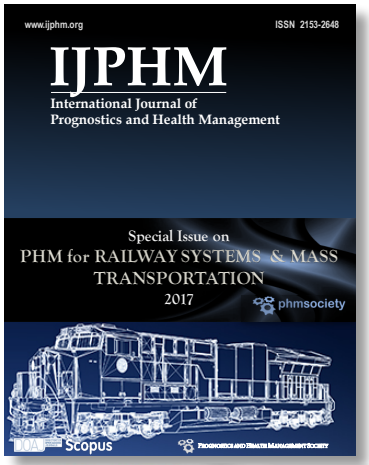

CALL FOR PAPERS

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Special Issue of the

International Journal of Prognostics and Health Management

PHM for Railway Systems & Mass Transportation

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Abstracts/NOIs Due: December 11, 2016

Deadline for Submission: April 14, 2017

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 enhancing maintenance of railway and mass transportation infrastructure assets.

Nowadays, about 50 percent of the life cycle costs of railway infrastructures are made up by maintenance costs. In addition, rising demands on railroad infrastructure operators by means of profitability and punctuality call for advanced concepts of Prognostics and Health Management. Condition based preventive maintenance aims at strengthening the rail mode of transport through an optimized scheduling of maintenance actions based on the actual and prognosticated infrastructure condition. Prerequisite therefore is the almost continuous condition monitoring for thousands of kilometers of railway tracks as well as ten thousands of technical systems and sub-systems. The rapidly expanding possibilities for embedded sensors in all types of technical components as well as in-line railway vehicles are the key enabler for condition based preventive maintenance in large and distributed railway networks. This CFP solicits papers that discuss the development of advanced sensor-based condition monitoring, smart data management, intelligent diagnostic data analysis, degradation models, condition prognosis and maintenance scheduling for railway and mass transportation systems.

Topics of Interest:

- PHM techniques and metrics
- Advanced sensing, sensor fusion, and analysis
- Data collection, management, and dissemination
- Uncertainty quantification, verification and validation of PHM techniques
- Challenges (business and technical) in PHM deployment in railways and mass transportation
- Condition monitoring of railway infrastructure
- Predictive and risk-based maintenance practices
- Scheduling of maintenance actions
- Advanced data analytics for railways and mass transportation
- Human performance and reliability issues
- Integration of PHM elements into new and legacy systems
- Test scenarios and use cases of PHM techniques

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 special issue on railway systems.

Invitation to Present: Accepted papers are eligible for podium presentation at Annual Conference of the PHM Society, PHM 2017, St. Petersburg FL, USA