



**NATIONAL SCIENCE FOUNDATION
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NSF 17-145

Dear Colleague Letter: Announcing Realignment of the Civil Infrastructure Systems (CIS) Program

September 26, 2017

Dear Colleagues:

The Division of Civil, Mechanical and Manufacturing Innovation (CMMI), within the National Science Foundation's Directorate for Engineering, announces a realigned focus for the Civil Infrastructure Systems (CIS) program. The re-aligned Civil Infrastructure Systems (CIS) program focuses on fundamental and innovative research in the design, operation and management of civil infrastructure that contributes to creating smart, sustainable and resilient communities at local, national and international scales. This program emphasizes civil infrastructure as a system in which interactions between spatially and functionally distributed components and inter-system connections exist. This DCL highlights three important program changes as described below.

NEW PROGRAM HIGHLIGHTS

- All critical civil infrastructure systems are of interest, including transportation, power, water, pipelines and others. The program requires that investigators clearly articulate the basic and fundamental contribution that will be generated.
- The program particularly welcomes potentially disruptive ideas that will open new frontiers and transform relevant research communities. Topics of interest include novel system and service designs that are inspired by or in harmony with nature, that involve humans as part of the design, and that adapt to changing populations and technological advances; system integration that seeks to create seamless integration across physical, cyber and human systems; real-time control, adaptation and intervention requiring the development of a new generation of models and algorithms; big data analytics that challenge existing paradigms and generate methodological breakthroughs; and social-technological-infrastructure connections that create critical knowledge in understanding how people interact with civil infrastructures.
- Proposals in construction engineering are no longer accepted by the CIS program. They should be submitted to the Engineering for Civil Infrastructure (EIC) program.

While certain subject-matter knowledge may be crucial in many research efforts on the design, operation and management of civil infrastructures, the program does not support research with a

primary contribution in non-CIS-focused subjects such as materials, sensor technology, extreme event analysis, human factors, climate modeling, structural, geotechnical, hydrologic, environmental or construction engineering.

Full program details are available at: https://www.nsf.gov/funding/pgm_summ.jsp?pims_id=13352.

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