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Chair: Dr. Galymzhan Nauryzbayev (Eurasian National University, Kazakhstan)

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**Chair:** Prof. Seung-Hoon Hwang (Dongguk University, Korea)

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**Chair:** Dr. Chunxiao Li (Yangzhou University, China)

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**IP-2.2** A Novel Low Cost Real-time Power Measurement Platform for LoWPAN IoT Devices  N/A
*Yang Liu (CAS Shanghai Institute of Microsystem and Information Technology & Shanghai Research Center for Wireless Communications, P.R. China); Yubing Wang, Weimei Gao and Wuxiong Zhang (Shanghai Research Center for Wireless Communications, P.R. China); Hua Qian (Shanghai Advanced Research Institute, Chinese Academy of Sciences, P.R. China); Yang Yang (Shanghai Research Center for Wireless Communications & CAS Shanghai Institute of Microsystem and Information Technology, P.R. China)*

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**IP-2.4** Power Consumption Modeling of BLE Advertising Devices  N/A
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**IP-2.5** Grant-free Multiple Access for Ultra-Reliable Low-Latency Communications in a Large-Scale Antenna System  N/A
*Jong Hyun Kim, Kyung Jun Choi, Kwang hoon Lee and Kwang Soon Kim (Yonsei University, Korea)*
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