

January 2008 – Grant Opportunities in Science

Dear Science Faculty Members –

Here is our January 2007 listing of grant opportunities for faculty members in Science. All of these notices are posted as PDF file on the Office of Research and Economic Development webpage on the Research Funding webpage (<http://www.research.msstate.edu/funding/>).

Please let my office know if we can help in any way with grant proposals for these or other opportunities.

1. National Science Foundation – Sensor Innovation and Systems
(DEADLINE – February 15, 2008)

Synopsis – The Sensor Innovation and Systems program supports research on acquiring and using information about civil and mechanical systems to improve their safety, reliability, cost and performance; knowledge base for development of advanced sensors for engineering solutions and strategic decision making for safety, security, and reliability and for implementation of real time adaptive system performance through dynamic response control, smart sensing and innovative actuating capabilities that use the sensed information; innovative sensor technology development including micro devices based on five senses and their embedment, micro and wireless networks, analytical tools and strategies for health monitoring and diagnosis, and engineering for smart structures.

For More Information:

<http://www.grants.gov/search/search.do?&mode=VIEW&flag2006=true&oppId=7643>

2. US Department of Energy – Program Year 2008 Weatherization Formula (DEADLINE – August 1, 2008)

Synopsis – The purpose of this funding opportunity announcement is to solicit grant applications for the Weatherization Assistance Program for Low Income Persons for Program Year 2008. The Weatherization Assistance Program is to increase the energy efficiency of dwellings owned or occupied by low income persons, reduce their total residential expenditures, and improve their health and safety. The priority population for the Weatherization Assistance Program is persons who are particularly vulnerable such as the elderly, persons with disabilities, families with children, high residential energy users, and households with high energy burden.

For More Information:

<http://www.grants.gov/search/search.do?&mode=VIEW&flag2006=true&oppId=15957>

3. Environmental Protection Agency – FY 2008 Support of the Five Star Restoration Training Grant
(DEADLINE – February 1, 2008)

Synopsis – The U.S. Environmental Protection Agency (EPA) seeks to award one cooperative agreement to an organization to manage the Five Star Restoration Training Grant. Specifically, EPA is soliciting proposals from eligible applicants to: 1) prepare and advertise a Request for Proposals (RFP), establish review criteria for evaluating and selecting subgrantee proposals, and make subgrants to support environmental training through voluntary, community/watershed-based wetland restoration projects that provide ecological and socioeconomic benefits to the surrounding communities and their citizens; 2) oversee and monitor subgrantees for successful completion of the restoration training projects; 3) provide technical support to subgrantees through peer-to-peer outreach to broaden participation in restoration training projects, and 4) qualitatively and quantitatively measure and report on the environmental results of the restoration training projects accomplished through the subgrants. The subgrant process proposed by the applicant should be on a national scale and allow for subgrantee proposals for restoration training projects from across the 50 United States, Tribal Lands, Puerto Rico, and the U.S. Territories. For the purpose of this announcement, wetlands include, but are not limited to, areas with any one of the following characteristics: appropriate hydrology, hydric soils or hydrophilic plants including marine systems, the continental shelf and mudflats; estuarine fresh, brackish, and saltwater systems; stream or river-corridors; lake associated systems; and palustrine systems (see Cowardin et al., at <http://www.des.state.nh.us/wetlands/pdf/Cowardin.pdf>).

For More Information:

