

## Special Section on Cognitive Radio and Heterogeneous Wireless Networks in Conjunction with Main Topics of CrownCom2011

The IEICE Transactions on Communications announces that it will publish a special section entitled "Special Section on Cognitive Radio and Heterogeneous Wireless Networks in Conjunction with Main Topics of CrownCom2011" in **April 2012**.

Radio spectrum is becoming exhausted because of the growing demands for wireless broadband communications. To cope this problem, the paradigm shift from the conventional exclusive use of frequency resources to the flexible frequency utilization is indispensable for future wireless networks. Cognitive radio and heterogeneous wireless networks are key technologies that bring us an emerging paradigm of flexible frequency spectrum usage. By cognition of the radio frequency environment, cognitive radio terminals dynamically select the optimal frequency and transmission media with cooperation of networks. Technologies for heterogeneous wireless networks also realize the seamless system roaming among wireless systems. Because of such reasons, a special section is being planned (scheduled to appear in the April 2012 issue) to further promote research and development of future cognitive radio and heterogeneous wireless networks.

### 1. Scope

1. Dynamic spectrum access / management (Wideband, cooperative, and compressed spectrum sensing, Multi-dimensional dynamic spectrum access / sharing, Dynamic radio resource management / interference coordination, Cooperative and coordinated multiuser communications, Multi-antenna / multi-link transmission, Flexible PHY / MAC control, Frequency sharing, Resource management)
2. Cognitive networks (Heterogeneous networks, Cooperative networking / transmission, Self organized networks, Load balancing and network optimization, Cooperative radio resource management, Cross-layer control for cognitive networking)
3. Modeling, regulation and standardizations (Cognitive channel / interference modeling, Network information theory, Dynamic spectrum access in TV white space, Policy based cognitive radio control, Protocol issues for cognitive radios)
4. Architecture and Implementations (Reconfigurable antennas and RF circuits, Software defined radio and flexible radios, Hardware prototypes for cognitive radio, Certification and security issues)

### 2. Submission Instructions

The standard number of pages is 8 for a PAPER and 2 for a LETTER. The maximum number of pages for the initial submission of a LETTER is 4. The page charges are considerably higher for extra pages. Manuscripts should be prepared according to the guideline in the "Information for Authors". The latest version is available at the web site, [http://www.ieice.org/eng/shiori/mokuji\\_cs.html](http://www.ieice.org/eng/shiori/mokuji_cs.html). The term for revising the manuscript after acknowledgement of conditional acceptance for this special section could be shorter than that for regular issues (60 days) because of the tight review schedule.

This special section will accept papers only by electronic submission. Prospective authors are requested to follow carefully the submission process described below.

1. Submit a manuscript and electronic source files (TeX/Word files, figures, authors' photos and biography) via the IEICE Web site [https://review.ieice.org/regist\\_e.aspx](https://review.ieice.org/regist_e.aspx) **by August 17 2011**. Authors should choose the [\[Special-EB\] Cognitive Radio and Heterogeneous Wireless Networks in Conjunction with Main Topics of CrownCom2011](#) as a "Type of Issue (Section)/Category of Transactions" on the online screen. **Do not choose [Regular-EB]**.
2. Send "Copyright Transfer and Page Charge Agreement" and "Confirmation Sheet of Manuscript Registration" by E-mail, FAX or postal mail to the following address (guest editor of the special section) by the above due date. We may withdraw the submission if these documents have not been received by the due date, even if the manuscript has been received by electronic submission. For additional guidelines on manuscript preparation, please visit: [http://www.ieice.org/eng/shiori/mokuji\\_cs.html](http://www.ieice.org/eng/shiori/mokuji_cs.html)

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### 3. Special Section Editorial Committee

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- Please note that if the submitted paper is accepted, all authors, including authors of invited papers, are requested to pay for the page charges covering partial cost of publications. Authors will receive 50 reprints.
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