

Seminar and TRB Conference Attendance: Year 5

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16. Abstract Students from the three campuses of The University of Alabama of System are engaged in a variety of transportation related research activities. This project provided a forum for transportation students to present their research results to faculty and students from their home campuses as well as transportation professionals in a professional setting. Faculty representatives from the three campuses selected three students to make presentations. These students, along with other deserving students, were rewarded with travel money to cover the cost of attending the Transportation Research Board's Annual Meeting in Washington DC.			
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Executive Summary

There were two issues examined in this project. First, students from the three University of Alabama campuses need the opportunity to present the results of their research in a professional forum. Second, students need the opportunity to attend international meetings to learn first-hand research work being conducted at other universities. This project addressed these issues by identifying deserving students, providing a forum to highlight their research work, and providing a means to explore other research work being performed nationwide through attendance at the Transportation Research Board's Annual Meeting.

Section 1.0 Introduction

The issues examined in this project were twofold. First, there is a variety of quality transportation research currently being performed by undergraduate and graduate students from the three campuses in The University of Alabama System. Unfortunately, prior to this project's initiation in 2000, no mechanism existed for students to present the results of their research to the other faculty members from either their home campus or the other campuses. The solution developed in this project was the development of a transportation student seminar hosted by the Institute of Transportation Engineers (ITE) Student Chapter in Birmingham. Students from the three campuses were required to submit an original abstract to a faculty member at any of the three schools. The faculty members from the three schools then formed a review board and selected those students who were invited to make formal presentations and present posters as part of the meeting.

The second issue addressed in this project was the lack of funding to send the best students studying transportation from the three University of Alabama campuses to the Transportation Research Board's (TRB) Annual Meeting in Washington, DC. This meeting is one of the premiere transportation conferences in the world, attracting participants from around the globe. Attendance at this meeting enables our students to experience, firsthand, the research topics being studied and the solutions to those topics. Attendance at this meeting represents an incredible opportunity for students to learn about the future of transportation and how their research will help realize the future.

This project combined these two issues by awarding travel funds to students to attend the TRB Annual Meeting as a reward for being selected to present in the student seminar. This report is divided into four sections. Section 1 presents the basis of the project. Section 2 discusses the selection and review process used to select the students invited to present as well as a review of the student seminar. Section 3 presents the impact from the students attending the TRB Annual Meeting. The final section of this report provides an overview of the results and expectations for future projects.

Section 2.0 Student Selection and Presentations

The initial task for this project focused on advertising, selecting the students to present, and hosting the presentations in an appropriate forum. The advertising was accomplished through an announcement, requesting students to submit an abstract of their potential research work for consideration of presentation at the student seminar. Copies of the announcement were distributed to each of the campus representatives for the project and they were responsible for placing these in locations the students would see them and generate interest.

Each announcement requested that the appropriate on-campus representative collect abstracts. The two on-campus representatives who were not on the student's home campus performed the reviews of the abstracts. This removed reviewer biases, as faculty members who worked closely with students weren't allowed to judge those students. The reviews from the representatives were compiled, summaries were developed, and letters of acceptance to present at the meeting were sent to the students.

Overall, three students, one from each of the three campuses, were invited to make formal presentations. The students selected and titles of the paper they presented are listed in Table 2-1. The remaining students selected to receive travel funds presented a poster of their research. Table 2-2 includes the names and topic for these students. Based on the quality of the abstracts, eight students were selected to attend the TRB Annual Meeting, three from UA, three from UAB, and two from UAH. The program Announcement and pictures from the ITE Chapter meeting can be found in Appendix A.

Table 2-1. Student Name, Campus, and Topic for Formal Presentation

Name and Campus	Paper Title
Lily Wang, UA	Genetic Algorithms Approach of Traffic Signal Timing Under Oversaturated Condition
Ozge Cavusoglu, UAB	Implementation of High Occupancy Lanes in Birmingham, AL
Heather Shar, UAH	ATIM: A Statewide Freight Transportation Model

Table 2-2. Student Name, Campus, and Topic for Poster Presentation

Name and Campus	Paper Title
Ayse Narci, UA	Composite Measures of Truck Congestion Using Simulation
Saravanan Gurupackiam, UA	Sensitivity of Traffic Parameters to Simulation Initialization Times
Andrew Sullivan, UAB	Traffic-Responsive Signal Systems and Weather Related Congestion
Ahmed Abd-EI-Meguid, UAB	Experimentation of Finite Element Analysis of Steel Beams Strengthened by CFRP Laminates
Roy Berryman, UAH	Comparison of Actual Delay to Simulated Delay at Congested Intersections

Section 3.0 TRB Attendance

The final task conducted in this project was to provide travel money to the selected students to attend the TRB Annual Meeting in January 2008. Before attending the TRB Annual Meeting, each student was responsible for preparing an itinerary of sessions and/or committee meetings they planned to attend and discuss these with their on-campus representative. Some of the session topics that were identified by the students included:

- Doctoral Student Research Session
- Asset Management
- Pavement Management Systems
- Statewide Transportation Planning
- Transportation Safety
- Traffic Simulation
- Intelligent Transportation Systems
- Pavement Testing
- Aviation

In addition, each student attending the TRB Annual Meeting was required to prepare a written summary of the sessions attended and note the relationship between conference sessions and his or her current research or interest in transportation. Quotes from the student summaries included:

- These presentations were a great experience for a doctorate student. I found some research very interesting such as “Methodology for Delay-Based Passenger Car Equivalencies for Transit Buses,” “Development of Intelligent Traffic Signal System to Accommodate Variability of Intersection Pedestrian Speed,” and “Highway Work Zone Design and Traffic Management Strategy Decision System.”
- This was my second experience attending the TRB Annual Meeting. This year I focused on attending lectures from prominent speakers in their fields. I attended a meeting titled “Looking at the Past and Planning for the Future: The Nation’s Infrastructure Crisis.” This was the highlight of my experience at TRB. The meeting featured three distinguished members of the transportation industry and their different perspectives on what needs to be done. Other lectures I found interesting were the “Intelligent Transportation Systems: Annual State-of-the-Industry Review” and “Dialogue with the USDOT: Reforming Federal Policies and Programs.” The TRB has definitely sharpened my knowledge of transportation engineering.

