International Workshop on Emerging Technologies for LTE-Advanced and Beyond-4G

In conjunction with IEEE GLOBECOM 2013, Friday, December 13, Atlanta, GA, USA

Workshop Chairs

Huseyin Arslan, University of South Florida, USA
Wei Yu, University of Toronto, Canada

Technical Program Chairs

Charlie (Jianzhong) Zhang, Samsung Electronics, USA
Halim Yanikomeroglu, Carleton University, Canada
Lingjia Liu, University of Kansas, USA
Tommy Svensson, Chalmers U. of Technology, Sweden

Keynote Speakers

Jeffrey Andrews, University of Texas at Austin, USA
Juho Lee, Samsung Electronics, Korea

Panel Program

VIEWS ON BEYOND-4G/5G

Andy Molisch, Professor, USC, USA
Egon Schulz, Director, Huawei, Germany
Hugo Tullberg, Tech. Coordinator METIS, Ericsson, Sweden
Rui Yang, Senior Manager, InterDigital, USA
Ping Zhang, Professor, BUPT, China

Technical Program Committee

Abdulkareem Adinoyi, Carleton University, Canada
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Jong-kae Fwu, Intel Corporation, USA
Peter Gaal, Qualcomm, USA
Tolga Girici, TOBB Economics and Technology U., Turkey
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Yupeng Jia, National Instruments, USA
Shi Jin, Southeast University, China
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Jungwon Lee, Samsung US R&D Center, USA
Sofia Martinez Lopez, Orange Labs, France
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Parimal Parag, ASSIA Inc., USA
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Xiaodong Shen, Research Institute of China Mobile, China
Jaspreet Singh, Samsung Telecommunications, USA
Mikael Sternad, Uppsala University, Sweden
Cenk Toker, Hacettepe University, Turkey
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Xiaodong Xu, Beijing U. of Posts and Telecomm., China
Rui Yang, Interdigital Digital, USA
Yang Yi, University of Missouri - Kansas City, USA
Yifei Yuan, ZTE Corporation, USA

Important Dates

Full Paper Submission:	**7 July 2013**
Acceptance Notification:	01 September 2013
Camera-Ready Submission:	01 October 2013
Workshop:	13 December 2013

Call for papers

The wireless cellular network has been one of the most successful communications technologies of the last three decades. The first wave of the fourth generation (4G) networks, namely the Long Term Evolution (LTE) networks based on the 3GPP release 8 standard, is being deployed around the world today. The standardization process for the 4G LTE-Advanced (3GPP release 10) was in 2011; the first deployments are expected to start as early as next year. As the 4G technologies are being tested and deployed in many countries, efforts to define Beyond 4G (B4G) have been under way in 3GPP since 2011, and will continue into the next few years as part of the ongoing Release 11 and the upcoming Release 12. In the meanwhile, the European Union 8th framework programme (EU FP8) will start in Jan 2014 and will span the 6-year period 2014-2020; the FP8 projects will likely boost the B4G research activities.

There is an emerging consensus in the 3GPP community that we have exhausted most of the low-hanging-fruit ideas at our disposal, and need some fresh and disruptive ideas to maintain the innovation momentum, which in turn allows for the mobile wireless industry to continue creating value. This workshop will be a venue to brainstorm on and to identify the emerging concepts, technologies, and analytical tools for B4G cellular networks. Towards that end, this workshop aims to bring together leading researchers in both academia and industry, and to provide a forum for researchers from diverse backgrounds to share their views on what B4G should be and to have an open dialogue on the future of wireless research and its impact on LTE-A standard. The goal is to share the latest status of the LTE-A standards, and to identify key B4G technology drivers that can deliver significant capacity, coverage and user-experience benefits.

Topics of interest include, but are not limited to the following:

- Novel radio access network (RAN) architectures
  - HetNets with overlay of high- and low-power nodes
  - CoMP (coordinated multi-point) transmission and reception
  - Distributed antenna systems
  - Advanced relaying, user terminal relaying
  - Small cell deployment, femtocells, picocells
  - Terminal intelligence
- Advanced radio resource management (RRM) techniques
  - Interference management, interference awareness
  - Inter-cell interference coordination (ICIC, eICIC)
  - Artificial intelligence in wireless communications
  - Congestion management
- Emerging technologies in physical layer
  - Interference-robust air interface
  - Higher-order massive MIMO
  - Active antenna systems (AAS)
  - Multiuser communications
  - Network information theory
  - Novel modulation and coding schemes
  - Beyond OFDM(A)
- Novel services
  - Enhanced voice and video
  - Machine-to-machine (M2M), machine-type communications (MTC)
  - Point-to-point (P2P) / device-to-device (D2D) communications
  - Telepresence
- Energy efficiency
- Spectrum
  - Aggregation of intra and inter-band carriers for both FDD and TDD
  - Cognitive radio and dynamic spectrum access
  - Adaptive radio access techniques
- Prototype and test-bed for emerging B4G technologies
- mmW technologies

Papers should be submitted using EDAS (http://edas.info/newPaper.php?c=15137). Authors should follow the *IEEE* guidelines that apply to all GLOBECOM submissions when preparing their contributions (maximum paper length: 6 pages with 10-pt font).