



NATIONAL SCIENCE FOUNDATION
2415 EISENHOWER AVENUE
ALEXANDRIA, VIRGINIA 22314

IIS 18-001

May 11, 2018

Dear Colleagues:

The Division of Information and Intelligent Systems (IIS) within the Directorate for Computer and Information Science and Engineering at the National Science Foundation (NSF) announces a nationwide search to fill several Program Director positions in the following areas:

Cyber-Human Systems program. The Cyber-Human Systems program aims to accelerate both the creation and understanding of the complex and increasingly coupled relationships between humans and technology, with the broad goal of advancing human capabilities: perceptual and cognitive, physical and virtual, social and societal. This includes traditional areas of human-computer interactions such as user interface software and technologies, assistive technologies, and social computing, and extending to cognitive support and human augmentation. Only candidates with expertise in the areas of interactions with data (such as visualization and sense-making); immersive/physical interfaces (such as augmented and virtual reality); computer supported collaborative/team work and learning (CSCW, CSCL); and the increasing role of social media will be considered.

Information Integration and Informatics program. The Information Integration and Informatics program aims to realize the full transformative potential of data, information, and knowledge in our increasingly digital and interconnected world. Only candidates with expertise in the areas of graph mining and data mining; large-scale analytics (with strong mathematical/statistical background); information/knowledge representation and integration; and big data and machine learning will be considered.

Information Integration and Informatics for Secure and Trustworthy Cyberspace. The Secure and Trustworthy Cyberspace program aims to protect and preserve the growing social and economic benefits of cyber systems while ensuring security and privacy. Only candidates with expertise in the areas of database theory and systems, including emerging architectures; big data management; and data privacy and security, in particular, data mining and machine learning techniques for security and privacy (with strong

mathematical/statistical background) will be considered.

Robust Intelligence, Robotics, and Autonomous Systems programs. Robust Intelligence encompasses all aspects of the computational understanding and modelling of intelligence in complex, realistic contexts. The National Robotics Initiative program focuses on ubiquitous collaborative robots that can perceive, plan, and act in uncertain, real-world environments, especially in collaboration with humans and other robots. The Smart and Autonomous Systems program focuses on taskable, adaptive, knowledge-rich intelligent physical systems that are aware of their capabilities and limitations. Only candidates with expertise in the areas of robotics and autonomous systems will be considered.

Intelligent Systems and Machine Learning specialties. Also within the Robust Intelligence program, additional science staff are needed in machine learning and intelligent systems. Only those with expertise in areas such as supervised and unsupervised learning, representation learning, transfer learning, and reinforcement learning will be considered.

Relevant programs are described on the [IIS divisional web page](#). That page also identifies current Program Directors, who may be contacted for additional information.

Formal consideration of applications will begin May 10, 2018 and will continue until selections are made.

Program Directors are responsible for specific research areas. They solicit, receive, and review research and education proposals; make funding recommendations; administer awards; and interact with relevant research and education communities. They also provide service to NSF-wide activities and often work across government agencies to enable interagency collaborations. Program Directors contribute to the accomplishment of NSF's strategic goals to (1) Expand knowledge in science, engineering, and learning; (2) Advance the capability of the Nation to meet current and future challenges; and (3) Enhance NSF's performance of its mission.

Qualification requirements: Ph.D. or equivalent professional experience in a relevant discipline in science or engineering, plus six or more years of successful research, research administration, and/or managerial experience in academe, industry, or government. The position requires outstanding knowledge of the relevant research area and related areas; commitment to fairness, ethical conduct, and personal integrity; receptivity to new ideas; a strong work ethic and initiative; excellent interpersonal skills; and expert communication ability. Familiarity with NSF activities is highly desirable.

The positions recruited under this announcement will be filled under the following appointment option:

Intergovernmental Personnel Act (IPA) Assignments: Individuals eligible for an IPA

assignment include those from state and local governments; private and public colleges and universities; Indian Tribal governments; federally funded research and development centers; and qualified non-profit organizations involved in public management; where such assignments would be of mutual benefit to the organizations involved. Initial assignments may be made for up to two years; assignments may be extended to a four-year total. Assignments are funded through grants to the individual's institution as reimbursement for salary and benefits.

For additional information on NSF's rotational programs, please see information about Temporary/Rotator Programs on the NSF website at <https://www.nsf.gov/careers/rotator/>.

Applications will be accepted from U.S. Citizens. Recent changes in Federal Appropriations Law require Non-Citizens to meet certain eligibility criteria to be considered. Therefore, Non-Citizens must certify eligibility by signing and attaching this [Citizenship Affidavit](#) to their application. This also applies to individuals considered for Intergovernmental Personnel Act (IPA) assignments to NSF. Non-citizens who do not provide the affidavit at the time of application will not be considered eligible.

Applications should be submitted electronically and must include contact information, a current CV, a letter briefly describing the candidate's background that specifically relates to the appropriate program objectives, availability time frame, and a list of references.

Please make electronic submissions to Joydip Kundu, Deputy Division Director, at jkundu@NSF.gov.

NSF is an Equal Opportunity Employer Committed to Employing a Highly Qualified Staff that Reflects the Diversity of Our Nation.