



Annual Report

2010-2011

Prepared by: David Duong, Secretary

1. INTRODUCTION

The University of Waterloo Institute of Transportation Engineers Student Chapter (UW-ITE SC) was founded in 1974. The chapter is proud to continue our 37 years of traditions and customs of:

- i) promoting the field of transportation engineering; ii) fostering camaraderie amongst students, professors, and the transportation community at large; iii) providing a forums for transportation students to socialize and iv) hosting seminars to disseminate the latest transportation research.

Figure 1 illustrates the current structure of the UW-ITE Student Chapter executive board.

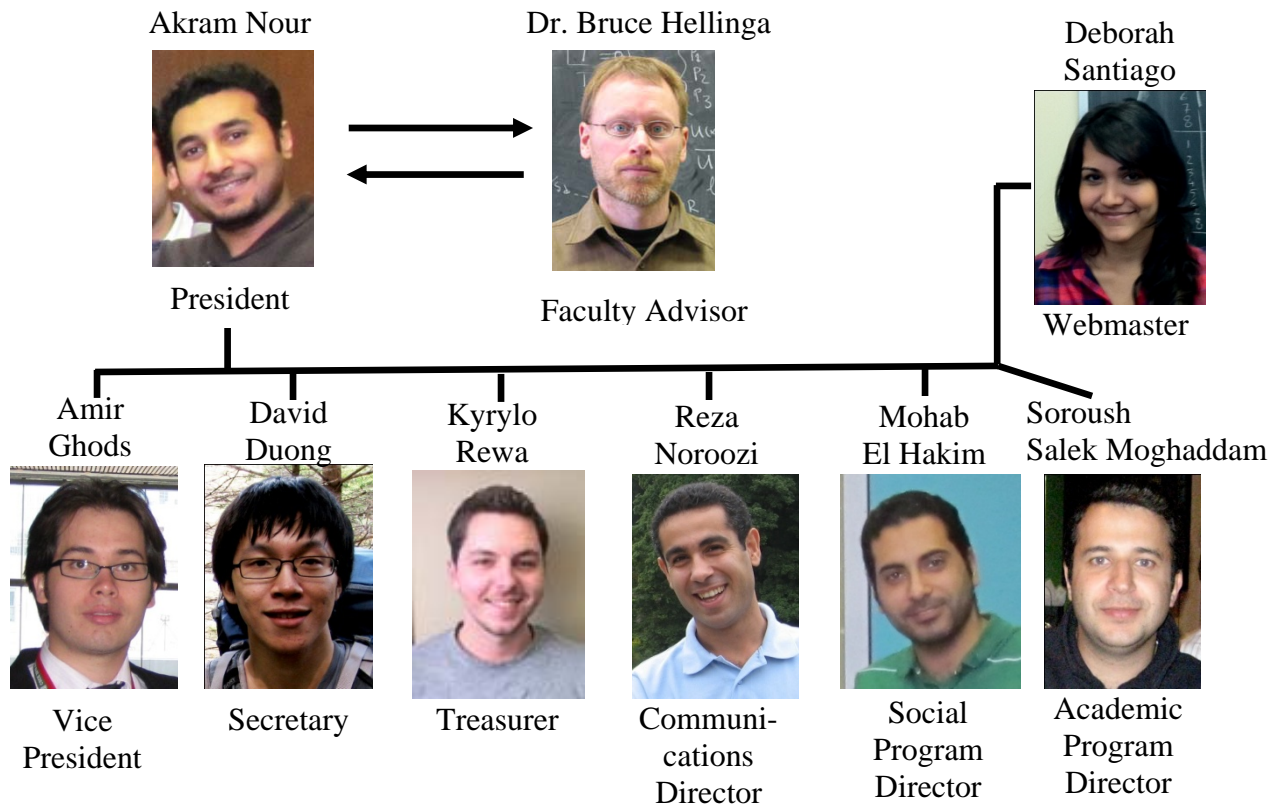


Figure 1: Organizational chart of the UW-ITE Student Chapter

The UW-ITE SC provides an excellent platform for transportation students to network during their studies at the University of Waterloo. Our student chapter has approximately 43 members comprised of graduate students, with 20 members also members of the ITE (see **Appendix A**). We strive to provide our members with a variety of activities both in the social and academic spheres through events such as research seminars, Grad House socials, and bowling. Our student chapter's website that serves as a portal to update our members on upcoming events and showcase ourselves to the world; the website can be accessed through the following web-link: <http://www.civil.uwaterloo.ca/transportation/ITE>

