

## Tentative Outline

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

### Recent Advances in Internet of Things

*Guest Editors:*

*Dr Mohammad Ayoub Khan,*

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#### • Scope of the Thematic Issue:

With the advent of Internet of Things, a deluge of devices is being connected to the network and are generating a large amount of data. According to Gartner research, 75 billion “things” will be connected to the Internet by 2025 and more than 10 trillion GB data will be generated. Along with the increase in devices, managing these devices in the existing centralized model will bring great challenges to the current computing infrastructure. Also, current security protocols cannot effectively protect the security and privacy of user data. Due to the lack of trust, organisations are also reluctant to provide the data for business analysis. The data generated from IoT devices turns out to be of value only if it gets subjected to analysis, which brings data analytics into the picture. The broadly, these analytics includes Streaming Analytic, Spatial Analytics, Time Series Analytics, Prescriptive Analysis. The data generated from IoT devices can be geographical data, environmental data, medical data, operational, logistic data, and so on. The data acquisition sources in IoT are mobile devices, GPS devices, sensors, public facilities, and home appliances. The volume of such data will surpass the capacities of the IT architectures and infrastructure due to real time data analysis that would greatly impact on current computing power. The existing data processing capacity of IoT is becoming ineffective due to the generation of huge heterogeneous data by IoT devices. It is important to realize that the success of IoT depends on the efficiency of Data analytics. The widespread deployment of IoT has given a challenge to Big Data community to discover newer analytics techniques which are compatible to IoT. The purpose of this workshop is to provide recent results and related surveys on IoT and big data analytics along with applications.

**Keywords:** 6 to 8 keywords should be provided.

Internet of Things, WSN, IoT architecture, Applications, IoT data management, IoT Security, smart systems

#### Sub-topics:

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

- IoT architecture and scalability
- IoT Applications and Wireless Sensors Networks
- Data source in IoT and Complexity
- Security issues in IoT
- Data Privacy and Security issues in IoT
- Role of Blockchain in IoT
- Architecture for IoT Analytics Platforms
- Protocols for IoT and Data Analytics
- Energy and Power Issue in IoT Big Data acquisition techniques
- Data storage and processing techniques in IoT
- Big Data programming model for IoT
- Tools and Frameworks for IoT Analytics
- Mining and Knowledge Discovery in IoT

#### 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.

Not applicable as the paper will be through open call and extended version of conference

<https://smartcom2020.com/>

#### **Schedule:**

- ✧ Thematic issue submission deadline:
- ✧ Manuscript submission deadline: July 15, 2020
- ✧ Notification of acceptance: Aug 15, 2020
- ✧ Submission of final revised paper: Sep 10, 2020
- ✧ Publication of special issue (tentative): Sep 30 2020

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