

# UTCA Newsletter

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University Transportation Center  
for Alabama

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#### UTCA

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## UTCA's Future HQ

Shelby Hall, named for the ranking U.S. Senator from Alabama, is under construction. It will include floor space for several transportation research units on the UA campus.

Almost 20 offices and 12 labs will serve transportation research and teaching efforts for three centers: UTCA, the Center for Advanced Vehicle Technology (CAVT) of the ME Department, and the transportation programs of the Center for Research and Economic Research (CBER) of the Culverhouse College of Commerce and Business Administration.

UTCA's labs will include a traffic operations center (with a live data feed from the Tuscaloosa DOT traffic management center), and a traffic safety computations center. A new UTCA administrative complex will include offices; a conference room; a library; and other facilities. UTCA will provide administrative support for all transportation faculty members, students, and research programs in the transportation portions of the building.

The contractors are making excellent progress and the building should be available for occupancy in late 2003 or early 2004.

## UTCA Successes

The center has been in operation for about 3.5 years, has put down firm roots, and has worked hard to help meet Alabama's future transportation challenges. The following sample facts and statistics illustrate how strong progress has been.

- Faculty network in place (multi-campus, interdisciplinary teams)
- New degrees/options available on each campus
- 141 projects authorized, 59 completed
- 43 faculty members as PIs, 40 departments submitted proposals
- 46 final reports on website
- 28 outreach events conducted for 5,758 pre-college students
- Over \$19.4M funding (31% USDOT, 19% university matching, 50% other sources)

We are proud of the success of our students and faculty members, and are grateful for the support of so many stakeholders

## Officers and Members of the UTCA Advisory Board

One of the strongest reasons for the success of UTCA is the guidance provided by our Advisory Board, which represents a broad cross section of transportation constituents.

### Officers

UTCA has benefited from the leadership of a Chair and Vice Chair who have served in these positions since operations began in 1999.

**Chair - Don Vaughn** Mr. Vaughn has spent his entire career within ALDOT, holding a variety of jobs that prepared him for his present position as Assistant Transportation Director.



Don began work with the Alabama Highway Department in 1966, while a student at Auburn University. After receiving his BSCE in 1971, he began full time work with the Department. He served as Interstate Bureau Environmental Engineer, Assistant Location Engineer, Location Engineer, Assistant Chief of the Design Bureau, and Chief of the Office Engineer Bureau. Governor Fob James, Jr. appointed him as Assistant Transportation Director in 1989.

Don is a Commander in the U.S. Naval Reserves Civil Engineering Corps, and actively serves on

several AASHTO policy committees. He is a member of the Society of Military Engineers, and is a Past President of the Alabama Section of the American Society of Civil Engineers.

### **Vice Chair - Joe D. Wilkerson** Mr.

Wilkerson is a fixture in the Alabama transportation community. For almost 20 years, he has served in Montgomery as the Administrator of the Alabama Division of the FHWA.

Mr. Wilkerson's entire 43-year career has been spent with the FHWA and its predecessor, the Bureau of Public Roads (BPR). After earning his BSCE from the University of Tennessee in 1959, he worked as a Highway Engineer Trainee and an Assistant Area Engineer in Tennessee. He then became a Highway Engineer in the Region 3 office in Atlanta, an Area Engineer in North Carolina, and a District Engineer in Alabama. After serving seven years as an Assistant Division Engineer in Georgia, Mr. Wilkerson was named Alabama Division Engineer in 1983



He has received several awards, including the FHWA Administrator's Award for Superior Achievement, and the USDOT

Secretary's Award for Meritorious Achievement.

### **Other Board Members**

The remaining members of the Board serve rotating three year terms.

**Academic Representatives** The engineering deans at the three UA System campuses are ex officio members of the Advisory Board: Dean Jorge I. Auñón (UAH), Dean Timothy J. Greene (UA), and Dean Linda C. Lucas (UAB)

**City Representative** Joe Robinson, City Engineer and DOT Director, City of Tuscaloosa

**Construction Representative** Billy Norrell, Executive Director, Alabama Road Builders Association

**County Representative** Randy Cole, Shelby County Engineer, Shelby Count Highway Department

**Freight/Logistics Representative** Drew Linn, Chairman of the Board of the Alabama Trucking Association, and President of Southland International Trucks, Inc., Birmingham

**Highway Representative** Larry Lockett, Materials & Tests Engineer, Alabama DOT

**MPO Representative** David Norris, Senior Transportation Planner, West Alabama Regional Commission

**Transit Representative** Steve Ostaseski, Principal Transportation Planner, Regional Planning Commission of Greater Birmingham