- I came to know about different kinds of research taking place around the world. I particularly liked the sessions/committees relating to simulation and traffic flow behavior. It helped me to better understand the concepts and gain knowledge in these areas. Overall I had a wonderful experience at TRB. I must thank UTCA for giving me this opportunity to participate in this annual meeting.
- Overall, attending the TRB Annual Meeting was very productive in terms of gathering information related to my research interests at UAB. I am grateful to the UTCA for the funding they provided me and hope they will find that I put it to good use.

Overall, the students took advantage of the opportunity to learn from top researchers and identify how those research ideas can be incorporated into their work.

Section 4.0 Conclusions

This project worked toward the development of a community of students from the three campuses, highlighting the research students from the three campuses are conducting, and providing a means to explore other research work being performed nationwide.

The relevance of this project was far-reaching. The project allowed students from the three campuses to compete against each other and present their research results in a professional forum attended by transportation professionals from across the state. In addition, this project allowed students to learn first-hand what research topics were being examined internationally through attendance at the TRB Annual Meeting. The students' experiences and education gained through this project are anticipated to become evident in the completion of graduate level work being performed at the three campuses.

Appendix A

Program and Images from the UTCA Seminar

THE UAB INSTITUTE OF TRANSPORTATION
ENGINEERS STUDENT CHAPTER
cordially invites you to the

2nd ANNUAL STUDENT AWARD LUNCHEON
Celebrating the achievements of transportation students

Tuesday, November 27, 2007
11:00 a.m.-12:30 p.m.

The University of Alabama at Birmingham
Business and Engineering Complex (BEC) Room 215

11:00	Buffet Lunch, Poster Session and Networking	
11:10	Welcome	<i>Dr. Virginia Sisiopiku, Associate Professor University of Alabama at Birmingham</i>
11:15	Student Competition Awards Presentation	<i>Dr. Mike Anderson, Associate Professor University of Alabama in Huntsville</i>
11:25	Genetic Algorithms Approach of Traffic Signal Timing under Oversaturated Condition	<i>Lily Wang, University of Alabama</i>
11:45	Implementation of High Occupancy Lanes in Birmingham, AL	<i>Ozge Cavusoglu, University of Alabama at Birmingham</i>
12:05	ATIM: A Statewide Freight Transportation Model	<i>Heather Shar, University of Alabama in Huntsville</i>
12:25	Closing Remarks	<i>Abhishek Acharya, UAB ITE Student Chapter Secretary</i>

*This event is sponsored by the University Transportation Center for
Alabama (UTCA) and the UAB ITE Student Chapter*

 Please **RSVP** by **Nov. 23** to aacharya@uab.edu if you plan on attending.

Figure A-1. Meeting announcement

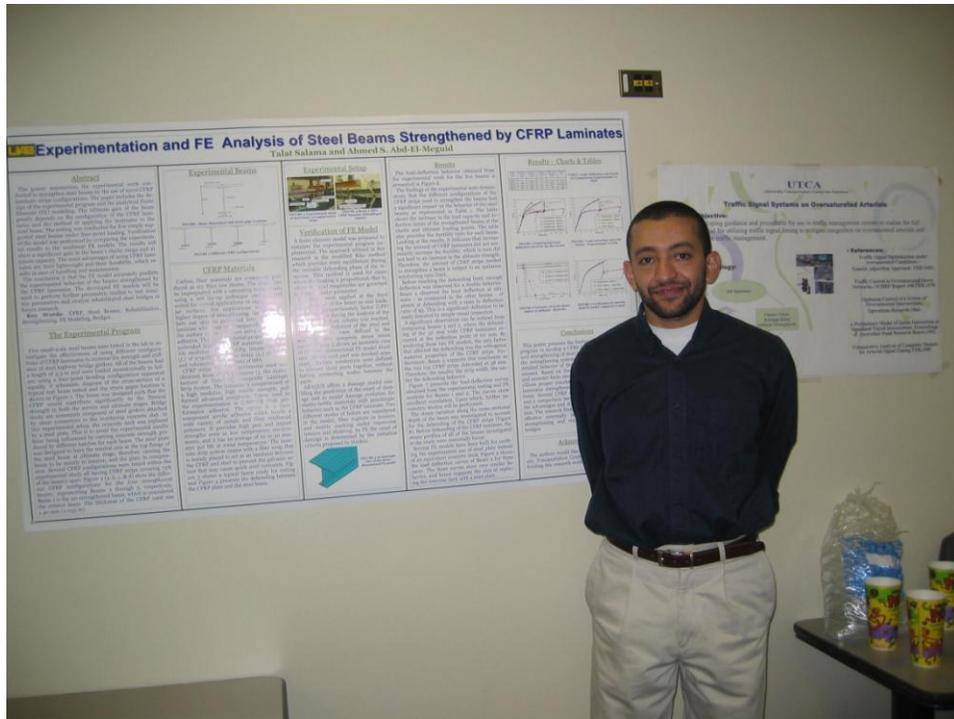


Figure A-2. Student presenting poster



Figure A-3. Faculty and selected students