

NATIONAL SCIENCE FOUNDATION

4201 WILSON BOULEVARD
ARLINGTON, VIRGINIA 22230



March 7, 2016

Dear Colleague:

We are initiating a national search for the National Science Foundation's Assistant Director for Engineering (ENG) and seek your assistance in the identification of candidates. Dr. Pramod Khargonekar has served in this position, with distinction, since March 2013.

The Assistant Director, ENG, leads a directorate comprised of five divisions — Chemical, Bioengineering, Environmental, and Transport Systems (CBET); Civil, Mechanical, and Manufacturing Innovation (CMMI); Electrical, Communications, and Cyber Systems (ECCS); Engineering Education and Centers (EEC); and Industrial Innovation and Partnerships (IIP) — as well as the Office of Emerging Frontiers and Multidisciplinary Activities (EFMA). Enclosed is an information sheet that summarizes the directorate's activities and the responsibilities of the position, together with the criteria that will be used in the search.

We are very pleased to announce that Dr. C. Daniel Mote, President of the National Academy of Engineering, will head the search committee. We seek your help in identifying candidates with the following qualifications: outstanding leadership; a deep sense of scholarship; a grasp of the issues facing the engineering disciplines in the areas of research, education, and innovation; and the ability to serve effectively as a key member of the NSF management team. Recommendations of individuals from any sector — academic, industry, or government — are welcome. The National Science Foundation is an equal opportunity employer committed to employing a highly qualified staff that reflects the diversity of our nation.

Please send your recommendations, including any supporting information that you can provide, to the AD/ENG Search Committee via e-mail (engsrch@nsf.gov) or at the following address: National Science Foundation, Office of the Director, Suite 1205, 4201 Wilson Boulevard, Arlington, VA 22230. We would appreciate receiving your recommendations by May 27, 2016.

Your assistance in this very important task is appreciated.

Sincerely,

A handwritten signature in black ink, appearing to read "France A. Córdoba". The signature is fluid and cursive, written over a light blue horizontal line.

France A. Córdoba
Director

Enclosures

**Search Committee Review Criteria
for the Assistant Director for Engineering (AD/ENG), NSF**

We are seeking demonstrated evidence of:

Strategic Vision

- Working knowledge of the major current intellectual challenges and opportunities across engineering disciplines.
- Ability to think strategically and formulate integrated plans for research and education activities in the engineering disciplines, especially at the interfaces of, and boundaries with, other disciplines.
- Ability to bring about strategic change, both within and outside the organization, to meet organizational goals. Includes the ability to establish an organizational vision and to implement it in a continuously changing environment.

Leadership, Direction, Representation

- Ability to lead people toward meeting the organization's vision, mission, and goals. Includes the ability to provide an inclusive workplace that fosters the development of others, facilitates cooperation and teamwork, and supports constructive resolution of conflicts. Ability to provide innovative and transformative leadership of people, reflective of NSF's organizational values.
- Ability to serve effectively as a member of NSF's senior management team, helping to develop consensus both within the ENG directorate and across the agency on policy and plans.
- Ability to plan, prioritize, and coordinate interagency and international research and education programs and to forge government-industry-university partnerships.
- Ability to manage an organization consisting of approximately 151 scientific and administrative professionals; ability to manage human, financial, and information resources strategically.
- Ability to communicate NSF policy and strategic plans to the external community, including the public, Congress, industry, and colleagues in other disciplines.
- Ability to meet organizational goals and customer expectations. Includes the ability to make decisions that produce high-quality results by applying technical knowledge, analyzing problems, and calculating risks.

Commitment

- Commitment to transforming the frontiers of science and engineering, stimulating innovation and addressing societal needs through research and education, and excelling as a federal science agency goals of the NSF Strategic Plan and to the strategies for achieving these goals through developing intellectual capital, integrating research and education, and promoting partnerships and an ability to conceptualize the role of the engineering disciplines in achieving those goals.
- Commitment to the appointment and development of a highly qualified staff that reflect the diversity of our Nation and to the equitable representation of underrepresented groups and institutions on advisory committees, in workshops, and proposal review panels.
- Commitment to equitable representation of underrepresented groups in the national enterprise.

