

April 15, 2014

Below please find recently-announced grant and other announcements. Previously-posted grants are available on our [funding pages](#).

Please send information you think should be included, especially about interdisciplinary environmental conferences, to espp@msu.edu

ESPP Funding Opportunities: April 15, 2014

OPPORTUNITIES FOR STUDENTS

2014 EPA Great Research Opportunities (GRO) Fellowships for Undergraduate Environmental Study

The U.S. Environmental Protection Agency (EPA) announces the posting of the Request for Applications for the GRO Undergraduate Fellowships program. It is offering undergraduate fellowships for bachelor level students in environmentally-related fields of study, with the goal of providing support for their junior and senior years of study, and an internship at an EPA facility during the summer of their junior year. College sophomores should apply now in order to be eligible to receive financial support for their junior and senior years. Subject to the availability of funding and other applicable considerations, EPA plans to award approximately 34 new fellowships in the summer of 2014. The fellowship provides up to \$20,700 per academic year of support and \$8,600 of support for a three-month summer internship.

May 27, 2014

OPPORTUNITIES FOR FACULTY

Environmental Health and Safety of Nanotechnology - NSF Nano EHS PD 13-1179

The Nano EHS program provides support to examine and mitigate the environmental effects of nanotechnologies. Fundamental research is sought to understand, evaluate, and lessen the impact of nanotechnology on the environment and biological systems. The program emphasizes engineering principles underlying the environmental health and safety impacts of nanotechnology. Innovative methods related to clean nanomaterials production processes, waste reduction, recycling, and industrial ecology of nanotechnology are also of interest.

Full Proposal Window: Jan 15, 2015 - Feb 19, 2015

Research Initiation Grants in Engineering Education - NSF RIGEE 11-507

Engineering faculty possess both deep technical expertise in their engineering discipline and the primary responsibility for educating future engineers. As such, engineering faculty are in a unique

position to help address critical challenges in engineering education. The RIGEE Program enables engineering faculty who are renowned for teaching, mentoring, or leading educational reform efforts on their campus to initiate collaborations with colleagues in the learning and cognitive sciences to address difficult, boundary-spanning problems in how we educate

Agriculture and Food Research Initiative - Food Security USDA-NIFA-AFRI-004417

In FY 2014, only proposals that focus on reducing crop and livestock losses in U.S. agricultural systems will be considered for funding. Proposed projects should develop and extend sustainable, integrated management strategies that reduce pre and post-harvest losses caused by diseases, insects, and weeds in crop and animal production systems, while maintaining or improving product quality and production efficiency. Project types supported by AFRI within this Challenge Area will propose multi-function Integrated Research, Education, and/or Extension Projects, Food and Agricultural Science Enhancement (FASE) Grants, and conferences and/or workshops.

Closing Date: June 12, 2014 Some Program Areas require a Letter of Intent. Refer to the RFA.

Nanotechnology Undergraduate Education in Engineering - NSF NUE 14-541 replaces 13-541

This solicitation aims at introducing nanoscale science, engineering, and technology through a variety of interdisciplinary approaches into undergraduate engineering education. The focus of the FY 2014 competition is on nanoscale engineering education with relevance to devices and systems and/or on the societal, ethical, economic and/or environmental issues relevant to nanotechnology. Related funding opportunities are posted on the web site for the National Nanotechnology Initiative, <http://www.nsf.gov/nano>

Closing Date: May 27, 2014

Division of Integrative Organismal Systems - NSF 13-600

The Division of Integrative Organismal Systems (IOS) supports research aimed at understanding why organisms are structured the way they are and function as they do. Proposals should focus on organisms as a fundamental unit of biological organization. Principal Investigators (PIs) are encouraged to apply systems approaches that will lead to conceptual and theoretical insights and predictions about emergent organismal properties. Areas of inquiry include, but are not limited to, developmental biology and the evolution of developmental processes, nervous system development, structure, and function, physiological processes, functional morphology, symbioses, interactions of organisms with biotic and abiotic environments, and animal behavior. Proposals are welcomed in all areas of science supported by the Division of Integrative Organismal Systems.