2. SUMMARY OF CHAPTER ACTIVITIES

The activities of our student chapter can be categorized into four different groups: i) academic development through seminars and attending conferences; ii) ITE community involvement; iii) social events; and iv) student advocacy for improved transportation engineering resources at the University of Waterloo (UW).

2.1 Academic Development

A mandate that the UW-ITE SC takes seriously is to foster the dissemination of transportation knowledge amongst the local transportation engineering community. In support of this endeavour the student chapter applied for Graduate Student Endowment Funds (GSEF) from the University of Waterloo and were successful in being awarded \$1880 for seminar and events. The eleven academic seminars hosted by the UW-ITE SC are shown in Table 1. **We would also like to acknowledge the Transportation Systems Research Group professors, Dr. Bruce Hellinga, Dr. Frank Saccomanno, Dr. Susan Tighe, Dr. Carl Haas, Dr. Jeff Casello, and Dr. Liping Fu, for their kind contributions to the UW-ITE SC coffers.**

Table 1: Information on UW-ITE SC hosted Academic Seminar

Presenter	Title	Date	Topic
Professor Jeff Casello	Associate Professor (University of Waterloo)	June 22, 2010	Impacts of transit investment on residential property values - evidence from the Greater Toronto Area
Dr. Shahram Tahmasebi	Visiting Scholar (Delft University)	October 7, 2010	Reliability in Public Transit Network Design
Reza Noroozi	PhD Student (University of Waterloo)	October 20, 2010	Distribution of Delay in Signalized Intersections: Day-to-Day variability in Peak-Hour Volumes
Ali Rezaee	PhD Candidate, Visiting Scholar (Sharif University)	Dec 2, 2010	Heterogeneity in Air Travel Itinerary Preferences in a Low-Frequency Market
Amir Ghods	PhD Candidate (University of Waterloo)	Dec 8, 2010	Traffic Control on Freeways by means of Ramp Metering and Speed Limit
Dr. Morteza Bagheri	Post Doctorate Researcher (Mc Gill University)	Dec 16, 2010	An Expected Risk Model for Rail Transport of Hazardous Materials
Dr. John Jiang	Visiting Scholar (University of Waterloo)	Feb 9, 2011	Snow and Ice Control in China
Feng Feng	PhD Candidate (University of Waterloo)	Feb 9, 2011	Winter Road Maintenance in North America
Hossein Zarei	Transportation Engineer (AECOM Consulting Group)	Feb 18, 2011	Access walking distance, transit use and the success of TOD in North York city center
Dr. Jin Teng	Visiting Scholar (Tongji University)	March 14, 2011	Feeder Vehicle Scheduling for Special Events' Intermodal Service
Vimy Henderson	PhD Candidate (University of Waterloo)	March 23, 2011	Performance of Pervious Concrete Pavement in the Canadian Climate

Ten UW-ITE SC members showed up for Professor Casello's seminar (illustrated in Figure 2) where he presented his research on how the introduction of the Sheppard subway line impacted the property price densities around the subway stations over time.

