



ComSIA-2025

International Conference on Computing Systems and Intelligent Applications

*Organized by School of Open Learning, University of Delhi & Shaheed Rajguru
College of Applied Sciences for Women, University of Delhi
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******* CALL FOR PAPERS *******

SPECIAL SESSION ON

Recent Trends in Communication and Data Analysing Techniques for IoT (RTCDATI)

SESSION ORGANIZERS:

Dr. Sonali Vyas, UPES, Dehradun, Uttarakhand, India.

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SESSION DESCRIPTION:

Over the past decade, the Internet of Things (IoT) has become one of the most influential technologies in the fields of wireless communications and mobile computing. Originated from RFID and wireless sensor networks (WSNs), the paradigm of IoT has been transforming every aspect of human life including healthcare, energy, transportation, and manufacturing. Recent predictions show that there will be more than 20 billion IoT devices by 2020. Since its very beginning, wireless communication has been focused on serving human-to-human interaction or human accessing information. Due to IoT, the scope of wireless communication becomes ubiquitous communication among all people and all devices, and the major challenge now becomes how to realize large-scale device-to-device (D2D) communication in an intelligent and energy efficient fashion. On the other hand, mobile computing is expected to be more pervasive and resource constrained than any time before. To facilitate IoT, there are tremendous innovation opportunities in different disciplines and perspectives. This session is seeking high-quality research articles as well as reviews about state-of-the-art technologies in wireless communications and mobile computing that contribute to the formation and advancement of IoT. Since power and cost constraints are major factors of IoT development, they will be the main focus of this special issue.

RECOMMENDED TOPICS:

Topics to be discussed in this special session include (but are not limited to) the following:

- Ubiquitous wireless sensor networks for healthcare
- Power-line communication for smart grid and home area networks
- Body area networks with Bluetooth and other low power communication techniques
- Intelligent IoT devices in handling Medical Emergencies
- Emerging techniques in ZigBee and low power Wifi

- Energy efficient networks in IoT systems
- Software-defined radios and cognitive radios for IoT
- Self-organizing network and SoN algorithm in IoT systems
- Energy-constrained wireless sensing techniques
- Compressed sensing for signal with sparse structure in IoT applications
- Low-Power Wide-Area Network (LPWAN) and Long Range Wide Area Network (LoRaWAN)
- 5G technologies and their application in IoT
- Machine Learning for Processing and Analysis of Healthcare data
- Cyber-physical system architecture
- Peer-to-peer device networking
- IoT traffic characterization
- Modeling of large-scale IoT
- Interoperability and integration of emerging standards with existing standards
- Machine learning algorithm for adaptive computing in IoT
- Security and privacy innovation for IoT applications

SUBMISSION PROCEDURE:

Researchers and practitioners are invited to submit papers for this special theme session on **[insert special session topic] on or before [insert due date]**. All submissions must be original and may not be under review by another publication. INTERESTED AUTHORS SHOULD CONSULT THE CONFERENCE'S GUIDELINES FOR MANUSCRIPT SUBMISSIONS at https://comsia.in/paper_submission.html. All submitted papers will be reviewed on a double-blind, peer review basis.

NOTE: While submitting paper in this special session, please specify **(RTCDATI)** at the top (above paper title) of the first page of your paper.

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