<http://www.grants.gov/search/search.do?&mode=VIEW&flag2006=true&oppId=16278>

4. National Science Foundation – Cyber Trust (DEADLINE – March 24, 2008)

Synopsis – People depend on computers and communication, ranging from the networks for electronic mail, to systems that monitor the nation's critical infrastructure, to embedded RFID devices for tracking in transportation systems. These systems are expected to work and work as intended without placing people at needless risks. Unfortunately, vulnerabilities still exist that allow attackers to corrupt or commandeer systems, including those that provide support for critical societal infrastructure. Moreover, many systems are vulnerable to actions that can inhibit operation, corrupt valuable data or expose private information. In fact, the news is replete with stories of vulnerabilities that were exploited for ill. Future advances in computing promise substantial benefits for society and individuals; yet, unless trust in computing and communications can be assured, these benefits are at risk. The NSF Cyber Trust (CT) program promotes a vision of a society where trust enables technologies to support individual and societal needs without violating confidences and exacerbating public risks. It is a vision of cyber space that is supportive of our basic principles of fairness and safe information access. The goal of the NSF CT program is to develop new insights and fundamental scientific principles that lead to software and hardware technologies on which people can justifiably rely to achieve the CT vision and simultaneously improve the Nation's cyber security posture, CT will support a portfolio of projects that: Contribute to the cyber security knowledge base, strengthen the foundations of cyber trust, and advance cyber security technologies; Define cyber trust broadly to include security, privacy, dependability, reliability, and usability; Address trustworthiness at all levels of system design, implementation, and use; Begin to integrate the technology produced by the research community, for example through novel security architectures; Consider social,

economic, organizational and legal factors influencing cyber security; Validate theory through analysis, formal verification, experimentation and rigorous measurement; Explore innovative new concepts anticipating advances in technology and society; Encourage international collaborations; and, Educate and train a diverse workforce in cyber security and software technologies. Proposals funded will cover a broad range of disciplines contributing to the CT vision. Four types of CT projects will be supported, as defined below. Exploratory Research projects typically explore new and untested ideas, have budgets of up to \$200,000 total, and have durations of up to 2 years; Single Investigator and Small Group projects typically involve 1-2 PIs and their students, have budgets of up to \$500,000 total, and have durations of up to 3 years; Medium projects demonstrate an active collaboration that brings together 2 or more PIs with complementary expertise to explore a common research problem, have budgets of up to \$1,500,000 total, and have durations of up to 3 years; and, Large projects must focus on achieving a common goal or set of goals, articulate an effective collaboration and management plan, have budgets of up to \$3,000,000

For More Information:

<http://www.grants.gov/search/search.do?&mode=VIEW&flag2006=true&oppId=16305>

5. US Department of Education– Even Start Family Literacy Program Women’s Prison Grant
CFDA 64.313A
(DEADLINE – February 29, 2008)

Synopsis –The Even Start Family Literacy program Women's Prison grant is designed to help break the cycle of poverty and illiteracy and improve the educational opportunities of low-income families with mothers in prison by integrating early childhood education, adult literacy or adult basic education, and parenting education into a unified, high-quality, family literacy program. This project, which must be located in a prison that houses women and their preschool-age children, will serve women inmates and their children, birth through age seven. (For the purposes of this program, the term “prison” means a correctional institution that houses inmates, most of whom are incarcerated in the institution for at least one year.) Catalog of Federal Domestic Assistance (CFDA) Number: 84.313A. Applications for grants under the Even Start Family Literacy Program Women's Prison grant, CFDA Number 84.313A, must be submitted electronically using the Governmentwide Grants.gov Apply site at <http://www.Grants.gov>. Through this site, you will be able to download a copy of the application package, complete it offline, and then upload and submit your application. You may not e-mail an electronic copy of a grant application to us. You may access the electronic grant application for the Even Start Family Literacy Program Women's Prison grant at <http://www.Grants.gov>. You must search for the downloadable application package for this competition by the CFDA number. Do not include the CFDA number's alpha suffix in your search (e.g., search for 84.313, not 84.313A). The telephone number for the Grants.gov Helpdesk is 1-800-518-4726.

