



April 18, 2011

To: Connecticut University Professors

Re: Intelligent Transportation Society of CT
2011 Student Grant Program Announcement

Dear Professors:

The Intelligent Transportation Society of Connecticut is pleased to announce the 2011 student grant program. This program is sponsored and supported by the chapter members and institutions of the Society.

The student grant program rewards students with financial grants upon completion of a student-selected research project and acceptance by the ITS-CT Chapter. The objectives of the ITS-CT Student Grant Program are several and include the following:

- To promote interest in Intelligent Transportation Systems on the part of college and university students in Connecticut,
- Increase the visibility of the Chapter at colleges and universities in Connecticut;
- Solve problems or complete ITS projects of interest to the Connecticut transportation community that are not practical to be completed by conventional means (e.g., contracted through a consultant or by a public agency);

The attached document provides the description of this program and details the criteria for application to the program. The project schedule is flexible to meet the needs of the student and advising professor, however proposals should be submitted no later than June 1, 2011 to the ITS-CT Student Grant Committee. Projects may be completed over the summer months or may be extended into the fall semester. Depending on availability of funding the Board may elect to offer another grant in the fall.

A list of suggested research topics is attached to this letter for consideration.

Students shall submit a letter of intent including a brief description of the proposed project, an anticipated schedule, and approval from the advising professor.

We ask that you consider sharing this announcement and attached program with all of your students who may have an interest in Intelligent Transportation Systems and forward it to any other professors who also may have students interested in this program.

Finally, if your university is not already a member of the ITS CT Chapter, please visit our website to download an application. This year the membership fee for public agencies has been waived. Our website address is: www.ITS-CT.org. All students applying for this grant must be attending an ITS CT Chapter member institution to qualify for the grant program.

Please feel free to contact me if you have any additional questions at 860-522-2217 x224 or via email at bhuang@crcog.org.

Thank you for your interest in this program. We look forward to working with you and your students.

Regards,

Lia Huang
Student Grant Committee
ITS-CT Chapter



Intelligent Transportation Society of Connecticut Student Grant Program

Introduction

The purpose of this document is to provide information to interested parties on the Student Grant Program of ITS-CT. This program is designed to work with the academic schedule and mode of operation of College coursework, to provide grants to quality projects of interest to ITS-CT, and avoid conflict of interest for Board members associated with a college or university. The following sections detail the objectives, eligibility, constraints, and structure of the Student Grant Program.

Objectives of the Program

The objectives of the ITS-CT Student Grant Program are to:

- Promote interest in Intelligent Transportation Systems among college and university students in Connecticut;
- Increase the visibility of the Chapter at colleges and universities in Connecticut; and
- Solve problems or complete ITS projects of interest to the Connecticut transportation community that are not practical to be completed by conventional means (e.g., contracted through a consultant or by a public agency)

Eligibility

The following lists eligibility requirements for the program:

- Any student or group of students enrolled in a credit-bearing course at an ITS-CT Chapter member college or university in Connecticut is eligible to submit a project to be considered for the grant.
- Students must have completed a minimum of two semesters at a college or university in Connecticut
- The Grant Committee will not award a grant if they feel the project does not meet the objectives of the grant. At the discretion of the ITS-CT Board and as Chapter funds permit, more than one grant may be awarded if the Grant Committee deems it appropriate. Consequently, the Board is not required to provide a grant every year.

Constraints

Each college/university has certain rules that must be adhered to. Students are responsible for ensuring that participation in this grant program does not conflict with his/her institution.

Sample constraints may include but are not necessarily limited to:

- Full-time engineering graduate students are generally paid stipends per semester, including tuition waiver and health insurance benefits, and are not permitted to accept remuneration for outside work when hired on an assistantship.
- No students (undergraduate or graduate) are permitted to receive course credit for work for which they received monetary compensation. They can, however, receive competitive grants for outstanding scholarship awarded on the basis of work completed for a course(s) or thesis.
- Undergraduate engineering students are permitted to receive monetary compensation for work they perform outside of regular school work, however ITS-CT requires supervision by either a faculty member or a professional outside the university; for example, undergraduate students in most cases would not have the background needed to complete projects in traffic engineering operations. It should be noted that while an advisor may expect compensation for such time, compensation is provided to the student only.

Program Structure

The following provides details on the grant program administration:

- The award will consist of a grant of \$2,000 to a single student (up to \$4,000 for a group of students) who completes a project to the satisfaction of the Student Grant Committee appointed by the ITS-CT Board of Directors.
- Interested students will be required to submit a letter of intent including a brief description of the proposed project, an anticipated schedule, and approval from the advising professor.
- Accepted projects should be carried out under the guidance and supervision of the advising professor; periodic updates shall be provided to the Student Grant Committee. After all research is complete, the student(s) will provide an oral presentation of findings as well as a written report. Upon final acceptance of the written report the Board of Directors will award the grant.



Student Grant Program Suggested Research Topics

The following is a list of research topics ITS-CT members have expressed interest in having students consider. The Chapter also encourages students to pursue research in other areas of interest to students. If your proposed topic is not listed here, please provide a brief description in your application to the Student Grant Committee.

1. What is the most effective means for informing the public of traffic conditions – Highway Advisory Radio (HAR), Variable Message Signs (VMS), website (Traveler information gateway), 511 system (phone), or social networking sites? What do people most frequently use for gathering this information? This study could help prioritize money for ITS infrastructure based on what the public sees as the most useful tool for gathering traffic information.
2. Evaluate the performance of video detection system equipment as compared to non-video detection equipment for traffic signal control during low-light and inclement weather conditions. Provide a recommendation for where video detection systems may be used effectively and explain what drawbacks may exist.
3. Are there any potential ITS solutions that can be used to combat distracted driving?
4. Evaluation of the use of digital video cameras for traffic management. Currently, most traffic management systems use analog cameras due to the better video quality and lower cost. The video is sometimes digitally compressed before transmitting it to traffic management centers. This evaluation should determine if digital video camera systems can be used more effectively in lieu of analog camera systems.
5. Poor traffic signal timing contributes to traffic congestion and delay. Conventional signal systems use pre-programmed, daily signal timing schedules. Adaptive signal control technology adjusts the timing of red, yellow, and green lights to accommodate changing traffic patterns and ease traffic congestion. Research available adaptive signal control technologies/equipment and review sample applications.