Welcome from the General Chair

On behalf of the CROWNCOM 2013 Organizing Committee, I am pleased to invite you to the 8th International Conference on Cognitive Radio Oriented Wireless Networks (CROWNCOM), which will be held in Washington D.C., USA during July 8-10, 2013. CROWNCOM is one of the notable conferences for advancing, presenting, and debating the science, engineering, and technology needed to enhance the wireless radio access. Since its inauguration in Mykonos in 2006, CROWNCOM has made substantial contributions to the wireless networking community, particularly the field of radio spectrum. As a result, I welcome researchers, academics, and industrials to participate in this important conference.

Continuing the tradition from previous years, CROWNCOM focuses on cognitive radio aspects of wireless communications. The technical program this year features six tracks, spanning from spectrum sharing, spectrum sensing, cognitive radio performance analysis, spectrum markets and security, hardware prototypes, and interference management. The conference hosts one special session: WiFiUS (Wireless Innovation between Finland and US) Workshop. The primary objectives of this workshop are to report on ongoing WiFiUS projects and to explore future collaborations in the field of wireless networks. In addition, the conference offers two keynote talks by well-known scholars, and one panel to discuss research challenges for cognitive radios.

I would like to take the opportunity to thank the entire Organizing Committee, the entire Technical Program Committee, and all the reviewers for their hard work and commitment that have made this year’s edition of CROWNCOM possible. My deepest appreciation goes to Erica Polini and Ruzanna Najaryan at EAI, Technical Program Committee Chairs Danijela Cabric and Xiuzhen Cheng, Local Arrangement Chair Yi Shi, and Special Session Chair Alhussein Abouzeid.

I hope that you will enjoy both the technical and social sides of the conference. I look forward to welcoming you in person to Washington D.C., USA!

Min Song, General Chair, The University of Toledo, USA
CROWNCOM 2013 Preface

The 8th International Conference on Cognitive Radio Oriented Wireless Networks CROWNCOM 2013 held on 8-10 of July 2013 in Washington, DC continues the series of annual events shaping the future of wireless systems and the efficient use of the electromagnetic spectrum. Due to the rapid development of wireless communications in recent years, the demand on wireless spectrum has been growing dramatically, resulting in the spectrum scarcity problem. Works have shown that the fixed spectrum allocation policy, commonly adopted today, suffers from the low spectrum utilization problem. Both academic and regulatory bodies have focused on dynamic spectrum access to fully utilize the scarce spectrum resource. Cognitive radio, with the capability to flexibly adapt its parameters, has been proposed as the enabling technology for unlicensed secondary users to dynamically access the licensed spectrum owned by legacy primary users on a negotiated or an opportunistic basis. The aim of this conference is to bring together researchers in both academia and industry to present their new solutions to cognitive radios.

The Conference has covered a broad range of important and timely issues related to spectrum regulation, techno-economic analysis, and development of new concepts and algorithms to further improve the performance of the cognitive radio systems. CROWNCOM 2013 has also featured a workshop on WiFiUS, the second meeting of Virtual Institute for Wireless Research between Finland and USA.

Our deepest appreciation goes to all that put in a lot of hard and who are involved in making this conference a success, including the organizing staff at EAI, the local organizing committee, and the sponsors. The technical program is the result of the dedication and effort of 41 TPC members as well as about 50 reviewers, who have greatly contributed to the success of the CROWNCOM 2013 paper review process. The 2013 edition is the 8th conference since the inaugural event held in Mykonos in 2006. The CROWNCOM conferences follow a tradition of a high scientific quality and an informal atmosphere that fosters innovative and open discussions between academia and industry. Based on the many high quality contributions in the technical program and interesting discussions during the conference, we are sure that this year the Washington edition was a worthy successor of the previous CROWNCOM events.

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