

Special Issue on Engineering Applications of Intelligent Monitoring and Control 2014

Call for Papers

Monitoring and control have found extensive applications in multiple domains including mechanical engineering, electrical engineering, control engineering, civil engineering, biomedical engineering, and micro- /nanoengineering. Intelligent systems have a capability to acquire and apply knowledge in an intelligent manner and have the capabilities of perception, reasoning, learning, and making decisions from incomplete information. Therefore, intelligent system approaches for monitoring and control pave a practical way for a variety of engineering applications in the absence of human interaction.

The main focus of this special issue will be on new and existing intelligent systems whose goal is to monitor and control diverse physical processes with no (or very little) human interaction. The special issue will become an international forum for researchers in all branches of engineering to present and summarize the most recent developments and ideas in intelligent monitoring and control and relevant domains. Potential topics include, but are not limited to:

- Structural health monitoring, damage assessment, and life prediction
- Condition monitoring, nondestructive evaluation, and reliability analysis
- Health and environmental monitoring/prediction
- Prognosis and diagnosis
- Intelligent system management
- System modeling, characterization, identification, and optimization
- Advanced computational methods, control systems, and automation
- Artificial neural networks, fuzzy logic systems, and evolutionary computing
- Process control, motion/force control, vibration control, and fault tolerant control
- Smart materials and structures, sensors and actuators, and sensor networks
- Signal processing, communication, modern software and hardware systems, and Internet-based control and manufacturing

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First Round of Reviews	Friday, 11 July 2014
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