

DIRECTORY  
OF  
CENTER PERSONNEL

FISCAL YEAR 2011

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[http://www.uark.edu/rd\\_engr/MBTC/Directory\\_2011.pdf](http://www.uark.edu/rd_engr/MBTC/Directory_2011.pdf)

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Finished Projects The Use of Transportation Models in Rural  
Study Areas (DOT-1006)

Finished Theses: Planning for Congestion and Congestion  
Management Under the Intermodal Surface  
Transportation Efficiency Act of 1991 --  
AHTD Independent Graduate Assistantship for  
Scott Bennett (DOT-1028)

An Approach to the Problem of Non-  
Coterminous Boundaries, A Critique and  
Rejection of Traditional Splitting Factors --  
Fellowship for Kevin Goff (DOT-8501)

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Finished Project: Design of a Mobility Information Management  
System (MIMS) (DOT-2020)

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Finished Project: Physical, Logistic and Economic Feasibility of  
Petroleum/Grain Exchange Shipments with  
Russia (DOT-2038)

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Finished Projects: Comparative Esterification of Agricultural Oils  
for Biodiesel Blending (DOT-2052)

Biodiesel Production from Varying Grades of  
Beef Tallow and Chicken Fat (DOT-2058)

Yield Characteristics of Biodiesel Produced  
From Chicken Fat-Tall Oil Blended Feedstocks  
(DOT-2092)

Economics of a Two-Step Biodiesel Process  
Involving Supercritical Methanol Esterification  
(DOT-3009)

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Finished Project: Identification and Analysis of Points and  
Segments of High Fatality Crashes  
(DOT-2099/3006)

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Finished Project: Marketing of Container-on-Barge (COB)  
Transportation to Promote Increased  
Utilization of Arkansas Waterways (DOT-  
1100)

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Finished Theses: The Physician's Diagnostic and Information  
Center: An X Windows Sun Workstation Based  
Prototype of a Telemedical Information  
Processing Package with 2D and 3D Medical  
Image Processing Capabilities Including 3D  
Registration of Multi-Modal Data Sets -  
Independent Graduate Assistantship for  
Robert Kaduchak and Alan Simkins (DOT-  
1002 - Robert Kaduchak)

A Study of the Client-Server Approach for the  
Physician's Workstation Using Microsoft  
Windows and TCP/IP - Independent Graduate  
Assistantship for Robert Kaduchak and Alan  
Simkins (DOT-1002 - Alan Simkins)

Physician's Workstation for Rural Health Care  
-- Independent Graduate Assistantship for  
Scott Mills (DOT-1030)

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Finished Project: GIS-Based BMP Planning Tool for Stormwater  
Quality Management (DOT-2031)

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Finished Projects: Assessment of Arkansas Economic Impacts of  
Rural Public Transportation (DOT-1062)

Potential Barge Transportation for Inbound  
Corn and Feed Grains (DOT-1063)

Assessment and Development of Scheduling  
and Dispatching Software for Arkansas Public  
Transit (DOT-1085)

Evaluating the Role of Public Transportation  
in Welfare Reform (DOT-1088)

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Finished Thesis: A Nondestructive Testing Procedure for  
Penetrating Concrete Sealers on Tyned  
Concrete Finishes -- Independent Graduate

Assistantship for Jeffrey Reynolds (DOT-1023)

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Current Project: Information Enhancement Among Aviation  
Security Partners (DHS-1105)

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Finished Project: Improved Traffic Signal Efficiency in Rural  
Areas Through the Use of Variable Maximum  
Green Time (DOT-2093)

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Current Project: Performance of Flexible Pavement Systems  
Containing Geosynthetic Separators (DOT-  
3020)

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Finished Projects: A Simple Approach to Linehaul Backhaul  
Problems (DOT-1102)

A GIS Based Intelligent Trailer Management  
System (DOT-1066)

Optimal Design of Merge-in-Transit  
Distribution Networks (DOT-1064)

Optimal Door Assignment in Breakbulk  
Terminals (DOT-1084)

