

NATIONAL SCIENCE FOUNDATION
4201 Wilson Boulevard
Arlington, VA 22230

Dear Colleague Letter: Proposal Submission Deadlines for the Division of Information and Intelligent Systems

NSF 01-156

September 6, 2001

Dear Colleague:

This letter calls to your attention the new proposal submission deadlines in the Information and Intelligent Systems Division (IIS) in the Computer and Information Science and Engineering Directorate (CISE).

The Division of Information and Intelligent Systems (IIS) supports research that will improve the ability to generate, organize, locate, communicate, and store knowledge using new technologies. IIS recognizes that high-quality content and its accessibility and usability are important benefits provided by new technologies and are complementary to bandwidth and disk space. IIS fundamental research foci include universal access; human language technology; knowledge modeling; scientific collaboratories; robotics; computer vision; data mining; database access technology; human-computer interaction; and embedded intelligent systems. IIS also supports interdisciplinary and interagency activities such as the Digital Library and STIMULATE (Speech, Text, Image, and Multimedia Advanced Technology Effort) Initiatives.

The new proposal submission deadline date for 2001 is **December 5, 2001**.

Effective 2002, the new **annual proposal submission deadlines** are:

March 1 (or the first following working day)

November 16 (or the first following working day)

NOTE: Proposals must be submitted via Fastlane <<http://www.fastlane.nsf.gov>> by the established deadline date. **Late proposals will not be accepted for review by the IIS Division.**

These two annual deadlines are for all IIS programs, including:

Regular proposals (i.e., unsolicited proposals)

Special programs proposals including:

GOALI and EPSCoR Co-Funding proposals,
Research in Undergraduate Institutions (RUI)

Workshop proposals, Small Grants for Exploratory Research (SGER) proposals, Research Experience for Undergraduates (REU) – Supplement requests and other supplement requests may be submitted during the years, after consultation with the cognizant program director.

This change from the current annual proposal submission target dates of September 15 and February 15 to the deadlines of November 16 and March 1 will help the IIS Division to coordinate the review and processing of interdisciplinary proposals in a timely manner.

Proposals submitted should be prepared and submitted via Fastlane <<http://www.fastlane.nsf.gov>> in accordance with the general guidelines contained in the NSF Grant Proposal Guide (GPG) <http://www.nsf.gov/cgi-bin/getpub?gpg> and any special program requirements. Proposers are reminded to identify this Dear Colleague number (NSF 01-156) for regular proposals or the special program announcement number and the appropriate deadline in

the PROPOSAL ANNOUNCEMENT/SOLICITATION NO./CLOSING DATE block, and the relevant NSF program(s) in the block FOR CONSIDERATION BY NSF ORGANIZATION UNIT(S) on the COVER SHEET FOR THE PROPOSAL TO NSF, NSF Form 1207.

This letter also takes the opportunity to inform you about the updates in the IIS programs:

Digital Society and Technologies

(DST)

* [Previously, Computing and Social Systems (CSS)] – Supports research fundamental to the development of new knowledge about the complex processes of adaptation and interchange between society and new information technologies. New theories, models, and technologies are encouraged as well as empirical maps of the landscape of social and economic change. Research topics include universal participation in a digital society, large-scale social technologies for science, education, and work collaboration and learning, ethical principles in technical design, information privacy and intellectual property in a digital age, and technologies for independence throughout life.

Human Computer Interaction

(HCI) – Supports research fundamental to the design of systems that mediate between computers and humans. Topics include universal access; visualization; animation and simulation; interactive computing; human language technology, including speech recognition and natural language understanding; posture and sound based interfaces; virtual reality; and multimedia environments.

Information and Data Management

(IDM) – Supports research fundamental to the design, implementation, development, management, and use of database, information retrieval, and knowledge-based systems. Topics include data, metadata, information, knowledge and process modeling; information access and interaction; knowledge discovery, datamining and information visualization; and system architecture and implementation. Novel research in encouraged in Web-based systems, multimedia systems, scientific databases, geographic information systems, digital libraries, and other intelligent information systems; efficient data gathering and storage/archival; information organization, information flow management and security/privacy issues; evolutionary systems, change maintenance, and information life-cycle management; heterogeneous systems; and highly scalable, data-intensive, and distributed/mobile information systems.

Knowledge and Cognitive Systems

(KCS) – Supports research fundamental to the development of machines that behave intelligently. This can be in conjunction with humans (computer-aided machine intelligence) or alone (autonomous intelligent agents). Some of the research involves knowledge representation in machines, and studies of cognitive processes, which may be modeled on what we know of human or animal cognition, or may use approaches different from those in humans and animals. Cognitive activities studied include multiple types of machine learning, planning, reasoning, decision making, sensory cognition, linguistic cognition, and combinations of these in intelligent agents. Fundamental research in these areas may have as a goal application in integrated design and manufacturing, network management, medical diagnosis, data mining, intelligent tutoring, etc.

