



Draft Programme

Day 1 - 20 Sep. 2017

08:00	Registration	
09:00	Welcome message	
09:30	Keynote speaker - Mischa Dohler (King's College London)	
10:00	Keynote speaker - Jaime Afonso (ANACOM and CEPT)	
10:30	Coffee Break	
10:45	Keynote speaker - Jorge Pereira (European Commission)	
11:15	Tutorial 1 - Disruptive technologies for flexible wireless (Aydin Sezgin and Eduard Jorswieck)	
12:30	Lunch	
14:00	Track 1	Tutorial 2-Introduction to SEAMCAT (Rogério Dionisio)
16:00	Coffee Break	
16:30	Track 2	Tutorial 3 - Increasing spectrum efficiency (Ingrid Moerman)
18:30	Plenary panel session	
20:30	Conference Banquet	

Day 2 - 21 Sep. 2017

09:30	Keynote speaker - Keith Nolan (Intel Labs Europe)	
10:00	Keynote speaker - Maziar Nekovee (University of Sussex)	
10:30	Coffee Break	
10:45	Track 3	Tutorial 4 -Machine Learning for Spectrum Sharing (Suzan Bayhan , Gürkan Gür)
12:30	Lunch	
14:00	Track 4	H2020 FIRE+ Workshop on Radio Access Experimentation
16:00	Coffee Break	
16:30	Track 5	5G Spectrum Workshop
19:00	Best Paper Award - End of the conference	

Track 1, Spectrum Management 1, 20 Sep. 2017, 14:00-16:00

Chair: Marja Matinmikko, Centre for Wireless Communications, University of Oulu

- Interference Study of Micro Licensing for 5G Micro Operator Small Cell Deployments**
 Marja Matinmikko, Matti Latva-aho, Kimmo Hiltunen (Centre for Wireless Communications, University of Oulu, Finland), Antti Roivainen (Keysight Technologies Finland Oy, Finland)
- Cognitive Radio Policy based Adaptive Blind Rendezvous Protocols for Disaster Response**
 Saim Ghafoor, Cormac Sreenan, Kenneth Brown (Dept. of Computer Science, University College Cork, Ireland)
- Autonomous Spectrum Assignment of White Space Devices**
 Chaitali Diwan, Srinath Srinivasa, Balamurali Krishna (International Institute of Information Technology, Bangalore, India)
- Inter-Operator Interference Coordination in the Spectrum-Sharing Overlapping Area**
 Yiteng Wang, Youping Zhao (Beijing Jiaotong University, China), Xin Guo, Chen Sun (Sony (China) Ltd.)
- Impact of Uncertainty About a User to be Active on OFDM Transmission Strategies**
 Andrey GarnaeV, Wade Trappe, Ratnesh Kumbhkar, Narayan Mandayam (WINLAB, Rutgers University, US)
- TV White Spaces and Licensed Shared Access applied to the Brazilian context**
 Carlos Silva, Universidade Federal do Ceara, Brazil

Track 2, Network Management, 20 Sep. 2017, 16:30-18:30

Chair: Rogério Dionísio, Instituto Politécnico de Castelo Branco

- **Radio hardware virtualization for coping with dynamic heterogeneous wireless environments**
Xianjun Jiao, Ingrid Moerman, Wei Liu, Felipe Pereira (Ghent University-imec, IDLab, Department of Information Technology, Belgium)
- **Using Deep Neural Networks for Forecasting Cell Congestion on LTE Networks: a simple approach**
Pedro Torres, Hugo Marques, Paulo Marques (Instituto Politécnico de Castelo Branco, Portugal); Jonathan Rodriguez (Instituto de Telecomunicações, Portugal)
- **Meet an Fantastic Sibyl: A Powerful Model in Cognitive Radio Networks**
Wei Yang, Xiaojun Jing, Hai Huang (Beijing University of Posts and Telecommunications, China)
- **REM-based Indoor Wireless Network Deployment - an Experimental Study**
Adrian Kliks, Kulacz Lukasz (Poznan University of Technology, Poland)
- **Dynamic Base Station Sleep Control via Submodular Optimization for Green mmWave Networks**
Akihiro Egami, Takayuki Nishio, Masahiro Morikura, Koji Yamamoto (Kyoto University, Japan)
- **Multi-Armed Bandit Learning in IoT Networks: Learning helps even in non-stationary settings**
Remi Bonnefoi, Lilian Besson, Christophe Moy (Centrale Supélec/IETR, France), Emile Kaufmann (INRIA Lille/CRISTAL, France), Jacques Palicot (Centrale Supélec/IETR, France)