Empty Container Management for Container-  
on-Barge Transportation (DOT-2003)

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Current Project: Accelerated Characterization of Full-Scale  
Reinforced Flexible Pavement Models Using a  
Vibrothesis (DOT-3017)

Finished Project : Accelerated Characterization of Full-Scale  
Reinforced Flexible Pavement Models Using a  
Vibrothesis (DOT-3013)

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Finished Thesis: A Graphical Front-End for a Concrete  
Information and Mixture Database--  
Independent Graduate Assistantship for John  
Lohmann (DOT-1029)

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Finished Projects Roundabout Feasibility Study for Wet  
Memphis, Arkansas, as Prototype for  
Intersection Improvement Around Interstate  
Overpasses (DOT-2072)

A Cost-Driven Policy Approach for  
Development of On-Street and Off-Street  
Bicycle, Multi-Use and Single-Use Paths and  
Related Facilities (DOT-3010)

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Finished Project: Strategy, Structure, and Performance of Rural Transportation Companies (DOT-1058)

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Finished Project: Driver Management Practices: Longitudinal Examinations Across Respondents and Events (DOT-1086)

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Current Projects: Investigation of the Long Term Stability of Highway Slopes – Phase I (DOT- 1090)

Investigation of the Long Term Stability of Highway Slopes – Phase II (DOT- 1097)

Investigation of the Long Term Stability of Highway Slopes – Phase III (DOT- 2006)

Estimating Subgrade Resilient Modulus for Pavement Design (DOT- 2007)

Using Multi-Spectral Satellite Imagery to Enhance Slope Failure Prediction (DOT- 2026)

Route and Site Characterization Using Multi-Spectral Satellite Imagery (DOT- 2037)

Evaluations of Pavement Thickness and Modulus Using Spectral Analysis of Surface Waves (DOT- 2074)

Finished Projects: Investigation of the Affect of Fines on Base Course Performance (DOT-2027)

Development of Testing Protocol and Correlations for Resilient Modulus of Subgrade Soils (DOT-2032)

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Finished Project: Identification of Countermeasures to Reduce Severity of Rural Highway (DOT-2051)

Effects of Not Wearing Safety Belts on Injury Severity (DOT-2080)

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Finished Projects: Storm Water Pollution Prevention Best Management Practices for Transportation Facilities (DOT-2018)

Development of Training Course and Materials for Construction and Maintenance Personnel Concerning Storm Water Runoff BMP's (DOT-9210)

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Current Project: Permanent Deformation of Subgrade Soils –  
Phase 3 (DOT- 1094)

Finished Projects: Effects of Rubber on Asphalt Mixes (DOT-  
1009)

Permanent Deformation of Subgrade Soils  
(DOT-1069)

Permanent Deformation Behavior of Subgrade  
Soils – Phase 2 (DOT-1089)

Finished Theses: Investigation of the Stress Ratio Model Using  
Moist Aggregate Bases -- Independent  
Graduate Assistantship for Chadramouli  
Dondegowda and Venkat Talladivedula (DOT-  
1003)

Analysis of a Contractor Pay Adjustment  
Schedule Using Simulation -- Graduate  
Assistantship for Yanjun Qiu (DOT-1042)

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Finished Projects: Quantifying the Impact of Refrigerated Unit  
Failures (DOT-2005)

Training Engineering Professionals for  
Management and Leadership (DOT-9004)

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Finished Project: Evaluation of the Role of Driver's Knowledge  
of Who Has the Right-of-Way Contributes To  
Interstate On-Ramps Crashes (DOT-2100)

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Finished Projects: Integration of a Mobile Health Care System to  
Deliver Primary Care to Rural Areas of  
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Design of Communications Network to  
Support Mobile Health System (DOT-1035)

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Finished Project: Community Impact of Regional Transportation  
Infrastructure Growth (DOT-1017)

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Finished Projects: A Study of the Use of Truck Tire Beads as  
Drainage Pipe and Analysis of the Economics  
of Tire Disposal in Oklahoma: Part 1 -  
Culverts (DOT-1025)