For More Information:

<http://www.grants.gov/search/search.do?&mode=VIEW&flag2006=true&oppId=16323>

6. Department of Health and Human Services – Scholarships for Disadvantaged Students
(DEADLINE – January 21, 2008)

Synopsis – A school must meet all of the criteria listed below to be eligible to be considered for SDS funds for FY 2008. All requirements refer to full-time students (using the school's requirements for full-time): • Full-time students from disadvantaged backgrounds must comprise the following: 1) At least 10 percent of the total enrollment (full-time enrolled) of your program during Academic Year (AY) 2006-2007 (7/1/06-6/30/07), and 2) At least 10 percent of the total graduates (who were full-time students) of your program during AY 2006-2007. • Secondly, in order to receive any SDS funding, a school must have full-time economically disadvantaged students enrolled and graduated during AY 2006-2007. A school must meet all of the criteria listed below to be eligible to be considered for SDS funds for FY 2008. All requirements refer to full-time students (using the school's requirements for full-time): • Full-time students from disadvantaged backgrounds must comprise the following: 1) At least 10 percent of the total enrollment (full-time enrolled) of your program during Academic Year (AY) 2006-2007 (7/1/06-6/30/07), and 2) At least 10 percent of the total graduates (who were full-time students) of your program during AY 2006-2007. • Secondly, in order to receive any SDS funding, a school must have full-time economically disadvantaged students enrolled and graduated during AY 2006-2007.

For More Information:

<http://www.grants.gov/search/search.do?&mode=VIEW&flag2006=true&oppId=16325>

7. National Science Foundation – High-Risk Research in Anthropology
(Proposals accepted anytime – Contact Program Officer)

Synopsis – Anthropological research may be conducted under unusual circumstances, often in distant locations. As a result the ability to conduct potentially important research may hinge on factors that are impossible to assess from a distance and some projects with potentially great payoffs may face difficulties in securing funding. This program gives small awards that provide investigators with the opportunity to assess the feasibility of an anthropological research project. The information gathered may then be used as the basis for preparing a more fully developed research program. Projects which face severe time constraints because of transient phenomena or access to materials may also be considered. Investigators must contact the cognizant NSF Program Director before submitting an HRRR proposal. This will facilitate determining whether the proposed work is appropriate for HRRR support.

For More Information:

<http://www.grants.gov/search/search.do?&mode=VIEW&flag2006=true&oppId=16337>

8. National Science Foundation – Networking Technology and Systems
(DEADLINE – March 25, 2008)

Synopsis – The Networking Technology and Systems (NeTS) program supports pioneering visions and transformative research agendas that explore the frontiers of networking, provide a better understanding of the dynamics of large-scale networks, expand networking capabilities and use, and help pave the way for the next generation Internet. Since its inception, the NeTS program has continuously sought to ensure that its mission and scope is at the forefront of research. In previous years, the program identified core networking technologies worthy of

further investigation, emphasized the importance of future Internet design, and encouraged groundbreaking research in broadly defined areas of networking. In FY 2008, the NeTS program is organized by research challenges, rather than core technologies, and emphasizes multi-disciplinary, holistic approaches that augment our knowledge about the design and deployment of robust, large-scale, heterogeneous networks. This solicitation invites innovative, forward-looking research projects in the following five areas: Networking at the Edges (NEDG); Network Ecosystems (NECO); Aware Networking (ANET); Exploratory Networking (XPLR); and Future Internet Design (FIND) Proposals may be submitted in one of the following three categories: Small - projects with total budgets up to \$450K and durations of up to 3 years (with maximum annual budgets of \$150K). Team - projects with total budgets up to \$2.0M, and durations of up to 4 years (with maximum annual budgets of \$500K). Planning grants, workshops and other community building activities: Proposals in this category must be discussed with a NeTS program officer prior to submission. Planning grants will be funded at levels up to \$100K/year for up to two years. Workshops in new or emerging areas in networking research and education will be funded at levels up to \$50K for one year.