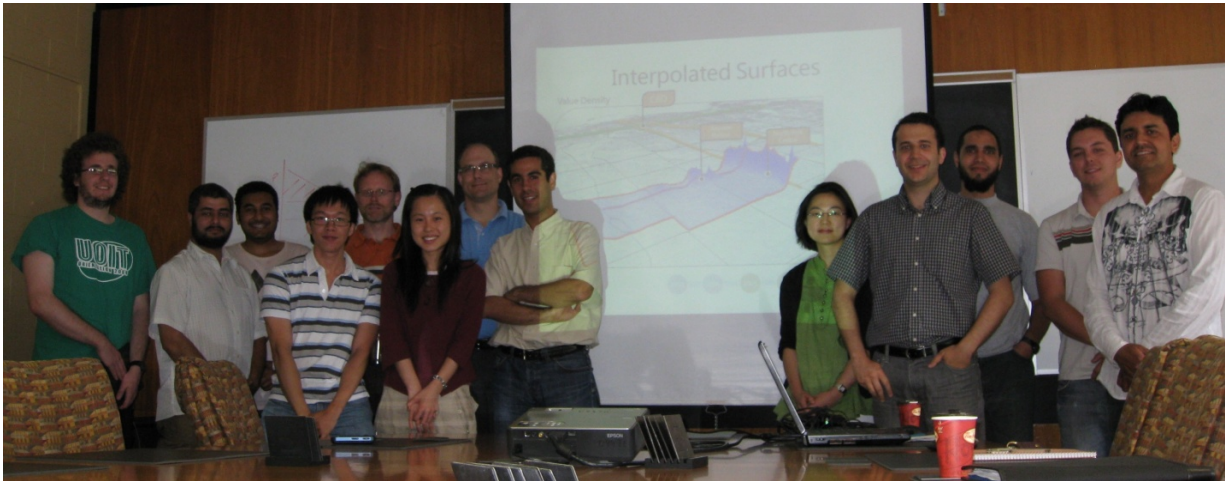


Figure 2: Group photo from Professor Casello's Seminar

Approximately Nine UW-ITE SC members turned out for Dr. Morteza's seminar on modelling rail derailment risk, illustrated in Figure 3.



Figure 3: Group photo from Dr. Morteza's Seminar

Ten UW-ITE SC members attended Dr. Teng's seminar on improving transit efficiency through improved feeder scheduling (Figure 4).



Figure 4: Group photo from Dr. Teng's Seminar

For the last seminar of the Winter 2011 term about eight members attended (Figure 5). Vimy presented her research on pervious concrete pavements, specifically their applicability for the Canadian winter climate.



Figure 5: Group photo from Vimy's Seminar

We are proud to have hosted these informative seminars, which are well attended by our membership, and we will continue to invite speakers from a diversity of areas of interest to our membership.

2.2 ITE Community Involvement

UW-ITE SC members were involved in the following ITE events and initiatives: 1) participating in the 2010 CITE Traffic Bowl; 2) writing articles for the student news section of the CITE's Transportation Talk (Summer 2010 and Winter 2010/2011); 3) hosting Murray, the CITE Halifax conference mascot; 4) attending the Toronto ITE Section breakfast seminar and technical tour of the York Region Transit/Viva Transit Operation Centre; 5) attending the ITE Transportation Research Board reception at ITE Headquarters; and 6) participating in the 3rd annual Joint CITE Toronto, Hamilton and Southwestern Ontario Section presentation competition.

The UW-ITE SC was one of only two Canadian student chapters to participate in the traffic bowl hosted by the CITE on July 31, 2010 at the Mississauga City Hall. The University of Waterloo competed valiantly with the University of Manitoba, but lost by only 30 points. **We would like to acknowledge both Kari Fellows (past section president) and Jim Mallet (student liaison) from the Southwestern Ontario CITE section for their support of the UW-ITE SC by lending us the necessary reference material. Also special thanks to the CITE for the travel reimbursement.**

The UW-ITE Student Chapter has been an active participant in hosting the CITE's Halifax conference ambassador McMurray the lobster (Figures 6 – 8). McMurray was taken along with members of the UW-ITE SC executives to attend the Transportation Research Board conference held in Washington, D.C. He went to the ITE headquarters to attend its student membership reception - along with members of the UW-ITE SC - and there he met the past, present and future

executives of the ITE. Upon his return to the University of Waterloo he then helped chair our executive meeting and was given a tour of the UW campus.



