2025-26 EETI Research and Innovation Grants

The Engineering Education Transformations Institute (EETI) is committed to promoting a thriving ecosystem of engineering and computing education at UGA. In line with this mission, EETI supports a diversity of research, programming, and other innovations that are designed to improve the overall experience of teaching and learning engineering in our College and the School of Computing. While this solicitation uses the term "engineering education" and refers to the College of Engineering, we welcome and encourage faculty in the School of Computing to apply for projects related to computing education.

The *Research and Innovation Grants* described in this solicitation are guided by principles of (i) supported, collaborative project development and, (ii) contributions to shared EETI capacity that advance ongoing engineering education discussions in the Institute.

This year (Fall 2025 and Spring 2026), the *Research and Innovation Grants* will feature two tracks: (1) Innovation Grants and (2) Educational Research Initiation and Development Grants. Funding provided via both tracks must be spent prior to June 25, 2026.

Awardees are encouraged to attend the weekly EETIncubator meetings. These meetings provide awardees with a community in which to bring their ideas to fruition, and collaboratively learn about scholarship and research in engineering education.

Please submit applications for these awards based on the guidelines below to eeti@uga.edu **by September 5, 2025**. Please reach out to Drs. John Morelock (john.morelock@uga.edu) and John Aliu (john.aliu@uga.edu) if you have any questions about the awards, which are further described on the following pages.

Track 1: Innovation (2x awards of up to $1,500)

The **Innovation** track is intended to support the initiation and study of teaching and learning projects that improve the overall experience of teaching and learning engineering in CENGR. These awards can be used for salary, project related materials, and undergraduate student researchers. The innovation track is a good fit for you if you are:

1. Considering developing or adopting a new tool or approach to support student success and want to collect data that will help you do so effectively.
2. Trying something new to support student success and want to collect and analyze assessment data to determine its effectiveness.

Innovation projects are expected to collect some form of data to support the implementation of a creative tool or approach in support of student success, using an **action research** approach to analyze this data with an eye toward improving student success in the future. Recipients are encouraged to consider publishing their innovation and findings in an engineering education conference or journal, but are not required to do so. Recipients will be asked to submit a brief report in Fall 2026 summarizing the work that the grant helped support.

To apply for this track, please submit a **two-page** proposal outlining:

1. The problem, need, or opportunity the project will address.
2. The innovation being developed or adopted to support student success.
3. Anticipated impacts on one or more of the following areas: student learning and/or professional formation; CENGR programs; diversity, equity, and inclusion in the CENGR; or faculty professional development.
4. What data will be collected to assess achievement the anticipated impacts and inform future work.
5. A plan of work for the Fall 2025 and/or Spring 2026 semesters.
6. A brief description of how the project will contribute to EETI's mission of developing shared capacity to achieve educational excellence across the College of Engineering.

Track 2: Educational Research Initiation and Development (1x award of up to $4,000)

The **Educational Research Initiation and Development** track is intended to support the development of educational research projects to a point where they are suitable for attracting extramural funding. These awards can be used for salary, project related materials, and undergraduate student researchers. This track is a good fit for you if you are interested in applying for extramural funding to move an educational research project forward and would like to collect and/or analyze pilot data to create a stronger proposal. Recipients will also have access to EETI faculty who can help them strategize how to leverage their work to design a competitive extramural funding proposal.

Educational Research Initiation & Development projects are expected to focus on collecting and/or analyzing education-related data from human participants (e.g., faculty or students.) Projects may include the development of a tool or artifact as the object of study, but such projects should be ready to collect (and/or analyze) data in an educational setting during the duration of this award. Recipients are strongly encouraged to publish the results of their research in an engineering education conference or journal. Recipients will be asked to submit a brief report in Fall 2026 summarizing the work that the grant helped support.

To apply for this track, please submit a **three-page** proposal outlining:

1. The problem, need, or opportunity the project will address.
2. Anticipated impacts on one or more of the following areas: student learning and/or professional formation; CENGR programs; diversity, equity, and inclusion in engineering education; or faculty professional development.
3. Details of extramural funding programs that may be suitable for future phases of your work.
4. A plan of work for the Fall 2025 and/or Spring 2026 semesters, including a target date to apply to selected extramural funding programs.
5. A brief description of how the project will contribute to EETI's mission of developing shared capacity to achieve educational excellence across the College of Engineering.
6. **New this year:** Identify at least two EETI faculty with whom you would like to collaborate for this project (see faculty research bios on the following pages). Specify why you believe they are a good fit for your project goals.