Rural Roadway Capacity and Congestion --  
Phase I (DOT-1033)

Geometric Design to Accommodate School  
Buses (DOT-1054)  
Non-Standard Stop Controlled Intersections -  
Phase I (DOT-1059)

Rural Rest Area Privatization Conditions  
(DOT-1071)

Intersection Angle (DOT-1073)

Benefits of Video Image Processing in Vehicle  
Detection, and Development of an Algorithm  
for Strategic Camera Placement for Video  
Monitoring at Signalized Intersections (DOT-  
1078)

Incremental Improvements to Rural Two-Lane  
Highways: Rural Roadway Capacity and  
Congestion - Phase 2 (DOT-1098)

Designing Horizontal Curves for Low-Speed  
Environments (DOT-2019)

Supplemental Signing for Stop Signs - Phase II  
(DOT-2040)

Roadway Median Treatments (DOT- 2055)

Roadway Median Treatments – Phase II (DOT-2067)

Effects of Frontage Road Conversion (DOT-2073)

Acceleration Lane Design for Higher Truck Volumes (DOT-2094/3003)

Work Zone Traffic Control Instructional Videos -- Phase I: “Dropoffs” and “Diversions” (DOT-9003)

Uptown, Downtown, or Small Town: Designing Urban Streets that Work (DOT-9012)

Work Zone Traffic Control Instructional Videos – Phase 2 (DOT-9014)

Development of a Third Work Zone Video (DOT-9203)

Work Zone Driving Public Service Instructional Video (DOT-9211)

Current Theses: AHTD Graduate Assistantship – John Spears (DOT- 8522)

AHTD Graduate Assistantship – Tymli Frierson (DOT- 8523)

Finished Theses: Evaluation of Automated Work Zone Information Systems – Rajesh Kumar Janarthanan (DOT-2036)

The Effects of Converting Frontage Roads from Two-Way to One-Way Operation – Chris Hanning (DOT-2045)

Independent Graduate Assistance ship – Dammalpati Srinivasarao and Dhiraj Goverdhanam (DOT-2059)

Three-Lane Passing Sections – Joseph Cotton (DOT-8503)

Low-Speed Urban Horizontal Curves – B.  
Finley Vinson (DOT-8505)

Comparison of Crash Rates on Multilane  
Streets in Cities Having Divided Roadways –  
Andrew Brewer (DOT-8511)

Impacts of Roadway Designs and Environment  
on Multilane Highway Safety – Minh Le (DOT-  
8512)

A Study of Tractor-Trailer Acceleration  
Behavior for Use in Acceleration Lane Design  
– Micah Bryant (DOT-8516)

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Finished Project: Purchasing Transportation Services in Rural  
Communities (DOT-1047)

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Finished Thesis: System Analysis for Post-Crash Fire Modeling  
-- Independent Graduate Assistantship for  
Richard Tan (DOT-1007)

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Finished Projects: Developing a Viable Poultry Litter Transport  
Option for the Ozarks Region (DOT-1802)

Assessment of Multimodal Transport of Baled  
Poultry Litter and Dewatered Biosolids from  
Northwest Arkansas  
(DOT-7015)

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Finished Project: A GIS Enhanced Cultural Resource  
Management System (DOT-1012)

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Finished Project: Training Course Development -- Concrete  
Patching (DOT-9005)



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Current Projects: A Prototype Remote Structural Health and  
Security Monitoring System for Bridges (DOT-  
3014)

Rapid Condition Screening of Bridges by  
Falling Weight Deflectometer (DOT-3015)

Structural Health Monitoring and Assessment  
of Critical Intermodal Transportation  
Infrastructure Elements (DHS-1104)

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Finished Project: Geographic Information Systems for Water  
Resource Risk Management (DOT-1091)

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Finished Project: Effective Human Resource Management  
Among Rural Motor Carriers (DOT-1043)

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Current Project: Performance of Prestressed Girders Cast with  
Lightweight Self-Consolidating Concrete (DOT  
- 3021)

Finished Projects: Development of an In Situ Permeability for  
Concrete Structures (DOT-2053)

