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NSF 12-099

Dear Colleague Letter: New Programs and Refocusing of Existing Programs in CMMI

The Division of Civil, Mechanical, and Manufacturing Innovation (CMMI) announces two new programs as well as the refocusing of several existing program descriptions. These programmatic changes are part of a larger ongoing effort by CMMI to respond to emerging research areas and the needs of its research communities. Descriptions of the new programs in CMMI are as follows:

- The **System Science (SYS)** program funds fundamental research on engineered systems that will support the creation of a mathematically sound framework for systems engineering. The System Science program invites proposals that address fundamental systems issues including system performance prediction, uncertainty quantification in the systems context, theoretical foundations for aggregation in systems, decision-making in the systems context, and operation and maintenance in the systems context.
- The **Design of Engineering Material Systems (DEMS)** program supports innovative, fundamental research intended to lead to new paradigms of design, development, and insertion of advanced engineering material systems. Fundamental research that develops and creatively integrates theory, processing/manufacturing, data/informatics, experimental, and/or computational approaches with rigorous engineering design principles, approaches, and tools to enable the accelerated design and development of materials is welcome.

The creation of these two programs is part of the division's ongoing effort to identify and support emerging fundamental research directions that cut across traditional disciplinary boundaries and/or are aligned with national needs. Such efforts have an ultimate goal to facilitate the building of vibrant research communities and establishing U.S. leadership in these emerging areas. Moreover, these new programs represent a growing desire in CMMI to support and strengthen research communities and areas that cross traditional disciplinary boundaries. At the same time, the division has refocused the scope of existing programs as a means to limit overlap and limit confusion to its communities.

SYS and DEMS will begin to accept proposals with the fall (September 1 - October 1) CMMI unsolicited proposal submission window. Future submissions will be accepted during both windows for unsolicited proposals. (September 1 - October 1 and January 15 - February 15). Beginning in FY2013, CAREER proposals will be accepted in these programmatic areas as well.

Each of these new programs will be directed in a collaborative manner by CMMI program directors who will work to ensure synergy between these new cross-cutting programs and existing programs. Program directors will be especially sensitive to accept proposals that are in strong alignment with the articulated program goals and will return without review proposals that are not. Prospective proposers are urged to review the program descriptions of all CMMI programs before submitting, and are encouraged to contact the cognizant program director of each activity to discuss their ideas and their alignment with programmatic themes.

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