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## Request for Applications: **DISSERTATION FELLOWSHIP**

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### 1. Overview

The **Center for Transportation Equity, Decisions and Dollars (CTEDD)** invites qualified applicants to apply for Fall 2017 Doctoral Dissertation Research Fellowships. This grant is part of the University Transportation Center (UTC) program funded by the U.S. Department of Transportation (USDOT). Please see [utc.dot.gov](http://utc.dot.gov) for more information.

The Center for Transportation Equity, Decisions and Dollars (CTEDD) is a consortium of five universities leading transportation policy research that improves economic development through the more efficient and cost-effective use of existing transportation systems, and offers better access to jobs and opportunities.

CTEDD will address these needs through the innovative use of cutting edge technology and policies that harness private resources for public infrastructure.

CTEDD and its consortium members aim to serve their fast-growing regions and the nation as a whole through various programs that expand economic prosperity, provide outreach to policy makers, address infrastructure needs through innovative methods, and educate future leaders of the transportation field.

Fellowships up to \$10,000 will be awarded to cover expenses for the recipient while working on their dissertation. CTEDD is focused on contributing to transportation-related research that supports innovation in the focus areas discussed below.

- **FOCUS AREA 1: Creative use of Existing Infrastructure for Future Transportation Needs:**
  - Using existing lanes and tracks for alternative shared mobility options, such as van pools, high speed rail, and regional express buses.
  - Integration of new technology (such as big data collection technologies, information and communication technologies, automated vehicles, microtransit, LiDar) into the current transportation systems.
  - Smart land use, and transportation designs and policies that enhance transit ridership.
  - Enhancing shared-use mobility options for broadening access to jobs and services.

- **FOCUS AREA 2: Innovative Funding Strategies for Future Transportation Infrastructure, and Better Maintenance of Existing Infrastructure:**
  - Understanding and resolving political and financial obstacles, as well as systemic inefficiencies to meeting infrastructure maintenance needs.
  - Smart transportation investment strategies, and use of new revenue concepts for proper maintenance of transportation infrastructure.
  - Challenges and benefits of leveraging private investment to support transportation infrastructure.
  - Impact of funding stream challenges for maintaining transit operations.
  
- **FOCUS AREA 3: Transportation Systems, Economic Competitiveness, and Equal Access:**
  - Transportation, access to opportunities, and upward mobility.
  - Economic development and supportive transportation concepts.
  - Creative adaptation of transportation networks to connect competitive mega-regions.
  - Ensuring sufficient mobility and opportunity access for transit dependent population.
  
- **FOCUS AREA 4: Employing Big Data and Innovative Techniques to Improve System Efficiency:**
  - Improving efficiency of roadway repairs and maintenance using performance based data collection and mining.
  - Measuring efficiency and equality of transportation service.
  - Upgrading traditional public participation in transportation decision making.
  - Online media, social marketing and transportation user's experience.
  
- **FOCUS AREA 5: Ensuring Transportation System Vitality through Performance Management and Monitoring Systems:**
  - Maintenance of transportation infrastructure Using Remote Sensing/Photogrammetry Technologies.
  - Evaluating efficiency and effectiveness of internal policies such as procurement, contracting, and asset management.
  - Reliable transportation infrastructure asset management framework development based on sensing/instrumentation, performance data and available financial resources.
  - Integrating mixed modes with existing transportation infrastructure.
  
- **FOCUS AREA 6: Transportation Policy and Decision Making:**
  - Understanding the challenges of sub-state, local transportation policy and decision making, such as infrastructure rights of way, and political or financial obstacles.
  - Challenges of building cross-state transportation infrastructure.
  - Community role vs. lobbyist/legislature in shaping transportation policy.
  - Improving inclusion of agencies in policymaking.
  - Return on investment based on interest groups, taxpayers and geography.

## 2. Eligibility

Students must be a U.S. Citizen or permanent resident and have advanced to candidacy for the Ph.D. degree prior to the application deadline.

**CTEDD** fellowships are open to students currently enrolled in a transportation-related program at the University of Texas at Arlington, University of South Florida, California Polytechnic State University, Georgia Institute of Technology, and University of Wisconsin-Madison.

