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Expectation to smart ICT society by accelerating research and educational activities in universities and enterprises

Abstract: Due to the rapid advancement of ICT (information & communication technology), the ICT has now an essential role to support our daily life. The data traffic volume in 2020 is expected to reach about 1000 times of 2010, since the thing and the thing represented by M2M (machine-to-machine) and IoT (Internet of things) will be connected as well as many new ICT supported services/applications will be emerging. Thus, the role of ICT support will be more and more important for super-aged society, energy conservation, disaster prevention, environment protection, agricultural promotion.
First, I present an expectation to a smart ICT society from service/application point of view by focusing the next 5th generation mobile communication system and IoT era. Both the energy efficiency and spectrum efficiency are of course key concerns. However, I believe that security and privacy become more important issues in IoT era. Then, I introduce the outline of some of our research topics regarding "Secure access control system for realization of IoT with the high reliability". Finally, I would like to talk about my personal view of how to enjoy doing research and education to accelerate research and educational activities in universities and enterprises to make our smart ICT society better based on the various experience and knowledge I got for more than 30 years working at a university.

Biography: Iwao Sasase was born in Osaka, Japan in 1956. He received the B.E., M.E., and D. Eng. degrees in Electrical Engineering from Keio University, Yokohama, Japan, in 1979, 1981 and 1984, respectively. From 1984 to 1986, he was a Post Doctoral Fellow and Lecturer of Electrical Engineering at University of Ottawa, ON, Canada. He is currently a Professor of Information and Computer Science at Keio University, Yokohama, Japan. His research interests include modulation and coding, broadband mobile and wireless communications, optical communications, communication networks and information theory. He has authored more than 284 journal papers and 430 international conference papers. He granted 44 Ph.D. degrees to his students in the above field.
Dr. Sasase received the 1984 IEEE Communications Society (ComSoc) Student Paper Award (Region 10), 1986 Inoue Memorial Young Engineer Award, 1988 Hiroshi Ando Memorial Young Engineer Award, 1988 Shinohara Memorial Young Engineer Award, 1996 Institute of Electronics, Information, and Communication Engineers (IEICE) of Japan Switching System Technical Group Best Paper Award, and WPMC2008 Best Paper Award. He is now IEEE Tokyo Section Chair. He served as Board of Governors Member-at-Large (2010-2012), Japan Chapter Chair (2011-2012), Director of the Asia Pacific Region (2004-2005), Chair of the Satellite and Space Communications Technical Committee (2000-2002) of IEEE ComSoc., He also served as Vice President of IEICE (2014-2016), President (2013-2014), Vice President (2004-2006), Chair of the Network System Technical Committee (2004-2006),

Chair of the Communication System Technical Committee (2002-2004) of IEICE Communications Society, Director of the Society of Information Theory and Its Applications in Japan (2001-2002). He is Fellow of IEICE, Senior Member of IEEE, Member of Information Processing Society of Japan, respectively.