For More Information:

<http://www.grants.gov/search/search.do?&mode=VIEW&flag2006=true&oppId=16360>

9. National Science Foundation – Innovative Technology Experiences for Students and Teachers
(DEADLINE – April 11, 2008)

Synopsis – The program responds to current concerns and projections about shortages of STEM professionals and information technology workers in the United States and seeks solutions to help ensure the breadth and depth of the STEM workforce. ITEST supports the development, implementation, testing and scale-up of models, as well as research studies to address these questions and to find solutions. There are a variety of possible approaches to improving the STEM workforce and to building students’ capacity to participate in it. NSF seeks to expand the existing ITEST portfolio by addressing students at any age for grades kindergarten through high school and by including all areas of the STEM workforce, while retaining an emphasis on technology-related areas. This ITEST announcement extends the previous ITEST announcement by placing greater emphasis on capturing and establishing a reliable knowledge base about the dispositions toward and knowledge about STEM workforce skills among U.S. students. The previous awards by the ITEST program have established a strong foundation upon which to enlarge a scientific basis for educational programs in STEM education. Three types of projects are invited. Strategies projects will include the design, implementation, and evaluation of models for classroom, after-school, summer, virtual, and/or year-round learning experiences for students and/or teachers to encourage students’ readiness for, and their interest and participation in, the STEM workforce. Scale-up projects would implement and test models about preparing students for information technology or the STEM workforce in a large-scale setting such as a state or national level based on evidence of demonstrated success. Studies projects are research projects to enrich understanding of issues related to enlarging the STEM workforce, including efficacy and effectiveness studies of intervention models, longitudinal studies of efforts to engage students in the STEM areas, development of instruments to reliably and validly assess engagement, persistence, and other relevant constructs, or studies to identify predictors of student inclination to pursue STEM career trajectories. NSF is especially interested in projects

that target students who are underserved and underrepresented in STEM ICT-intensive careers, including those residing in rural and economically disadvantaged communities. Innovation through Institutional Integration (I3) projects enable institutions to think and act strategically about the creative integration of NSF-funded awards, with particular emphasis on awards managed through programs in the Directorate for Education and Human Resources (EHR), but not limited to those awards. For Fiscal Year 2008, proposals are being solicited in six EHR programs that advance I3 goals: CREST, ITEST, MSP, Noyce, RDE, and TCUP.

For More Information:

<http://www.grants.gov/search/search.do?&mode=VIEW&flag2006=true&oppId=16362>

10. U.S. Department of Education – Grants to Reduce Alcohol Abuse CFDA 84.184A
(DEADLINE – February 19, 2008)

Synopsis – This program provides grants to local educational agencies (LEAs) to develop and implement innovative and effective programs to reduce alcohol abuse in secondary schools. Catalog of Federal Domestic Assistance (CFDA) Number: 84.184A. If you choose to submit your application electronically, you must use the Governmentwide Grants.gov. Apply site at <http://www.Grants.gov>. Through this site, you will be able to download a copy of the application package, complete it offline, and then upload and submit your application. You may not e-mail an electronic copy of a grant application to us. You may access the electronic grant application for Grants to Reduce Alcohol Abuse at <http://www.Grants.gov>. You must search for the downloadable application package for this competition by the CFDA number. Do not include the CFDA number's alpha suffix in your search (e.g., search for 84.184, not 84.184A). The telephone number for the Grants.gov Helpdesk is 1-800-518-4726.

For More Information:

<http://www.grants.gov/search/search.do?&mode=VIEW&flag2006=true&oppId=16403>

11. Department of Commerce – Hydrologic Research
(DEADLINE – January 28, 2008)

Synopsis – This program represents a NOAA/NWS effort to create a cost-effective continuum of basic and applied research through collaborative research between the Hydrology Laboratory of the NWS Office of Hydrologic Development and academic communities or other private or public agencies which have expertise in the hydrometeorologic, hydrologic, and hydraulic routing sciences, as well as those aspects of social sciences that apply to hydrologic and water resources forecasting and how information on those forecasts is distributed and assimilated by managers and the public. These activities will engage researchers and students in basic and applied research to improve the scientific understanding of river forecasting. Ultimately these efforts will improve the accuracy of forecasts and warnings of rivers and flash floods by applying scientific knowledge and information to NWS research methods and techniques, resulting in a benefit to the public. NOAA's program is designed to complement other agency contributions to that national effort.