Track 3, Trials testbeds and tools, 21 Sep. 2017, 10:45-12:30

Chair: Ingrid Moerman, IMEC

- **Designing a Testbed Infrastructure for Experimental Validation and Trialing of 5G Vertical Applications**
Juha Kalliovaara, Reijo Ekman, Jarkko Paavola, Tero Jokela, Juhani Hallio, Jani Auranen (Turku University of Applied Sciences), Pekka Talmola (Nokia), Heikki Kokkinen (Fairspectrum)
- **Reliable and Reproducible Radio Experiments in FIT/CorteXlab SDR testbed: Initial Findings**
Leonardo Cardoso Insa-Lyon, France), Othmane Oubejja, (Inria, France), Guillaume Villemaud (Insa-Lyon, France), Tanguy (Risset (Insa-Lyon, France), Jean-Marie Gorce (Insa-Lyon, France)
- **Development of a Planning Tool for TV White Space Deployment**
Mahesh Iyer, Mythili Vutukuru (ITT Bombay, India)
- **Analysis of blockchain use cases in the Citizens Broadband Radio Service spectrum sharing concept**
Seppo Yrjöla (Nokia Innovation Steering)
- **Implementation of a pseudonym-based signature scheme with bilinear pairings on Android**
Leonardo Oliveira, Victor Sucasas, Georgios Mantas, Jonathan Rodriguez (Instituto de Telecomunicações, Portugal)

Track 4, PHY and Sensing, 21 Sep. 2017, 14:00-16:00

Chair: Dominique Noguét, CEA-Leti

- **A Flexible Physical Layer for LPWA Applications**
Valerian Mannoni, Vincent Berg, Francois Dehmas, Dominique Noguét (CEA, France)
- **Impact of Mobility in Spectrum Sensing Capacity**
Luis Irio, Rodolfo Oliveira (Nova University of Lisbon, Portugal)
- **Lessons learned from long-term and imperfect sensing in 2.4GHz unlicensed band**
Jacek Dzikowski, Cynthia Hood (Illinois Institute of Technology, US)
- **Blind Symbol Rate Estimation of Faster-than-Nyquist Signals Based on Higher-Order Statistics**
Albert Abell (Eutelsat S.A.), Damien Roque (ISAE-SUPAERO), Jean-Marie Freixe (Eutelsat S.A.)

- **Comparative Assessment of Effect of Impulsive Noise on Spectrum Sensing for Cognitive Radio**
Dipak Patil (Sandip Institute of Engineering & Management, Nashik, India), Vijay Wadhai (Sant Gadge Baba Amravati University, Amravati, India)
- **Machine Learning-Aided Radio Scenario Recognition for Cognitive Radio Networks in Millimeter-Wave Bands**
Jingyun Wang, Youping Zhao (School of Electronic and Information Engineering, Beijing Jiaotong University), Xin Guo, Chen Sun (Sony China Research Laboratory, Sony (China) Ltd. Beijing, China)

