

Keynote Talk: On Networking of Internet of Things: Challenges and Explorations

ABSTRACT: Internet of Things (IoT), as the trend of future networks, begins to be used in many aspect of daily life. It is great significant to recognize the networking problem behind developing IoT. In this talk, we first analyze and point out the key problem of IoT from the perspective of networking: how to interconnect large-scale heterogeneous network elements and exchange data efficiently. We also summarize the challenges on networking of Internet of Things. Combing our on-going works, we present some research progresses on three main aspects: the basic model of IoT architecture, the internetworking model, and the sensor-networking mode. Finally, we discuss some open issues and future work in this area.



Dr. Huadong Ma is a Chang Jiang Scholar Professor and Executive Dean, School of Computer Science, Beijing University of Posts and Telecommunications (BUPT), China. He is also Director of Beijing Key Lab of Intelligent Telecommunications Software and Multimedia, BUPT. He is Chief Scientist of the project “Basic Research on the Architecture of

Internet of Things” supported by the National 973 Program of China from 2010 to 2013. He received his PhD degree in Computer Science from the Institute of Computing Technology, Chinese Academy of Science in 1995. From 1999 to 2000, he held a visiting position in the Department of Electrical Engineering and Computer Science, The University of Michigan, Ann Arbor, USA. He was a visiting Professor at The University of Texas at Arlington from July to September 2004, and a visiting Professor at Hong Kong University of Science and Technology from Dec. 2006 to Feb. 2007. His current research focuses on multimedia computing, sensor networks and Internet of things, and he has published over 200 papers in journals (such as ACM/IEEE Transactions) or Conferences (such as IEEE INFOCOM, ACM MM) and 4 books on these fields. He was awarded National Funds for Distinguished Young Scientists in 2009.