Tentative Outline

Special Thematic Issue for the journal International Journal of Sensors, Wireless Communications and Control (SWCC)

Industry 4.0- Future Generation Technologies IoT, Blockchain, and Data Science

Guest Editors: Prof. (Dr.) Vikram Bali - Lead Guest Editor

Ms. Deepti Aggarwal - Associate Guest Editor

Scope of the Thematic Issue:

Industry 4.0 is revolutionizing rigid planning and production processes. Industry 4.0 originates from a simple idea: Merging an existing physical entity with advanced IT elements such as IoT, Cloud-Based Data, Sensors, Automator, and Analytics - Creating something that offers a surplus benefit than its original predecessor, Industry 3.0. Machine Learning, Cloud Computing, Blockchain and Internet of Things (IOT) are the topics of contemporary research interest. The Industry 4.0 evolution and the arrival of the IoT have significantly increased the complexity and the level of risk to which all enterprises are subject, necessitating an efficient management of corporate security. Industry 4.0 is a massive shift towards automation and digitization, utilizing the Internet of Things and cyber-physical systems such as sensors, to aid in data-collection for manufacturing verticals. Industry 4.0 involves a hyperconnected system that includes the smarter use of robotics to effectively and efficiently move to manufacture to new heights. With the use of all these technological systems, it is imperative to ensure that cyber security plays a role during the rise of this digital industrial revolution. Advances in Machine Learning is changing the traditional manufacturing era into smart manufacturing era of Industry 4.0.

The aim of this special issue is to address topics in IoT, Blockchain, Cloud Computing and Data Science for Industry 4.0 and bring together researchers, developers, practitioners and users who are interested in these areas to explore new ideas, techniques, tools, and to exchange their experiences.

Keywords: Internet of Things (IOT), Blockchain, Cloud Computing, Machine Learning, Sensors and Data Science

Sub-topics:

The sub-topics to be covered within the issue should be provided:

- IOT Applications in Research Domains
- Machine Learning for Traffic Management in IOT
- Cloud Computing and Grid Computing in Industry 4.0
- Cyber Systems and Security in Industry 4.0
- Models and Applications of IOT in Industry 4.0
- Data Analytics and Machine Learning in IOT
- Architecture, Performance and Scalability of Cloud Services
- Machine learning for Big Data Analytics
- Protocols and Architecture for IOT
- Smart Healthcare Systems
- Smart Supply Chain Management Systems
- Simulation and Modelling of large scale IOT Scenarios
- Wearable Computing
- Aspects in IOT: Validation, Verification, Assurance, Security, Privacy
- Blockchain Applications for Industry 4.0
- Managing Security in IOT through Blockchain
- Scalability Challenges in IOT through Blockchain

- Need for Blockchain for IOT in supply chain

Tentative titles of the articles and list of contributors:

Tentative titles of the articles and list of contributors with their names, designations, addresses and email addresses should be provided.

Schedule:

Thematic issue submission deadline:

- Manuscript Submission Deadline: 20 August 2020
- First Round of Review Due: 05 September 2020
- Revision Due: 30 September 2020
- Expected Decision by Guest Editor: 05 October 2020

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