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.