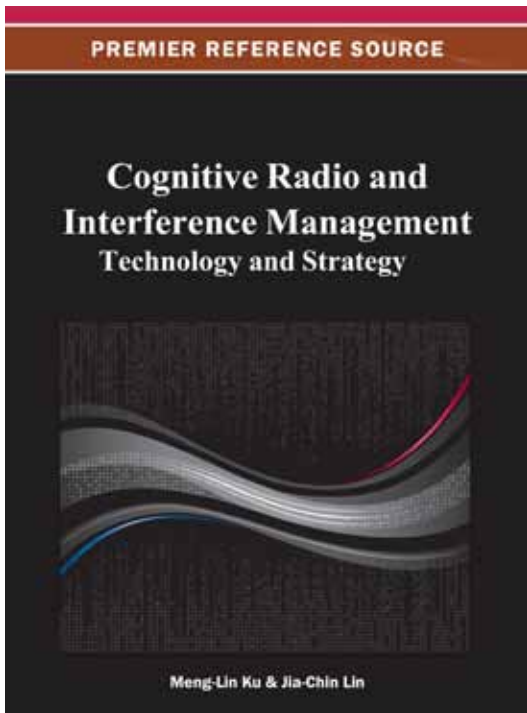


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## Cognitive Radio and Interference Management: Technology and Strategy



Meng-Lin Ku (National Central University, Taiwan, R.O.C.)  
and Jia-Chin Lin (National Central University, Taiwan, R.O.C.)

Broadcast spectrum is scarce, both in terms of our ability to access existing spectrum and as a result of access rules created by governments. An emerging paradigm called cognitive radio, however, has the potential to allow different systems to dynamically access and opportunistically exploit the same frequency band in an efficient way, thereby allowing broadcasters to use spectrum more efficiently.

**Cognitive Radio and Interference Management: Technology and Strategy** brings together state-of-the-art research results on cognitive radio and interference management from both theoretical and practical perspectives. It serves as a bridge between people who are working to develop theoretical and practical research in cognitive radio and interference management, and therefore facilitate the future development of cognitive radio and its applications.

### Topics Covered:

- Cognitive Radio Architectures and Models
- Collaborative Relays
- Competitive Heterogeneous Networks
- Dynamic Network Architecture
- Information Theory for Cognitive Radio
- Interference Management Strategies
- IP Mobility Management
- Opportunistic Spectrum Sensing and Transmissions
- Spectrum Sensing and Access
- Theoretical Performance Analysis

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**Meng-Lin Ku** received the B.S., M.S. and Ph.D. degrees in Communication Engineering from National Chiao Tung University, Hsinchu, Taiwan, in 2002, 2003 and 2009 respectively. Between 2009 and 2010, he held post-doctoral positions in the Department of Electrical and Computer Engineering at National Chiao Tung University and in the School of Engineering and Applied Sciences at Harvard University (in chronological order). In August 2010, he became the faculty member of the Department of Communication Engineering with National Central University, currently holding a position as an Assistant Professor. He is a member of the IEEE Communications Society and served as technical program committee members for numerous international conferences such as VTC, ICCT, etc. He is the secretary of the 2012 IEEE International Conference on Telecommunications for Intelligent Transport Systems. His current research interests are in the wide areas of next-generation mobile and wireless communications, cognitive radios, and optimization for radio access.



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