



IoT in Smart Cities: Drones and Notifications

Monday, September 10, 2018, 10:00-12:00

Sala L. Ciminiera – 5th floor – Dip. Automatica e Informatica (DAUIN)

Agenda

10:00

Drones as IoT Platforms: Architectures and Applications

Seminar by Ana M. Bernardos, Universidad Politécnica de Madrid

Drones are becoming powerful data acquisition and response platforms in diverse application fields, from critical infrastructure inspection to emergency management or urban design. Despite the regulatory steps forward and the increasing presence of these flying robots in our daily environments, there are still relevant issues to solve to normalize their presence in civil scenarios. In this context, the seminar will present different technologies and systems that have been recently developed within the Information Processing and Telecommunications Center at UPM to enable enhanced drone fleet management, automated data acquisition and knowledge extraction from in-flight data, and enhanced mission information interaction. The seminar will also pursue to activate the discussion on the operating, business and societal challenges that the use of drones in civil environments pose.



Ana Bernardos is an associate professor at Universidad Politécnica de Madrid and currently the Academic Secretary of the Information Processing and Telecommunications Center. She holds a PhD in Technologies and Communications Systems and a diploma in Economy and Innovation Management. Her research interests lie on the intersection of Human-Computer Interaction, data analytics and sensorization/IoT (including drones). She is the responsible of the research area on “Technologies for the Spaces of the Future” in the Data Processing and Simulation Group and co-directs a Living Lab for services deployment and user testing. She has coordinated and participated in numerous research projects and contracts and authored more than 100 scientific publications.

11:00

IoT Notifications: from Disruption to Benefit

Architectures for the future of notifications in the IoT

Final presentation and Ph.D. defense by Teodoro Montanaro

Nowadays, people are getting used to notifications, however, their presence is not always perceived as a benefit by recipients. With the aim of improving user experience with notifications, two different approaches are presented in this dissertation and an IoT architecture is proposed for each approach: the SNS (Smart Notification System), and the XDN (Cross-Device Notification) framework. Different modules of each architecture were developed and tested. The presented results can foster the development of future solutions in the IoT notifications field and related domains.



Teodoro Montanaro is a Ph.D. student in Computer Engineering of Politecnico di Torino, Italy since 2014. His current research focuses on the investigation of the intelligence component in Internet of Things (IoT) architectures and applications. He is an IEEE and ACM member. He is currently Researcher at ISMB, in the Pervasive Technology group.