



SOLDER



ACROPOLIS

European NoE on Cognitive Communications

### **Third Workshop on Cognitive Radio for Fifth-Generation Networks and Spectrum (CRAFT 2015)**

**Held at ISWCS 2015, Brussels, Belgium, 25 August 2015, 14:00–17:30**

<http://www.iswcs2015.org>

There has been a huge surge in wireless technology deployment over the past decade, which has led to the crowding of existing spectrum. In order to address the resulting congestion and shortfall in projected spectrum availability vs. spectrum need, Cognitive Radio (CR) has been envisioned in the context of 5G networks. CR might increase the efficiency of spectrum utilization in 5G through, e.g., opportunistic spectrum access, and might improve the management, performance and coexistence of heterogeneous networks and devices using diverse radio access technologies.

CRAFT 2015 aims to gather and promote discussion among researchers, industrialists and other stakeholders, the purpose being to inspire the analysis and development of CR solutions for 5G networks and to realise sufficient spectrum for 5G. Topics covered include, but are not limited to: CR for opportunistic spectrum access and sharing in 5G; cognitive networks for 5G; advanced flexible spectrum access techniques; applications for CR in 5G; spectrum and context awareness for CR in 5G; cognitive carrier aggregation aspects and advanced management of coexisting networks; regulatory solutions of efficient spectrum sharing in 5G, including database-driven approaches.

The program of the workshop is as follows.

#### **Session 1: 14:00–15:15**

14:00–14:05: Adrian Kliks, *Poznan University of Technology, Poland*  
“Workshop Opening, Overview and Objectives”

14:05–14:30: C. Faouzi Bader, *CentraleSupélec, France*  
“Why Look at Beyond-OFDM Waveforms in 5G Wireless Network Systems?”

14:30–14:55: Oliver Holland, *King's College London, UK*  
“Geolocation-Based Opportunistic Spectrum Sharing for 5G”

14:55–15:15: Dennis Wieruch, *Fraunhofer-HHI, Germany*; Peter Jung, *TU-Berlin, Germany*;  
Thomas Wirth, *Fraunhofer-HHI, Germany*; Armin Dekorsy, *University of Bremen, Germany*  
“On the Estimation of Unknown Resource Allocations by Exploiting Channel Sparsity”

#### **Coffee Break: 15:15–15:45**

#### **Session 2: 15:45–17:30**

15:45–16:15: Guillaume Vivier, *Sequans Communications, France*  
“On the use of Carrier Aggregation Towards 5G”

16:15–16:35: Emmanouil-Aris Antonopoulos, Fotis Plessas, Fotis Foukalas, *Athena Research and Innovation Centre, Greece*  
“RF Prototype for Dynamic Cognitive Carrier Aggregation of Heterogeneous Dispersed Bands”

16:35–17:05: Paweł Sroka, *Poznan University of Technology, Poland*  
“Neighbour-Aware Cooperative Interference Management in Future Wireless Networks”

17:05–17:30: Oliver Holland, *King's College London, UK*  
“Workshop Observations, Round Table Discussion Towards Workshop Conclusions, and Closing”