Track 5, Spectrum management 2, 21 Sep. 2017, 16:30-18:30

Chair: Adrian Kliks, Poznan University of Technology

- **MAC design for 5G dense networks based on FBMC modulation**
Rida Chall, Benoit Miscopein, Dimitri Ktenas (CEA-Leti Minatoc, France)
- **Spectrum broker service for micro-operator and CBRS Priority Access Licenses**
Topias Kokkinen, Heikki Kokkinen (Fairspectrum); Yrjola Seppo (Nokia)
- **Knapsack Optimisation for Mobility Load Balancing in Dense Small Cell Deployments**
Karim Nasr, Seiamak Vahid, Klaus Moessner (University of Surrey, UK)
- **Spectrum Occupancy Classification Using SVM-Radial Basis Function**
Mitul Panchal, Patel Dhaval, Sanjay Chaudhary (School of Engineering and Applied Science, Ahmedabad University, India)
- **Application of the CBRS model for wireless systems coexistence in 3.6-3.8 GHz band**
Adrian Kliks, Pawel Kryszkiewicz, Lukasz Kulacz (Poznan University of Technology, Poland); Karol Kowalik (INEA, Poland); Michal Kolodziejski (INEA, Poland), Heikki Kokkinen (Fairspectrum), Jaakko Ojaniemi (Fairspectrum), Arto Kivinen (Fairspectrum)
- **Network Resource Trading: Locating the Contract Sweet Spot for the case of Dynamic and Decentralized Non-Broker Spectrum Sharing**
Robert Schmidt, Arash Toyser, Siddharth Naik, Janis Noetzel, Eduard Jorswieck (TU Dresden, Germany)

Workshop: H2020 FIRE+ on Radio Access Experimentation

21 Sep. 14:00 – 16:00

Abstract

This Workshop will bring together five FIRE+ projects working on Radio Access technologies that will discuss the role of ‘experimentally-driven research’ for validating innovative developments on cognitive networks and spectrum sharing paradigms. Success stories and upcoming Open Calls for Experiments will be presented.

Time slot	Name of the presenter	Affiliation	Title of presentation
14:00-14:10	Jorge Pereira	European Commission	Welcome message
14:10-14:30	Ingrid Moerman	IMEC	ORCA : Orchestration and Reconfiguration Network Architecture
14:30-14:50	Eli De Poorter	IMEC	eWINE : Elastic Wireless Networking Experimentation
14:50-15:10	Aho Pekka	VTT	FUTEBOL : Federated Union of Telecommunications Research Facilities for an EU-Brazil Open Laboratory
15:10-15:30	Ricardo Figueiredo	Redzinc	TRIANGLE : 5G Applications and Devices Benchmarking
15:30-15:50	Andra Lutu	Simula	MONROE : Measuring Mobile Broadband Networks in Europe
15:50-16:00	Jorge Pereira, Final comments and end of the Workshop		

5G Spectrum Workshop

Organized with the support of H2020 Speed5G project

21 Sep. 16:30 – 18:30

Abstract

The **5G Spectrum Workshop** will focus on creating discussion around the challenges arisen in spectrum access, utilization, allocation and management, as well as validation and experimental results produced so far.

Time slot	Name of the presenter	Affiliation	Title of presentation
16:30-16:35	Prof. Klaus Moessner	University of Surrey / Speed5G Project	Introduction to the Workshop
16:35-16:55	Dr. Mythri Hunukumbure	Samsung	Challenges and opportunities for using the mm-wave spectrum for mobile communications
16:55-17:20	Dr. Miquel Payaro	CTTC	Spectrum related aspects in the implementation of 5G HW/SW platforms: The Flex5Gware perspective
17:20-17:45	Mr Scott Blue	Dynamic Spectrum Alliance	Wi-Five G – the quest for more globally harmonized, user deployable mid-band and millimeter wave spectrum
17:45-18:10	Prof. Klaus Moessner	University of Surrey / Speed5G Project	eDSA and Spectrum aggregation – the Speed5G approach towards capacity provision below 6GHz
18:10-18:30	Final comments and end of the Workshop		

