July 15, 2016

Xuelin Yang

Shanghai Jiao Tong University

All-optical high-speed switches

July 15, 2016 – h 10:30

Blue Room – TeCIP Institute

In this talk, he will discuss the SOA-based turbo-switch for all-optical high speed signal processing. Detailed time- and frequency-domain models of the all-optical turbo-switch will be presented, to understand the reason of the bandwidth enhancement and to predict the 3-dB bandwidth of frequency response of the turbo-switch. Also he will discuss the possible integrated version of the turbo-switch, where a phase adjustable Mach-Zehnder interferometer (MZI) is applied as an optical band-pass filter between two cascaded semiconductor optical amplifiers. The wavelength conversion at 84.8 Gbit/s was first demonstrated using the integrated turbo-switch

Short Bio:
Xuelin Yang received his Master and Ph.D. degrees in Optics from Shanghai Jiao Tong University in 1992 and 1995. From Sept 1999 to Sept. 2001, He joined in the Lab STIM, Ecole Normale Superieure de Lyon, France, as a postdoctoral researcher. His research fields were organic nonlinear optical materials & devices. From Oct. 2001 to Nov. 2004, Dr. Yang was employed by Department of Electrical Engineering, Eindhoven University of Technology, the Netherlands. His interests mainly focused on ultrafast all-optical switching devices employing semiconductor optical amplifiers (SOAs) in optical telecommunication system. From Dec. 2004 to 2008, Dr. Yang has been employed by Photonics System Group, Tyndall National Institute, University College Cork, Ireland as Senior Researcher. Dr. Yang has been employed as Associate Professor in **Shanghai Jiao Tong University** since 2009. He is currently investigating all-optical high-speed signal processing in fiber-optical communication system. Dr. Yang has published over 100 papers in journal and conferences, including over 10 invited talks in ECOC and ICTON in recent years.

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