

Call for Papers

----- Special Section on 5G Radio Access Networks – Part II: Multi-RAT Heterogeneous Networks and Smart Radio Technologies -----

The IEICE Transactions on Communications announces that it will publish a special section entitled "Special Section on 5G Radio Access Networks – Part II: Multi-RAT Heterogeneous Networks and Smart Radio Technologies " in the October 2015 issue.

As the fourth generation mobile communications system (4G), the Long Term Evolution (LTE) is being rolled out worldwide and preparations for LTE-Advanced deployment are being underway. Meanwhile, the fifth generation mobile communications system (5G) has been attracting more and more attention, with many organizations being established including "Future IMT Vision" study group by ITU-R WP5D, towards the identification of system requirements, novel system concepts and potential technologies for 2020 and beyond. Key issues for the 5G system is the support of the rapidly growing mobile traffic by exploration of higher frequency bands, high density cell deployment, and low-cost network operation. Integration of heterogeneous multiple radio access technologies (multi-RAT), e.g., cellular, WLAN, and short range communications in millimetre-wave bands, is expected as a practical solution to overcome these issues. Moreover, Smart Radio technologies are expected as promising enablers for the 5G system. In order to further promote 5G related research and development activities, particularly on multi-RAT heterogeneous networks and Smart Radio technologies, a special section is being planned (scheduled to appear in the October 2015 issue).

1. Scope

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

- Smart radio
- Heterogeneous radio access networks
- Cellular and WLAN interworking
- Multi-band/multi-mode radio systems
- Aggregation of fragmented spectrum bands
- Cognitive radio/cognitive networks
- Common control channel and cloud operation
- Dynamic spectrum access and spectrum management
- Shared use of spectrum/optimising unlicensed spectrum usage
- Radio resource and traffic management
- Network-oriented interference coordination
- Cross-layer optimisation
- Software defined radio and networking technologies
- Radio policy and regulatory issues.

2. Submission Instructions

The standard number of pages is 8. 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 papers only by electronic submission. Submit a manuscript and electronic source files (LaTeX/Word files, figures, authors' photos and biographies) via the IEICE Web site https://review.ieice.org/regist/regist_baseinfo_e.aspx by **19th January 2015 (JST)**. Authors should choose the "5G Radio Access Networks – Part II: Multi-RAT Heterogeneous Networks and Smart Radio Technologies" as a "Journal/Section" on the online screen. Do not choose [Regular EB].

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3. Special Section Editorial Committee

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