

## Scheduled UTCA Outreach Activities

### Traffic Signal Design the ALDOT Way – October 15, 2003

The course is intended to provide a fundamental introduction to traffic signal timing and as well as a detailed introduction into the specific requirements for designing signals for ALDOT. The fundamentals portion will be conducted during a 3.5-hour morning session and the ALDOT-specific information will be delivered during a 3-4 hour afternoon session. The morning session focuses on Signal Timing Concepts and fundamentals. The afternoon session will be hands-on. It will include examples of ALDOT signal design plan sets as well as necessary calculations and interpretation of applicable standards and specifications.

Course Content:

**Fundamental Terms and Concepts** - Signal Timing Fundamentals, Controller Fundamentals, Measures of Effectiveness, Important Terms and Definitions and Time-Space Diagram

**Signal Timing Concepts** - Cycle Length, Split, Offset, Phase Sequences and Signal Timing Optimization, Actuated Controllers & Fully Actuated Controllers, Passage Time, Extension and Coordination of Actuated and Permitted Controllers

**ALDOT Standards** - Elements of a Signal Design Layout Sheet, Signal Quantities Sheet, Signal Details, Signal Installation-related traffic Control Plans, Standard Specifications and Approved equipment/Vendor List and Preemption

Date: October 15, 2003  
Time: 8:30 am to 4:30 pm  
Location: 1055 Bldg. Rm 108  
UAB Campus, Birmingham AL  
Registration Fee: \$150.00  
CEU credits .75

Special Needs: Please contact UAB School of Engineering Professional Development at 205.934.8994 at least two weeks prior to the program start date so that proper consideration may be given to any special needs

To register for this program please call 205.934.8994 or register on-line at [www.eng.uab.edu/epd](http://www.eng.uab.edu/epd).



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## WELCOME TO THE THE SIGNAL

The Signal is intended to serve as a briefing on the results of UTCA-sponsored projects and provide information on technology transfer outreach activities.

If you want to be removed from our mailing list, please fax this page that shows your name and address to 205.934.8472.

<http://utca.eng.ua.edu>

# THE SIGNAL

Volume 1, Issue 1  
August 2003

## University Transportation Center for Alabama

### Research Briefs and Technology Transfer News

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*“Project activities will be developed based on input from a technology transfer advisory board as well as direct input from transportation professionals throughout the State and region.”*

### Welcome to the Premiere Issue of the UTCA Signal!



The Signal is a new publication from the University Transportation Center for Alabama (UTCA). UTCA was created by a resolution of the Board of Trustees of The University of Alabama System. The driving force that activated UTCA was the Transportation Equity Act for the 21st Century (TEA21), which established UTCA as a University Transportation Center of the U.S. Department of Transportation. Upon approval of its Strategic Plan by USDOT, UTCA officially began operation on March 15, 1999.

The Signal is intended to serve as a briefing on the results of UTCA-sponsored projects and to provide information on technology transfer outreach activities. Since its inception in 1998, the UTCA has sponsored over 100 projects. The scope of projects have ranged from community outreach to research on the cutting edge of the transportation field. Reports of completed projects and descriptions of those ongoing are available on the UTCA website at <http://utca.eng.ua.edu/>. In each issue of The Signal, we will showcase one or more UTCA projects and deliver it straight to you, the transportation community in Alabama and the Southeast. The Signal will also provide information on outreach activities such as seminars, workshops and the UTCA annual symposium that will highlight work from both completed and ongoing UTCA projects.

### Technology Transfer Program – UTCA 03217

The UTCA Technology Transfer Program began in January 2003 as a UTCA-sponsored project to develop and administer a formal tech transfer program. The program is intended to showcase the efforts and successes of the UTCA and promote its activities throughout the State, region, and nation. Project activities will be developed based on input from a technology transfer advisory board as well as direct input from transportation professionals throughout the state and region via an online survey (see pg. 2). Efforts conducted under the project include development of short courses and workshops, an annual symposium highlighting advances and results from UTCA projects, The Signal newsletter and a technology transfer-related web site.

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### On-Line Survey

For the UTCA Technology Transfer Program to be successful, it is essential that it meet the needs of the community of transportation professionals in Alabama. Although the steering committee provides valuable insight and guidance, it is necessary to reach out to the larger community to identify interests in UTCA project results and identify "hot topics" that address immediate educational and training needs within the State. If you would like to provide input, please visit the UTCA Tech Transfer website at [www.eng.uab.edu/utca](http://www.eng.uab.edu/utca). An online survey has been developed to collect information on what transportation professionals in Alabama expect from the UTCA Technology Transfer Program. This is also the place to make sure you are on our distribution list and have colleagues added to the list and receive "THE SIGNAL".



