

SPECIAL SESSION (SS15) Machine Learning in Internet of Things

Organizer:

Dr. Achyut Shankar

Assistant Professor, Department of Computer Science & Engineering, ASET, Amity University, Uttar Pradesh, India

Objective-The technology of Internet-connected devices, referred to as Internet of Things [1] (IoT), continues to extend the current Internet by providing connectivity and interactions between the physical and cyber worlds. In addition to an increased volume, the IoT [2] generates big data characterized by its velocity in terms of time and location dependency, with a variety of multiple modalities and varying data quality. Intelligent processing and analysis of this big data are the key to developing smart IoT applications..

Topics of interest include, but are not limited to:

- Real-time machine learning
- Iterative machine learning
- Multi-target learning
- Automated video surveillance and tracking
- Generating data analysis pipelines
- Evaluation of machine learning models tailored to sensor data
- Data extraction from sensor networks
- Data conversion and calibration issues
- Meta-learning, e.g., learning to adjust the analysis pipeline automatically
- Interpretable models, e.g., Rule Learning or Decision Tree Learning
- Generating high-quality data sets
- Data quality issues
- Dealing with missing and low quality data
- Gesture recognition
- Object recognition
- Feature Engineering with a focus on sensor data features
- Generating high-quality features from sensor data
- Application in various areas like e-health, smart city, intelligent transportation system