

Seminar on

Tokyo Tech Millimeter Wave Project (5-year, Silicon based 60GHz 3Gbps Indoor and 40GHz 1Gbps Outdoor Systems)

by

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Abstract

Planar antennas are applied to the millimeter-wave wireless systems; the overall systems not only for the antennas and RF, but also the baseband are developed in Tokyo Tech.

The 5-year project given below has been successfully conducted through 2008-2012.

"RF Coexisting Technology on High Speed Baseband IC for Millimeter Wave Radio Systems" is supported by Ministry of Internal Affairs and Communications (MIC) funding as well as Industrys participation. The project started in FY2007 and will run until FY2011. The objective of this project is to develop RF coexisting technology on high speed baseband CMOS for Millimeter wave radio systems. Outdoor and indoor millimeter wave radio communication systems beyond Gbps are designed based upon these ICs, the former of which will be demonstrated in Tokyo Tech Ookayama campus. Two systems for 60GHz indoor and 40GHz outdoor high speed communication developed in this project will be explained.

Biography

Makoto Ando (SM'01–F'03) received the D.E. degrees in electrical engineering from Tokyo Institute of Technology, Tokyo, Japan in 1979. From 1979 to 1983, he worked at Yokosuka Electrical Communication Laboratory, NTT, and was engaged in development of antennas for satellite communication. He moved to Tokyo Institute of Technology in 1983 and is currently a Professor. His main interests have been high frequency diffraction theory such as Physical Optics and Geometrical Theory of Diffraction. His research also covers the design of waveguide planar arrays and millimeter-wave antennas. He received the Achievement Award and the Paper Awards from IEICE Japan in 1993 and 2009. He also received the 8th Inoue Prize for Science in 1992, the Meritorious Award of the Minister of Internal Affairs and Communications and the Chairman of the Broad of ARIB in 2004 and the Award in Information Promotion Month 2006, the Minister of Internal Affairs and Communications. He served as the guest editor-in-chief of more than six special issues in IEICE, Radio Science and IEEE AP. He was the general chair of the 2004 URSI EMT symposium in Pisa and of the ISAP 2007 in Niigata. He served as the member of Scientific Council for Antenna Centre of Excellence - ACE in EU's 6th framework programme since 2004. He served as the Chair of Commission B of URSI 2002-2005. He was the 2007 President of Electronics Society IEICE, the 2009 President of IEEE Antennas and Propagation Society and is currently the vice-president of URSI. He is the Fellow IEEE and IEICE.

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City University of Hong Kong

***** ALL ARE WELCOME *****

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