

## ~ Keynote Speaker ~

*Professor Tomoaki Ohtsuki, Keio University, Japan*

**Title:** Smart Healthcare



### **Abstract:**

With rapid aging society in developed countries particularly Japan, social costs for nursing care and medical expenses are also rising. Meanwhile, the size of the average family has continued to shrink, which results in the increase of elderly people living alone. Smart healthcare is expected to support the aging society where people can live healthy and peacefully, while reducing the costs for support dramatically. To realize such a society, smart technologies are necessary. Smart sensor is one of the smart technologies where it is expected to collect information about people and environments while keeping privacy. For instance, monitoring a person living alone is an important problem in which the use of cameras is not normally permitted or preferred. In this talk we will introduce smart healthcare and smart sensors that realize it. We will also introduce some of our developed smart sensors based on wireless communications technologies.

Moreover, we will present some techniques to detect mental disease and conclude.

### **Biography:**

Tomoaki Ohtsuki (Otsuki) is currently a Professor at Keio University, Japan. He received the B.E., M.E., and Ph. D. degrees in Electrical Engineering from Keio University, Yokohama, Japan in 1990, 1992, and 1994, respectively. From 1995 to 2005 he was with Science University of Tokyo. In 2005 he joined Keio University. He is engaged in research on wireless communications, optical communications, signal processing, and information theory. Dr. Ohtsuki is a recipient of the 1997 Inoue Research Award for Young Scientist, the 1997 Hiroshi Ando Memorial Young Engineering Award, Ericsson Young Scientist Award 2000, 2002 Funai Information and Science Award for Young Scientist, IEEE the 1st Asia-Pacific Young Researcher Award 2001, the 5th International Communication Foundation (ICF) Research Award, 2011 IEEE SPCE Outstanding Service Award, the 27th TELECOM System

Technology Award, ETRI Journal's 2012 Best Reviewer Award, and 9th International Conference on Communications and Networking in China 2014 (CHINACOM '14) Best Paper Award.

He has published more than 170 journal papers and 390 international conference papers. He served a Chair of IEEE Communications Society, Signal Processing for Communications and Electronics Technical Committee. He served a technical editor of the IEEE Wireless Communications Magazine and an editor of Elsevier Physical Communications. He is now serving an Area Editor of the IEEE Transactions on Vehicular Technology and an editor of the IEEE Communications Surveys and Tutorials. He has served general-co chair and symposium co-chair of many conferences, including IEEE GLOBECOM 2008, SPC, IEEE ICC2011, CTS, IEEE GCOM2012, SPC, IEEE SPAWC, and IEEE APWCS. He gave tutorials and keynote speech at many international conferences including IEEE VTC, IEEE PIMRC, and so on. He was a Vice President of Communications Society of the IEICE, Japan and is the President-Elect of Communications Society of the IEICE, Japan. He is a fellow of the IEICE and a senior member of the IEEE.