IoT and Big Data Impact on Various Engineering Applications

Aims & Scope:

Since the past decade, as the miniaturization of Internet of things devices increases, voluminous amounts of data have been produced. Due to this, there is an undeniable need to adopt big data in IoT applications. Having recognized the fact that in this smart connected world, “IoT is the senses and Bigdata is the fuel”, there is a gripping need for the implementation of these two key technologies across various engineering domains in the world. IoT and big data applications in domains such as Social network analysis, E-governance, NLP, Speech recognition, bioinformatics, Industry, Healthcare, Disaster management, Medical imaging would have rewarding effects on business, human life style and health.

Big data social network analysis has diversified set of applications and research areas in travel and tourism, defence, security etc. IoT services in e-governance can produce better productivity in strategic, tactical and operational levels in the field of agriculture. IoT driven big data analytics automation can enable better digital decision-making process. IoT is emblematic of so much of big data’s promise and when combined with machine learning manifestation such as speech recognition, can consistently aid the enterprise in the analytic endeavours associated. The influence of big data analytics in bio-informatics is vital as the advancement of unparalleled data in bioinformatics over the years is a major concern for storage and management. Disseminating knowledge from such massive data could be a key aspect in the field of bioinformatics. Personalised preventive health coaches can be developed by efficiently making use of IoT and big data analytics. As the application of IoT big data is relatively new in medical imaging and disaster management, many improvements in the capacity, management and research level will help to get the maximum benefits from this opportunity.

Also, there could be considerable amount of challenges that can arise during the implementation of such applications. Issues related to data privacy, processing and visualization have to be sorted out using appropriate techniques.

With this special issue, we aim to discover the new ways to embrace the opportunities that Evolving Big IoT data offers in terms of data modelling, integration, processing, and provisioning as well as in terms of developing flexible and dynamic system solutions. In particular we are looking for descriptive approaches, formal models, simulations, implementation solutions, use cases, and applications that support Big IoT data and their applications. Topics of interest include but are not limited to:

Keywords:
IoT, Big Data, NLP, Speech Recognition, Bioinformatics, Healthcare.

Subtopics:
- Big data analytic tools Privacy issues and their solution
- Data mining and processing related challenges related to Big IoT data architecture
Challenges in visualization of heterogeneous Big IoT data and their solution
Complexities involved in structure adjustment of un-structured and semi-structured Big IoT data before their integration
Big IoT Social network data analysis for smart cities
Internet of things for sophisticated E-governance
Future of smart devices with NLP
Manifestation of Big data and IoT in Speech recognition
Emerging trends of big data analytics in Bioinformatics
Industry revolution by big data and IoT
Medical internet of things and big data in Healthcare
Role of big data in Disaster management
Importance of IoT and Big data analytics in Medical imaging

Papers submitted for publication for this special issue will be peer reviewed and selected on basis of their quality and relevance to the theme of this special issue. Submitted manuscripts should not have been published previously, nor be under consideration for publication elsewhere. A guide for authors and other relevant information for submission of manuscripts are available on the Instructions for Authors page (http://benthamscience.com/journals/recent-patents-onengineering/author-guidelines/#top).
Please submit your manuscript via email to dganeshgopal@gmail.com.

Schedule:

Manuscript submission deadline: January 30, 2018
Peer Review Due: March 15, 2019
Revision Due: April 30, 2019
Notification of Acceptance by the Guest Editor: May 10, 2019
Final Manuscripts Due: June 15, 2019