### Technology Transfer Program cont.

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This project will also help to gather and make available technology transfer components from all UTCA projects. Technology transfer encompasses a broad range of activities that include, but are not limited to:

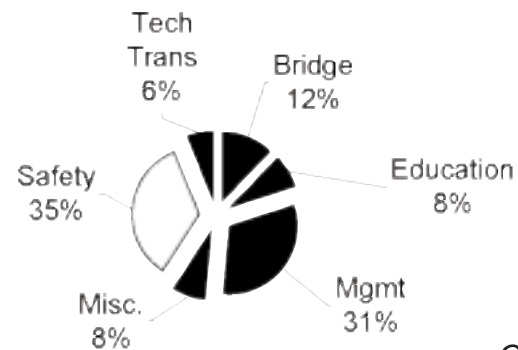
1. Dissemination of technical information (methodologies, results, etc.) and lessons learned derived from research projects via reports, journal papers, workshops, seminars and briefings.
2. Serving as a clearinghouse for publications, reports, event schedules (conferences, Workshops, etc.)
3. Providing technical assistance via interaction with public and private organizations to answer questions and collect and synthesize information.
4. Support coalitions, consortia, partnerships, and advisory committees.
5. Develop and deliver formal training programs



### Why – Technology Transfer

The UTCA began operation in March of 1999. Since its inception, the UTCA has sponsored over 115 transportation-related projects. Figure 1 shows the distribution of UTCA projects (past and current) over six general categories. Of the categories shown below, Management, Safety, and Education are directly related to the UTCA theme. Bridge became a category on its own due to the amount of expertise in the area, thus participation in projects, among the UTCA researchers. Numerous projects have fallen under the Miscellaneous category that addressed very specific topics. Finally, 6% of the projects have been designated as explicitly Technology Transfer. These projects were conducted for the specific purpose of developing and delivering short courses to transportation professionals in Alabama and support the Technology Transfer goal of the UTCA.

Figure 1. Distribution of UTCA projects among primary focus areas



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### Why – Technology Transfer cont.

- Continued from page 2

In addition to the projects that originated as technology transfer efforts, many of the research-oriented projects have (or soon will) result in knowledge and expertise of value to other transportation professionals. A key goal of the UTCA Technology Transfer Program will be to assist UTCA investigators identify, develop, and deliver transferable results of their projects.

### Who – Technology Transfer

The program is being developed and administered by a team consisting of the UTCA Executive Committee, the UTCA Advisory Board, Steven Jones, David Eckhoff and the technology transfer steering committee.

Steven Jones is an assistant professor in the Civil and Environmental Engineering department at UAB. He has ten years experience in transportation engineering and planning. He holds a Bachelor's and Master's degree in civil engineering from Auburn University and a Ph.D. in civil engineering from the University of Virginia. In addition to his academic experience, Steven has held consulting positions in Washington, DC and Birmingham as well as a research scientist position with the Department of Transportation. While working as a consultant in Washington, Steven assisted in the development of a short course on traffic signal controller selection for the Federal Highway Administration. He has experience working with the public agencies in the State (ALDOT, MPO's, etc.) as well as numerous consultants. In the past, he has sponsored transportation-related seminars on the behalf of UTCA and has delivered UTCA-derived short courses to ALDOT personnel.



David Eckhoff is Director of UAB School of Engineering, Professional Development Department. Mr. Eckhoff has 23 years in the design, development and administration of continuing education activities with UAB and Auburn University. Mr. Eckhoff served as an investigator on the UTCA-sponsored Transfer of Transportation Management and Safety Technology project and helped design, develop and manage the Concrete Technology Conference held in October 2001. He is a member of ASEE-CPD division and has served as past Treasurer and on the Board of Directors ASEE-CPD division.

The technology transfer steering committee is comprised of representatives from all three UTCA universities, ALDOT (Training, Human Resources, Research, and Maintenance Bureaus), FHWA, MPO's, and consulting firms. We appreciate all of their interest and support.

### UTCA Projects and Website



If you would like to learn more about UTCA or to download and print a report please visit our website:

<http://utca.eng.ua.edu/projects>. You can also call UTCA at (205) 348-9925. If you are interested in or have questions about our tech transfer activities, please feel free to contact us at (205) 934-8462.



### 1st Annual UTCA Symposium

The UTCA Technology Transfer Program will sponsor an annual one-day symposium that will highlight scholarly work, published findings and technology transfer components of UTCA projects. The symposium will consist of two or three subject specific tracks consisting of one-hour presentations. There will be 10-15 total presentations delivered in a classroom environment. The program will be held on Nov. 17, 2003 and will award 6.0 CEU credits for attending sessions. For more information call Steven Jones 205.934.8462 or David Eckhoff at 205.934.8994