



OPPORTUNITY in The Systems Integration Division



The National Institute of Standards and Technology (NIST) is looking for a highly motivated person to work as a professional researcher in areas related to the next generation of manufacturing technology—Smart Manufacturing. Smart Manufacturing has the potential to fundamentally change how products are designed, manufactured, supplied, used, remanufactured and eventually retired. The technology will enable rapid reconfiguration of manufacturing systems to respond to a variety of external conditions, including mass customization of products. At the same time, the new systems put into place must be sustainable. At NIST you will stay on the cutting edge of this revolution by understanding emerging technology and developing technical approaches to its measurement and standardization.

Applicants should be US citizens and have

- a degree in engineering or computer science, or equivalent experience.
- complementary skills in computer science and industrial or related engineering discipline.
- an interest in the integration of engineering information systems.
- experience with manufacturing systems, data or system modeling methods, data analytics, and/or performance measurement techniques.
- strong written and oral communication skills.
- demonstrated interest in research either with a PhD or with an interest in pursuing a PhD.

Experience in some or all of the following is a plus:

- Systems engineering
- PDM/PLM tools
- Engineering information systems
- Java and related technologies
- Software and information integration and testing techniques
- Data analytics for manufacturing
- Performance measurement for manufacturing
- Additive Manufacturing
- Manufacturing sustainability measurement
- Systems and information integration techniques
- Technical documentation and/or research papers
- Work in an industrial setting
- National or international standards development in related field

NIST is a leading research organization that facilitates the collaboration of commercial, academic, and standards development activities. Our team is made of talented and motivated scientists and engineers working together with outside organizations including US industry, international research and standards groups, and academic and government partners. This is a great opportunity for someone who likes to learn about leading edge technology and how to apply their skills in a problem-based environment.

For further information contact or send your resume to: KC Morris kcm@nist.gov



A brief description of the area of work

Smart Manufacturing Systems (SMS) are defined by the advent of new technologies that promote rapid and widespread information flow

within the manufacturing system and surrounding its control—e.g. wireless, cloud, social collaboration, robotics, cyber security. These technologies are emerging in all sectors of society and are spurring novel new approaches to problems. In addition to these are a complementary set of new technologies for system design and deployment that are enabling rapid restructuring for manufacturing enterprises—e.g., systems engineering, systems modeling, simulation, data analytics. These technologies will enable the wide-spread deployment of Smart Manufacturing Systems.



The SMS Programs within the Systems Integration Division focus on the need for standards to support SMS. Standards enable three necessary characteristics for the success of Smart Manufacturing: repeatable processes, comparison of implementations, and the rapid configuration of systems from reusable components. The work of the division involves applying new technologies in the context of SMS, researching novel approaches to using the technologies, demonstrating the potential for standards based on these technologies, and promoting the development and implementation of those standards.

Some other notes you may find useful

- NIST is an agency of the U.S. Department of Commerce and is located in Gaithersburg, Maryland—a suburb of Washington, DC.
- All of our work is public domain.
- We work very closely with industry, other government agencies, and academia.
- Computing resources are state-of-the-art and plentiful.
- Continuous learning is part of the job and funding for further education may be available.
- For more information about NIST and employment benefits:
<http://nist.gov/hrmd/index.cfm>