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IEEE pimrc'17

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WORKSHOP WS-04 ON THE ECONOMICS OF WIRELESS NETWORK VIRTUALIZATION

SCOPE

Wireless network virtualization and cloud-based technologies allow flexible dynamic network composition and lower the entry barriers to the market for both emerging wireless resource providers and niche VNOs. As a result, the economic landscape of providing connectivity services is changing, and the existing pricing and procuring mechanisms of wireless services are becoming obsolete.

Virtualization will generate a more heterogeneous wireless networks ecosystem with new players both on the supply side of wireless resources - e.g. local infrastructure providers - and on the demand side - e.g. VNOs specialized in Internet of things services. New and dynamic mechanisms for wireless network orchestration are required to address this heterogeneous environment. In addition to technical aspects related to network management and operation, these new mechanisms should take into account the economic aspects of accessing wireless resources that are heterogeneous both in terms of ownership and type. This creates an interdisciplinary research area that needs a vast variety of expertise including knowledge of network architecture, data analysis and machine learning, game and auction theory, mechanism design, two-side pricing and billing, and user behavior analysis.

This workshop will focus on the technical and economic challenges of virtualized wireless networks. The goal of this workshop is to engage wireless engineers, data scientists and economists in a joint action and enhance their collaborations in understanding of the network virtualization ecosystem.

TOPICS

This workshop will bring together academic and industrial researchers to identify and discuss technical challenges and recent results related to pricing and economic models in wireless virtualized networks. Topics of interest include, but are not limited to the following:

- Auction and mechanism design for network virtualization
- Decision making methods for network sharing
- Economic aspects of network orchestration
- Fraud and collusion detection approaches
- Game theory
- Machine learning and user behavior data analysis
- Network neutrality and regulatory aspects of wireless network virtualization
- Spectrum sharing models

- Theories models and analyses of access pricing
- Wireless network virtualization and cloud-based services economics

EDAS submission link: <https://edas.info/N23909>

Accepted and presented papers will be published in the IEEE PIMRC 2017 Conference Proceedings and submitted for inclusion in IEEEXplore®.



IMPORTANT DATES

Review paper submission: **04 August 2017**
Notification of acceptance: **18 August 2017**
Camera-ready submission: **25 August 2017**

WORKSHOP WS-04 CO-CHAIRS

Hamed Ahmadi, University College Dublin, Ireland (*Lead Co-Chair*)
Linda Doyle, Trinity College Dublin, Ireland
Irene Macaluso, Trinity College Dublin, Ireland

MORE INFO

E-mail: workshop.ws-04.co-chairs@pimrc2017.org
Workshops webpage: <http://pimrc2017.ieee-pimrc.org/authors/call-for-workshop-papers/>