Aug 1, 2014, Preliminary Proposal (required): Jan. 17, 2014, Third Friday in Jan., Annually

Thereafter Full Proposal: Aug 01, 2014, First Fri in Aug, Annually Thereafter By Invitation Only

Interdisciplinary Behavioral and Social Science Research IBSS - NSF 12-614

The Interdisciplinary Behavioral and Social Science Research (IBSS) competition promotes the conduct of interdisciplinary research by teams of investigators in the social and behavioral sciences. Emphasis is placed on support for research that involves researchers from multiple disciplinary fields, that integrates scientific theoretical approaches and methodologies from multiple disciplinary fields, and that is likely to yield generalizable insights and information that will advance basic knowledge and capabilities across multiple disciplinary fields.

Dec. 2, 2014

Economics - NSF PD 98-1320

The Economics program supports research designed to improve the understanding of the processes and institutions of the U.S. economy and of the world system of which it is a part. The Economics program welcomes proposals for individual or multi-investigator research projects, doctoral dissertation improvement awards, conferences, workshops, symposia, experimental research, data collection and dissemination, computer equipment and other instrumentation, and research

experience for undergraduates. The program places a high priority on interdisciplinary research.
Aug. 18, 2014

Energy for Sustainability - NSF PD 13-7644

This program supports fundamental research and education that will enable innovative processes for the sustainable production of electricity and transportation fuels. Processes for sustainable energy production must be environmentally benign, reduce greenhouse gas production, and utilize renewable resources. Current interest areas are: Biomass Conversion, Biofuels and Bioenergy; Photovoltaic Solar Energy; Wind Energy; and Advanced Batteries for Transportation.

Jan. 15, 2015

Environmental Engineering - NSF PD-14-1440

The Environmental Engineering program supports fundamental research and educational activities across the broad field of environmental engineering. The goal of this program is to encourage transformative research which applies scientific and engineering principles to avoid or minimize solid, liquid, and gaseous discharges, resulting from human activity, into land, inland and coastal waters, and air, while promoting resource and energy conservation and recovery. The program also fosters cutting-edge scientific research for identifying, evaluating, and monitoring the waste assimilative capacity of the natural environment and for removing or reducing contaminants from polluted air, water, and soils. Major areas of interest and activity in the program include: Environmental engineering implications of energy and resource consumption - Focus on conversion of wastes into value-added materials and energy, reduction of energy/water demand for environmental technologies, and the impact of energy and transportation processes on the environment. Availability of high quality water supplies - Develop innovative biological, chemical and physical treatment processes to meet the growing demand for water; investigate processes that remove and degrade traditional aqueous contaminants, remediate contaminated soil and groundwater, and convert wastewaters into water suitable for reuse; investigate environmental engineering aspects of urban watersheds, reservoirs, estuaries and storm water management; investigate biogeochemical and transport processes driving water quality in the aquatic and subsurface environment. Fate and transport of contaminants of emerging concern in air, water, and soils - Investigate the fate, transport and remediation of potentially harmful contaminants and their degradates such as pharmaceuticals, personal care products, pesticides and insecticides, perchlorates, endocrine-disrupting compounds, and fire retardants and their degradates.

Feb 20, 2014 Full Proposal Window: January 15, 2014 - February 20, 2014

Environmental Sustainability - NSF PD 13-7643

The Environmental Sustainability program supports engineering research with the goal of promoting sustainable engineered systems that support human well-being and that are also compatible with sustaining natural (environmental) systems. These systems provide ecological services vital for human survival. There are four principal general research areas which are supported, but others can be proposed: Industrial Ecology; Green Engineering; Ecological Engineering; and Earth Systems Engineering.

Full Proposal Window: Jan 15, 2015 - Feb 19, 2015

Infrastructure Management and Extreme Events - NSF IMEE PD 10-1638

The IMEE program focuses on the impact of large-scale hazards on civil infrastructure and society and on related issues of preparedness, response, mitigation, and recovery. The program supports research to integrate multiple issues from engineering, social, behavioral, political, and economic sciences. It supports fundamental research on the interdependence of civil infrastructure and society, development of sustainable infrastructures, and civil infrastructure vulnerability and risk reduction.

Full Proposal Window: Sept 1, 2014 - Oct 1, 2014

Sensors and Sensing Systems - NSF SSS PD 13-1639

The Sensors and Sensing System (SSS) program funds fundamental research on sensors and sensing systems. Such fundamental research includes the discovery and characterization of new sensing modalities, fundamental theories for aggregation and analysis of sensed data, fundamentally new approaches for data transmission, and approaches for addressing uncertain and/or partial sensor data. Innovative research in nonlinear prediction, filtering and estimation in the context of sensing systems is also considered in this program.