Examining the Effects of Mixer Type and  
Temperature on the Properties of Ultra-High  
Performance (DOT- 3012)

Prestress Losses in Prestressed Bridge Girders  
Cast With Self Consolidating Concrete (DOT-  
2071)

Development of a Soft Ground Arrestor  
System (DOT-2089)

Finished Thesis: AHTD Graduate Assistantship for Steven  
Peyton (DOT-2069)

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Current Project: Development of Methods for Estimating  
Remaining Life of Hot-Mix Asphalt Field  
Mixes (DOT- 2070)

Finished Projects: Acquisition and Evaluation of Hamburg  
Wheel-Tracking Device (DOT-1044)

Structural Design of Portland Cement  
Concrete Overlays for Pavements (DOT-1052)

Development of Comprehensive Low-Volume  
Pavement Design Procedures (DOT-1070)

Development of Laboratory Wheel-Tracking  
Device – Phase II (DOT-1104)

Development of Simplified Asphalt Concrete  
Stiffness/Fatigue Testing Device (DOT-2014)

Development of Technician and Training  
Courses (DOT-9002)

Development of Superpave Training Materials  
for Local Agencies (DOT-9201)

Thesis Pending: Independent Graduate Assistantship for FHA  
project “Arkansas Pavement Study:  
Performance of Reflective Cracking  
Treatments” (DOT- 8514)

Finished Theses: A Comparison of the AASHTO and Roadhog  
Flexible Pavement Overlay Design Procedures  
-- Independent Graduate Assistantship for  
Quintin Watkins (DOT-1031)

Analysis of In-Situ Moisture Content Data for  
Arkansas Subgrades – Independent Graduate  
Assistantship for Shreenath Rao (DOT-1041)

State of the Practice: Pavement Design  
Procedures for Low-Volume Roads -- AHTD  
Graduate Assistantship for John Bettis (DOT-  
1076)

Evaluation of Measurement Techniques for  
the Internal Angle of Gyration for the  
Superpave Gyrotory Compactor – Tamara  
Murry (DOT-2028)

Investigation of the Use of the Bailey Method  
of Aggregate Gradation Selection for Asphalt

Mix Design in Arkansas – Christopher Wald  
(DOT-2029)

Comparison of the Evaluator of Rutting and  
Stripping of Asphalt with the Rotary Asphalt  
Wheel Tester – Bret Taylor (DOT-2057)

Comparison of the Evaluator of Rutting and  
Stripping of Asphalt with the Rotary Asphalt  
Wheel Tester – Bret Taylor (DOT-8506)

Evaluation of a New Test method For  
Measuring Bulk Specific Gravity of Fine and  
Coarse Aggregates – Yashan Liu (DOT-8507)

Analysis of Reflective Cracking Treatments –  
Sarah Tamayo (DOT-8517)

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Finished Projects: Rural River Port Economic Impact Kit (DOT-  
1087)

Evaluation of Economic Impacts of NAFTA on  
the Transportation System/Sector of Selected  
Southern States (DOT-2078)

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Finished Projects: A Study of Physical and Chemical  
Characteristics of Superpave Binders  
Containing Air Blown Asphalt (DOT-2049)

Physical and Chemical Characteristics of  
Superpave Binders Containing Air Blown  
Asphalt from Two Different Feedstocks (DOT-  
2076)

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Current Project : The Production of Butanol Fuel from  
Renewable Systems using a Membrane  
Assisted Fermentation System (DOT- 3018)

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Department of Civil Engineering  
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Finished Project: Performance Predication of the Strong  
Company's Soft Ground Arrestor System  
Using a Numerical Analysis (DOT-  
2090/3002)

Finished Thesis: Fiber Reinforced Polymer Shear Strengthening  
of Short Span Precast Concrete Channel  
Beams - Jessie Jones (DOT-2046)

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Finished Project: Development and Testing of a Screening  
Model for Predicting Tractor-Trailer Truck  
Driver Retention (DOT-1016)

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Finished Project: Automated Traffic Accident Data Entry (DOT-  
1068)

