

## Call for Papers

### ----- Special Section on Heterogeneous Networks for Future Cellular Systems -----

The IEICE Transactions on Communications announces that it will publish a special section entitled "Special Section on Heterogeneous Networks for Future Cellular Systems" in **June 2013**.

With the increase in data traffic driven by a new generation of wireless devices, the demand for data rates has been increasing exponentially, especially in hot spots and indoor environments. To accommodate such a significant data traffic in a cost-effective manner, there has been an increasing interest to a *heterogeneous network*, in which relays, distributed antennas, picocells, and femtocells are deployed upon the conventional macro cellular networks. Heterogeneous networks inspire new wireless communications and signal processing challenges in the design of cellular systems. They introduce additional interference that can be coordinated, avoided, canceled, or managed in some other way by signal processing algorithms. In many settings, heterogeneous network will require development of decentralized algorithms and autonomous operation of the nodes, because of the delays and overhead in the backhaul connections between the nodes. Therefore, a special section is being planned (scheduled to appear in the June 2013 issue) to further promote research and development of this area.

#### 1. Scope

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

- Downlink and uplink PHY/MAC scheme/design of heterogeneous networks
- Interference coordination, avoidance, and mitigation for heterogeneous networks
- Decentralized resource allocation and power control algorithms for heterogeneous networks
- Restricted access, open-access, and hybrid access femtocells/picocells
- Relaying transmission for heterogeneous networks
- Energy efficient algorithms for heterogeneous networks
- Mobility support, cell selection, and handover for heterogeneous networks
- Self organizing networks for heterogeneous networks

#### 2. Submission Instructions

The standard number of pages is 8 (Letter submissions are not accepted). 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 biographies) via the IEICE Web site: [https://review.ieice.org/regist\\_e.aspx](https://review.ieice.org/regist_e.aspx) by **October 12, 2012 (Japan Time)**. Authors should choose the [Special-EB] Heterogeneous Networks for Future Cellular Systems 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

Guest Editor-in-Chief: Kenichi Higuchi (Tokyo Univ. of Science)

Guest Editors: Tony Q.S. Quek (Inst. for Infocomm Research), Satoshi Suyama (Tokyo Institute of Tech.)

Guest Associate Editors: Tsuguhide Aoki (Toshiba), Takahiro Asai (NTT DoCoMo), Naoto Ishii (NEC), Shinsuke Ibi (Osaka Univ.), Eiji Okamoto (Nagoya Institute of Tech.), Satoshi Konishi (KDDI R&D Lab.), Osamu Takyu (Shinshu Univ.), Masayuki Hoshino (Panasonic), Manabu Mikami (Softbank Mobile), Koji Yamamoto (Kyoto Univ.), Wenyi Zhang (Univ. of Science and Tech. of China), Hung-Yu Wei (National Taiwan Univ.), Wei Peng (Tohoku Univ.)

\* 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.

\* At least one of the authors must be an IEICE member when the manuscript is submitted for review. Invited papers are an exception. We recommend that authors unaffiliated with IEICE apply for membership. For membership applications, please visit: <http://www.ieice.org/eng/member/OM-appli.html>.