EETI Faculty Research Bios

Dr. John Aliu
Asst. Clinical Professor

My research broadly focuses on graduate employability, industry readiness and sustainable infrastructure systems. Specifically, my work primarily examines how engineering curricula can be designed and transformed to enhance graduate employability, while bridging gaps between academia and industry. Methodological expertise lies in quantitative approaches, with a strong emphasis on Structural Equation Modeling (SEM) for analyzing complex relationships among latent constructs in education and construction research.

Dr. SJ Bork
Assistant Professor

My career vision is to be a champion of mental health, focusing on graduate students and community-based strategies to build and sustain an inclusive STEM environment. Thus far, much of my work has focused on examining the mental health experiences of engineering graduate students. I am action-oriented, seeking methodologies that will promote and facilitate change. I consider myself a mixed methods researcher, with experience in quantitative methods (e.g., descriptive statistics, bivariate statistics, psychometrics, etc.), qualitative methods (e.g., interviews, focus groups, photovoice method, etc.) and mixed methods (intentional integration of qualitative and quantitative methods).

Dr. Rachel Figard
Assistant Professor

My research broadly focuses on equitable access to and within engineering, including areas such as student engagement and experience, the impact of higher education policy and practice on student outcomes, sociotechnical design, and the accessible design of both physical and virtual learning environments. I also study accessibility and universal design in engineering classrooms and design processes. Methodologically, I specialize in qualitative approaches such as narrative analysis, content analysis, and case study research, as well as mixed methods designs. I also bring expertise in user experience (UX) research methods and in creative approaches to research communication and dissemination.

Dr. James Huff
Associate Professor

I'm an in-depth qualitative researcher working at the interdisciplinary intersection of engineering education research and applied personality and social psychology. I'm deeply committed to fostering care as a central mindset in engineering and other professions. Rather than focusing solely on teaching and learning, I tend to investigate broader questions related to identity and emotion. For example: How do engineers experience identity transitions into adulthood? How do capstone design students engage with a course based on their sense of identity? How do engineering students and faculty experience professional shame? I also contribute to the methodological literature on qualitative research, particularly in the areas of interviewing and interpretative phenomenological analysis.

Dr. Nathaniel Hunsu
Associate Professor

My research examines cognitive learning processes in engineering education, with a focus on conceptual understanding, epistemic cognition, student engagement, and motivation. I investigate how emerging technologies—such as artificial intelligence, extended reality (XR), robotics, and online laboratories—can support active, collaborative, and self-regulated learning. I also conduct research on academic resilience and belonging in engineering, and the development, validation & implementation of assessment instruments to measure learning and engagement. Methodologically, I specialize in quantitative research designs, systematic reviews, and meta-analyses, as well as psychometric modeling and advanced statistical techniques (e.g., structural equation modeling, latent class analysis).

Dr. Racheida Lewis
Assistant Professor

My research focuses on improving justice, equity, diversity, access, and inclusion in engineering, understanding matriculation patterns and improving retention, and I aspire to bridge together research and pedagogy within the academy to enhance engineering education within the field and across disciplines. I'm a qualitative researcher at heart but a mixed methods researcher in practice, as I value the strengths of both methodologies. I'm well versed in theories such as social cognitive career theory, self-efficacy theory, and thriving theory.

Dr. Julie Martin
Professor & EETI Director

My professional mission is creating environments that elevate and expand the research community. I'm an international expert in how engineering students develop and use social capital; my 2009 NSF CAREER-sponsored research provided the first operationalized framework for social capital in the field of engineering education. My research agenda on social capital and methodological activism expands the research community's capacity to solve persistent challenges in engineering education by elevating the experiences, assets, and voices of student groups.

Dr. John Morelock
Associate Professor & EETI Assoc. Director

My research focuses on organizational health and change at engineering higher education institutions. I am also an expert in student motivation. I am proficient in several motivation theories and have extensive experience applying the MUSIC Model of Motivation to create and assess course climates to support student motivation. Methodologically, I am mixed methods researcher with a strong qualitative focus. I lead EETI's teaching & learning development programs and have limited research capacity, but I am happy to contribute my knowledge of methods and frameworks to projects.