### Listing of UTCA Projects (continued)

No.	Investigator	Project Title (paraphrased)	Status	Web Rpt?
<b>Bridge Projects (continued)</b>				
01332	V.J. Gopu, UAH	A Multimedia Bridge Resource	o	
02303	H. Toutanji, UAH	Structural Damage Resource Materials	o	
02304	M. Lin, UAH	ETDR for Bridge Strain Monitoring	o	
02306	V.J. Gopu, UAH	Standardized Bridge Systems	o	
02403	A. Greattinger, UA	Bridge Database and Data Retrieval	o	
03228	J. Davidson, UAB	Stability of Curved Bridges During Construction	New	
03229	N. Uddin, UAB	Vulnerability Reduction for Bridges	New	
03301	H. Toutanji, UAH	Multimedia Technology for Timber Bridge Repair	New	
03309	V.J. Gopu, UAH	Expert System - Drilled Shaft Const Inspection	New	
03402	J. Richardson, UA	Proof Load Testing of Concrete Bridges	New	
03405	N. Uddin, UAB	I-565 Bridge Girder Repair Demonstration	New	
<b>Education Projects</b>				
99118	J. Sterling, UA	Multidisciplinary Trans & Logistics Ed Program	c	Yes
99236	M. Lalor, UAB	Trans Programs Through Distance Learning, IITS, etc.	c	Yes
99249	N. Delatte, UAB	Multi-Campus, Multidisciplinary Trans Curriculum	c	Yes
00304	K. Leonard, UAH	Gearing Up for Trans Engineering Summer Institute	c	Yes
01111	C. Haynes, UA	Aviation Transportation Internship 2000	c	Yes
01326	K. Leonard, UAH	Gearing Up for Trans Engr Summer Institute, phase 2	c	Yes
02113	D. Turner, UA	Advanced Transportation Institute	c	Yes
02209	S. Jones, UAB	High School Trans Education Program	o	
02301	K. Leonard, UAH	Gearing Up for Trans Engr Summer Institute, phase 3	o	
03113	D. Turner, UA	Advanced Transportation Institute II	New	
03305	K. Leonard, UAH	Gearing Up for Trans Engr Summer Institute, phase 4	New	
<b>Miscellaneous Projects</b>				
00218	F. Fouad, UAB	Design of Highway Sign Structural Supports	c	Yes
00467	J. Davidson, UAB	Computer-Based Design of Sign Posts, etc.	o	
01114	A. Greattinger, UA	A Micro Intrusive Test for Foundations	c	Yes
01218	J. Davidson, UAB	Flowable Fill for Local Roads Bridge Replacement	c	Yes
01220	N. Delatte, UAB	Design and Quality Control of Concrete Overlays	c	Yes
01231	N. Delatte, UAB	Improved Design of RCC Pavement	o	
02201	R. Peters, UAB	Catalysts/Zeolites for Diesel Exhaust	o	
02216	F. Fouad, UAB	Overhead Cantilevered Sign Supports	o	
03115	M. Lalor, UAB	Particle Exposure from Diesel Bus Retrofits	New	
03203	R. Peters, UAB	Catalysts/Zeolites for Diesel Exhaust II	New	
03306	C. Bosco, UAH	Hand-held Explosives Sensor System	New	
03308	M. Anderson, UAH	Student Funding for TRB	New	
03404	J. Lindly, UA	Computerizing the ALDOT R&D Library	New	
<p>If there is a "yes" in the <u>Website Report column</u>, the project final report is posted on the UTCA website. Go to the projects page, search for the project number, and follow the links to view the report.</p> <p>Legend for <u>Status column</u>    c = completed project  o = ongoing research  new = authorized or recently started</p>				

### 2002 Student of the Year

Charles Robinson of UAB was named UTCA's 2002 Student of the Year. He received a BSCE and MSCE from UAB in 2000 and 2001 respectively. As an

undergraduate, he received a UAB Comprehensive Minority Student Development Fellowship. He interned with BE&K Construction, and worked

on research projects in the CE research labs. We are pleased that he is now a doctoral student in CE at UAB with a concentration in transportation.

## UTCA Successful in USDOT Competition

UTCA passed a stressful checkpoint in early 2002, when it was successful in a competition for continued federal funding.

Tea-21 established UTCA as a "university transportation center" of the USDOT, but it also required a mid-course competition among 17 centers, with almost half of them to lose funding for the last two years of the TEA-21 authorization period.

The process was extensive and thorough. Each center submitted a proposal containing its accomplishments in six categories, and its plans for future activities. A team of federal transportation experts reviewed the proposals, interviewed the center Directors, and made recommendations to USDOT. USDOT Secretary Norman

Mineta announced the results in February.

The nature of the competition put UTCA at a distinct disadvantage. Some of the competing centers had been in business for over 20 years and had far more accomplishments. But from inception, UTCA knew the competition was coming and adopted a three-pronged strategy to prepare for it.

First, many of the initial projects were directed at the most crucial aspects of UTCA's strategic plan, like creating a multidisciplinary transportation curriculum, recruiting students, and building a multi-campus network of transportation professors. This jump-started the center and created a sound foundation. Second, the Advisory Board played a strong

role in designating research topics of high importance, and as advocates for UTCA to their organizations and to the public.

The third effort involved the content and quality of the competition proposal. The Executive Committee did an excellent job of selecting topics, documenting success stories, and writing the proposal. Also, the Advisory Board acquired a large group of support letters from the directors and CEOs of key agencies and organizations. As a result UTCA finished in the top quarter of all centers, even though it was relatively young compared to the rest of the group. Our full appreciation is expressed to everyone who helped UTCA meet and overcome this major challenge



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