



Mobile Information Systems

Special Issue on
**Machine Learning in Mobile Computing and
Wireless Sensor Networks**

CALL FOR PAPERS

In recent years, we have witnessed a tremendous use of mobile and (tiny) sensor devices with its integration, adopted by several applications such as healthcare, agriculture, and ubiquitous monitoring and controls, especially prevalently used in Internet of Thing (IoT). Many of their key characteristics have made prevalent of their usages, self-containing and self-organization including multifunctional sensors, computing, and transmission logics with embedded storage and power supply. However, this self-characteristic comes with the limitation including severe power and rigid resources aside from other practical issues, mobility, unreliable sensor, frequent topology change, and precision. These unique characteristics pose considerable challenges, especially on the design of large-scale networks, for example, routing, clustering, MAC, location and deployment, and energy-efficient operations. The problems in different scenarios require different methods and algorithms to achieve optimal performance. Machine learning is one of the intelligent systems aiming to explore the study of the ability of learning without being explicitly programmed in several areas, for example, classification, regression, clustering, searching, and prediction. This learning technique encourages practical solutions to reach resource optimization with constraints. Moreover, the design of specific intelligent algorithms has long been a hot research topic to deal with data in mobile and pervasive networks for satisfactory performance across the issues in regard to distributed and pervasive property.

The main focus of this special issue is to provide high-quality research reports on the optimization techniques from the applied machine learning as intelligent algorithms for mobile computing and wireless sensor networks. Novel research articles and comprehensive recent reviews are solicited for this issue providing a consolidated state of the art research in this area.

Potential topics include, but are not limited to:

- ▶ Addressing, positioning, and localization
- ▶ Content based and Context Sensitive Systems
- ▶ Energy Management and Harvesting
- ▶ Internet of Things (IoT)
- ▶ Media Access Control (MAC)
- ▶ Mobile and Pervasive Cloud Computing
- ▶ Mobile Social Networks
- ▶ Routing and Clustering

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