CALL FOR PROPOSALS FOR
2020-2021 UC RIVERSIDE FEDERAL RESEARCH GRANTS

CFP Issued: October 27, 2020
Cover Pages Due: 5:00 PM, Monday, November 16, 2020
Projects chosen for further consideration announced: November 19-20, 2020
Proposals Due: 5:00 PM, Monday, December 7, 2020

SUBMISSION INSTRUCTIONS
COVER PAGE:
All applicant must first submit a completed proposal cover page, including an abstract (see attached template) to be considered for the proposal submission. The purpose of the cover page is to make sure that the project fits the NCST theme, to aid staff in identifying potential peer reviewers, and to determine which projects will be chosen for further consideration. Email your preproposal as a PDF to jbarber@cert.ucr.edu no later than **5:00 PM, Monday, November 16, 2020**.

PROPOSAL:
Principal Investigators of projects chosen for further consideration will be invited to submit a full proposal which will be due no later than **5:00 PM, Monday, December 7, 2020**. PI's will be notified of their further consideration status November 19-20, 2020. Submit your proposal (as a single PDF file, including the cover page) and your budget (as an Excel file) via email to Jill Barber jbarber@cert.ucr.edu.
For detailed directions on the Proposal Content, please see the attached NCST Proposal Content or visit: https://www.cert.ucr.edu/ncst-call-proposals

INTRODUCTION
The National Center for Sustainable Transportation (NCST) is a United States Department of Transportation (USDOT) National University Transportation Center (UTC). The University of California, Riverside (UCR) is an active member of NCST, along with the Institute of Transportation Studies, University of California, Davis (ITS-Davis, NCST lead), the University of Southern California (USC), California State University, Long Beach (CSULB), Georgia Institute of Technology (Georgia Tech), and the University of Vermont (UVM). The NCST is committed to

advancing the sustainability of transportation through cutting edge research, direct policy engagement, and education of our future leaders. Learn more about the NCST at https://ncst.ucdavis.edu/

FUNDING FOR THIS CALL FOR PROPOSALS

UC Riverside is issuing this Call for Proposals (CFP) to allocate research funding from the NCST federal funds. Funding available under this CFP is approximately $160,000 for UC Riverside NCST projects. Projects funded under this CFP are anticipated to begin in the Spring of 2020.

The amount awarded under this CFP will be determined by the quality and relevance of proposals received. Given the anticipated competition for these funds, prospective applicants should carefully consider their expertise relative to the thematic areas and topics.

The remainder of this CFP describes eligibility requirements, research topics, selection criteria, funding guidelines and restrictions, project requirements, and proposal instructions, as well as budget instructions and a sample budget sheet. Submission instructions and a cover page are also provided.

ELIGIBILE APPLICANTS

Project awards will be made to individuals or teams of researchers. **Applicants must be approved to serve as a Principal Investigator (PI) at UC Riverside to apply for an NCST faculty research grant. Grants will not be awarded to PIs with outstanding deliverables (e.g., draft or final reports; policy brief; data management plan compliance), a history of missed deadlines, or any other issues affecting the timely submission of deliverables and reports on prior NCST grants.**

Other UC researchers may be included in the proposal with their salary covered in place of the PI's in part or in whole; however, the PI remains responsible for the project. Other researchers, including visiting scholars, are normally not eligible for funding through the NCST programs, although exceptions may be approved if special circumstances warranting the exception are fully explained in the proposal.

RESEARCH PROGRAM THEMES AND TOPIC AREAS

The goal of the NCST is to produce research that directly supports the efforts of policy makers and professionals to improve the sustainability of transportation systems. Proposed projects must fall under one or more of the following research tracks:

- Environmentally Responsible Infrastructure and Operations
- Multi-Modal Travel and Sustainable Land Use
- Zero-Emission Vehicle and Fuel Technologies
- Institutional Change

The NCST is particularly interested in funding research in the following emphasis areas that cross-cut our research tracks.

