PROJECT:
06407

PROJECT TITLE:
Leveraging the UTCA ITS Laboratory

PRINCIPLE INVESTIGATOR:
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OBJECTIVE:
The objective of the project is to maximize the research potential of the Intelligent Transportation Systems (ITS) lab at the University of Alabama (UA) campus in Tuscaloosa. The research will assess how best to position the ITS-lab and the CCE department at UA to propose to ALDOT to house all ITS-related research and training at UA.

PROJECT ABSTRACT:
Currently no significant ITS research is being conducted by other universities in the State and training has been provided on a very limited, as-needed basis by consultants and product vendors. The Statewide Transportation Plan includes roughly $300M in ITS-related planning, design and construction projects. In addition, a number of municipalities are planning or operating ITS facilities around the State (for example Birmingham, Hoover, Huntsville, Mobile, and Tuscaloosa). With such a level of interest and support in the State, there is considerable opportunity to leverage expertise and capabilities at UA as an ITS knowledge generator and repository in Alabama. There is also opportunity to utilize the ITS lab to garner national-level attention. There are only a handful of such facilities in the country. By reaching out to and coordinating with some of the more established facilities, the UA ITS lab can carve a place for itself in the national arena by complementing some of the research work done elsewhere as well as providing an opportunity to research ITS in a very different transportation and institutional environment than those in other states.

TASK DESCRIPTIONS:
The project will be accomplished via the following tasks:

Task 1 – Conduct a literature review to identify potential research applications of the lab and its associated capabilities through the Tuscaloosa Department of Transportation (TDOT) traffic management center;
Task 2 – Meet with representatives from ALDOT Bureaus (Design, Multimodal) and Divisions (3rd, 9th) currently active in ITS to identify “on-the-job” needs;

Task 3 – Identify and visit two other university-based ITS laboratories (e.g., Smart Travel Lab at the University of Virginia, ITS Lab at the University of Minnesota);

Task 4 – Attendance of the ITS America annual meeting to foster interaction with its Research, Integration, Training, & Education forum;

Task 5 – Develop proposal to be ITS Research and Training center in the State; and

Task 6 – Meet with ALDOT management to present proposal for UA-based ITS Research and Training center.

MILESTONES:
It is intended that the project will begin in January 2006 and run through December 2006.

Task 1: January 2006 – April 2006
Task 2: March 2006 – September 2006
Task 3: September 2006 – December 2006
Task 4: August 2006
Task 5: August 2006 – December 2006
Task 6: December 2006

BUDGET: This is a one-year project that will expend a total of $ 9,785 of non-UTC funds.

STUDENT INVOLVEMENT:
The project will involve multiple graduate students in research into potential applications of the ITS.

RELATIONSHIP TO OTHER RESEARCH PROJECTS:
The project is directly related to UTCA Project 06112, “Development of ITS-related Educational Activities” and UTCA Project 04116, “Construct Transportation Labs and Facilities in Shelby Hall.” It will also build on momentum of previous UTCA ITS-related projects 00103, 00463 and 03114.

TECHNOLOGY TRANSFER:
At least one article or conference presentation detailing the strategy and development of the UA ITS lab is expected to result from the project.

POTENTIAL BENEFITS OF THE PROJECT:
In addition to establishing specific research capabilities if the ITS-lab, the project will also raise awareness of ITS-related related activities at UTCA. The primary benefit of the project will be greater focus and presence for the ITS-lab. In particular, the project will result in:
• A proposal for the development and long-term support of an *ITS Research and Training* center at UA.
• A written plan describing a path (research focuses, additional equipment proposals, staffing and student requirements, etc.) proposed to establish the UA ITS lab in the national arena.
• Working contacts with at least two prominent ITS laboratories currently active on the national level.

TRB KEYWORDS:
ITS, Traffic Management, Education, Training