Figure 6: Murray's trip to Washington D.C., Depicted with Kyrylo at ITE headquarters



Figure 7: Murray networking at the ITE Student Reception, Washington D.C.



Figure 8: Murray seen with the UW-ITE SC executives, chairing one of their meetings

Six members of the UW-ITE SC left Waterloo bright and early on February 11th, 2011 at 6:00 am to attend the Toronto ITE Section breakfast seminar and technical tour of the YRT/Viva Transit Operation Centre (Figure 9).



Figure 9: Toronto ITE Section YRT/Viva Transit operation center tour

The UW-ITE SC sent one of its executive members, David Duong (past UW-ITE SC President), to represent the University of Waterloo in the 3rd annual joint CITE Toronto, Hamilton and Southwestern Ontario Section presentation competition hosted at Mohawk College, Hamilton, on March 28th, 2011. This competition was open to both graduate and undergraduate students from Mohawk College, University of Toronto, Ryerson University, McMaster University, University of Waterloo, and University of Windsor. David was one of three finalists selected to compete at the graduate level. He presented the topic “Calibration and validation of VISSIM microscopic traffic simulation model parameters using Pareto Archived Dynamically Dimensioned Search” and was awarded the 1st place prize for the graduate level competition.

2.3 Social Events

The UW-ITE SC provides a forum to allow transportation students to interact and mingle through its many social events. This is important because our transportation graduate students work under six different professors (supervisors), where students freely interact with other students with the same supervisor but there is little opportunity to interact with those from other supervisors. To foster a sense of community is one of the UW-ITE SC's goals. No matter if one's research is on pavement, infrastructure management, transit or road safety, we are all transportation engineering students. What better method than through free food and refreshments to entice people to gather?

Dr. Hellinga, the chapter's faculty advisor, recently was promoted to "Professor" by the University of Waterloo. In celebration of this joyous event and to introduce our new executive board members to our over 40 plus membership a social event was organized at the Grad House.

Figure 11 depicts Dr. Hellinga cutting his celebration cake.



Figure 11 UW-ITE group photo from the Grad House social of May 13, 2010

The event was quite successful with approximately half our membership attending, enjoying pizza, veggies, and cake. Of course, conversations about transportation engineering could be heard amongst the celebrations, such as the participation of our professors and graduate students

in 2010 Canadian Society of Civil Engineering 8th International Transportation Specialty Conference in Winnipeg, Manitoba. Another social gathering was held at the Grad House on October 21, 2010 (Figure 12) to welcome new students at the start of the new academic year.



Figure 12 Social Gathering of the UW ITE SC in October, 2010

At this social the current student chapter executives were reintroduced. Akram gave a short speech promoting the ITE to newly arrive graduate students. Approximately 20 professors and graduate students attended.

On Friday, February 25, 2011 the UW-ITE SC held a 10-Pin Bowling Competition. Approximately 14 members turned up to enjoy 2 hours of bowling with soda and pizza provided through the UW-ITE SC funds (Figure 13).



Figure 13 UW-ITE SC 10-Pin Bowling

Adnan won first place with an average score of 116 and was awarded a blue UW thermo cup (wearing the blue and white stripped long sleeve shirt).

2.4 Advocacy

The UW-ITE SC has always strived to improve the facilities available to all transportation graduate students. In the past we have managed to replace the furniture in our lunch/lounge room, upgrade the common computers and replace old office chairs with more ergonomic chairs, making the transportation group work environment better for all of our UW-ITE SC members. This academic year, a major issue brought to our attention by our members was that one black and white printer was no longer sufficient for 40 plus transportation students. Following our charter we had a duty of care for our members and looked into ways to fund the purchase of an additional black and white printer.