- ***Sustainable Freight*** - Examples of projects include but are not limited to strategies for

reducing carbon and criteria pollutant emissions and increasing energy efficiency through vehicle technology, system operations, logistics, and land-use planning; and cost-effective strategies for increasing environmental sustainability in the freight sector.

- *New Mobility* (Including connected, shared, and/or automation of vehicles)– Examples of projects include but are not limited to behavioral implications of new mobility (who will use it and under what conditions); the potential for new mobility to meet the needs of rural areas and mobility disadvantaged travelers, as well as interregional travel needs; the potential to reduce vehicle use (by increasing load factors in cars, vans, buses, and rail); future funding scenarios that address new technologies and mobility services; and the potential synergies between ride-sharing, automation, and electrification that could lessen environmental impacts and improve access for disadvantaged riders while reducing transportation costs.

- *Environmental Review* **–** Examples of projects include more proactive approaches to identifying environmental justice issues and an understanding of what types of data should be collected; and strategies for incorporating environmental analysis and mitigation early in the planning process.

Applicants are encouraged to review NCST's current portfolio of research projects (https://ncst.ucdavis.edu/projects) and white papers (http://ncst.ucdavis.edu/research/white-papers/) to gain a better understanding of the type of projects the NCST is interested in funding. Proposed projects may be in any discipline and multidisciplinary topics are encouraged when appropriate.

ELIGIBLE PROJECTS

Three types of proposals will be considered:

- **White paper** proposals to synthesize existing evidence and identify research gaps for critical policy questions, for a maximum of $35,000. White papers are aimed at a broad audience of professionals and policy-makers. The proposal should include a meeting with policy-makers, researchers, and/or practitioners as part of the white paper development process.

- **Seed grant proposals** for new ideas that are not well developed but address an important topic with potentially large impact, for a maximum of $35,000. NCST seed grant proposals are subject to the same selection criteria and peer review process as regular proposals.

- **Project proposals** by one or two faculty for a particular project, for $60,000 to $80,000 for one year (2020-2021), though larger amounts may be awarded in special circumstances. **Conservative and cost-effective budgets are strongly encouraged.** UC Riverside reserves the right to reduce the budgets of submitted proposals. Projects should be budgeted to begin on January 1, 2021 and end by September 30, 2022.

Because federal funds for research are limited, seed grant and white paper proposals are especially encouraged.

FUNDING GUIDELINES AND RESTRICTIONS

Budgets should be conservative and cost-effective. Funding should be directed at new and original work. In some cases, proposals will be considered for continuations of prior NCST projects that have achieved significant results and have a high potential for deployment, scholarly products or large grants. **Grants will not be awarded to PIs with outstanding deliverables (draft or final report; policy brief; data management plan compliance), a history of missed deadlines, or any other issues affecting the timely submission of deliverables and reports on prior NCST grants.**

Budgets for project proposals may include salary for one tenured faculty for one month, one assistant professor for two months, or one Academic Federation researcher for up to four months. Teams of investigators may receive pro-rated shares of these salary levels (e.g. 0.5 months for tenured faculty with two months for researcher). Project proposals **must** include funding for one graduate student researcher (for 49% time during academic quarters, preferably for 3 quarters, and for 100% during summer, though shorter appointments may be allowed).

For project proposals only, an amount not to exceed $1,500 may be included for office supplies, travel, and clerical support necessary for the conduct of the research and presentation of research findings at one academic or professional meeting. If more than $1,500 is requested, an explanation is required and all costs must be itemized. Allowed additional expenses include, e.g., costs of travel for data collection, costs of leasing special equipment or purchasing data not otherwise available, and costs of printing, processing, and mailing questionnaires. Permanent equipment is not allowable. International travel requires special permission from US DOT and will be approved only in cases where it is essential to the project.

