

Special Section on Dynamic Spectrum Access

The IEICE Transactions on Communications announces that it will publish a special section entitled "Special Section on Dynamic spectrum access" in **December 2009**.

Recently the radio spectrum is becoming exhausted because of the growing demands for the radio spectrum. In this regard, the paradigm shift from the conventional exclusive use of frequency resources by the fixed allocation to the dynamic frequency utilization is indispensable for the future wireless networks. Progresses in software radio technologies are enhancing the future capabilities of devices to use the frequency spectrum flexibly and subsequently it enables radio systems to dynamically use and release spectrum wherever and whenever they are available, which is called a spectrum agile radio. It brings an emerging paradigm of dynamic spectrum access (DSA). The dynamic spectrum access technology can allow unlicensed secondary systems to share the spectrum with the licensed primary systems. By cognition of the radio frequency environment, radio terminals dynamically select the optimal frequency and transmission media with the cooperation of base stations or networks and adapt the transmission and reception accordingly. Dynamic spectrum access has many technical challenges to be solved for its realization and should be studied from various aspects of wide field ranging from the technologies to the frequency regulation. This special section (published in Dec. 2009) aims at bringing together the state-of-art contribution and recent significant progresses on these related topics.

1. Scope

This special section aims at timely dissemination of research in these areas. Possible topics include, but are not limited to:

- . System architecture (e.g., centralized, distributed)
- . Spectrum measurements and signal sensing
- . Dynamic spectrum management
- . Spectrum sharing and resource allocation (e.g., game theory)
- . Network technology for dynamic spectrum access
- . MAC/PHY design and Cross-layer optimization
- . Applications of cognitive radio
- . Enabling software defined radio technologies (e.g., wideband antennas, RF circuit, reconfigurable devices, AD/DA converters, baseband processor)

* It is possible to request to resubmit as a regular issue when the topic of the submission is thought to be far out of the scope of this special section.

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. 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 only papers by electronic submission. Prospective authors are requested to follow carefully the submission process described below.

1. Submit a manuscript using the IEICE Web site https://review.ieice.org/regist_e.aspx. Authors should choose the [Special-EB] Dynamic Spectrum Access 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 April 17, 2009**. There is a possibility that we shall withdraw the manuscript without receiving them **by April 17, 2009**, even if we have received the manuscript by electronic submission. For additional guidelines on manuscript preparation, please visit the web-page: http://www.ieice.org/eng/shiori/mokuji_cs.html

Further Information/ Submission Address of Confirmation Sheet & Copyright Transfer Form:

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