



**National Science Foundation**

4201 Wilson Boulevard  
Arlington, Virginia 22230

Title: The Division of Electrical and Communications Systems (ECS)  
Directorate for Engineering (ENG)  
Employment Opportunities – Program Director  
Dear Colleague Letter

Date: May 22, 2006

Dear Colleagues,

The Division of Electrical and Communications Systems (ECS) announce a nationwide search for a senior-level researcher to serve as Program Director for integrative systems engineering in the Integrative, Hybrid and Complex Systems IHCS program of the Division of Electrical and Communications Systems at the National Science Foundation (NSF). The desired starting date for the position is November 1, 2006.

The Division of Electrical and Communications Systems addresses fundamental research issues underlying component and device technologies, power, controls, networking, communications and cyber technologies. It also supports the integration and networking of intelligent systems principles at the nano, micro and macro scales for a variety of application domains, such as in healthcare, homeland security, disaster mitigation, energy, telecommunications, environment, transportation, manufacturing and other systems-related areas. ECS envisions a research community that will address major technological challenges for the next generation of devices and systems due to convergence of technologies and increased emphasis on interdisciplinary research. ECS has a continuing goal to integrate education into its programs to support the education of a diverse workforce in the 21st century that will continue innovative advances for the rapid development of emerging technologies as drivers of the global economy.

The ECS Division is organized around three programs:

- Electronics, Photonics and Device Technologies ([EPDT](#))
- Power, Controls and Adaptive Networks ([PCAN](#))
- Integrative, Hybrid and Complex Systems ([IHCS](#))

The management of these programs involves a team approach by Program Directors of the ECS Division, to reflect the increasing convergence of traditional disciplinary topics and the need for interdisciplinary approaches to new problem areas. In addition to these program areas, ECS sponsors workshops on areas of frontier and innovative technologies, which often lead to special program initiatives. Please visit our web site at <http://www.nsf.gov/div/index.jsp?div=ECS>

This position opening is in the area of integrative systems engineering at the nano and micro scales in the IHCS program. The candidate for this position should have broad expertise and demonstrated experience in the following topics: integration of device concepts and systems principles in the modeling, design, integration, development and implementation of new nano/micro/macro hybrid and complex systems with applications in sensor systems, diagnostic and implantable systems, and secure surveillance networks among others; and hybrid systems incorporating both continuous and discrete representations in the study of distributed networks.

Program Director positions at the National Science Foundation provide a challenging experience and an excellent opportunity to encourage and support engineering research and education. The individual will work with other Program Directors in formulating research strategies, developing cooperation among government, academia and industry, fostering outreach to underrepresented groups, and will provide leadership within NSF and the research

community. The position requires a Ph.D. with a minimum of six years of academic, government or industrial experience.

The Program Director position recruited under this announcement may be filled under the following appointment options:

**Intergovernmental Personnel Act (IPA) Assignment:** Individuals eligible for an IPA assignment with a Federal agency include employees of state and local government agencies or institutions of higher education, Indian tribal governments, and other eligible organizations in instances where such assignments would be of mutual benefit to the organizations involved. The individual remains an employee of the home institution and NSF provides funding toward the assignee's salary and benefits. Initial IPA assignments are made for a one-year period and may be extended by mutual agreement for up to two additional years.

**Visiting Scientist/ Engineer:** Appointment to this position will be made under the Excepted Authority of the NSF Act. A Visiting Scientist is on non-paid leave status from her/his home institution and appointed to NSF's payroll as a Federal employee. NSF withholds Social Security taxes and pays the home institution's contributions to maintain retirement and fringe benefits (i.e. health benefits and life insurance), either directly to the home institution or to the carrier. Appointments are usually made for up to one year and may be extended for an additional year by mutual agreement.

**Temporary Excepted Service Appointment:** Appointment to this position will be made under the Excepted Authority of the NSF Act. Candidates who do not have civil service status or reinstatement eligibility will not obtain civil service status if selected. Candidates currently in the competitive service will be required to waive competitive civil service rights if selected. Usual civil service benefits (retirement, health benefits, life insurance) are applicable for appointments of more than one year. Temporary appointments may not exceed three years.

For additional information on NSF's rotational programs, please see "Programs for Scientists, Engineers, and Educators" on the NSF website at [http://www.nsf.gov/about/career\\_opps](http://www.nsf.gov/about/career_opps).

Should you or your colleagues be interested in this position, or wish to nominate suitable candidates, please contact the search committee coordinator, Dr. Rajinder P. Khosla ([rkhosla@nsf.gov](mailto:rkhosla@nsf.gov)), and forward a curriculum vitae to him by August 15, 2006. Applications will be reviewed immediately after this date, though the position will remain open until filled. For questions or further information, please feel free to contact:

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