For seed grant and white paper proposals, funding for graduate students is encouraged but not required. White paper proposals should not include travel; travel for dissemination of white papers will be funded through the engagement programs of the NCST. Limited research expenses may be included in white paper proposals if clearly justified. Seed grant proposals may include travel necessary for research but not for the presentation of research results. Limited research expenses may be included in seed grant proposals if clearly justified.

As described below, all proposals must include a policy and practice impact plan, and PIs are expected to actively participate in the NCST engagement activities. **Project budgets must include researcher time associated with these activities.**

As described below, all funded projects comply with federal data management requirements. **Project budgets must include research time associated with preparing data according to these requirements. All SOW and Budgets must go through a final review by CE-CERT's Pre-award Analyst, Tom Katsikakis (tkatsikakis@cert.ucr.edu) prior to final submission.**

SEPARATE PROGRAM FOR DISSERTATION GRANTS

Faculty members seeking funding for dissertation students should inform doctoral students of the NCST Dissertation Grant program. The CFP for Dissertation Grants are released in April and October of each year. **Faculty members should not submit a proposal to directly support**

dissertation work under this faculty research grant program but instead should direct the student to apply for a dissertation grant. The Federal Research Grants are intended for faculty-initiated rather than student-initiated research.

REVIEW PROCESS AND SELECTION CRITERIA

Project selection will be competitive and based on a peer-review evaluation, programmatic priorities, **and prior performance of the PI**. Proposals will compete both within topics and across topics. UC Riverside does not guarantee that proposals will be funded in all topic areas, or that any proposal will be funded.

Proposals will be reviewed by at least two qualified individuals, including university researchers, senior research professionals with expertise broadly relevant to the topic addressed by the proposal, and/or transportation practitioners. Reviewers are selected from UC Riverside's list of reviewers with expertise in a variety of fields related to the NCST research tracks. In addition, each applicant is required to submit names of four potential external reviewers from four different institutions/organizations with their proposal**.** 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**.

Reviewers will be asked to rate each proposal as "definitely should be funded", "fund if possible", or "lower priority funding", or "do not fund" based on ratings on the following criteria, each evaluated on a five-point scale from "poor" to "excellent":
1. Does the proposal demonstrate relevance to the NCST research program themes?
2. Does the proposed project fill an important gap in the research?
3. Is the proposed research methodology scientifically sound as well as feasible?
4. Will the research advance professional practice and/or inform decision making related to current policy opportunities?

Final project selections will be made by a UCR NCST advisory committee, considering reviewer evaluations, programmatic priorities, prior project performance, and funding availability. Other criteria that will also be considered include:
- Student Involvement: Every research project **must** include funding for at least one graduate student researcher.
- Match Funding: The USDOT University Transportation Center program requires a non-federal match as a condition of the federal funds. Proposals that include at least a 25% hard match (e.g., contribution to direct costs from external source) will receive priority consideration.
- Commitments of participation (if applicable): Any project that involves data collection, access to facilities, or cooperation of a private or public entity **must** include a letter of participation from the entity.

- Collaboration: The NCST encourages interdisciplinary proposals, proposals involving collaborations across partner institutions (within each UTC), and proposals that involve outside organizations. Such proposals will receive priority consideration.

The external review comments will be provided to the applicant after the announcement of the awards.

LOGISTICS FOR AWARDS

Funding decisions are expected late December 2020. Some proposals may be funded at a reduced level or funding may be contingent on a revision to the proposal. Once the revised proposal (if applicable), project data management plan, and budget have been approved by NCST Associate Director Matt Barth, the PI will be required to sign a NCST PI Requirements document, at which time work on the project may commence. It is expected that the project will be completed within a year of the start date. PIs must provide a reasonable justification for any delays in the use of the funds, or the funds may revert to the NCST.

All funds will be administered by the UC Riverside Center for Environmental Research and Technology (CE-CERT), with an account assigned for every project. Any expenditures, such as payroll, purchase orders, and/or reimbursements, will be processed through CE-CERT.