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Finished Projects: Total System Cost/Benefit Assessment of  
Heavy Truck – Automobile Speed Differentials  
on Rural Highways (DOT-2048)

Development of a Human Performance  
Simulation Model to Evaluate In-Vehicle  
Information and Control Systems in  
Commercial Trucking Operations (DOT-2062)

Human Factors Study of Driver Assistance  
Systems to Reduce Lane Departure and Side  
Collision Accidents (DOT-2083)

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Finished Project: Seminar on State Plane Coordinate System  
(DOT-9001 -- seminar presented)

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Operations Research & Industrial Engineering  
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Finished Projects: Modeling and Analysis of Transportation  
Flows Created by E-Commerce Transactions  
(DOT-2012)

Efficient Timing of Pickup and Delivery  
Assignment Decisions Through Simulation  
and Optimization (DOT-2013)

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Finished Project: An Economic Evaluation of Optimal  
Intermodal Grain Flows in Arkansas with  
Projected Effects of the North American Free  
Trade Agreement (DOT-1491)

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Finished Project: Engineering Ethics Course Development  
(DOT-9007 Course Developed)

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Louisiana State University  
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Finished Project: Repair of Damaged Concrete Structures Using  
Prepreg Composites (DOT-2033)

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Finished Projects: Computer Assisted Cost Assessment of  
Intermodal Transportation Linkages (DOT-  
1020)

Automated Shipment Routing Considering  
Transfer Costs and Shipment Characteristics  
(DOT-1050)

Computer Assisted Cost Assessment of  
Intermodal Transportation Links -- Phase II  
(DOT-1036)

A Feasibility Study of Truck-Barge Intermodal  
Freight Transportation (DOT-1079)



Training Materials for Transportation Cost  
Assessment Software (DOT-9006)

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Finished Projects: Establishing Priorities for Rural Transit System  
Subsidies (DOT-1045)

The Impacts of Welfare Reform on Rural  
Public Transportation Demand: Case Studies  
in the State of Oklahoma (DOT-1082)

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Finished Projects: Impact of Wireless Data Systems on the  
Transportation Systems of the Future (DOT-  
2023)

Integrated Analysis of Transportation and  
Inventory in Intermodal Distribution Networks  
(DOT-2041)

Routing Models for Rural Transportation  
Networks With Time-Varying Constraints  
(DOT-2086)

Improving Forced Transfer and Special Needs  
Busing in Rural Public Schools (DOT- 3011)

Network Design Analysis for Special Needs  
Student Services (DOT-3019)

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Finished Projects: Highway Collision Warning Technology:  
Determination of Criteria for Detecting and  
Logging Hazardous Events in Tractor-Trailer  
Safety and Training Programs (DOT-2063)

Development of Intermodal Container Load  
Status and Security Monitoring System (DOT-  
2084)

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Finished Project: An Examination of the Effect of  
Transportation Costs on Grain Basis Levels in  
Arkansas (DOT-1798)

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Finished Project: A Nationwide High-Speed Rail Network for Freight (DOT-2087/3001)

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Associate Professor  
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Finished Project: Community Impact of Regional Transportation Infrastructure: Revisited After Completion of Airport and Major Highway (DOT-2034)

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Associate Professor  
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Current Projects: Emergency Response via Inland Waterways (DHS- 1106)

Sustaining Resilient Inland Waterways via Renewable Energy (DHS-1108)

Supporting Secure and Resilient Inland Waterways (DHS-1110)

Finished Projects: WebShipCost – Quantifying Risk in Intermodal Transportation (DOT-2035)

Ancillary Benefits of the Ouachita River Navigation System (DOT-2082)

Homeland Security for Rural Transportation Networks (DOT-2085)

Rural Transportation Emergency Preparedness  
Plans (DOT-2091)

Emergency Response via Inland Waterways  
(DOT- 3008)

Economic Evaluation of the Impact of  
Waterways on the State of Arkansas – Phase II  
(DOT-9208)

