**Project Description**

*Address items "a" through "l" below as subsections in the Project Description narrative.*

1. **Overview:**

*Provide a brief description of the goals and objectives of the proposed RET Site, targeted educator participants, intellectual research focus, broader impact of the proposed activity, organizational structure, timetable, and institutional commitment to the RET activity.*

1. **Nature of Participant Research Activities:**

*A RET Site must have a* ***well-defined research focus*** *related to engineering and/or computer science which helps unify the site and build a cohort experience. Proposals must provide detailed descriptions of example research projects that connect to the site research focus. Each project described must have a section labeled "Participant Component" that highlights the participant’s contribution to the project. Participant contributions must be a part of authentic research with clear research objectives and questions. There should be minimal expectations for involvement or study by the participants on the research topic prior to the beginning of the on-site experience. Sites* ***cannot involve registration in courses either online or on-site.***

1. **Site logistics:**

*Proposals should have a timeline of participant activities during the duration of the summer experience and the academic year follow-up. In cases where limited availability of specialized facilities, such as clean rooms, electron microscopes, etc., make it possible to offer an extraordinary experience in less than the minimum six-week duration, a shorter research component may be proposed with appropriate justification.*

1. **RET Site Team Experience and Training:**

*Proposals must describe the experience of the principal investigator and the research mentors (including faculty, graduate students, industry mentors and/or master teachers). This should include information on the record of faculty/mentors in publishing research results and providing professional development opportunities for K-14 educators. It must clearly discuss any prior engagement with the PI and participating faculty with K-14 educators and demonstrate their capacity to lead an entire site of RET participants. It should also describe the institution and any related involvement by industry in the RET project.*

*Proposals must include plans that will ensure sufficient RET participant-faculty interaction and communication. The RET participants must work closely in teams with university faculty and their students, and industry mentors, when applicable. Mentor training for graduate students and faculty mentors must be included to ensure participants receive consistent and effective support during their research experience. Sites should be inclusive to all RET participants, and PIs should indicate any diversity and inclusion training they have taken or intend to undertake in preparation for hosting a Site. Sites are also expected to adhere to NSF's Sexual Harassment Policy (See section e. for more details).*

1. **NSF Sexual Harassment Policy:**

*NSF does not tolerate sexual harassment, or any kind of harassment, where NSF-funded activities take place. Proposers are required to have a policy or code of conduct that addresses sexual harassment, other forms of harassment, and sexual assault. Proposers should provide an orientation for all participants in the RET Site (K-14 educator participants, university faculty, postdocs, graduate students, other research mentors, etc.) to cover expectations of behavior to ensure a safe and respectful environment for all participants, and to review the organization's policy or code of conduct addressing sexual harassment, other forms of harassment, and sexual assault, including reporting and complaint procedures. For additional information, see the NSF policies at* [*https://www.nsf.gov/od/odi/harassment.jsp*](https://www.nsf.gov/od/odi/harassment.jsp) *and the "Promising Practices" at* [*https://www.nsf.gov/od/odi/promising\_practices/index.jsp*](https://www.nsf.gov/od/odi/promising_practices/index.jsp)*.*

1. **Participant Recruitment and Selection:**

*Since a major goal of the RET Site program is to build a sustainable bond between school districts/community colleges and a college or university in the surrounding community, proposals should provide a recruitment plan with as much specificity as possible. The types and/or names of schools, school districts, or 2-year colleges from which participants will be recruited and the rationale for this selection should be identified. RET Site participants must be currently teaching a STEM subject or interested in strengthening computer science and/or*

*engineering at their institution. It is encouraged, but not required, that at least two participants be recruited for the site from the same K-12 school/community college to strengthen support for teachers and the likelihood of impact when returning to their home institutions. Specific efforts to*

