



ISWCS 2017 Workshop: “LPWANs and Unmanned Aerial Vehicles in Future Wireless Networks”

August 28th, 2017

School of Engineering and Architecture, Viale Risorgimento 2, Bologna, Italy
Workshop Organisers: Roberto Verdone (IDESIO), Margot Deruyck (Ghent University – IMEC)

Part One: Understanding the Limits of LPWAN Technologies in Automotive Applications and Smart Cities

9.00 – 10.30

- Opening, Roberto Verdone (Università di Bologna, IT)
- “Wireless Technologies in Automotive Applications”, Stefania Sesia (Renault SW lab, FR)
- “The TIM ICT Smart City Reference Network and Platform”, Roberto Gavazzi (Telecom Italia Mobile, IT)
- “LoRa and NB-IOT; Performance Comparison From a Network Perspective”, Luca Feltrin, Chiara Buratti, Roberto Verdone (Università di Bologna, IT)

Part Two: UAV Aided Networks and Their Applications

11.00 – 12.30

- “Future UAV Platforms”, Francesco Grimaccia (Politecnico di Milano, IT)
- “Learning From Flying Radio Access Networks”, David Gesbert (Eurecom Institute, FR)
- “Detecting the source of an RF signal with a transceiver-equipped UAV”, Gauthier Dûchene (Université libre de Bruxelles, BE), François Quitin (Université libre de Bruxelles, BE)
- “Performance Evaluation of the Dynamic Trajectory Design for an Unmanned Aerial Base Station in a Single Frequency Network”, Margot Deruyck (Ghent University – IMEC, BE), Alberto Marri (University of Bologna, IT), Silvia Mignardi (University of Bologna, IT), Luc Martens (Ghent University – IMEC, BE), Wout Joseph (Ghent University – IMEC, BE)

Lunch Break and ISWCS 2017 PhD Student Pitch Contest

Part Three: UAV Aided Applications

15.00 – 16.30

- “What Future for UAV Aided Networks and Applications?” Roberto Verdone, (IDESIO, IT)
- **Panel: Regulatory and Platform Constraints vs Potential of UAVs for Wireless Networks**
Panelists: Roberto Gavazzi (TIM, IT), David Gesbert (EURECOM, FR), Francesco Grimaccia (Polit. Milano, IT), Anna Masutti (Univ. Bologna, IT), Roberto Verdone (IDESIO, IT). Moderator: Margot Deruyck (Ghent Univ. – IMEC, BE)

Part Four: On-Field Demos.

17.00 – 18.30. IDESIO Open Day

- NIMBUS and IDESIO will demonstrate in the courtyard of the School how UAVs can be used for applications in the field of safety, smart cities and industry 4.0.

Registration:

- **Afternoon (Part Three and Four): free entrance. Registration before July 25, email to event@idesio.com**
It gives access to the above program only, from 3 pm.
- **Entire ISWCS 2017 Workshop: see <http://iswcs2017.org/registration-fees/>**
It gives access to all ISWCS events on Monday 28, incl. coffee breaks, lunch and welcome reception at 18h30.