Robotics and Human Augmentation

(RHA) – Supports research fundamental to (1) design of machines and systems that are characteristic of a combination of sensing, machine intelligence, and generation of mechanical motion, and (2) studies in computer vision. The emphasis in (1) is on systems operating in unstructured environments with a high level of uncertainty. Research topics include: theoretical, algorithmic, experimental, and hardware issues, including those on macro-, micro- and nano-scale; intelligent sensing; robotics for unstructured environments; personal robots, with an emphasis on human-centered end use; robotic applications, such as systems for surgery, undersea, space, agriculture; complex sensing, perception, and actuation; understanding and

processing of visual data; representation, reasoning, and planning for complex physical tasks involving temporal and spatial relationships; communication and task sharing between humans and machines, and among machines; cooperation among geographically separated robotics resources.

Special Projects

(SP) – Supports research activities exploring new relationships between computing, communication and digital content from human centered perspectives in order to support communities of users in scholarly, social and work contexts. The program promotes interdisciplinarity and topical fusion. In particular, it manages the Digital Libraries Initiative <http://www.dli2.nsf.gov>, a multi-agency research program to create large knowledge bases, the technology needed to access them, and the means for improving their usability in a wide range of contexts.

Universal Access

** (UA) – Aims to empower people with disabilities so that they are able to participate as first class citizens in the emerging information society. In addition, research in this area benefits the nation as a whole, by advancing computer technology so that all people can possess the skills needed to use computing to enrich their lives and become more productive. Research should aim at new models and architectures which emphasize interface usability and speed. Semantic structures for multimedia information to support cross-modal I/O, solutions which address the special needs of large disabled communities, and experimental studies to evaluate the success of attempts to provide access. Topics include: languages for specifying multimedia, alternatives to the desktop interface leading to new and radically different designs and systems components, anytime/anywhere access to auditory information in textual form, new I/O techniques which do not rely on manual dexterity, large scale tactile access to graphical information, and a “seeing eye computer” both as an aid to mobility and for rapid detection and identification of objects and people in the environment.

You are encouraged to see further details about the IIS Division, the IIS Programs and the IIS Staff at <http://www.cise.nsf.gov/iis>.

We are looking forward to receiving exciting, innovative proposals and welcome your comments on the current IIS programs and suggestions for new research directions.

Michael Lesk, Ph.D.
Division Director, Information and Intelligent Systems (IIS)
National Science Foundation
4201 Wilson Blvd., Room 1115
Arlington, VA 22230

Email : mlesk@nsf.gov
Phone: 703-292-8930 Fax: 703-292-9073
URL: <http://www.cise.nsf.gov/iis>

ABOUT THE NATIONAL SCIENCE FOUNDATION

The National Science Foundation (NSF) funds research and education in most fields of science and engineering. Grantees are wholly responsible for conducting their project activities and preparing the results for publication. Thus, the Foundation does not assume responsibility for such findings or their interpretation.

NSF welcomes proposals from all qualified scientists, engineers and educators. The Foundation strongly encourages women, minorities, and persons with disabilities to compete fully in its programs. In accordance with federal statutes, regulations, and NSF policies, no person on grounds of race, color, age, sex, national origin, or disability shall be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving financial assistance from NSF (unless otherwise specified in the eligibility requirements for a particular program).

Facilitation Awards for Scientists and Engineers with Disabilities (FASSED) provide funding for special assistance or equipment to enable persons with disabilities (investigators and other staff, including student research assistants) to work on NSF-supported projects. See the program announcement or contact the program coordinator at (703) 292-6865.

The National Science Foundation has Telephonic Device for the Deaf (TDD) and Federal Relay Service (FRS) capabilities that enable individuals with hearing impairments to communicate with the Foundation regarding NSF programs, employment, or general information. TDD may be accessed at (703) 292-5090 or through FRS on 1-800-877-8339.

PRIVACY ACT AND PUBLIC BURDEN STATEMENTS

The information requested on proposal forms and project reports is solicited under the authority of the National Science Foundation Act of 1950, as amended. The information on proposal forms will be used in connection with the selection of qualified proposals; project reports submitted by awardees will be used for program evaluation and reporting within the Executive Branch and to Congress. The information requested may be disclosed to qualified reviewers and staff assistants as part of the review process; to applicant institutions/grantees to provide or obtain data regarding the proposal review process, award decisions, or the administration of awards; to government contractors, experts, volunteers and researchers and educators as necessary to complete assigned work; to other government agencies needing information as part of the review process or in order to coordinate programs; and to another Federal agency, court or party in a court or Federal administrative proceeding if the government is a party. Information about Principal Investigators may be added to the Reviewer file and used to select potential candidates to serve as peer reviewers or advisory committee members. See Systems of Records, NSF-50, "Principal Investigator/Proposal File and Associated Records," 63 Federal Register 267 (January 5, 1998), and NSF-51, "Reviewer/Proposal File and Associated Records," 63 Federal Register 268 (January 5, 1998). Submission of the information is voluntary. Failure to provide full and complete information, however, may reduce the possibility of receiving an award.

Public reporting burden for this collection of information is estimated to average 120 hours per response, including the time for reviewing instructions. Send comments regarding this burden estimate and any other aspect of this collection of information, including suggestions for reducing this burden, to: Suzanne H. Plimpton, Reports Clearance Officer; Division of Administrative Services; National Science Foundation; Arlington, VA 22230.

The National Science Foundation is committed to making all of the information we publish easy to understand. If you have a suggestion about how to improve the clarity of this document or other NSF-published materials, please contact us at plainlanguage@nsf.gov.

OMB Clearance Number: OMB 3145-0058
NSF 01-156