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Finished Project: Development of a Human Performance  
Simulation Model to Evaluate In-Vehicle  
Information and Control Systems in  
Commercial Trucking Operations (DOT-2062)

A Model-Based Risk Map for Roadway Traffic  
Crashes (DOT-2098/3005)

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Department of Rehabilitation, Human Resources and  
Communication Disorders  
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Finished Project: A model for Predicting Tractor-Trailer Truck  
Drivers' Job Performance Related to Highway  
Safety (DOT-2043)

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Finished Project: Determining Optimal Trailer Duty as a  
Function of Use and Age (DOT-2017)

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Finished Projects: Economic Impact of Railroad Abandonments  
in Arkansas (DOT-1011)

Demand for Intermodal Transportation in  
Arkansas (DOT-1018)

Effects of Motor Carrier Deregulation on Small  
Rural Communities (DOT-1019)

Assessing Transportation Contributions to the  
Economic Performance of Developing  
Countries -- Independent Graduate  
Assistantship for Vitaly Brazkin and Kyle  
Alexander (DOT-1048)

MSTM Curriculum Development (DOT-9010)

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Finished Project: A Geographic Information System to Predict Soil Erosion Potential in Rural Transportation Construction Projects (DOT-1005)

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Finished Projects: Assisted Night Vision for Motorists in Highway Construction Zones (DOT-2050)

Assisted Night Vision for Motorist in Highway Construction Zones – Phase II – Field Testing and Assessment (DOT-2064)

Solar Powered Lighting for Overhead Highway Signs (DOT-2096/3007)

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Department of Civil Engineering  
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Finished Project: Development of Standard Preconstructed Timber Bridge Sections (DOT-1057)

Finished Theses: Mechanical Properties and Fatigue Characteristics of Glass Fiber Reinforced Resin Rods -- AHTD Independent Graduate Assistantship for Jennifer Balogh Williams (DOT-1027)

Comparison of FRP Reinforced Concrete Bridge Decks to Steel Reinforced Concrete

Bridge Decks – Fellowship for Kevin White  
(DOT-8502)

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Current Projects: Designing Resilient and Sustainable Supply  
Chain Networks (DHS-1101)

Mitigating Dynamic Risk in Multi-Modal  
Perishable Commodity Supply Chain Networks  
(DHS-1109)

Finished Project: Modeling, Assessing and Managing Risk in  
Transportation Systems (DOT-2061)

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Finished Project: Transportation Infrastructure and Rural  
Economic Growth (DOT-1734)

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Current Project: Rail Transportation Models for Rural Populations (DOT-3024)

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Current Project: Development of a Large-Scale Transportation Course (DOT-9312)

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Finished Projects: On-Line Benchmarking Database for Transportation Providers (DOT-2015)

WebShipCost – Intermodal Transportation Linkage Cost Assessment Via the WWW (DOT-2024)

WebShipCost – A Geographical Information System for Waterway Utilization (DOT-2047)

Integration of Geographical Information Systems and Logistics Planning Methods for Arkansas Rural Transportation Emergency Planning (DOT-2088)

Training and Course Materials for Transportation Applications of GIS (DOT-9209)



Simulating Large-Scale Evacuation Scenarios  
in Commercial Shopping Districts –  
Methodologies and Case Study (DHS-1102)

Finished Thesis: Evaluating Forecasting Methods for Demand  
Based Managed Retail Supply Chains – Julie  
Watson (DOT-8504)

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Department of Civil Engineering  
2118 Fielder Hall  
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Finished Projects: Modeling Traffic Flows and Conflicts at  
Roundabouts (DOT-1099)

Quick Response Community Planning (DOT-  
2001)

Further Study of Roundabouts (DOT-2016)

A Safety Analysis of Driver Reaction to  
Alternative Traffic Control Devices at Rail-  
Highway Grade Crossings (DOT-2079)

Update and Modification of the Kansas Low-  
Volume Roads Handbook and the Handbook  
of Traffic Engineering Practices for Small  
Cities (DOT-9206)

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Finished Projects: Object Markers at Narrow Bridges (DOT-  
1083)

