



**National Science Foundation
4201 Wilson Boulevard
Arlington, Virginia 22230**

CMMI 16-005

Dear Colleague Letter: Division of Civil, Mechanical and Manufacturing Innovation (CMMI), Structural and Architectural Engineering and Materials (SAEM) Program, Directorate for Engineering - Employment Opportunity for Program Director Position (Open Until Filled)

January 5, 2016

The Division of Civil, Mechanical and Manufacturing Innovation (CMMI) in the Engineering Directorate announces a nationwide search to fill the Program Director position for the Structural and Architectural Engineering and Materials (SAEM) Program. This search is a continuation of a previously announced search for a Program Director in Structural and Architectural Engineering (SAE) Program.

Program Directors have an unparalleled opportunity and responsibility to ensure NSF-funded research is at the forefront of advancing fundamental knowledge. In support of that, Program Directors are responsible for extensive interaction with academic research communities and industry, as well as interaction with other Federal agencies that may lead to development of interagency collaborations. Within this context, Program Directors solicit, receive and review research and education proposals, make funding recommendations, administer awards, and undertake interaction with research communities in these fields. They are also responsible for service to Foundation-wide activities and initiatives that together accomplish NSF's strategic goals to: 1) transform the frontiers of science and engineering, 2) stimulate innovation and address societal needs through research and education, and 3) excel as a federal science agency. The position requires a commitment to high standards of intellectualism and ethical conduct, a considerable breadth of interest, receptivity to new ideas, a strong sense of fairness, good judgment, and a high degree of personal integrity.

Formal consideration of interested applications will begin **January 15, 2016** and will continue until a selection is made.

The Structural and Architectural Engineering and Materials (SAEM) Program supports fundamental research to advance knowledge and innovation in structural and architectural engineering, and infrastructure (structural and architectural) materials that enables a holistic approach to design, construction, operation, maintenance, retrofit, repair and end-of-life disposal of structures. For buildings, a holistic approach incorporates the foundation-structure-envelope-nonstructural system, as well as the facade and roofing. Research topics of interest for sustainable structures include: strategies for structures that over their lifecycle are cost-effective, make efficient use of resources and energy, and use of sustainable structural and architectural materials; deterioration due to fatigue and corrosion; serviceability in the case of large deflections and vibrations; and advances in physics-based computational modeling and simulation. Research in infrastructure materials of interest includes fundamental investigations into new sustainable structural and architectural materials that are multifunctional and integral to lifetime serviceability of the structure, and extend beyond conventional uses of mature or current infrastructure construction materials such as concrete, steel, and masonry. Research is encouraged that integrates discoveries from other science and engineering fields, such as materials science, building science, mechanics of materials, dynamic systems and control, reliability, risk analysis, architecture, economics and human factors.

The successful candidate must demonstrate in-depth expertise in structural engineering and use of structural and architectural materials in buildings, as well as understanding of deterioration and serviceability concerns of buildings and other structures. Knowledge of analytical and computer simulation as well as ability to judge integration of other sciences to achieve sustainable structures that can be continuously occupied and remain operational during a structure's useful life is necessary. The SAEM Program is highly interdisciplinary and the Program Director participates in several cross-cutting initiatives across the National Science Foundation. The SAEM Program Director will be expected to work both independently and cooperatively as a member of a team-based program structure, and will also work in a team-based organizational structure as one of three Program Directors in the CMMI Division's Engineering for Natural Hazards Program (http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=505177&org=CMMI). Accordingly, experience working in interdisciplinary teams is highly desired.

Persons wishing to apply for this position are referred to the Divisional web page, <http://www.nsf.gov/div/index.jsp?div=CMMI>, for a description of the Program. These persons are also encouraged to contact the current Program Director, who is identified on the Program web page, for more information.

Qualifications of a successful candidate include a PhD degree in an appropriate field plus six years or more of successful research subsequent to award of the PhD, and research administration, and/or managerial experience pertinent to the position. The position requires effective oral and written communication skills, and familiarity with NSF programs and activities is highly desirable. The incumbent is expected to function effectively, both as an individual within the specific NSF program and as a member of crosscutting and interactive teams. The incumbent must also demonstrate a capability to work across government agencies to promote NSF activities and to leverage program funds through interagency collaborations.

The position may be filled under one of the following appointment alternatives:

Intergovernmental Personnel Act (IPA) Appointment: 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 the negotiated 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 to a maximum of four years total. These positions are ineligible to convert to permanent NSF service. For additional information regarding IPA positions, please visit the NSF website at: http://www.nsf.gov/about/career_opps/rotators/ipa.jsp.

Visiting Scientist, Engineer or Educator (VSEE) Appointment: Appointment to this position will be made under the Excepted Authority of the NSF Act. Visiting Scientists are on non-paid leave status from their home institutions and placed on the NSF payroll. 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 institutions or to the carrier. Appointments are usually made for a one-year period and may be extended for up to two additional years by mutual agreement. These positions are eligible to convert to permanent NSF service.

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 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, and life insurance) are applicable for appointments of more than one year. Temporary appointments may not exceed three years. These positions are eligible to convert to permanent NSF service.

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/rotators/ and <http://www.nsf.gov/careers/rotator/microsite/>.

Applications will be accepted from US 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. Non-citizens who do not provide the affidavit at the time of application will be considered for IPA only. We also ask that you complete and submit the Applicant Survey Form. This will help NSF to ensure that our recruiting efforts are attracting a diverse candidate pool; it will be used for statistical purposes only.

Applicants should indicate in their cover letter that they are applying to the SAEM program. Please submit your application via email to:

CMMI Associate Program Director Search Committee
Dr. George A. Hazelrigg
Division of Civil, Mechanical and Manufacturing Innovation
Directorate for Engineering
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