The executives put together a proposal for funds from the Graduate Student Endowment Fund, which was created by the University of Waterloo and the Graduate Student Association to improve the lives of graduate students. This proposal was successful and the UW-ITE SC was awarded \$750, which was used to buy the printer shown in Figure 14.



Figure 14 New HP Black and White Printer

The additional black and white printer has alleviated queues at the old printer. One could say we have improved the Level of Service (LOS) and reduced delays.

3. FINANCES

The UW-ITE Student Chapter currently has an account under the University of Waterloo through the Department of Civil and Environmental Engineering, and our current account balance is shown in Table 2.

Table 2 Current account balance of the UW-ITE Student Chapter

UW -ITE Financial Records - Prepared for the 2010-11 Annual Report				
	Funding Source	Amount Awarded (CDN)	Expenses	Balance
2009	TOTAL 2009 BALANCE			\$2,371.14
2010	GSEF - Graduate Studies Endowment Fund (funds available until Jan 1st 2011)	\$900.00	\$896.21	\$0.04
	Transportation Systems Research Group Professors	\$300.00	\$1,781.10	-\$1,481.10
	TOTAL 2010 BALANCE			\$890.08
2011	GSEF - Graduate Studies Endowment Fund (funds available until Apr 30th 2011)	\$980.00	\$170.00	\$810.00
	Transportation Systems Research Group Professors	\$250.00	\$272.10	-\$22.10
	TOTAL 2011 BALANCE (March 2011)			\$1,677.98

4. CLOSING REMARKS

It has been an eventful and productive year for the UW-ITE SC. We would like to leave the student chapter award committee with the following remarks from the UW-ITE SC executives:



Akram Nour, President: I have been blessed by the team that I believe any leader dreams to work with. We worked hard together to provide the student chapter members with variety of academic and social events along with enhancing the facility of transportation laboratory. Most importantly, we strived to enhance the family environment that has been created between the chapter members. At the end, I would like to thank all the executive and chapter members for giving me this great chance to serve them and for this great experience which absolutely helped to enhance and improved my leadership skills.



Amir Ghods, Vice-President: This has been a great chance for me to improve my team-work and managerial skills. Also, the fun part of being involved in our social events and working with cool guys has been priceless for me. My main future goal is to make the student chapter in close touch with the transportation industry e.g. private companies, cities and other transportation agencies through arranging site visits, inviting guest speakers, getting sponsorships, and so forth. I hope we can turn this wish into reality by hard-working in the group.



David Duong, Secretary: When I first started my graduate degree I knew no one, but the UW-ITE SC has been a helpful forum to network. Over the years it has helped me meet life-long friends that share the love of transportation engineering. It has helped me gain valuable oral, written and leadership skills. I hope my continued involvement will help new students that were once like myself.



Kyrylo Rewa, Treasurer: I found the UW-ITE Student Chapter a great resource in my transition of fields, from planning to engineering, as well as getting involved in academic and social activities. As a member of the executive board, I have had a chance to extend the same

courtesy to new students, and find UW- ITE a great common ground for new students whether they are from Canada or International. I am very proud of the progress and look forward to continue to working with our executive board, and student members.



Soroush Salek Moghaddam, Academic Program

Director: This was my first experience as an executive committee member here in UW-ITE student chapter. Working as the academic event director, I had the opportunity to expand the network of people that I know

while at the same time get credit by organizing and hosting the seminars consistently. This was not possible without the help and support of other executive members and professors here in UW. I am sure that by continuing hard work we can enhance our chapter even more in the near future.



Mohab El Hakim, Social Program Director: The UW-ITE SC enriched my network with lots of professional engineering practitioners. In addition, recreation and social events allowed both graduate and undergraduate students to interact and exchange ideas while practicing

sport or fun activities. The experience of being an executive member of the UW-ITE chapter is priceless and will have a significant impact on my future career prospective.



