Call for Papers Track 6 – IOT Enabling Technologies

Track Chairs:

Swades De, Indian Institute of Technology Delhi, India

Carlo Vallati, University of Pisa, Italy

Scope and Motivation:

In a few years we will no longer see the objects of our daily life in the same way that we used to. In fact, they are going through a deep transformation: once they get an Internet address, they become part of an interconnected environment where "things" can talk to each other as well as collect and exchange data and information with traditional networking devices or directly with humans. By sharing the information on their status and sensing the surrounding environment, communicating things will increase the awareness and the intelligence of the space we work and live in. The unleashed potential of communicating things will bring a countless set of new applications, services and products to the consumer market. This set will encompass several smart spaces such as smart cities, smart homes, smart factories, smart product management and smart farming. The "always connected" paradigm and the multitude of sensors, actors, and analysis backends that interact with each other create new challenges on the social level, technical level, engineering level, as well as for the security and privacy.

This track focuses on technologies and applications that are both human centered and industry-centered. Issues include emerging technologies involving communication, sensing, smart spaces, IoT, social impact, sensing fabric integration, data collection and privacy. Application areas include Industry 4.0, social networking, news gathering, health, safety, entertainment, gaming, sports, and environment.

Main Topics of Interest:

The "IoT Enabling Technologies" track seeks original contributions in the following areas, as well as others that are not explicitly listed but are closely related:

- IoT paradigms, systems, components, architectures, applications
- Machine-to-Machine (M2M) communication technologies
- Tools for developing IoT applications
- Cloud vs distributed computing for the IoT
- Edge and Fog Computing
- Security Testing Smart Spaces and the IoT
- Energy management in IoT devices and applications
- MAC protocols for IoT
- Address management and End-to-End Addressability
- Object, device and service management
- RFID, sensors, and actuator technologies
- Middleware for IoT
- Interoperability and data integration
- Web of Things
- IoT System Interfaces
- Performance and management of smart spaces
- Experimental approaches
- Mobile social networks
- Mobile healthcare
- IoT applications for Industry 4.0 scenarios
- IoT applications for human-centered scenarios
- Proactive and adaptive IoT systems
- Context awareness and situation awareness
- Privacy and security in IoT deployments

- Data storage and management in IoT applications
- Sensory User Experiences
 Al and Machine Learning for the IoT
- Future Internet cohesion and IoT
- Content/Information Centric Networking for IoT
- loT enabled Smart Care applications Smart Farming and IoT
- Internet of Drones and applications