**NSF Research Experiences for Teachers (RET)**

in Engineering and Computer Science - Sites

**Internal Deadline for RET Sites proposals: Monday, September 26, 2016**

*Please distribute to relevant faculty*

**NSF Full proposal Deadline: November 1, 2016**

**ORD Internal Deadline: Monday, September 26, 2016**

**This internal call for proposals is for NSF RET Sites only.** Applications for RET supplements proceed as normal through your departmental and OSR submission channels.

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**RET Site description:**

RET Sites support a cohort of at least 10 STEM teachers and/or community college faculty per year for a minimum of six weeks during the summer. The STEM teachers and/or community college faculty will participate in summer research activities with a common intellectual focus on a host university campus and will then participate in academic-year follow-up activities including integration of content and methods related to the summer research into their classroom practice and other related outreach activities involving teachers in their local school districts.

**Program Synopsis:**

The Directorate for Engineering (ENG) and the Directorate for Computer and Information Science and Engineering (CISE), have joined to support the Research Experiences for Teachers (RET) in Engineering and Computer Science program. This program supports active long-term collaborative partnerships between K-12 Science, Technology, Engineering, Computer and Information Science, and Mathematics (STEM) teachers and community college and university faculty and students to bring knowledge of engineering or computer and information science and engineering as well as technological innovation to pre-college/community college classrooms. The goal of these partnerships is to enable K-12 STEM teachers and community college faculty to translate their research experiences and new knowledge gained in university settings into their classroom activities. The university team will include faculty, graduate and undergraduate students as well as industrial advisors. Involvement of graduate students in support of academic-year classroom activities is particularly encouraged. Partnerships with inner city, rural or other high needs schools are especially encouraged, as is participation by underrepresented minorities, women, and persons with disabilities.

As part of the long-term partnership arrangements, university undergraduate/graduate students will partner with pre-college/community college faculty in their classrooms during the academic year to help teach engineering/computer science concepts.

This announcement features two mechanisms for support of in-service and pre-service K-12 STEM teachers and community college faculty: (1) RET supplements to ongoing ENG and CISE awards and (2) new RET Site awards. RET supplements may be included outside this solicitation in proposals for new or renewed NSF Directorate for Engineering (ENG) and Directorate for Computer and Information Science and Engineering (CISE) grants or as supplements to ongoing NSF ENG and CISE funded projects. RET in Engineering and Computer Science Sites, through this solicitation, are based on independent proposals.
from engineering or computer and/or information science departments, schools or colleges to initiate and conduct research participation projects for K-12 STEM teachers and/or community college faculty.

**Program Information:**
Encouraging active participation of K-12 STEM teachers and community college faculty in NSF supported projects is an excellent way to reach broadly into the teacher talent pool of the U.S. such that (1) they can enrich their teaching of engineering and computer science concepts to their students; (2) they can encourage, stimulate, and guide their students more effectively to seek engineering and computer science careers; and (3) they can share and disseminate what they have learned with other teachers in their field. The Research Experiences for Teachers (RET) in Engineering and Computer Science program offers a framework by which these educators may engage in meaningful university research experiences in partnership with faculty, students, and industry mentors, and then adapt this new knowledge into their teaching practices.

Through these partnerships, the RET in Engineering and Computer Science Program aims to:

- **Build long-term collaborative relationships** between both in-service and pre-service K-12 science, technology, engineering, computer science, and mathematics (STEM) teachers, community college faculty, and the engineering and computer science research community;
- Support the active participation of these teachers and future teachers and community college faculty in research and education projects funded by NSF ENG and CISE;
- Facilitate professional development of K-12 STEM teachers and community college faculty through strengthened partnerships between institutions of higher education and local school districts;
- **Engage industry** in an advisory role to 1) strengthen the preparation of students for the future workforce needs of industry and 2) form meaningful partnerships with the K-12 and community college sectors and learn first-hand the ongoing challenges they face;
- Provide instructional opportunities to graduate students who mentor teachers in the RET program and involve graduate students in K-12 classroom support activities during the academic year; and
- Provide leadership opportunities to teachers and community college faculty who participate in the program by requiring that they disseminate information about their research experience to a broader audience.

To view the full solicitation, please click on the link below.

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**Anticipated funding amount:** $5,800,000 (pending availability of funds and the quality of proposals received)

**Estimated Number of Awards:** 9
Expected Award size: The maximum total request for a Site is $600,000 for a duration of up to three years. Supplements are limited to a maximum of $10,000 per teacher for a duration of one year subject to the availability of funds.

Limit on Number of Proposals per Organization (UNC): 3
Three Site proposals may be submitted per competition by a U.S. academic institution, including a College/Department of Engineering, Engineering Technology, or Computer and/or Information Science as the lead institution. Please note that two proposals may have an engineering focus and one proposal may have a computer and/or information science focus.

Limit on Number of Proposals per PI or Co-PI: 1

Please submit the following information to Denise Lindley at Limited_Submissions@unc.edu by 5:00pm Monday, September 26, 2016 as an internal proposal for the RET sites program in ONE file (Word or PDF):

1. Biosketch or CV of PI. Please limit to five pages.
2. Two-page maximum project summary of the proposed RET site
3. List of potential collaborators (internal and external to UNC)
4. Names of three internal (to UNC) faculty who could speak knowledgeably about the project, in the event of an internal review. Please do not include the names of faculty named on the project, chairs or deans, direct reports or others who have a conflict of interest.

Please do not hesitate to contact Denise Lindley with questions or assistance at Limited_Submissions@unc.edu or 962-7503.