ADDITIONAL POLICIES

Researchers supported by the NCST are expected to actively participate in the Centers' engagement activities. In addition to activities outlined in a project's policy and practice engagement plan, PIs may be called upon to participate in workshops, forums, webinars, briefings, and other events sponsored by the NCST.

Researchers must acknowledge the support provided by the NCST in all presentations and publications resulting from the research, per instructions to be provided to PIs after the grants have been awarded.

Results of the project may not be provided to other funding agencies or firms without full disclosure of NCST funding. In turn, the NCST will not knowingly support research that is being funded or proposed for funding in whole or in part by other agencies or organizations without a specific agreement for joint funding. Failure to disclose other proposed or in-hand research funding for a project substantially similar to a NCST project is grounds for termination of an NCST grant. Multiple sponsors are encouraged, but full disclosure is required.

Graduate student contributions to research projects must be acknowledged in any publication resulting from research using NCST funds. Acknowledgment is generally expected to take the form of co-authorship of reports and articles, but could be by footnote depending upon the nature and extent of student contributions.

REPORTING REQUIREMENTS

The NCST must submit annual mid-year and year-end Center-wide reports to USDOT. Each report includes a status update on all research projects. The year-end report must also provide

data on all students funded by the NCST, and all publications stemming from NCST research. Accordingly, in accepting an NCST grant, the PI agrees to the following:

- **Project Information:** At the outset of the project, the PI agrees to review and approve a Project Information Sheet prepared by UC Riverside staff.

- **Semi-Annual Progress Reports**: The PI agrees to submit brief semi-annual progress reports until the project is completed, as per the progress report template to be provided. The PI must submit the progress report to the NCST Program Manager. Progress reports are due on April 10 and October 10 of each year in which the project is in progress or producing associated publications.

- **Draft Final Research Report:** The PI agrees to submit a draft final report 30 days prior to the completion date of the project. The draft final report is subject to peer review. The draft final report should include an executive summary, explanation of how to access the final project data as per the data management plan, and thorough documentation of the research methods and results.

- **Final Research Report:** The PI agrees to complete a final research report by the project end date, using the template provided, in addition to any other products specified. This report will be posted on the NCST website and submitted to the federal database.

- **Policy Brief:** The PI agrees to prepare a 2-page policy brief that summarizes the findings and policy implications of the project, using the template provided. The policy brief will be posted on the NCST website. You can view examples of completed policy briefs here, https://ncst.ucdavis.edu/publications/policy-briefs/.

- **Follow-up Reports:** The PI agrees to submit brief follow-up reports for the project every six months until presentations, publications, and indications of use from the research cease.

- **Papers and Reports Produced with NCST Funding:** The PI agrees to provide the NCST with copies of <u>all</u> papers and reports produced with NCST funding, including project-related items that are completed after the grant has ended. The PI is encouraged to forward copies of any media produced about the project, include magazine articles and blog coverage, as these can contribute to outreach efforts by the NCST.

- **Student Information:** The PI agrees to provide information on all students engaged in NCST-sponsored projects, whether funded or unfunded.

Information will be provided in the required format for progress reports and final summary reports via the NCST websites or via email, and reminders will be sent to PIs prior to report deadlines. **PIs must be current on all of their reporting requirements before subsequent grants will be awarded to the PI**.

DATA MANAGEMENT REQUIREMENTS

The NCST is required to comply with federal data management requirements. Final data from all federally-funded UTC projects must be submitted to a data repository that provides public access to that data. As a condition of funding, PIs are required to prepare their final data for the

repository, including the removal of all personal identifiers as per the requirements of the Institutional Review Board (IRB), conversion to non-proprietary formats, and preparation of meta-data. For further information, contact Jill Barber (jbarber@cert.ucr.edu) or NCST Program Manager, Lauren Iacobucci, at Liacobucci@ucdavis.edu.