Innovative Technology **Experiences for Students & Teachers Resource Center** (ITEST-RC) **Solicitation** NSF #22-585



June 7, 2022 1-2pm Eastern

Welcome!

We will begin shortly.

1. Emphasize the ITEST Resource Center's role, who it serves & important changes from the previous solicitation;

2. Elaborate on 5 primary expectations identified in the ITEST solicitation, especially the Resource Center's role in Synthesis & Dissemination;

3. Review Resource Center grant components and submission requirements.

4. Q&A



Who does the ITEST Resource Center serve?

- 1. Current ITEST awardees: Principal Investigators (PIs) and project teams.
- 2. Prospective ITEST awardees: Researchers and community partners interested in STEM and ICT, formal & informal STEM education & capacity building of STEM educators and students.
- **3.** NSF Staff: ITEST program leads and program officers.
- NSF intends to ensure systematic communication and participation between NSF and the potential ITEST Resource Center awardee, including annual assessment of progress and implementation of necessary modifications.



What is the ITEST Resource Center's role, in general?

- 1. Respond to ITEST program needs.
 - Conduct portfolio/program analyses using publicly available data to provide insight into ITEST project impacts.
- 2. Foster community of research and practice framed around ITEST's current and emerging priorities.
 - Provide technical support for active and prospective ITEST PIs and their partners;
 - Facilitate dissemination of awards' outcomes;
 - Advance mission of broadening participation in STEM and ICT careers and career education pathways.
 - Three pillars identified in new solicitation.



Solicitation Changes: ITEST Resource Center

- ITEST intends to fund **one** Resource Center starting in FY 2023 through a grant competition.
- One award of up to five years in duration for a maximum of \$5,000,000*.
 - Request size should be appropriate to the scope of work proposed.
 - Deadline to submit: August 12, 2022, 5pm local time of submitting institution.

*Note: The duration and budget were previously 3 years and \$3M. This webinar explains why these changes were made and how they impact expectations regarding the scope of work proposed.



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Capacity Building **Responding to ITEST Program** Needs Broadening **Participation** in the ITEST PI

Synthesis and Dissemination

Community

Technical Support



1. Capacity Building:

- Support ITEST community's ability to develop and execute innovative research and development projects
- Develop a broader and better-connected research and development community
- Facilitate discussions across a network of ITEST projects (active and potential)



2. Technical Support to facilitate ITEST projects' success in advancing:

- Students' knowledge of and interest in STEM & ICT careers;
- Students' development of the STEM & ICT knowledge and skills needed to pursue those careers.
- Examples of RC Activities Providing short-term online or blended professional development courses and workshops, Facilitating emergence and development of communities of practice, Identifying and disseminating promising practices and resources; Assisting prospective PIs with access to ITEST program resources.



3. Synthesis and Dissemination:

- Conducting a comprehensive analysis of ITEST portfolio for internal & external stakeholders annually and as needed
- Implementing a comprehensive dissemination plan to communicate ITEST outcomes and resources to:
 - formal and informal STEM education professional organizations,
 - industry and policy stakeholders, and
 - STEM education research communities about ITEST projects' significant unique contributions to the field.



NEW: Priority Questions for Short-Term Portfolio Analysis

Assist in assessment of ITEST's short-term impacts in FY23-25:

- 1. To what extent did ITEST support national priority areas (e.g., AI, data science, Quantum, robotics and emerging fields) for STEM education and workforce development?
- 2. To what extent did ITEST broaden the participation of underserved and/or underrepresented students and teachers?
- 3. What kinds of career, community and industry partnerships are supported by ITEST and what is the nature of those partnerships?



NEW: Long-Term Program Impact Assessments

Partner with NSF staff to develop more complex and longitudinal evaluation questions about ITEST's impact through external evaluation, e.g.,

- 1. What are ITEST's long-term/downstream impacts in terms of increasing diversity in STEM education and the future STEM/ICT workforce?
- 2. What mechanisms are used across ITEST projects to spark interest and career awareness? To what extent are these mechanisms effective?
- 3. In what ways did ITEST projects assess the use of technology on learning, career awareness, interest and other motivational constructs?
- 4. What is the nature of effective partnerships? To what extent did the ITEST program identify and seek to address the development of strategic partnerships?



4. Broadening Participation in the ITEST PI Community:

- Conduct outreach efforts targeting individuals from organizations underrepresented or not currently represented in the ITEST portfolio.
- Facilitate increased participation in STEM workforce development through expanding the ITEST portfolio to underrepresented geographic regions, community types, and institutions.
- Priorities are reflected in ITEST's 3 Program Pillars:
 - 1. Innovative Use of Technologies in Learning and Teaching
 - 2. Partnerships for Career and Workforce Preparation
 - 3. Strategies for Equity in STEM Education



5. Responding to ITEST Program Needs:

- Host annual ITEST Awardee Meetings;
- Collaborate with other EHR-supported resource centers to broaden awareness of funding programs & resources in STEM education;
- Promote synergistic efforts to advance knowledge & broaden participation in STEM education.



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Proposers

- The lead institution of the ITEST Resource Center is expected to
 - demonstrate the capacity to plan, develop, and manage a national center that provides technical support to a diverse portfolio of projects;
 - have proven expertise in STEM and ICT, formal and informal STEM education, and capacity building of STEM educators and researchers.
- PIs are highly encouraged to take a "partnership" perspective to
 - identify collaborating organizations and PIs to broaden the expertise beyond that which any one organization may have.
- The lead institution and any identified partners should also show expertise in relation to the ITEST program pillars.
 - 1. Innovative Use of Technologies in Learning and Teaching
 - 2. Partnerships for Career and Workforce Preparation
 - 3. Strategies for Equity in STEM Education



Resource Center grant proposal elements

- 1-page project summary
- 15-page proposal, excluding references
 - Address 5 major areas of responsibility
 - Merit Review Criteria
 - Mechanisms to evaluate success
 - NSF intends to ensure systematic communication and participation between NSF and the potential ITEST Resource Center awardee, including annual assessment of progress and implementation of necessary modifications.
- Biosketches for Senior Personnel
- Budget and budget justification



Proposal Submission

- Deadline to submit proposals is August 12, 2022, 5pm local time of submitting institution.
- Select "Center" type of proposal
- Proposals must be submitted through Research.gov or Grants.gov
- Proposals must comply to the revised NSF Proposal & Award Policies & Procedures Guide (PAPPG; NSF 22-1) https://www.nsf.gov/pubs/policydocs/pappg22_1/index.jsp





Before submitting a full proposal on August 12, proposers are strongly encouraged to:

 Send a one-page summary to the ITEST program leads Wu He (wuhe@nsf.gov) and Chia Shen (cshen@nsf.gov).

 Request a follow-up meeting with the program leads once a summary has been submitted.



- 1. Define the ITEST Resource Center's role, in general, and whom it serves;
- 2. Elaborate on specific expectations identified in the ITEST solicitation and how they represent changes to the RC's scope of work;
- 3. Review the components of a Resource Center grant.
- 4. Q&A

What questions do you have for us?

