Special Session on

Transformative Potential of IoT, AI, and Deep Learning in Real-Time Smart Applications

in conjunction with

23rd International Conference on Intelligent Systems Design and Applications (ISDA)

December 11-13, 2023

Website: http://www.mirlabs.org/isda2023

Hybrid Mode – Online & Offline

Onsite Venues: http://mirlabs.org/isda23/venue2.php

Objectives and Scope:

The objective of this special session is to explore the transformative potential of the Internet of Things (IoT), Artificial Intelligence (AI), and Deep Learning in various domains of real-time smart applications. This session aims to bring together researchers, practitioners, and industry experts to discuss the latest advancements, challenges, and future directions in leveraging these technologies to enhance efficiency, optimize operations, and drive innovation in different application domains. This special session will provide a platform for researchers and professionals to present their work, exchange ideas, and foster collaborations in the domain of IoT, AI, and Deep Learning in smart applications.

Subtopics

The topics include, but are not limited to:

- **IoT-enabled transportation systems**: Exploring the application of IoT, AI, and Deep Learning in intelligent transportation systems, including traffic management, autonomous vehicles, smart parking, and logistics optimization.
- **AI-powered smart grids**: Investigating the use of AI and Deep Learning techniques for optimizing power generation, distribution, and consumption in smart grids, including load forecasting, fault detection, and energy management.
- **IoT and AI for industrial automation**: Examining the integration of IoT devices and AI algorithms for optimizing industrial processes, predictive maintenance, quality control, and supply chain management.
- **Data analytics and privacy in smart applications**: Addressing the challenges of data analytics, data privacy, and security in the context of IoT and AI applications, including techniques for data collection, processing, and protection.
- **Intelligent Systems Architectures and Applications**: Exploring the application of intelligent systems, such as artificial neural networks, support vector machines, and fuzzy systems, in various smart application domains, including system architectures, algorithms, and real-world implementations.

- **Intelligent Image and Signal Processing**: Investigating intelligent image and signal processing techniques for applications such as surveillance systems, image recognition, video analytics, and sensor data fusion in smart environments.
- **Intelligent Internet Modeling**: Examining the use of intelligent modeling techniques, such as web intelligence, information retrieval, and ontology, in smart applications, including personalized interfaces, adaptive systems, and interaction with intelligent agents.
- **Intelligent Data Mining**: Exploring data mining techniques, including pattern discovery, clustering, classification, and text mining, for analyzing large-scale data in smart applications, such as user behavior analysis, recommendation systems, and personalized services.
- **Intelligent Business Systems**: Investigating the application of intelligent systems in business domains, including e-commerce, risk management, financial modeling, portfolio optimization, and decision support systems.
- **Challenges and Future Directions**: Discussing the current challenges and future directions in leveraging IoT, AI, and Deep Learning in smart applications, including scalability, interoperability, ethical considerations, and the impact of emerging technologies.

Paper publications

- Proceedings will be published in Lecture Notes in Networks and Systems, Springer (https://www.springer.com/series/15179)
- Indexed by SCOPUS, INSPEC, WTI Frankfurt eG, zbMATH, SCImago
- Papers maximum length is 10 pages
- Papers must be formatted according to Springer format (Latex/word) available at: https://www.springer.com/de/authors-editors/book-authors-editors/manuscript-preparation/5636#c3324
- Submission Link: http://www.mirlabs.org/isda23/submission.php

Important Dates

- Paper submission due: **September 30, 2023**
- Notification of paper acceptance: **October 31, 2023**
- Registration and Final manuscript due: **November 10, 2023**
- Conference Date: **December 13-15, 2023**

Special Session Chair(s)

- **Logesh Ravi**, Centre for Advanced Data Science, Vellore Institute of Technology, Chennai, India
- **Subramaniyaswamy V**, School of Computing, SASTRA Deemed University, Thanjavur, India
- **Ketan Kotecha**, Symbiosis International (Deemed University), Pune, India

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