Research Funding Opportunities

**Organization:** DARPA / Solicitation Name: Young Faculty Award DARPA-RA-19-01 Due Date: November 19, 2019  
**Summary:** The Defense Advanced Research Projects Agency (DARPA) Young Faculty Award (YFA) program aims to identify and engage rising stars in junior faculty positions in academia and equivalent positions at non-profit research institutions and expose them to Department of Defense (DoD) and National Security challenges and needs. In particular, this YFA will provide high-impact funding to elite researchers early in their careers to develop innovative new research directions in the context of enabling transformative DoD capabilities. The long-term goal of the program is to develop the next generation of scientists and engineers in the research community who will focus a significant portion of their future careers on DoD and National Security issues. DARPA is particularly interested in identifying outstanding researchers who have previously not been performers on DARPA programs, but the program is open to all qualified applicants with innovative research ideas.

**Link:** [https://www.fbo.gov/index?s=opportunity&mode=form&id=74f9691bce51a95c5a2380dad5c787b5&tab=core&cview=1](https://www.fbo.gov/index?s=opportunity&mode=form&id=74f9691bce51a95c5a2380dad5c787b5&tab=core&cview=1)

**Organization:** NSF / Solicitation Name: Emerging Frontiers In Research and Innovation (EFRI): Distributed Chemical Manufacturing (DCheM) and Engineering the Elimination of End-of-Life Plastics (E3P) / 19-599 Due Date: March 26, 2020  
**Summary:** The Emerging Frontiers in Research and Innovation (EFRI) program of the NSF Directorate for Engineering (ENG) serves a critical role in helping ENG focus on important emerging areas in a timely manner. This solicitation is a funding opportunity for interdisciplinary teams of researchers to embark on rapidly advancing frontiers of fundamental engineering research. For this solicitation, we will consider proposals that aim to investigate emerging frontiers in one of the following two research areas:  
- Distributed Chemical Manufacturing (DCheM)  
- Engineering the Elimination of End-of-Life Plastics (E3P)  

This solicitation will be coordinated with the Directorate for Biological Sciences, the Directorate for Mathematical and Physical Sciences and the Directorate for Social, Behavioral and Economic Sciences. EFRI seeks proposals with transformative ideas that represent an opportunity for a significant shift in fundamental engineering knowledge with a strong potential for long term impact on national needs or a grand challenge. The proposals must also meet the detailed requirements delineated in this solicitation. FURTHER INFORMATION: The Emerging Frontiers and Multidisciplinary Activities (EFMA)
Office will host an informational webinar on Wednesday, September 18, 2019 at 1:00pm Eastern to discuss the EFRI program and answer questions about the FY 2020 solicitation. Details on how to join this webinar will be posted on the EFMA website.


**Organization: NSF / Solicitation Name: Cyber-Physical Systems (CPS) 19-553 / Deadline: September 26, 2019 / Summary:** Cyber-physical systems (CPS) are engineered systems that are built from, and depend upon, the seamless integration of computation and physical components. Advances in CPS will enable capability, adaptability, scalability, resiliency, safety, security, and usability that will expand the horizons of these critical systems. Advances in CPS will enable capability, adaptability, scalability, resiliency, safety, security, and usability that will expand the horizons of these critical systems. CPS technologies are transforming the way people interact with engineered systems, just as the Internet has transformed the way people interact with information. New, smart CPS drive innovation and competition in a range of application domains including agriculture, aeronautics, building design, civil infrastructure, energy, environmental quality, healthcare and personalized medicine, manufacturing, and transportation. Moreover, the integration of artificial intelligence with CPS creates new research opportunities with major societal implications.

The CPS program aims to develop the core research needed to engineer these complex CPS, some of which may also require dependable, high-confidence, or provable behaviors. Core research areas of the program include control, data analytics, autonomy, design, information management, internet of things (IoT), mixed initiatives including human-in- or on-the-loop, networking, privacy, real-time systems, safety, security, and verification. By abstracting from the particulars of specific systems and application domains, the CPS program seeks to reveal cross-cutting, fundamental scientific and engineering principles that underpin the integration of cyber and physical elements across all application domains. The program additionally supports the development of methods, tools, and hardware and software components based upon these cross-cutting principles, along with validation of the principles via prototypes and testbeds. This program also fosters a research community that is committed to advancing education and outreach in CPS and accelerating the transition of CPS research into the real world.

**Link:**
Internal Seed Grants

Organization: USU Office of Research / Solicitation Name: RGS Seed Funding Programs / First Draft Deadline: COE deadline September 15, 2019 Full Proposal Deadline: October 15, 2019

Summary: One of the key recommendations to emerge from this report was that existing seed grants should be restructured toward more targeted programs with specific missions, goals and expected outcomes. To satisfy this recommendation, the research office announced the availability of three new seed grant programs, GEM, RC and SPARC.

Outcomes:

Grant Writing Experience Through Mentorship (GEM): Develop and submit an external grant proposal within 3 months of GEM award end date. $10,000 Max

Research Catalyst (RC): Develop and submit an external grant proposal within 3 months of RC award end date. $20,000 Max

Seed Program to Advance Research Collaboration: Develop and submit an interdisciplinary external grant proposal seeking >$1M within 3 months of SPARC award end date. This Program must engage faculty from more than 1 department, research center, college, or institution. $35,000 Max

Link: https://research.usu.edu/rd/rgs-funding/