

IEEE ICC 2011 Workshop on Heterogeneous Networks (HETnet)

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Important Dates

Paper Submission:	15 Oct 2010
Acc. Notification:	15 Jan 2011
Camera-Ready:	15 Feb 2011
Workshop:	5 Jun 2011



Call for Papers



Existing cellular architectures are designed to cater to large coverage areas, which do not achieve the expected throughput to ensure seamless mobile broadband in the uplink as users move far from the base station. This is due to the increase in the inter-cell interference, as well as constraints on the transmit power of the mobile devices. Another limitation of the conventional macrocell approach is the poor indoor penetration and the presence of dead-spots, which results in drastically reduced indoor coverage. To address these issues, there has been an increasing interest to deploy relays, distributed antennas and small cellular access points in residential homes, subways and offices. These network architectures with relays, picocells and femtocells underlying the macrocell network are commonly referred as heterogeneous networks. With these multi-tier networks, we can potentially improve spatial reuse and coverage by allowing future cellular systems to achieve higher data-rates, while retaining the seamless connectivity and mobility of cellular networks.

This workshop will bring together academic and industrial researchers to identify and discuss technical challenges and recent results related to heterogeneous networks. Topics of interest include but are not limited to the following:

- Downlink and uplink PHY/MAC design for heterogeneous networks in 3G, WiMAX, and LTE systems, as well as beyond 4G communication systems
- Interference analysis, avoidance, and mitigation
- Resource allocation techniques
- Restricted access versus open-access femtocells/picocells
- Power control and power saving mechanisms
- Time synchronization for heterogeneous networks
- Relay selection and cooperative transmission methods for next generation wireless networks
- Cognitive radio techniques for heterogeneous networks
- Trade-offs between femtocells, picocells, relay networks, and distributed antenna systems
- Self organizing networks and issues in self maintenance
- Relaying, feedback, and bidirectional communications

Feature keynote addresses by **Robert W. Heath Jr.** (UT Austin), **Holger Claussen** (Alcatel-Lucent), and **David Gesbert** (Eurecom).

The workshop accepts only novel, previously unpublished papers. Prospective authors are encouraged to submit a 5-page standard IEEE conference style paper to this workshop (including all text, figures, and references) through EDAS submission system (<http://www.edas.info>). (If any problem during submission is encountered, please contact the workshop chair). One additional page may be allowed but with additional publication fee. Accepted papers must be presented at the workshop. The presenter must register for the workshop before the deadline for author registration. Failure to register before the deadline will result in automatic withdrawal of the paper from the workshop proceedings and the program. All papers selected for publication will be included in the IEEE ICC proceedings and IEEE digital library.

Website: <http://hetnet.i2r.a-star.edu.sg>