

ICCST Keynote Speech:

Recent progress and prospect of ultra-broadband photonic network

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Abstract:

Due to the continuous demands for transmission capacity expansion, the optical fiber transmission system, a basic infrastructure of the ICT industry, needs the break-through technology. In addition to the existing C- and L-band WDM networks, updated photonic transport system is to utilize all available wave-bands including O-, E-, S-, C-, L-, and U-bands for transporting ultra-wideband information data.

In this presentation, after overviewing the recent progress of the photonic transport system, its enabling technologies are presented. Finally, prospect of ultra-broadband photonic network is discussed for the new generation networks.

About the speaker:

Prof. Hideyuki Sotobayashi received the B.E. degree in electronic engineering in 1992 and the M.E. and Dr.Eng. degrees in electrical engineering from the University of Tokyo, Tokyo, Japan, in 1994 and 1997, respectively. In 1997, he joined Communications Research Laboratory (CRL), Ministry of Posts and Telecommunications (MPT), Tokyo, Japan, where he has been engaged in research on photonic networks, optical communications, photonic processing, and nonlinear optics. CRL was reorganized as "National Institute of Information and Communications Technology (NICT)" on April 1st, 2004. In 2008, he joined the Aoyama Gakuin University as an Associate Professor.

Prof. Sotobayashi is a senior member of the Institute of Electrical and Electronics Engineers (IEEE) and members of the Optical Society of America (OSA), the Institute of Electronics and Information Communication Engineers of Japan (IEICE), and the Japan Society of Applied Physics (JSAP). Since 2002 until 2005, he was a Visiting Scientist of Massachusetts Institute of Technology. Since 2005, he has been a Research Affiliate of Massachusetts Institute of Technology, USA.