Credibility within Research and Education Community

- Substantial research contributions and experience in academic, government and/or private national research and education endeavors as evidenced in publications, innovative leadership in research administration and/or professional leadership awards.
- Ability to build coalitions internally and with other Federal agencies, State and local governments, nonprofit and private sector organizations, foreign governments, or international organizations to achieve common goals.
- Demonstrated commitment to scholarship and significant scientific contributions to the engineering disciplines.
- Broad understanding of universities and other institutions where engineering research and education are conducted.
- Familiarity with the existing U.S. and international infrastructure that supports research and education.

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The National Science Foundation Directorate for Engineering

The **National Science Foundation** (NSF) is an independent agency of the United States Government. Its vision is to enable the Nation's future through its strategic goals of transforming the frontiers of science and engineering, stimulating innovation and addressing societal needs through research and education, and excelling as a federal science agency. The Foundation seeks to realize these goals using five core values: scientific excellence, organizational excellence, learning, inclusiveness, and accountability for public benefit. NSF invests in research and education that will advance the frontiers of knowledge and establish the Nation as a leader in transformational science; cultivate a world-class, broadly inclusive science and engineering workforce and scientifically literate citizenry; build the Nation's research capacity with critical investments in advanced instruments, tools and facilities; and cultivate a capable and responsive organization that promotes excellence in science and engineering research and education.

The **Directorate for Engineering** (ENG) is one of seven NSF directorates and is organized into five divisions — Chemical, Bioengineering, Environmental, and Transport Systems (CBET); Civil, Mechanical, and Manufacturing Innovation (CMMI); Electrical, Communications, and Cyber Systems (ECCS); Engineering Education and Centers (EEC); and Industrial Innovation and Partnerships (IIP) — as well as the Office of Emerging Frontiers and Multidisciplinary Activities (EFMA). The directorate employs approximately 151 staff members and administers a budget of approximately \$920 million.

The **Division of Chemical, Bioengineering, Environmental, and Transport Systems** (CBET) supports innovative research and education in the fields of chemical engineering, biotechnology, bioengineering, and environmental engineering. The division also supports work in areas involving the transformation and/or transport of matter and energy by chemical, thermal, or mechanical means.

The **Division of Civil, Mechanical, and Manufacturing Innovation** (CMMI) enables fundamental research and education in the disciplines of civil, mechanical, industrial and manufacturing engineering, materials design and mechanics, advances in engineering mathematics, engineering decision-making, and systems control and engineering. The Division also focuses on reducing risk and damage from earthquakes and other natural and technological hazards.

The **Division of Electrical, Communications, and Cyber Systems** (ECCS) addresses fundamental challenges underlying device and component technologies, power, controls, computation, networking, communications and cyber technologies. The Division supports the integration and networking of intelligent systems principles at the nano, micro and macro scales for a variety of applications in healthcare, homeland security, transportation, and other systems-related areas.

The **Division of Engineering Education and Centers** (EEC) integrates basic research and education conducted across NSF into strategic frameworks that address societal grand challenges and promote innovation. Research projects in the EEC portfolio span the physical, life sciences, and engineering arenas. The Division also supports formal scholarly studies in engineering education, which include investments in faculty, graduate and undergraduate students, post-doctoral scholars, and K-12 teachers.

The **Division of Industrial Innovation and Partnerships** (IIP) serves the entire agency by fostering partnerships among federal, small business, industrial, university, state and community college stakeholders that advance technological innovation. The Division also plays an important role in the public-private innovation partnership enterprise.

The **Office of Emerging Frontiers and Multidisciplinary Activities** (EFMA) signature activity is the Emerging Frontiers of Research and Innovation program (EFRI). EFRI-supported investigators pursue cutting-edge, interdisciplinary research with the potential for transformative impacts on national needs and grand challenges. The Office can focus on long-term challenges, while retaining the agility to adapt as new engineering challenges arise.

The **Assistant Director for Engineering** (AD/ENG) serves as a key member of NSF's senior policy team and provides leadership and direction to ENG's programs and initiatives. The incumbent is responsible for planning and implementing programs, priorities, and policy within the framework of statutory and National Science Board authority. NSF seeks a candidate with outstanding leadership abilities; a demonstrated commitment to scholarship; a grasp of the issues and opportunities facing the engineering community; and a commitment to the goals and strategies of the National Science Foundation.