

2nd International Conference on Smart Technologies for Smart Nation

(SmartTechCon 2023)
Amity Global Institute, Singapore
18 - 19 August 2023.
Special Session on

Title:

The current trends and challenges in AI-powered advancements relating to bio-medical devices, IoT, and communication networks

Aim and Scope:

The Fourth Industrial Revolution is **a way of describing the blurring of boundaries between the physical, digital, and biological worlds**. It's a fusion of advances in artificial intelligence (AI), Bio-Medical devices, robotics, the Internet of Things (IoT), 3D printing, genetic engineering, quantum computing, and other technologies. The **aim** of is to provide insights into the latest technological advancements and industry trends in the fourth industrial revolution (Industry 4.0). Industry 4.0 refers to the current trend of automation and data exchange in manufacturing technologies, which includes cyber-physical systems, the Internet of Things (IoT), bio-medical devices, IoT, and communication networks, cloud computing, and cognitive computing or we can say the aim of Innovations & Industry Trends 4.0 is to explore and capitalize on the latest advancements in technology and industry practices to enhance productivity, efficiency, and profitability. Industry 4.0 refers to the fourth industrial revolution, which is characterized by the integration of advanced technologies such as automation, artificial intelligence, the Internet of Things (IoT), and big data analytics into manufacturing and other industries. By leveraging these technologies, businesses can optimize their operations, reduce costs, improve quality control, and create new revenue streams. The **scope** of Innovations & Industry Trends 4.0 includes various sectors such as manufacturing, healthcare, transportation, energy, and agriculture, among others. Industry 4.0 is transforming the way businesses operate and is leading to a new era of smart factories, where machines communicate with each other, and the entire production process is optimized.

Topics of the special session (Not limited to):

Original and unpublished papers are invited in the following topics and not limited to:

- Biomedical image classification
- Mechanisms for Wireless Symptom and Disease monitoring Systems
- Wearable Sensors and Patient Monitoring
- Wearable Technology for Remote Patient Monitoring
- Artificial Intelligence and Machine Learning for Biomedical Signal Processing
- Real-time Health Monitoring Systems for Chronic Diseases
- Virtual Reality and Augmented Reality for Healthcare
- Biomedical Instrumentation, Robotics and Automation in Healthcare
- Smart Sensors and Internet of Things (IoT) for Remote Health Monitoring
- Integrating Imaging and Signal Processing for Biomedical Diagnosis and Treatment
- Big Data Analytics in Biomedical Signal Processing and Control
- IoT based Drug Delivery System
- AI-enabled health data classifiers and patient outcome predictors for smart healthcare
- AI/DL-enabled healthcare data fusion

Name and Affiliation of the Proposer (Chair)

- **(Prof.) Dr. Pramod Kumar Mishra**
Professor
Computer science and Engineering
Institute of Science
Banaras Hindu University, Varanasi, India
- **Mr. Prateek Singhal**
Assistant Professor
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