



## UTCRS – CALL FOR PROPOSALS FOR FISCAL YEAR 2015 RESEARCH GRANTS

The University Transportation Center for Railway Safety (UTCRS) aims to reduce the number of accidents and equipment failures experienced in rail transportation systems. This will result directly in reduced fatalities and injuries in addition to reduced economic losses to stakeholders. New technology and associated workforce development will lead to improved safety assessments, safety counter measures, decision-making tools, and greater long-term safety gains.

### **Strategic Research Goals:**

The strategic research goals of the UTCRS aim to fundamentally improve railway safety outcomes by the following means:

- 1) Reducing fatalities and injuries at highway-rail grade crossings (HRGCs)
- 2) Reducing failures by developing more durable materials and systems
- 3) Developing advanced technology for infrastructure monitoring
- 4) Developing innovative safety assessments and decision-making tools

### **Research Focus Areas:**

The UTCRS is issuing a call for proposals for the FY 2015 Research Grants in the following general areas of:

#### Railway Mechanical Systems

- Mechanical Components Performance Characterization and Failure Mitigation
- Mechanical Components Condition Monitoring Techniques
- Advances in Rail Components and Maintenance Protocols

#### Railway Operation Systems

- At-Grade Railway Crossing Safety
- Railway Operations Safety

#### Railway Infrastructure Systems

- Durable Materials and Systems
- Innovative Safety Assessments
- Advanced Technology for Infrastructure Monitoring

In order to meet the requirements of the UTCRS Strategic Plan, priority will be given to proposals related to (a) railway vehicle safety from UTPA (e.g Railway Mechanical

Systems), (b) operations safety from UNL (e.g. Railway Operations Systems), and (c) infrastructure safety from TAMU (e.g. Railway Infrastructure Systems).

### **Eligibility:**

Any faculty or principal investigator (PI) eligible staff member from UTPA, UNL, or TAMU can apply to this call for proposals competition.

### **Selection Criteria:**

The selection criteria will include:

1. Relevance to UTCRS's strategic research goals and research focus areas;
2. External peer-review recommendations;
3. Technical soundness and achievability in proposed time frame;
4. The documented and established expertise of the principal investigator and researchers applicable to the proposed project and the ability to devote adequate time to complete the work on schedule;
5. Acceptable performance on previous US DOT UTC research projects (e.g. meeting deadlines, meeting budget, providing deliverables on schedule, etc.). This criterion only applies to previous US DOT UTC research participants.
6. Adequacy of the proposed technology transfer; and
7. A significant commitment to student involvement.

### **Review Process:**

A key component of the UTCRS research program will be the selection of research projects and allocation of research funds. The research program is defined by the UTCRS Executive Committee in a manner ensuring that UTCRS meets its stated objectives. The UTCRS Executive Committee is composed of the Associate Directors from each of the three consortium institutions along with the Diversity Coordinator and the Educational Coordinator. Under recommendation of the UTCRS Executive Committee, the allocation of research funds to project teams will be made by the UTCRS Director, whose decision will be final.

The UTCRS Review process is outlined hereafter.

- The proposals that are received in response to this competition will be evaluated through a peer-review process, where at least one of the reviewers for each proposal is a USDOT employee.
- Each applicant is allowed and encouraged to submit names of five (5) potential external reviewers. Of the five potential external reviewers, it is recommended to include at least one (1) member of the USDOT and one (1) member from a state DOT. No more than one (1) reviewer can come from the applicant's affiliated University. Important note: NSF conflict of interest guidelines found at [http://www.nsf.gov/pubs/policydocs/pappguide/nsf08\\_1/gpg\\_3.jsp#IIIB](http://www.nsf.gov/pubs/policydocs/pappguide/nsf08_1/gpg_3.jsp#IIIB) must be followed when suggesting reviewers.

- Each proposal will be reviewed with respect to the selection criteria outlined above.
- Reviewers will be asked to rate each proposal on a score of one (being excellent) to five (being poor). In view of the diversity of potential topics and the diverse backgrounds of the reviewers, it will be important for the proposal to make its case in terms that can be understood by non-specialists.
- Some proposals may be funded at a reduced level or funding may be contingent on a revision to the proposal. The external review comments will be provided to the applicant at the same time that awards are announced.
- Once the external peer-reviews are complete, the UTCRS Executive Committee will meet to select the research projects and make recommendations to the UTCRS Director who will make the final decision.

### **Submission Deadlines:**

The submission deadlines vary for the UTCRS consortium institutions. Proposals from UTPA researchers must be received no later than 11:59 pm (Central Time) on Monday August 18, 2014. Proposals from TAMU and UNL faculty must be received no later than 11:59 pm (Central Time) on Monday November 17, 2014. Please allow up to three full months from the submission deadline for the review process to be completed. All award notifications will be made as promptly as possible.

### **Proposal Template:**

Please use the 2015 UTCRS Proposal Template document ([2015 UTCRS Proposal Template.docx](#)) to prepare your research grant proposal. Fill in the requested information under the headings provided in the template document. Do not edit the order, wording, or position of the headings. Also, please do not edit the margins or page numbering. This document is to be double-spaced, with Arial font, and a minimum 12-pt font. Section E should not to exceed six (6) pages double-spaced. Before submitting this document, please save the document using 3-4 words from the short project title, the PI's last name, followed by the fiscal year of the proposed research (e.g. Bearing Health Monitoring Systems\_Smith\_2015.pdf). All proposals should be submitted online at <http://ntc-vmwebserver.unl.edu/utcrs/index.php>.