Life Cycle Economic Comparison of Common  
Sign Post Materials and Types (DOT-2039)

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Department of Anthropology  
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Finished Project: Cost Efficient Management Tools for  
Assessing Cultural Resources (DOT-2044)

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Finished Projects: Creation of Educational/Recruitment  
Videotapes for K-9 Students: "Check It Out",  
"Make It Happen", "Back to the Future, Please"  
(DOT-9009)

Supplemental Materials for Use with  
Educational Videotapes (DOT-9202)

Finished Thesis: Properties and Behavior of a High  
Performance Concrete Containing Type I  
Cement -- AHTD Independent Graduate  
Assistantship for Craig Johnson (DOT-1049)

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Finished Thesis: Transportation and Increasing Access to Rural  
Mental Health Service -- Independent  
Graduate Assistantship for Vanessa Nehus-  
Huber (DOT-1013)

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Department of Sociology and Criminal Justice  
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Finished Thesis: Study on Growth in Northwest Arkansas and  
Study of the Transportation Needs of Citizens  
Requiring Psychological Services --  
Independent Graduate Assistantship for Lynn  
Lister (DOT-1001)

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Current Project: Nanotechnology-Based Improvements for  
Portland Cement Concrete - Phase 1 (DOT-  
3022)

Finished Projects: Aeroelastic Analysis of Bridge Girder Section  
Using Computer Modeling (DOT-1095)

Potential Applications of Nano technology for Improved Performance of Asphalt Pavements (DOT-2095/3004)

Finished Theses: Recent Developments of the Flexible Pavement Analysis Program -- Graduate Assistantship for Anousone Arounpradith (DOT-1004)

Aeroelastic Analysis of Bridge Girder Section Using Computer Modeling- Suresh Govindaswamy (DOT-2010)

Validation of Aeroelastic Finite Element Program for Two-Dimensional Flow Past Suspended Bridges Using Moving Grids - Weazl Gazel (DOT-2021)

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Finished Project: Computer Model for Estimating Field Operation Manpower (DOT-1026)

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Current Project: Biodiesel Waste Products as Soil Amendments - Evaluation of Microbial, Biological, and Plant Toxicity (DOT-3025)

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Finished Projects: Benefit Cost-Analysis of Constructing a Rail  
Connection and Intermodal Facility at the  
Mississippi River Port of Yellow Bend in  
Arkansas (DOT-1032)

Waterside Industrial Sites on the Ouachita  
River in Arkansas (DOT-1056)

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Finished Project: Development of Portable Holographic  
Interferometric Equipment for Inspecting  
Bolted and Riveted Connections in Bridges  
(DOT-1096)

Finished Thesis: Examining the Usage of Holography to  
Determine the Stresses of Bolts In Existing  
Bridges – Sita Dura Muhammad (DOT-2011)

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Finished Projects: Optimization of Chassis Movements in Intermodal Transportation Systems (DOT-1021)

Dynamic Routing for City Pickup and Delivery for LTL Truck Operations (DOT-1065)

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Finished Projects: Hub and Spoke Networks in Truckload Trucking: Sensitivity Analysis and Extended Testing (DOT-1022)

Development of a General Location Model to Locate Break Bulk Terminals for LTL Trucking Operations (DOT-1037)

LTL Terminal Scheduling and Trailer Pool Models (DOT-1051)

GIS-Based Freight Density and Capacity Modeling (DOT-1060)

Development and Analysis of Efficient Delivery Lanes (DOT-1061)

Simulation of Railway Component of Intermodal Transit (DOT-1077)

New Marketing Paradigms for Truckload Trucking (DOT-1080)

Intermodal Profitability Analysis in LTL and Truckload Trucking (DOT-1081)

Finding Synergy in Intermodal Operations with Truck and Rail (DOT-1101)

Efficient Dispatching in a Terminal City  
Network (DOT-2004)

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Finished Projects: Permeability of Base Courses (DOT-1010)

Slope Reliability (DOT-1014)

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3135 TAMU  
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College Station, TX 77843-3135

