W5: Technology Trials and Proof-of-Concept Activities for 5G and Beyond Industry and Academic Panel 2019 (TPoC5G Panel 2019)

The 5th generation (5G) cellular communication systems are going to be launched in 2019. In the 5G standard, key enabling technologies such as massive MIMO, beamforming, or a new radio access technology are specified, and the research and development of those key technologies have been carried out in many research entities. On top of that, new technology concepts for beyond 5G (B5G) have been currently investigated. In these regards, this panel session is aiming to provide opportunities to present the latest trials for 5G and the proof-of-concept activities for B5G. Distinguished speakers from industry as well as from academy will present their latest research and development results and will prove their perspective regarding the new directions of B5G. Through the discussion at the workshop, it is also expected to promote the exchange of new ideas among researchers.

General Co-Chairs
Tomoaki Ohtsuki, Keio University
Gerhard Bauch, Hamburg University of Technology

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Satoshi Suyama, NTT DOCOMO
Toshihiko Nishimura, Hokkaido University
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Koji Yamamoto, Kyoto University
Masakatsu Ogawa, Sophia University
Nobuhiko Miki, Kagawa University
Osamu Muta, Kyushu University
Suguru Kameda, Tohoku University

Program

Sunday, 28 April 2019 13:30-15:30 Venue 3 (Starhill 1)

Session 1

Chair: Yukitoshi Sanada, Keio University

Opening Address by General Co-Chair
Tomoaki Ohtsuki, Keio University

1 Coordinate Descent Method for Signal Detection in IDMA
Ranran He, Jiesi Kang, Yue Xiao, Shu Fang, The National Key Laboratory of Science and Technology on Communications

2 Influence of Human Body on Massive MIMO Indoor Channels
Pengfei Cui, J. Andrew Zhang, Univeristy of Technology Sydney; Wenjun Lu, University of NanJing Posts and Telecommunications; Y. Jay Guo, Univeristy of Technology Sydney; Hongbo Zhu, University of NanJing Posts and Telecommunications

3 Optimal Cell Selection Method for 5G Heterogeneous Network
Masaaki Yoshino, Hideki Shingu, Hiroaki Asano, Panasonic Corporation; Yoshifumi Morihiro, Yukihiko Okumura, NTT DOCOMO Inc.

4 5G R&D Achievements for High-Data-Rate and Low-Power-Consumption Radio Access Technologies with Higher-Ferequency-Band and Wider-Bandwidth Massive MIMO (Invited Talk)
Yukihiko Okumura, Satoshi Suyama, NTT DOCOMO Inc.; Naoto Ishii, Yasushi Maruta, NEC Corporation; Akihiro Okazaki, Atsushi Okamura, Mitsubishi Electric Corporation; Jun Terada, Takeshi Onizawa, NTT Corporation

5 5G R&D Activities for High Capacity Technologies with Ultra High-Density Multi-Band and Multi-Access Layered Cells (Invited Talk)
Hiroyuki Seki, Fujitsu Limited

Sunday, 28 April 2019 16:00-18:00 Venue 3 (Starhill 1)

Session 2

Chair: Tomoaki Ohtsuki, Keio University

1 5G Networking Forward for Enhanced Vertical Support (Invited Talk)
Wen Xu, Huawei Technologies Duesseldorf GmbH

2 Towards Smart and Reconfigurable Environment: Intelligent Reflecting Surface Aided Wireless Networks (Invited Talk)
Rui Zhang, National University of Singapore

Keynote: Evolution into 5G and The Next
Fumiyuki Adachi, Tohoku University

Panel Discussion

***Note**: For each **regular presentation**, 20 minutes are allocated including 3-minute discussion; and for **keynote speech** and each **invited talk**, 45 and 25minutes are respectively allocated without discussion, which is encouraged in **panel discussion**.*