapter Secretary Sudheer Ballare making a presentation at TRF 2017.

Transport Chicago

The 32nd Annual Transport Chicago Conference was held on June 9, 2017, at Chicago.



Fig 5: ITE-UIC Student Chapter member Dongwoo Lee making a presentation at Transport Chicago 2017.

Technical Activities: Seminars

Seminar - Engineering Challenges and Solutions in the Aviation Industry (Mr. Jim Chilton)

Mr. Jim Chilton is an Executive Program Manager for Jacobs Engineering and has worked on several substantial business opportunities during the past 2 years at airports in Hong Kong, Singapore, London, Dublin, and Chicago. Prior to joining Jacobs, Jim managed airport and infrastructure programs in Saudi Arabia, and worked as the Program Manager and senior project manager on the O'Hare Modernization Program for 9 years. He provided an overview of the different types of job opportunities available to civil and transportation engineers in the aviation industry. He also discussed his recent experiences with large capital improvement programs at nearby O'Hare International Airport and Changi International Airport in Singapore. The focus of his talk was on the major challenges at each of the airport programs. The session concluded with questions and answers with the students.



Fig 6: Mr. Jim Chilton (Jacobs Engineering) addressing the UIC-ITE members

Seminar - Critical Infrastructure Systems for the 21st Century - embracing uncertainties, decentralization and revolutionary technologies (Dr. Zhaomiao (Walter) Guo)

Dr. Zhaomiao Guo joined the Energy Systems Division, Argonne National Laboratory in 2016 as a postdoc fellow. Dr. Guo's research centers around decision making under uncertainty and decentralization, with applications in transportation and energy infrastructure systems. In this talk, Dr. Guo proposed a general mathematical modeling framework, as well as related computing methods, to cope with the challenges brought by interdependency, uncertainty and non-cooperative behaviors involved in complex infrastructure system decision processes. The modeling framework and computational techniques were illustrated through several examples in transportation and energy; including competitive facility location problem and energy system planning and operation. The methodology discussed in this talk could be extended to other critical infrastructure systems of similar fundamental characteristics; resource allocation over a network structure and non-cooperative decision entities who are interrelated, such as water resource, financial, and cyber systems.

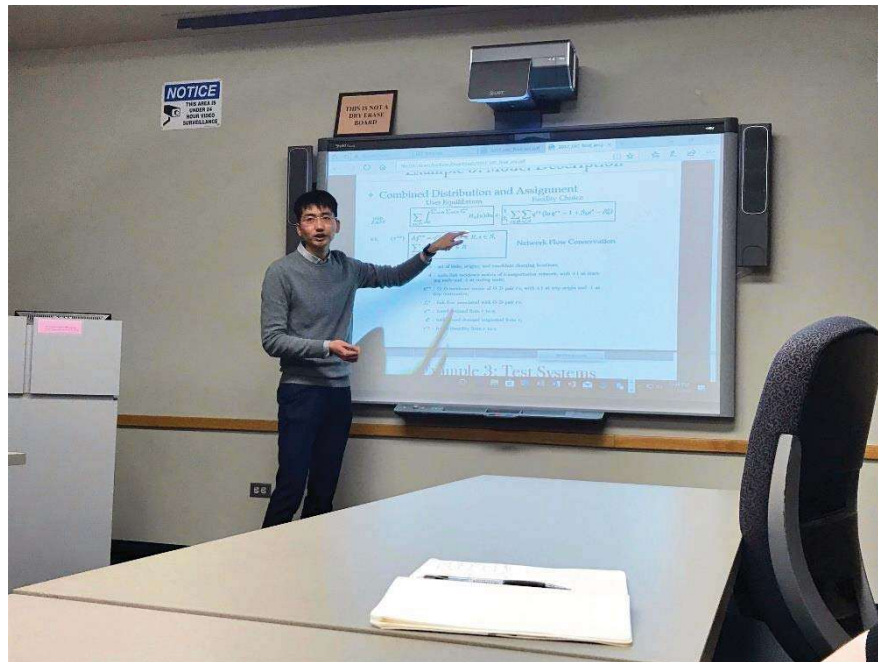


Fig 7: Dr. Zhaomiao Guo (Argonne National Laboratory) addressing the UIC-ITE members

