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IEEE Internet of Things Journal Special issue on
Integrated Computing: Computational Intelligence Paradigms and Internet of Things for Industrial Applications

Integrated computing provides a promising solution to the industry for building the IoT systems and make innovation at a rapid pace. The new era of integrated computing with reference to IoT for Industrial applications has three main components: (a) intelligent devices, (b) intelligent system of systems, and (c) end-to-end analytics. This special issue is integrating Computational Intelligence (CI) paradigms, advanced data analytics optimization opportunities to bring more compute to the IoT. CI paradigms are more appropriate for handling uncertainty and complexity of solving real work problems compared to traditional statistical approaches and tools presently being utilized. In fact, recent literatures have addressed the inherent power of fusion of CI approaches. Moreover, it can provide the effective solutions for machine understanding of data (structured/semi structured), optimization problems, specifically, dealing with incomplete or inconsistent information, with limited computational capability related to Internet of Things (IoT). This special issue aims to address the integrated computing, recent developments of and their diverse IoT applications as well as theoretical studies. Besides, we can consider CI-based re-enforcement paradigms and predictive learning algorithms are more applicable to IoT datasets, time series data from IoT devices with sensor fusion and streaming. Furthermore, there are many noteworthy issues ((Data Management, Data Analytics, Resource Management, Decision Automation etc) that need to be addressed in the view of computational intelligence and meta-heuristic algorithms with relate to IoT. This special intends to give an overview of state-of-the-art of issues and solution guidelines in the new era of integrated computing and advances of CI approaches and optimization techniques for IoT. Proposed submissions should be original, unpublished, and present novel in-depth fundamental research contributions either from a methodological/application perspective in understanding CI paradigms and their capabilities in solving a diverse range of problems in IoT and its real-world industrial applications.

We seek original and high quality submissions related to (but not limited to) one or more of the following topics: (Note that this special issue emphasizes "real world" applications)

- Hybrid Intelligent Models and Applications for IoT and Industrial applications

- Nature-Inspired Smart Hybrid Systems for IoT Context-Aware Systems

- CI for Data Analytics and Decision Automation in IoT for Industry
- Knowledge-Based Discovery with Evolutionary Algorithms for IoT devices
- Fuzzy Based Context-Aware System for IoT Services for industrial informatics
- Fuzzy Fusion of Sensors, Data and Information
- Meta-Heuristic Algorithms for IoT and wearable Computing
- Hybrid Optimization Methods Emerging real world and theoretical applications of IoT in Industry

- Innovative Deep Learning Architectures/Algorithms for Time Series Data and IoT
- Neural network modelling, analysis and synthesis techniques in ubiquitous communications
- Multi-Objective IoT System Modelling and Analysis—Performance, Energy, Reliability, Robustness
- Modelling and simulation of large-scale IoT scenarios
- IoT Standardization and Implementation Challenges

Important Dates

Manuscript Submission: **September 15, 2017**
Revision Due: **January 15, 2018**
Final Manuscript Due: **March 15, 2018**

Notification of Acceptance: **December 1, 2017**
Second Reviews Due/Notification: **March 1, 2018**
Publication: **2018**

Submission

All original manuscripts or revisions to the IEEE IoT Journal must be submitted electronically through IEEE Manuscript Central, http://mc.manuscriptcentral.com/iot. Solicited original submissions must not be currently under consideration for publication in other venues. Author guidelines and submission information can be found at http://iot.ieee.org/journal. Each submitted manuscript will be sent to 3 reviewers who will evaluate your work. The Call for Paper is available at http://iot-journal.weebly.com/call-for-papers.html.

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