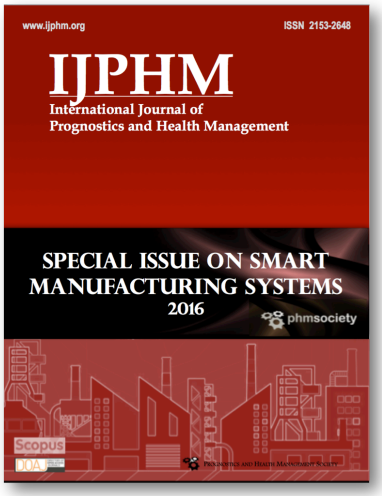

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CALL FOR PAPERS

Special Issue of the

International Journal of Prognostics and Health Management

Prognostics & Health Management for Smart Manufacturing Systems

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The International Journal of Prognostics and Health Management (IJPHM) is the premier *online open access journal* related to multidisciplinary research on Prognostics, Diagnostics, and System Health Management. This special issue is focused on research advances in condition monitoring, diagnostic, and prognostic technologies and infrastructure enabling smart manufacturing operations.

Manufacturing is an integral part of the world's economy and has been experiencing a revitalization in the United States in the last decade. Likewise, consumers are demanding greater product variety, customization, and more immediate availability. To keep up with these changing demands, manufacturers must promote reconfigurable and dynamic operations. Smart manufacturing is emerging as the new backbone of factory operations to enable fluid integration of new and legacy physical and virtual technologies to permit dynamic processes necessary to accommodate high product variability and volatility. Complex system, sub-system, and component interactions within smart manufacturing systems make it challenging to determine specific influences of each on process faults and failures. Understanding the failure modes, detecting precursors to failure, tracking degradation mechanisms, and predicting the remaining useful life of components and systems is vital to the success of smart manufacturing operations. This CFP solicits papers that discuss the development of new and augmenting existing smart manufacturing PHM techniques; highlight measurement techniques capable of verifying and validating smart manufacturing PHM; and spotlight emerging hardware and software that can be leveraged in support of smart manufacturing PHM.

Topics of Interest:

- PHM techniques and metrics
- Advanced sensing, sensor fusion, and analysis
- Data collection, management, and dissemination
- Test scenarios and use cases of PHM techniques
- Uncertainty quantification, verification and validation of PHM techniques
- Human performance and reliability issues
- Condition monitoring of equipment and processes
- Hierarchical scheduling and control through equipment- to factory-wide PHM
- Predictive and risk-based maintenance practices
- PHM applications within manufacturing (e.g. machine tools, robotics)
- Integration of PHM elements into new and legacy systems

Submission Types:

***Full-Length Regular Papers*:** Regular papers should describe new and carefully confirmed findings. Experimental procedures and results should be given in detail sufficient for others to replicate the work.

***Technical Briefs*:** Technical briefs describe a single result, experiment, or technique of general interest in short manuscripts enough to describe experimental procedures and clearly, and interpret the results in the context of other research.

***Industry Case Studies*:** Case studies are descriptive accounts of PHM applications in a real industrial environments. Techniques and apparatus used, results obtained, and lessons learned can be included to share experience with the community.

***Survey Papers*:** Survey papers are of a tutorial or review nature covering emerging research topics in PHM or describe the best current practice, detailed characteristics and performance. These papers cover areas of general interest.

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Submission Instructions: Please submit your manuscripts directly by going to the society webpage and follow instructions for journal submissions. There you will find an option to select the smart manufacturing special issue.

Invitation to Present: Accepted papers are eligible for podium presentation at Annual Conference of the PHM Society, Denver 2016, Colorado Springs, CO, USA

Deadline for Submission: February 9, 2016