Seminar - Shared-Use Mobility Center *SUMC* (Mr. Albert Benedict and Mr. Colin Murphy)

Mr. Albert is responsible for managing several national projects to evaluate opportunities and economic and environmental benefits related to shared mobility and integrated transportation systems. He led the creation of SUMC's interactive Shared Mobility Toolkit - including a policy database, mapping tool and benefits calculator - on behalf of the Urban Sustainability Directors Network, and has also helped to manage research work for the City of Los Angeles' EV car sharing pilot project and the Federal Transit Administration's Mobility On Demand Sandbox program. Mr. Colin works on SUMC's research efforts, with an emphasis on newer shared modes' interaction with existing transportation networks and their potential to transform our cities. The presentation consisted of providing a brief overview of SUMC, Shared Mobility Toolkit, Shared Mobility Pilot Programs and Transit Cooperative Research Program (TCRP) Research.



Fig 8: Mr. Albert Benedict and Mr. Colin Murphy (Shared-Use Mobility Center) addressing the UIC-ITE members

Technical Activities: Webinars

List of webinars attended by UIC-ITE student chapter members:

1) TRB Webinar: Standardizing Truck GPS Data to Evaluate Truck Freight Bottlenecks – January 29, 2018

This webinar discussed a guidebook that examines truck freight bottlenecks using truck probe data to establish methodologies to define, identify, and measure different types of truck bottlenecks, in order to develop cost-effective solutions to mitigate truck freight bottlenecks.

2) Perspectives on Transportation Emissions, Exposures and Health – December 5, 2017

The Center for Advancing Research in Transportation Emissions, Energy, and Health (CARTEEH) hosted a webinar, featuring Dr. Mark J. Nieuwenhuijsen of the Barcelona Institute for Global Health. Dr. Nieuwenhuijsen is widely regarded as an expert in the field of air pollution exposures and public health and shared his perspectives and current research.

3) TRB Webinar: Regulations and Policies Impacting AV/CV Introduction in Transit - November 16, 2017

This webinar discussed the changes in the way public transit agencies will approach operating policy with the introduction of connected vehicles (CV) and automated vehicles (AV) over the next few decades. This webinar focused on key issues in areas such as AV technology evolution, safety, workforce development, agency operating policies, and laws and regulations.

4) TRB Webinar: Policy and Planning Actions to Address Connected and Automated Vehicles – November 8, 2017

This webinar discussed the state and local policy and planning actions that can help make sure that the introduction of automated vehicles and connected vehicles will advance community and agency objectives.

Liaison: ITE Midwestern District, On campus

ITE 2017 Midwestern District Annual Conference, Madison (June 18-20, 2017)

UIC's student chapter of Institution of Transportation Engineers (ITE) captured second place at the ITE Collegiate Traffic Bowl (Midwestern District) during the ITE Midwestern District Conference 2017 at Madison, Wisconsin, from June 18 to 20. The UIC ITE team, which consisted of Civil and Materials Engineering department students Diana Briones, Burbank, Illinois, and Austin Bernat, of Bartlett, Illinois, and alumnus Natalia Kuvakina, of San Jose, California, competed hard as they narrowly missed securing the top spot during their first time participating in the competition. During the competition, the schools competed in preliminary and final rounds, which consisted of 25 questions/clues in five categories. UIC secured first place in the preliminary round, while settling for the second place in the final round. Unfortunately, UIC was edged out by the University of Minnesota.



