

Limited Submission Opportunities
August 25, 2017

[Research Experiences for Teachers \(RET\) in Engineering and Computer Science Supplements and Sites](#)

National Science Foundation

Due: October 10, 2017

NSF's 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) in-service and pre-service teachers, full-time community college faculty, and university faculty and students to enhance the scientific disciplinary knowledge and capacity of the STEM teachers and/or community college faculty through participation in authentic summer research experiences with engineering and computer science faculty researchers. The research projects and experiences all revolve around a focused research area related to engineering and/or computer science that will provide a common cohort experience to the participating educators. The K-12 STEM teachers and/or full-time community college faculty also translate their research experiences and new scientific knowledge into their classroom activities and curricula. 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, veterans, 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 support the integration of the RET curricular materials into classroom activities.

This announcement features two mechanisms for support of in-service and pre-service K-12 STEM teachers and full-time 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 ENG and CISE grants or as supplements to ongoing ENG- and CISE-funded projects. RET in Engineering and Computer Science Sites, through this solicitation, are based on independent proposals from engineering and/or computer and/or information science departments, schools or colleges to initiate and conduct research participation projects for K-12 STEM teachers and/or full-time community college faculty.

Total Budget Maximum:

Site: \$600,000 (up to 3 years)

Supplements: \$10,000 per teacher/community college faculty (up to 1 year)

GMU Internal Deadline: September 8, 2017

3 Site proposals may be submitted per competition by a U.S. academic institution. No more than 2 may have an engineering focus and 1 may have a computer and/or information science focus.

[Innovations in Graduate Education \(IGE\) Programs](#)

National Science Foundation

Due: October 25, 2017

The Innovations in Graduate Education (IGE) program is designed to encourage the development and implementation of bold, new, and potentially transformative approaches to STEM graduate education training. The program seeks proposals that explore ways for graduate students in research-based masters and doctoral degree programs to develop the skills, knowledge, and competencies needed to pursue a range of STEM careers.

IGE focuses on projects aimed at piloting, testing, and validating innovative and potentially transformative approaches to graduate education. IGE projects are intended to generate the knowledge required for their

customization, implementation, and broader adoption. The program supports testing of novel models or activities with high potential to enrich and extend the knowledge base on effective graduate education approaches.

The program addresses both workforce development, emphasizing broad participation, and institutional capacity building needs in graduate education. Strategic collaborations with the private sector, non-governmental organizations (NGOs), government agencies, national laboratories, field stations, teaching and learning centers, informal science centers, and academic partners are encouraged, and/or demonstrate key private sector stakeholders' strong commitment to the project objectives.

Total Budget: \$300,000-\$500,000 (up to 3 years)

GMU Internal Deadline: September 8, 2017

Two applications are permitted

[CISE Research Infrastructure \(CRI\)](#)

National Science Foundation

Due: Preliminary Proposals: November 2, 2017

The CISE Research Infrastructure (CRI) program drives discovery and learning by supporting the creation and enhancement of world-class research infrastructure that will support focused research agendas in computer and information science and engineering. This infrastructure will enable CISE researchers to advance the frontiers of CISE research. Further, through the CRI program, CISE seeks to ensure that individuals from a diverse range of academic institutions, including minority-serving and predominantly undergraduate institutions, have access to such infrastructure. The CRI program supports two classes of awards:

- Institutional Infrastructure (II) awards (Generally \$250K-\$750K - though could be \$1M) support the creation of new (II-NEW) CISE research infrastructure or the enhancement (II-EN) of existing CISE research infrastructure to enable world-class CISE research opportunities at the awardee and collaborating institutions.
- Community Infrastructure (CI) awards (\$500K-\$1M) support the planning (CI-P) for new CISE community research infrastructure, the creation of new (CI-NEW) CISE research infrastructure, the enhancement (CI-EN) of existing CISE infrastructure, or the sustainment (CI-SUSTAIN) of existing CISE community infrastructure to enable world-class CISE research opportunities for broad-based communities of CISE researchers that extend well beyond the awardee institutions. Each CI award may support the operation of such infrastructure, ensuring that the awardee institution(s) is (are) well positioned to provide a high quality of service to CISE community researchers expected to use the infrastructure to realize their research goals.

GMU Internal Deadline: September 15, 2017

3 Institutional Infrastructure (II); No limit on Community Infrastructure (CI)

[Advancing Informal STEM Learning \(AISL\)](#)

National Science Foundation/Directorate of Education and Human Resources

Due: November 6, 2017

The Advancing Informal STEM Learning (AISL) program seeks to advance new approaches to and evidence-based understanding of the design and development of STEM learning opportunities for the public in informal environments; provide multiple pathways for broadening access to and engagement in STEM learning experiences; advance innovative research on and assessment of STEM learning in informal environments; and engage the public of all ages in learning STEM in informal environments.

The AISL program supports six types of projects: (1) Pilots and Feasibility Studies, (2) Research in Service to Practice, (3) Innovations in Development, (4) Broad Implementation, (5) Literature Reviews, Syntheses, or Meta-Analyses, and (6) Conferences. Limits for funding requests of AISL proposals are as follows: (1) Pilots and

Feasibility projects: up to \$300,000 with durations up to two years; (2) Research in Service to Practice projects: from \$300,000 to \$2,000,000 with durations from two to five years; (3) Innovations in Development projects: \$500,000 to \$3,000,000 with durations from two to five years; (4) Broad Implementation projects from \$1,000,000 to \$3,000,000 with durations from three to five years; (5) Literature Reviews, Syntheses, or Meta-analyses projects up to \$250,000 with durations of up to two years; and (6) Conferences up to \$250,000 with durations of up to two years.

GMU Internal Deadline: September 15, 2017

May submit up to 3 applications as Lead