NEWS
ENGINEERING RESEARCH ADMINISTRATION
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Announcements

Year Review

The SGCOE had a record year in FY24 with our faculty winning $117.6 million in total research funding! During this period, faculty worked with ERAD to submit 544 proposals requesting over $458 million in research support. With the continued excellence of our faculty, students and staff, we expect that the SGCOE will continue to show robust growth in FY25. Thank you all for your diligent efforts and commitment to conducting exemplary research.

New Electronic Research Administration (ERA) System

Auburn has launched a new ticketing system for technical support requests related to Endeavor, the Electronic Research Administration (ERA) system. AU users can request technical assistance for endeavor modules through the submission of a ticket here. Assistance is currently provided for COI and IRB modules, but will begin to support other modules over the next 3-8 months.

Examples of when someone might need to submit a ticket include:

- A student requiring access to the system since they are not registered users.
- Difficulty finding an entity or location in the system.
- Encountering errors or having general questions.

Funding Opportunities

Environmental Engineering

National Science Foundation (NSF)
Proposals Accepted Anytime
Areas of Interest: Environmental Engineering, Sustainability, Chemical Engineering, Bioengineering, and Environmental and Transport Systems

Environmental engineering is an interdisciplinary field that applies biological, chemical, and physical scientific principles to protect human and ecological health. The goal of this program is to support potentially transformative fundamental research that applies scientific and engineering principles to:

- Prevent, minimize, or reuse solid, liquid, and gaseous discharges of pollution to soil, water, and air by closing resource loops or through other measures
- Mitigate the ecological and human-health impacts of such releases by smart/adaptive/reactive amendments or manipulation of the environment
- remediate polluted environments through engineered chemical, biological, and/or geo-physical processes

Major areas of interest include (but are not limited to):

- Sustainable supply and protection of water
- Environmental engineering of the built environment
- Environmental chemistry, fate, and transport of nutrients and contaminants of emerging concern in air, water, soils, and sediments
- Building a future without pollution of waste

PIs are strongly encouraged to discuss their requests with the program director before submission of the proposal.

Read more about this opportunity here.

Cyber-Physical Systems (CPS)

National Science Foundation (NSF)
Proposal Due: May 31, 2025
Areas of Interest: Information Science and Systems Engineering, Computer Science

Cyber-Physical Systems (CPS) are engineered systems that are dependent upon, and built from, the integration of computation and physical components. CPS technologies are transforming the way people interact with engineered systems and are designed to drive innovation and competition in a range of application domains including agriculture, aeronautics, building design, civil infrastructure, energy, environmental quality, healthcare, personalized medicine, manufacturing, and transportation.

The CPS program seeks to open new vistas for the research community to think beyond the usual cyber-physical paradigms and structures and purpose creative ideas to address the myriad challenges of today's systems. This program additionally supports the development of methods, tools, hardware, and software components based upon cross-cutting principles, along with validation of the principles via prototype and testbeds.

Read more about this funding opportunity here.

Funding Strategies

NSF TIP Directorate's New Roadmap

NSF's Directorate for Technology, Innovation, and Partnership (TIP) recently published their roadmap for the next three years. Researchers should stay updated on changes in the NSF roadmap to ensure they have current information on TIP policy.

TIP Background

The TIP Directorate was established by the CHIPS and Science Act of 2022 and is the first new NSF directorate to be established in 32 years with the intention to "advance research and development,

technology development, and related solutions to address United States societal, national, and geostrategic challenges, for the benefit of all Americans." Their missions are focused around three core objectives:

- Fostering Innovation and Technology Ecosystems
- Establishing Translation Pathways
- Training the Nation's Workforce

Chips and Science Acts identifies five challenge areas to guide TIP investments:

- U.S. National Security
- U.S. Manufacturing and Industrial Productivity
- U.S. Workforce Development and Skills Gap
- Climate change and environmental sustainability
- Inequitable access to education, opportunity, or other services

Under the Chips and Science Act NSF is required to produce a written report about the TIP directorate's strategic vision that will guide its investment, the roadmap satisfies the requirement and NSF plans to update the TIP Roadmap every three years.

Key Technology Focus Areas

Congress has not provided enough funding to support investments in all 10 Key Technology Focuses Areas, as a result, NSF selected 4 technology areas of special focus for near-term technology investments over the next 3 years. The 4 Technology Focus Areas are:

- Artificial Intelligence, machine learning, and related advances
- Biotechnology, medical technology, genomics, and synthetic biology
- Advanced communications technology and immersive technology
- Data storage, data management, distributed ledger technologies, and cybersecurity, including biometrics

TIP's Pilot Investments

Pilots are "experiments that allow NSF the opportunity to learn something new about NSF's approach to funding research and innovation." Pilots do not accept proposals, but it is expected that the lessons learned from the pilots will inform future funding programs. Those who wish to anticipate future TIP strategies should keep an eye on pilots because these programs offer training and other support opportunities to the research communities, related to innovation and translation.

TIP Metrics and Evaluation Approach

Appendix A of the roadmap document describes TIP's framework for evaluating the value of TIP-led programs. This framework will influence proposals and individual project evaluation requirements since TIP will need specific information in order to implement this overall TIP evaluation framework. Through understanding TIP's perspective and needs PIs can better understand how to develop a more competitive proposal.

For more information read pages 30-31 of the Research Development and Grant Writing Newsletter **here**.

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