Fig 9: UIC-ITE chapter members participating in the ITE Collegiate Traffic Bowl (Midwestern District)

ITE Illinois Board Members visit to UIC

On September 20, 2017 ITE Illinois Section officers paid a visit to UIC to interact with the students and introduce the activities and opportunities with ITE. The officers included - John Wirtz (IL Section President), Monica Shei (IL Section Public Affairs Director) and Jenna Brose (IL Section Technical Group Director). It was also declared during their visit that UIC would be hosting the IL ITE Student Day 2018.



Fig 10: ITE Illinois Section officers with UIC-ITE Student Chapter members and UIC CME faculty members.

Second General Body Meeting of UIC ITE chapter

The Second General Body Meeting of the UIC ITE Student Chapter was held on September 20, 2017. The main agenda for the meeting was to introduce the Chapter to UIC students, explain general functions and resources provided by ITE society, and recruit new members. Head of the Civil and Materials Engineering (CME) Department, Prof. Abolfazl Mohammadian welcomed the students and motivated them to be more involved with the student group activities. Prof. Bo Zou, Academic Adviser of UIC ITE Chapter also welcomed the students and spoke about ITE purpose and benefits that come with being a part of it.

UIC ITE chapter's president, Mohamadhosssein Noruzoliaee, spoke in detail about ITE society and the Chapter, their goals and objectives. He briefly described the achievements of the ITE Student Chapter at UIC since it's revival and gave an idea about what activities to expect in the future. As a reward to the most knowledgeable participants in the quiz organized at the end of the GBM, the Board gave away two Amazon gift cards. All participants were also provided with pizza and refreshments after the meeting.



Fig 11: Second General Body Meeting

Financial Report

Opening Balance (01/01/2017)		\$1,673.24
Income	IL section ITE (Traffic Bowl competition)	\$200
	ITE (General body meeting)	\$123.52
	<i>TOTAL Income</i>	<i>\$323.52</i>
Expense	Traffic Bowl competition	\$837
	General body meeting (supplies)	\$31.18
	General body meeting (food)	\$214.23
	<i>TOTAL Expense</i>	<i>\$1,082.41</i>
Closing Balance (12/31/2017)		\$914.35

Recognition



Fig 12: UIC ITE Student Chapter Board members, Mohamadhosseini Noruzoliaee and Fatemeh Nazari, won the 2017 George Krambles Transportation Scholarship Awards.



Fig 13: UIC ITE Student Chapter Board member, Ramin Shabanpour, won the IL-ITE Graduate Student Scholarship for 2017-18

Member Roster

Sr. No.	Last Name	First Name	Degree	Expected Graduation	
				Month	Year
1	Ahamad	Tanvir	PhD. in Civil Engineering	May	2021
2	Ballare	Sudheer*	PhD. in Civil Engineering	May	2020
3	Briones	Diana*	Masters in Civil Engineering	May	2020
4	Dana	Yousef*	Bachelors in Civil Engineering	May	2018
5	Flowers	Anthony	Bachelors in Electrical Engineering	May	2018
6	Golshani	Nima*	PhD. in Civil Engineering	May	2020
7	Shen	Hui*	PhD. in Civil Engineering	May	2020
8	Afraaz	Shazal*	Masters in Civil Engineering	May	2018
9	Mutahar	Rydan*	Masters in Civil Engineering	May	2019
10	Hussein	Ahmed*	Masters in Civil Engineering	May	2019
11	Lee	Dongwoo*	PhD. in Civil Engineering	May	2020
12	Nazari	Noosheen*	PhD. in Civil Engineering	May	2020
13	Noruzoliaee	Hossein*	PhD. in Civil Engineering	May	2018
14	Qarut	Nedal*	Bachelors in Civil Engineering	May	2019
15	Shabanpour	Ramin*	PhD. in Civil Engineering	May	2018
16	Shamsiripour	Ali	PhD. in Civil Engineering	May	2020

* indicates that the student is a member of Institute of Transportation Engineers.