Call for Papers
Track 6 – IOT: FROM SENSORS TO VERTICAL APPLICATIONS

Track Chairs:

Prem Prakash Jayaraman, Swinburne University of Technology, Australia
(email: pjayaraman@swin.edu.au)
Raffaele Gravina, University of Calabria, Italy (email: r.gravina@dimes.unical.it)

Scope and Motivation:

We are already witnessing the transformation of objects we interact in our daily lives going through a deep digital transformation: connected to the internet becoming part of an interconnected network of "things" with the capability to exchange and communicate with each other as well as offering exceptional ability to capture/sense information about the physical environment and perform actuation. By sharing the information about them (e.g. their status) and sensing the surrounding environment, "things" will increase the awareness and the intelligence of the space we work and live in. The opportunity for extracting knowledge from data produced by things is limitless and will unleash the development of countless sets of new applications, services, and products to the consumer and industrial market. These 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, actuators, and analysis backends that interact with each other create new challenges on the social level, technical level, engineering level, as well as for security and privacy.

This track solicits papers that report on advancements in the area of Internet of Things (IoT) technologies and novel IoT applications. Issues can include emerging technologies involving communication, sensing, smart spaces, social impact, sensing fabric integration, data collection and privacy and sensor data quality. Application areas include Industry 4.0, social networking, news gathering, health and safety, entertainment, gaming, sports, and environment.

Main Topics of Interest:

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

- IoT paradigms, systems, components, architectures, applications
- Tools for developing IoT applications
- Middleware for IoT
- Simulation-based design methodologies for the IoT
- IoT/Edge/Cloud computing continuum
- AI and Machine Learning for the IoT
- Machine-to-Machine (M2M) communication technologies
- MAC protocols for IoT
- Address management and End-to-End Addressability
- Future Internet cohesion and IoT
- Content/Information-Centric Networking for IoT
- Energy management in IoT devices and applications
- Data storage and management in IoT applications
- RFID, sensors, and actuator technologies
- Performance and management of smart spaces
- Sensory User Experiences
- Interoperability, data integration, Quality of IoT Data
- Privacy and security in IoT deployments
- Digital Twins and IoT
- Proactive and adaptive IoT systems
- Mobile social networks

- IoT applications for human-centered scenarios
- IoT enabled Smart Care applications
- IoT applications for Industry 4.0 scenarios
- Smart Farming and IoT
- Internet of Drones and applications