

NEWS

ENGINEERING RESEARCH
ADMINISTRATION



AUBURN
UNIVERSITY

Samuel Ginn
College of Engineering

July 23, 2025

Vol. 3 No. 13

Announcements

Award Nominations Due August 1

The Samuel Ginn College of Engineering would like to recognize the faculty and staff members who have distinguished themselves for their research performance within and outside Auburn University. The deadline for submission is August 1, 2025. Awards will be given at the Research Awards Celebration on September 11, 2025.

Visit the application link [here](#).

Resource Reminder: AUSME

AUSME (Auburn University Subject Matter Experts) combines a faculty research database with a searchable, AI-powered tool that enables researchers to better discover each other to cultivate collaboration and innovation.

Visit AUSME [here](#).

Funding Opportunities

Apply Now: Young Investigator Program (YIP)

The **Department of Defense** offers several prestigious early-career awards to support innovative research by young faculty in science and engineering. Programs from the **Army, Navy, Air Force**, and **DARPA** provide competitive funding and opportunities to engage with cutting-edge national security challenges.

Navy

Proposals Due: August 1, 2025

Award Amount: 750,000 USD

The Office of Naval Research (ONR) Young Investigator Program (YIP) aims to identify and support early-career academic scientists and engineers by fostering their creative research, attracting them to the Department of the Navy's Science and Technology program, and encouraging their teaching and research careers at U.S. universities.

Air Force

Proposals Due: September 19, 2025
Award Amount: 450,000 USD

The FY26 Air Force Young Investigator Research Program supports early-career scientists and engineers (Ph.D. received on or after April 1, 2018) conducting promising basic research aligned with Air Force and Space Force missions.

DARPA

Proposals Due: February 5, 2026
Award Amount: 500,000 USD

The DARPA Young Faculty Award (YFA) program supports early-career researchers in academia and non-profit institutions by providing high-impact funding to develop innovative technologies aligned with national security needs. It aims to cultivate the next generation of scientists and engineers focused on advancing transformative Department of Defense capabilities.

Engineering Design and System Engineering (EDSE)

National Science Foundation (NSF), Division of Civil, Mechanical, and Manufacturing Information (CMMI), Directorate for Engineering (ENG)
Proposals Accepted Anytime
Areas of Interest: Nanotechnology, Natural and Physical Sciences, Mathematics and Technology, and Systems Engineering

The Engineering Design and System Engineering (EDSE) program supports fundamental research on the design of engineered artifacts, devices, products, processes, platforms, materials, organizations, systems, and systems of systems. The program focuses on design as a system, in which designers, the artifacts they create, the methods they use to create them, and the environment in which this occurs are all subject to rigorous scientific inquiry, along with the interactions among these elements.

The EDSE program supports fundamental contributions in areas that include but are not limited to design representation, design optimization, design validation, mechanism design, robotics and intelligent system design, design of engineered materials systems, design cognition, design collaboration, data science and artificial intelligence in design, design in under-resourced communities, immersive design, and design at extreme scales and in extreme environments.

Read more about this funding opportunity [here](#).

Environmental Sustainability

National Science Foundation (NSF)
Proposals Accepted Anytime
Areas of Interest: Climate Change, Environmental Sustainability, Green Buildings, Industrial Engineering, Nanostructured Materials, and Sustainable Materials

The goal of the Environmental Sustainability program is to promote sustainable engineered system that

supports human well-being and that are also compatible with sustaining natural and environmental systems. The program supports engineering research that seeks to balance society's need to provide ecological protection and maintain stable economic conditions.

Supported research areas include:

- **Circular Bioeconomy Engineering:** Research that enables sustainable societal use of food, energy, water, nitrogen, phosphorus, and materials, with the reduction and eventual elimination of fossil fuel combustion that lacks carbon capture.
- **Industrial Ecology:** Advancements in modeling, such as life cycle assessment, materials flow analysis, net energy analysis, input/output economic models, and novel metrics for measuring sustainable systems.
- **Green Engineering:** Research is encouraged to advance the sustainability of manufacturing processes, green buildings, and infrastructure.
- **Ecological Engineering:** Proposals should focus on the engineering aspects of restoring ecological function to natural systems.
- **Earth Systems Engineering:** Aspects of large-scale engineering research that involve the mitigation of greenhouse gas emissions and other global concerns.

Read more about this funding opportunity [here](#).

Funding Information

What NSF Plans to Fund in 2026

The National Science Foundation's FY 2026 budget request is \$3.903 billion. By knowing what NSF will fund in 2026, researchers can identify which of their research interests and specialties are desirable for NSF funding. Below are some larger categories of interest to NSF for FY 2026 and specific research areas that fit within that category.

Priority Critical Activities

- **Artificial Intelligence (AI) (\$655.23 million):** Includes machine learning, autonomy, and related advances. NSF investments are needed to develop new foundational AI theory and implementation techniques, as well as novel AI methods.
- **Quantum Information Science (QIS) (\$231.15 million):** Includes quantum computing and simulation. The development of new applications for QIS will lay the groundwork for one of the major technological revolutions of the 21st century.
- **Directorate for Technology, Innovation, and Partnerships (TIP) (\$350.0 million):** By accelerating commercialization, expanding the Nation's innovation base, and attracting and training American workers to power key technologies, TIP is a national security asset driving impact in key technology areas and national, societal, and geostrategic challenges.

Continued Key Areas Investments

- **Biotechnology (\$248.59 million):** Includes genomics and synthetic biology. Supports fundamental and translational research, infrastructure, and education to understand and harness biological processes for societal benefits.
- **Advanced Manufacturing (\$110.10 million):** Includes robotics and sensing technologies. Investments will accelerate breakthroughs in manufacturing materials, technologies, and systems through fundamental and translational, multidisciplinary research that transforms manufacturing capabilities, methods, and practices.

- **Microelectronics and Semiconductors (\$59.46 million):** Including advanced computer hardware. Investments will advance in microelectronics and semiconductor challenges facing America due to technological and global trends.
- **Advanced Wireless (\$59.46 million):** Includes communication technology and immersive technology. Investments will bridge knowledge gaps and advance innovations in areas critical to future generations of communication technologies and networks.
- **Established Program to Stimulate Competitive Research (\$107.70 million):** Aims to stimulate research that enhances jurisdictional competitiveness in NSF disciplinary and multidisciplinary research programs, especially those that drive economic growth and geographic diversity.

Research Infrastructure Investment

- **Major Facilities Operations and Maintenance (O&M) (\$745.0 million):** Reflects a balance among multiple priorities. NSF continues to explore ways to invest in research infrastructure at all scales, to keep pace with changing technologies, increase demand by users, and expand research opportunities.
- **Mid-Scale Research Infrastructure (Mid-Scale RI) (\$43.06 million):** Supports research infrastructure.
- **Major Research Instrumentation Program (\$4.0 million) and Major Facility Construction Threshold (\$100.0 million):** Catalyzes new knowledge by helping STEM professionals acquire or develop the instrumentation needed for innovative research.
- **MRI Grants Across all NSF-Supported Research Disciplines (\$4.0 million) and Major Research Equipment and Facilities Construction (MREFC) (\$251.0 million)** FY 2026 funding continues construction of the Leadership-Class Computing Facility, the Antarctic Infrastructure Recapitalization project, and the Mid-scale Research Infrastructure Track-2 program.

Adapted from the June 2025 edition of the Research Development and Grant Writing Newsletter

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