Successful doctoral dissertation research fellowship proposals will combine advanced research with applied projects that are suited for one or more of the CTEDD focus areas, linking to articulated U.S. DOT priorities, specifically livability, environmental sustainability, and safety.

## 3. How to Apply

All applications must be submitted by **October 30, 2017**. Please complete the dissertation fellowship application form (below) and compile as a single PDF. Include all other requested information from the form within the same PDF.

## 4. Selection Process

The pool of applicants will be reviewed by a committee of faculty from CTEDD partner campuses. Fellowships will be awarded on the basis of the committee's assessment of the originality and significance of the research topic, the applicant's overall record of academic and professional accomplishment, and the relevance of the research topic to current issues in transportation as it relates to the CTEDD focus areas. In addition, the applicant's date of advancement to candidacy also will be reviewed. Applicants must be in their final year of their program, expecting to defend their dissertation within one year of the award dispersal.

## 5. Other Terms and Conditions

1. Fellowships are awarded to cover student expenses while working on the dissertation.
2. Awards are conditional on the student working on the dissertation topic as described in the fellowship application. If the student decides for any reason to change dissertation topics or to terminate doctoral studies, the student must notify CTEDD immediately and a pro rata share of the fellowship must be returned.
3. Award recipients must provide a paper copy and electronic version in PDF of the dissertation when it is completed.
4. Award recipients agree to acknowledge CTEDD support in the dissertation itself and in any publications that may stem from it.
5. Award recipients must submit quarterly progress reports, in addition to a final report. Form templates will be provided.
6. Award Recipients must prepare a webinar for their dissertation research upon completion



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## DOCTORAL DISSERTATION FELLOWSHIP APPLICATION FORM

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The following must be submitted by **October 30, 2017**. Please email application form and contents in a single PDF to C-TEDD at [c-tedd@uta.edu](mailto:c-tedd@uta.edu).

### **Section 1: Application Overview and Contact Details**

Project Title:

Doctoral Candidate:

Date of Advancement to Candidacy:

Home Mailing Address and Home Phone:

Campus Mailing Address, Phone:

E-mail Address:

Are you a U.S. Citizen or permanent resident (y/n)?

Faculty Supervisor (name, title, dept., campus address, phone, & email):

Other Dissertation Committee Members (name, title, dept., campus address, phone, & email):

Briefly describe how your dissertation research aligns with CTEDD focus areas (refer to Section 2).

## **Section 2: CTEDD Focus Area(s)**

(Please select from CTEDD research focus areas listed below)

- FOCUS AREA 1: Creative Use of Existing Infrastructures for Future Needs
- FOCUS AREA 2: Innovative Funding Strategies for Future Transportation Infrastructure, and Better Maintenance of the Existing Infrastructure
- FOCUS AREA 3: Transportation Systems, Economic Competitiveness, and Equal Access
- FOCUS AREA 4: Employing Big Data and Innovative Techniques to Improve System Efficiency
- FOCUS AREA 5: Ensuring Transportation System Vitality through Performance Management and Monitoring Systems
- FOCUS AREA 6: Transportation Policy and Decision Making

## **Section 3: Dissertation Proposal Executive Summary (200 words maximum)**

### **Section 4: Dissertation Proposal Synopsis (5 pages maximum)**

A synopsis of the dissertation proposal, not to exceed five single spaced pages in 12 point font. In this section, please include the following:

- a) The research problem and its relevance to transportation as it relates to the CTEDD focus areas.
- b) Research approach, including tasks to be completed, methodology, and data sources.
- c) Expected results and their significance.
- d) Schedule for completion of all tasks.

A copy of the dissertation must be submitted when complete. Successful applicants should intend to complete their dissertation by December 31, 2018.

### **Section 5: Curriculum Vita (2 pages maximum)**

### **Section 6: Graduate Transcript (unofficial copy is sufficient)**

**Section 7: Letter of nomination from the dissertation Chair and Statement of Advancement to Candidacy from the applicant's school/department.** (applicants must be in their final year of the program)