Full Proposal Window: Sept 1, 2014 - Oct 1, 2014

Catalyzing New International Collaborations (CNIC) – NSF 13-605

CNIC awards support short international planning visits by US-based researchers or small workshops that are expected to result in submission of follow-on full research proposal(s) to NSF. In addition to the formal solicitation, Frequently Asked Questions (FAQs) about the CNIC program are available. Potential proposers should review both these FAQs and the solicitation before contacting program staff. Prior to formal submission in response to this solicitation, it is required that potential proposers make contact with the cognizant OIIA/ISE Country/Regional Program Officer. The OIIA/ISE Country/Regional Program Officers are listed at <http://www.nsf.gov/od/iaa/ise/country-list.jsp>.

April 22, 2014 and July 22, 2014. Annually April 22 and July 22.

Agriculture and Food Research Initiative: Foundational Program USDA-NIFA-AFRI-004412

The AFRI Foundational Program is offered to support research grants in the six AFRI priority areas to continue building a foundation of knowledge critical for solving current and future societal challenges. The six priority areas are: Plant Health and Production and Plant Products; Animal Health and Production and Animal Products; Food Safety, Nutrition, and Health; Renewable Energy, Natural Resources, and Environment; Agriculture Systems and Technology; and Agriculture Economics and Rural Communities. Single-function Research Projects, multi-function Integrated Projects and Food and Agricultural Science Enhancement (FASE) Grants are expected to address one of the Program Area Priorities.

Letter of Intent Required. See Program Area Descriptions beginning in Part I, C for Letter of Intent deadlines for a specific Program Area.

Long Term Research in Environmental Biology - NSF 12-507

Through the LTREB program, the Division of Environmental Biology (DEB) and the Division of Integrative Organismal Systems (IOS) encourage the submission of proposals that generate extended time series of biological and environmental data to address ecological and evolutionary processes and resolve important issues in organismal and environmental biology. Researchers must have collected at least six years of previous data to qualify for funding, and these data must motivate the proposed research. The proposal also must present a cohesive conceptual rationale or framework for ten years of research. Questions or hypotheses outlined in this conceptual framework must guide an initial 5-year proposal as well as a subsequent, abbreviated renewal. Together, these

will constitute a decadal research plan appropriate to begin to address critical and novel long-term questions in organismal and environmental biology. As part of the requirements for funding, projects must show how collected data will be shared broadly with the scientific community and the interested public.

Aug 1, 2014 Preliminary Proposal Due: January 10, 2014 Annually Thereafter Full Proposal Due: August 01 Annually Thereafter

Research Coordination Networks - NSF RCN 13-520 replaces 11-531

The goal of the RCN program is to advance a field or create new directions in research or education by supporting groups of investigators to communicate and coordinate their research, training and educational activities across disciplinary, organizational, geographic and international boundaries. RCN provides opportunities to foster new collaborations, including international partnerships, and address interdisciplinary topics. RCN supports the means by which investigators can share information and ideas, coordinate ongoing or planned research activities, foster synthesis and new collaborations, develop community standards, and in other ways advance science and education through communication and sharing of ideas. Proposed networking activities directed to the RCN program should focus on a theme to give coherence to the collaboration, such as a broad research question or particular technologies or approaches.

Proposals Accepted Anytime: General (non-targeted) RCN proposals should be submitted to a participating program. Refer to the specific program website for submission dates.

International Research Network Connections - NSF IRNC 14-554 replaces 09-564

The IRNC program supports high performance network connectivity required by international science and engineering research and education collaborations involving the NSF research community. NSF expects to make a set of awards to: (1) link U.S. research networks with peer networks in other parts of the world and leverage existing international network connectivity; (2) support U.S. infrastructure and innovation of open network exchange points; (3) drive innovation and state-of-the-art capabilities for Research and Education (R&E) Network Operation Centers (NOC); (4) stimulate the development, application and use of advanced network measurement capabilities and services across international network paths; and (5) support community engagement in training and human and network capacity building, and coordination in advanced network engineering. High performance network connections funded by this program are intended to support science and engineering research and education applications, and preference will be given to solutions which provide the best economy of scale and demonstrate the ability to support the largest communities of interest with the broadest services.

July 7, 2014