Finished Projects: The Northwest Arkansas Transit Assessment  
Study (DOT-1103)

Regional Mobility Plan: Development of  
Technical Scope of Services (DOT-2009)

Development of a Strategic Plan for Statewide  
Deployment of Intelligent Transportation  
Systems in Arkansas (DOT-2022)

Evaluation of Automated Work Zone  
Information Systems (DOT-2025)

Freeway Management Deployment Plan and  
Regional Architectural Development (DOT-  
2068)

A Study of Rural Transit Operations in the  
Arkansas Delta (DOT-2081)

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Finished Project: The Role of Transportation in Service Access  
for Rural Elderly (DOT-1523)

Finished Thesis: The Role of Transportation in Service Access  
for Rural Elderly -- Independent Graduate  
Assistantship for Kathryn Coleman (DOT-  
1008)

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Finished Project: Measurement of Antistrip Additives in  
Asphalts and Pavements (DOT-1055)

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Current Projects: AHTD Cracking Protocol Application with  
Automated Distress Survey for Design and  
Management (DOT-3016)

Automated Survey of Pavement Distress Based  
On 2D and 3D Laser Images (DOT-3023)



Development of an Interactive Petrochemical Incident Location System (PILS) (DHS-1107)

Finished Projects: Development of a Full Digital and Networkable Multimedia Based Highway Information System -- Phase I (DOT-1040)

Needs for the Establishment of Arkansas-Intergraph Transportation Laboratory (DOT-1046 -- lab in operation)

Advanced Planning Surveys Using Automatic License Plate Reader (DOT-1053 -- Discontinued Report)

Investigation of Image Archiving for Pavement Surface Distress Survey (DOT-1072)

A 3D Terrain Visualization Database for Highway Information Management (DOT-1092)

An Infrastructure for the Next-Generation Highway Data Vehicle (DOT-1093)

Automation of Pavement Surface Distress Survey Through Parallel Processing (DOT-2008)

Automated Survey and Visual Database Development for Airport and Local Highway Pavements (DOT-2042)

Applicability of Microelectronic and Mechanical Systems (MEMS) for Transportation Infrastructure Management (DOT-2056)

Automated Inventory and Analysis of Highway Assets (DOT-2065)

Networked Sensor System for Automated Data Collection and Analysis (DOT-2077)

Automated Inventory and Analysis of Highway Assets – Phase II (DOT-2097)

Network Level Crack Survey with the Automated Real-Time Distress Analyzer – Kofi Addo (DOT-8508)

Implementation of MMHIS at the Intergraph Lab (DOT-9013)

Application and Advanced Development of the Next-Generation Highway Data Vehicle (DOT-9205)

Automated Real-Time Object Detection and Recognition on Transportation Facilities (DHS-1103)

Finished Theses: Multi-media Database Development for a Highway Information System -- Independent Graduate Assistantship for Xuyang Li (DOT-1038)

Fuzzy Set-Based and Performance-Oriented Pavement Network Optimization System -- Graduate Assistantship for Fengxian Liu (DOT-1039)

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Finished Project: Ingredients in Planning Successful Rural Transportation Services for Welfare Reform (DOT-2002)

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Finished Project: Development of Roadway Construction  
Control Certification Program (DOT-9204)

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Finished Projects: Development of 4.75 mm Superpave  
Mixes (DOT-2030)

A Comprehensive Study of Field Permeability  
Using the Vacuum Permeameter (DOT-2054)

Surface Friction Measurements of Fine-  
Graded Asphalt Mixes (DOT-2066)

Non-Nuclear Methods for HMA Density  
Measurements (DOT-2075)

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Finished Project: Automated Aggregate Shape Analysis and  
Rutting/Stripping Performance (DOT-1067)

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Finished Project: Economic Evaluation of the Impact of  
Waterways on the State of Arkansas (DOT-  
9207)

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Finished Projects: Research and Develop a Course on Intelligent  
Vehicle Highway Systems (DOT-9011)

Developing a Course Entitled "Enabling  
Technologies in ITS" (DOT-9015)

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