*recruit members of underrepresented groups, including women, persons with disabilities, Blacks or African Americans, Hispanics, Latinos, Native Americans, Alaska Natives, Native Hawaiians, and Native Pacific Islanders should be described. Sites that plan to include a mixture of teachers at different grade levels or a combination of pre- and in-service teachers, need to carefully discuss how the group will be managed to be appropriate and relevant to all, and to allow for all the participants to be fully engaged. Participants should be able to commute to a given site easily each day and not need funds for housing and meals. However, in-residence sites with a strong justification that the Site will maintain regional impact and for which residency is necessary to reach teachers, particularly teachers in under-served communities, will be considered. Virtual/hybrid sites will also be considered.*

1. **Development of Curricular Modules:**

*During the summer of the RET Site, participants must develop modules and curricular materials to bring their research back into the classroom. This activity is an integral part of the summer Site activities and should be woven into the timeline. The modules should be directly related to the research and the intellectual focus of the RET Site. At the same time, the modules must be firmly connected to the K-12 and/or community college curricula that the educators follow as well as state and/or national teaching standards. Proposals should also describe any educational experts (e.g., curriculum specialists, education researchers, master teachers) who will support this process. RET Sites must disseminate curricular modules or other classroom activities developed through the site. It is encouraged for participants to submit to the Teach Engineering digital library (*[*http://teachengineering.org/*](http://teachengineering.org/)*) or other repositories that reach a national audience. They may also be posted to the individual RET web site or portal to ensure free access to educators.*

1. **Participant Professional Development:**

*Proposals must describe plans for participant professional development relevant to the responsible and ethical conduct of research, laboratory methods and safety procedures as appropriate to the proposal. Professional development plans could also include opportunities that deepen participants’ knowledge about current research areas, career paths, and/or related industry opportunities. RET participants should have multiple opportunities to present their research plans, progress, and results to audiences of other RET participants, university faculty and students, and any industry mentors who might be involved.*

1. **Academic Year Follow up Plan:**

*The proposal must provide a plan for realistic and sustained academic-year follow-up with RET Site participants to support translation of their research experience into classroom practice. Research faculty and/or graduate students should visit the classrooms of their K-14 educator participants. Plans must be included for academic-year conferences or other outreach activities such that the RET participants can disseminate their curricular materials and modules as well as details of their RET participation to a broader audience of teachers/community college faculty in their own communities.*

1. **Project Evaluation and Reporting:**

*Proposals should provide a detailed plan for formative and summative evaluation of the RET Site aimed at determining the impact of the experience on participants’ content knowledge, confidence, self-efficacy, etc. An external evaluator and a brief description of their qualifications must be identified (normally budgeted between $3,000 and $5,000 per year). The PI, Co-PI, and main project personnel cannot be the evaluator. Additionally, it is encouraged to incorporate a structured means of identifying longer-term impacts of the RET site experience on participant careers and practice, as well as the impact on the relationship between the Site institution and partner school districts.*

1. **Dissemination:**

*Proposals must include a strategy for reaching a broad audience with the findings of the project including, where appropriate, researchers in other fields, practitioners, policy makers, and public audiences. Dissemination plans should include strategies to share research projects, curriculum, and best practices about RET Sites. RET participants should also be encouraged to participate in future scientific meetings related to their research to share their projects and strengthen their disciplinary knowledge.*

1. **RET Site Renewal proposals: Results from Prior NSF Support:**

*If the proposal is requesting renewal of an existing RET Site or if the department or center (or similar organizational subunit) that will host the proposed Site has hosted another RET Site during the past five years, proposals must describe the earlier RET project(s) and outcomes(s) in sufficient detail to permit reviewers to reach an informed conclusion regarding the value of the*

*results achieved. Valuable information typically includes results from the project evaluation, summary information on recruiting efforts and number of applicants, demographic composition of participants and their home institutions, follow-up and dissemination activities, lessons learned, modifications and changes to the proposed Site, and a list of publications or reports (if to be submitted for publication) resulting from the original NSF award.*

1. **Broader Impacts:**

*The Project Description must contain a separate section labeled 'Broader Impacts'.*

**REQUEST FOR A RET SUPPLEMENT**