For More Information:

<http://www.grants.gov/search/search.do?&mode=VIEW&flag2006=true&oppId=16378>

12. Department of Commerce – National Weather Service MSI Program
(DEADLINE – February 29, 2008)

Synopsis – The NWS is soliciting projects to be conducted by university investigators for 1-year to 3-years, with an anticipated start date of August 1, 2008. The NWS MSI Program represents an NOAA/ NWS effort to promote and increase diversity in the atmospheric and related sciences through collaborative research between operational forecasters and academic institutions which have expertise in the environmental sciences in support of the NOAA Weather and water mission goal. These activities will engage researchers and students in applied research of interest to the operational meteorological community and will result in the development of new educational opportunities for the public.

For More Information:

<http://www.grants.gov/search/search.do?&mode=VIEW&flag2006=true&oppId=16379>

13. Department of Commerce – NOAA 2008 Regional Research, Information Planning and Coordination Grant
(DEADLINE – February 5, 2008)

Synopsis – To continue the development of regional research and information plans for U.S. coastal, ocean, and Great Lakes areas, NOAA Sea Grant anticipates (depending on appropriations) making available about \$750,000 in FY 2008 for grants to regional planning teams in the following three regions: the Greater New York Bight region, the Mid-Atlantic region, and the Caribbean region. It is expected that Sea Grant programs within each of these regions will work together and submit one proposal per region that covers a 2-5 year period. The objective is to use Sea Grant's university capabilities to facilitate discussions among the broad range of regional ocean, coastal, and Great Lakes stakeholders to help identify and prioritize critical resource management problems and associated research and information needs necessary for practical solutions. Depending on appropriations and the number and quality of applications received, NOAA Sea Grant anticipates making three awards of between \$250,000 and \$400,000 each.

For More Information:

<http://www.grants.gov/search/search.do?&mode=VIEW&flag2006=true&oppId=16383>

14. Department of Defense – Electronic Warfare Technology
(DEADLINE – February 12, 2008)

Synopsis – ONR 312 Electronic Warfare (EW) seeks white papers for efforts that shall develop and demonstrate technologies for the next generation components and systems in Electronic Warfare. Although white papers addressing any truly innovative EW S&T will be considered, the primary emphasis of this BAA is on Advanced Radio Frequency (RF) Countermeasures Technology and Techniques. Proposed efforts should focus on development of technology and techniques to counter advanced threat radar and RF threat guidance systems employing waveform diversity, imaging techniques, passive detection/tracking, and advanced Electronic Protection (EP) features. The scope also includes multi-spectral threats and countermeasures to

Integrated Air Defense Systems (IADS), as well as methods to monitor and assess the effectiveness of countermeasures on threat systems in real-time.

For More Information:

<http://www.grants.gov/search/search.do?&mode=VIEW&flag2006=true&oppId=16386>

15. National Science Foundation – Centers for Research Excellence in Science and Technology Grant
(DEADLINE – April 8, 2008)

Synopsis – The Centers of Research Excellence in Science and Technology (CREST) program makes resources available to enhance the research capabilities of minority-serving institutions through the establishment of centers that effectively integrate education and research. CREST promotes the development of new knowledge, enhancements of the research productivity of individual faculty, and an expanded presence of students historically underrepresented in STEM disciplines. Awards are offered as new centers, supplements to existing centers, proposals for the CREST Historically Black Colleges and Universities Research Infrastructure for Science and Engineering (HBCU-RISE) initiative, or supplements to CREST/HBCU-RISE-eligible awardees for diversity collaboration in projects co-funded with NSF's Small Business Innovation Research and Small Business Technology Transfer (SBIR/STTR) programs, which are administered by NSF's Directorate for Engineering. Innovation through Institutional Integration (I3) projects enable institutions to think and act strategically about the creative integration of NSF-funded awards, with particular emphasis on awards managed through programs in the Directorate for Education and Human Resources (EHR), but not limited to those awards. For Fiscal Year 2008, proposals are being solicited in six EHR programs that advance I3 goals: CREST, ITEST, MSP, Noyce, RDE, and TCUP.

For More Information:

<http://www.grants.gov/search/search.do?&mode=VIEW&flag2006=true&oppId=16387>