

# Photonics Summer School

## at The Hong Kong Polytechnic University (PolyU)

**Organizer:** PolyU's Photonics Research Center

**Partner:** School of Optical Science and Engineering, Zhejiang University (ZJU)

**Venue:** PolyU Campus

**Date:** August 1<sup>st</sup> ~ 6<sup>th</sup>, 2016

*Schedule:*

	<i>One-Hour Lecture (09:30 ~ 10:30am)</i>	<i>One-Hour Lab Tour (11:00am ~ 12:00noon)</i>	<i>Free Open Discussions (1:30 ~ 5:30pm)</i>
<b>Monday</b> (01/08/2016)	Prof. Michael G. Somekh <i>“Plasmonics: fundamentals &amp; applications”</i>	Biophotonics Lab <i>Guided lab tours</i>	Biophotonics Lab <i>Open &amp; in-depth discussions</i>
<b>Tuesday</b> (02/08/2016)	Prof. Chao Lu and Dr. Chang-yuan Yu <i>“Optical fiber communications technology and system”</i>	Optical Fiber Communication Lab <i>Guided lab tours</i>	Optical Fiber Communication Lab <i>Open &amp; in-depth discussions</i>
<b>Wednesday</b> (03/08/2016)	Prof. Wei Jin <i>“Microstructured optical fiber devices and sensors”</i>	Fiber-Optic Sensor Lab <i>Guided lab tours</i>	Fiber-Optic Sensor Lab <i>Open &amp; in-depth discussions</i>
<b>Thursday</b> (04/08/2016)	Dr. A. Ping Zhang <i>“Specialty laser direct writing technologies for micro-/nano-devices”</i>	Optical Microfabrication Lab <i>Guided lab tours</i>	Optical Microfabrication Lab <i>Open &amp; in-depth discussions</i>
<b>Friday</b> (05/08/2016)	Prof. Hwa-yaw Tam <i>“Optical sensing technologies for smart railway systems”</i>	Specialty Optical Fiber Lab; Smart Railway Lab <i>Guided lab tours</i>	Specialty Optical Fiber Lab; Smart Railway Lab <i>Open &amp; in-depth discussions</i>
<b>Saturday</b> (06/08/2016)	<i>City tour &amp; cultural activities</i>		
<b>Sat. Evening</b>	<i>Farewell Party; Issue Certificates</i>		

## ***About Lecturers (selective):***

### **1. Prof. Hwa-yaw Tam**

Prof. HY Tam studied B.Sc. and Ph.D. in Electrical and Electronic Engineering at The University of Manchester (UK). From 1989 to 1993 he was with Hirst Research Center, GEC-Marconi Ltd. (London), working on optical components and systems, and erbium optical fiber amplifiers. He conducted pioneering works in optical fibre amplifiers, and in 1992 built two of the first batch of optical amplifiers for Italian PTT.

Prof. Tam joined The Hong Kong Polytechnic University in 1993 and is currently the Head of Department, Chair Professor of Photonics at the Department of Electrical Engineering and Director of the Photonic Research Centre at The Hong Kong Polytechnic University. Prof. Tam established several world-class research facilities at PolyU, including two fibre-drawing towers for fabrication of photonics crystal fibres and polymer optical fibres, an ultra high-speed communication laboratory, and laser platforms for the fabrication of advanced fibre gratings. His current research interests include fabrication of special optical silica fibres and polymer fibres, optical fibre communications, and fibre sensor systems based on fibre Bragg gratings and photonic crystal fibres. Prof. Tam published more than 500 technical papers and awarded/applied about 20 patents, has extensive international research collaborations with many universities around the world and is a keynote/invited speaker at more than 40 international conferences. Prof. Tam is a Fellow of Optical Society of America.

### **2. Prof. Michael G. Somekh**

Professor Somekh received an MA degree in Metallurgy and Materials Science from the University of Oxford in 1976 and a Doctor of Philosophy degree in Microwave Electronics from the University of Lancaster in 1981. He started his academic career in 1981 as Research Associate and later as SERC (now EPSRC) Advanced Research Fellow in the University of Oxford. From 1985 to 1989, he joined the University College London as Lecturer and was the Director of Wolfson Unit for micro-NDE. Professor Somekh joined the University of Nottingham in 1989 and was their Professor of Optical Engineering, Head of Applied Optics Group and Director of Institute of Biophysics Imaging and Optical Science before joining PolyU. He is currently the Head of the Department of Electronics and Information, The Hong Kong Polytechnic University.

Professor Somekh's two major research strands are laser ultrasonics for materials characterisation and novel optical techniques in biological imaging. He and his research group pioneered and developed novel means to control the optical beam and hence the resulting ultrasonic distribution. His work has attracted considerable funding; and several of the techniques developed in his group have been commercialized and current developments also have considerable commercial potential.

Professor Somekh was elected a Fellow of Royal Academy of Engineering in 2012. Besides, he is a Fellow of Institute of Physics and a Chartered Engineer. He also serves on the College Engineering and Physical Sciences Research Council, Panel for Equipment Grants Royal Society and is an External Reviewer for the Research Excellence Framework in the United Kingdom.