Special Track on Emerging technologies for AI, IoT, and Big Data (AIoT&BD)

The Artificial Intelligence (AI), Internet of Things (IoT), and Big Data analytics are the latest trending technologies making human lives and society comfortable. They are attracting immense research interest and have found their presence in numerous applications such as healthcare, transportation, manufacturing, energy, and automation, among others. AI-enabled IoT (AIoT) with Big Data are paving the path for a wide set of new opportunities, both for novel services/applications and increased efficiency/scalability. These opportunities include locally sharing information, collaborating, generating, consuming a huge amount of data and learning from a massive amount of data in real time to quickly identify innovative, emerging and unforeseen patterns. Indeed, distributed big data analytics, modern machine learning (ML) techniques, real-time data collection and processing, scalability and distributed security solutions such as blockchain, and distributed secure data processing, play a significant role. However, successful decision-making needs to combine the best qualities of both human and digital knowledge. To do so, it is vital to structure any type of relevant and reliable knowledge and incorporate it as part of decision analytics Indeed, there is an increasing recognition of utilizing knowledge whenever available or can be created purposefully. This includes contextual and organizational information that analytics by itself does not provide.

AIoT & BD track is devoted to increase the understanding and impact of emerging technologies for IoT, AI, Big Data Analytics, Data Science, Blockchain, Educational Technologies, Knowledge Management, etc. for individuals, organizations, and society and how these technologies have evolved. This track aims to provide researchers and practitioners with opportunities to discuss, attract, and explore areas related to ideas, concepts, theories, methodologies, and applications of multidisciplinary contributions on emerging technologies and intelligent systems. We hence encourage original paper submissions, which have not been published or submitted for publication elsewhere, from both academia and industry presenting novel research addressing the aforementioned challenges.

Topics

- AIoT for emerging applications of smart city
- Large-scale sensor networks for AIoT and Big Data Analytics
- Fog, edge, and cloud computing paradigms for AIoT and Big Data Analytics
- Beyond 5G technologies for edge-assisted AIoT applications
- Unmanned Aerial Vehicle (UAV)-assistant AIoT applications
- Security and privacy in AIoT
- Emerging applications for mining edge and cloud-assisted data in IoT
- AIoT-based innovative applications and services
- Novel ML/DL techniques for Big Data analytics and IoT

Special Track Chairs:

1. Dr. Mian Ahmad Jan
Abdul Wali Khan University Mardan, Pakistan (Email: mianjan@awkum.edu.pk)

2. Prof. Fazlullah Khan
Rozetta Institute, Sydney Australia (Email: fazl.ullah@rozettainstitute.com)

3. Prof. Nadeem Iqbal
Abdul Wali Khan University Mardan, Pakistan (Email: nikhan@awkum.edu.pk)

4. Prof. Spyridon Mastorakis
University of Nebraska Omaha, United States (Email: smastorakis@unomaha.edu)

5. Prof. Varun G Menon
SCMS School of Engineering and Technology, SCMS Group of Educational Institutions
(Email: varunmenon@scmsgroup.org)