Reza Noroozi, Communications Director: I enjoyed working in a team that was full of inspiration, support, and friendship. During the last year, I had the opportunity to know not only the transportation administration and industry in Canada, but also new people who work as professionals in this industry. All in all, I can say that I learned new things, knew more people, found new friends, and had so much fun



Deborah Santiago, Webmaster: As webmaster, I would like to be able to show people outside of our chapter what we are achieving as a team here at the University of Waterloo. I am new to the research group and the University so I am looking forward to learn, network and meet new people, and to participate in new events and in social activities. I am really looking forward for this new experience, and to working with this great team.



Dr. Bruce Hellinga, Student Chapter Faculty Advisor: I am extremely pleased to be able to work with this group of very talented, motivated, and personable students. They have heightened the sense of excitement and energy within the Student Chapter and increased the profile of transportation engineering within the Department and University. Through all of their activities they have been outstanding ambassadors for the profession and for the University. I am sure that when they graduate from the University of Waterloo and enter the workforce in Canada or elsewhere, they will continue to apply their sense of purpose and enthusiasm – giving me a great deal of confidence in the future of our profession. But until then, I am looking forward to their continued involvement within the Student Chapter activities for this upcoming year.

APPENDIX A: MEMBERSHIP ROSTER

Table A1: UW-ITE Student Chapter Membership Roster

	Last Name	First Name	Degree	Supervisor(s)	ITE Affiliate
1	Adnan	Mohammad	MSc	Tighe	
2	Alyami	Zaid	MSc	Tighe	
3	Berbash	Khaled	PhD	C Haas, Hergazy	
4	Butler	Liam	PhD	Tighe	
5	Chamorro	Alondra	PhD	Tighe	
6	Ddamba	Shirley	MSc	Tighe	Yes
7	Djane	Amma	MSc	Tighe	
8	Duong	David	PhD	Saccamanno, Hellinga	Yes
9	du-Tertre	Antonin	MSc	Tighe	
10	Eisa Ahmed	Hani	MSc	C Haas	
11	El Hakim	Mohab	PhD	Tighe	
12	Feng	Feng	PhD	Fu	Yes
13	Ghods	Amir Hosein	PhD	Saccamanno	Yes
14	Gouett	Chris	MSc	Haas	
15	Hamdi	Amin	PhD	Tighe	
16	Hertel	Attila	MSc	Tighe	
17	Henderson	Vimy	PhD	Tighe	Yes
18	Hu	Yaxin	PhD	Hellinga	Yes
19	Jung	You-jin	PhD	Casello, Hellinga	Yes
20	Kim	Valeri Kim	PhD	Fu	
21	Nasir	Hassan	PhD	C Haas	Yes
22	Noroozi	Reza	PhD	Hellinga	Yes
23	Nour	Akram	PhD	Hellinga	Yes
24	Omer Mian	Raqib	MSc	Fu	Yes
25	Pinto	Samantha	MSc	Tighe	
26	Rauf	Awais	MSc	Haas, Rothenberg	
27	Rehan	Rashid	PhD	C Haas	
28	Rewa	Kyrylo	MSc	Casello	Yes
29	Safa	Mahdi	PhD	C Haas	
30	Salek Moghaddam	Soroush	PhD	Hellinga	Yes
31	Santiago	Deborah	MSc	Casello	Yes
32	Shahdah	Usama	PhD	Saccomanno	Yes
33	Shahi	Arash	PhD	C Haas, West	
34	Sherbini	Khaled	PhD	C Haas, Hergazy	
35	Shokri	Samin	PhD	C Haas, R Haas	
36	Sindi	Alaa	MSc	Hellinga	

	Last Name	First Name	Degree	Supervisor(s)	ITE Affiliate
37	Taghipour	Roshanak	MSc	Hellinga	Yes
38	Turkan	Yelda	PhD	C Haas, R Haas	
39	Usman	Taimur	PhD	Fu	Yes
40	Vaziri	Shahram	PhD	C Haas, Rothenberg	
41	Wei	Tao	PhD	Casello, Hellinga	Yes
42	Yang	Fei	MSc	Hellinga	Yes
43	Zhang	Di	MSc	Haas	