



IEEE HK Section
LEOS

CALL FOR PAPERS

The 7th IEEE Hong Kong LEOS Postgraduate Conference

December 9, 2006 (Saturday)
Rm 1009, William Mong Man Wai Engineering Building
The Chinese University of Hong Kong

The 7th IEEE Hong Kong Lasers & Electro-Optics Society (LEOS) Postgraduate Conference will be held at the Chinese University of Hong Kong on December 9, 2006. The Conference is organized to promote graduate research in photonics and opto-electronics and to foster discussions on common topics of interest among research students*. Participants will also gain a more in-depth understanding on the current research focus of the related fields in Hong Kong.

We solicit papers on recent developments in photonics and opto-electronics. Topics include, but are not limited to, the following:

Biophotonics	Optical Networks and Systems
Displays	Optical Sensors
Fibers and Propagation Effects	Optical Signal Processing Techniques
Integrated Optics and Optoelectronics	Optical Switches and Modulators
Microwave Photonics	Optoelectronic Packaging
Nanophotonics	Organic LEDs and Lasers
Nonlinear Optics	Planar Waveguide Technology
Numerical Modeling of Photonic Devices	Semiconductor LEDs and Lasers
Optical Amplifiers	Silicon Photonics
Optical Communications	Solid State lasers
Optical Fiber Gratings	WDM Components and Devices
Optical MEMS	Ultrafast Optics and Electronics

**Final-year undergraduates who are involved in research projects are also encouraged to submit papers and attend the Conference.*

Paper Submission

Contributed papers should be typed on A4-size paper with 25 mm margin on all sides and limited to 3 pages. The first page should include the paper title, the name and affiliation of all authors, and the email address of the corresponding author. Contributed papers in PDF files should be emailed to Prof. Calvin C K Chan (ckchan@ie.cuhk.edu.hk), IEEE Hong Kong LEOS Chapter.

Best Paper Awards

Three papers will be selected for the Best Paper Awards. The Awards will be presented at the closing of the Conference. To be eligible for consideration, the student should be the first author and presenter of the paper.

Submission Deadline : November 20, 2006
Registration fee : HK \$ 100.00

The registration fee includes admission to the Conference, a CD of the proceedings, light refreshments, and a conference lunch at the Chinese University of Hong Kong.

Enquiries

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Conference Program

8:30 – 8:45	Registration
8:45 – 8:50	Welcome (<i>Prof. Chester Shu, Chairman, IEEE LEOS HK Chapter</i>)
8:50 – 9:00	Opening Remarks (<i>Mr. Richard Sy, Cotco MD</i>)
9:00 – 11:00	Photonics Signal Processing (<i>Chair: Prof. Chao Lu, The Polytechnic University of Hong Kong</i>)
11:00 – 11:15	Break
11:15 – 12:45	Photonics Devices (<i>Chair: Prof. Hon K. Tsang, The Chinese University of Hong Kong</i>)
12:45 – 14:15	Lunch (Benjamin Franklin Staff Canteen)
14:15 – 16:15	Photonics Subsystems (<i>Chair: Prof. Kenneth Wong, The University of Hong Kong</i>)
16:15 – 16:25	Break / Free Discussion
16:25 – 16:30	Certificate and Award Ceremony

Photonics Signal Processing

(Chair: Prof. Chao Lu, The Polytechnic University of Hong Kong)

- 9:00 – 9:15 **A1: Wideband slow light in optical fibers using a phase-modulated pump via stimulated Brillouin scattering**
Alan Cheng, Mable P. Fok, and Chester Shu, The Chinese University of Hong Kong
- 9:15 – 9:30 **A2: All-optical XNOR gate using fiber optical parametric amplifier**
David M. F. Lai, Bill P. P. Kuo, and Kenneth K.Y. Wong, The University of Hong Kong
- 9:30 – 9:45 **A3: Multiple wavelength conversion using Raman-assisted four-wave mixing in dispersion-shifted fiber**
Kwan Lau, ShaoHao Wang, L.F.K. Lui, P.K.A. Wai, and H.Y. Tam, The Hong Kong Polytechnic University;
Lixin Xu, University of Science and Technology of China, Hefei, China
- 9:45 – 10:00 **A4: Suppression of WDM signal crosstalk in fiber optical parametric amplifier by using RZ-DPSK modulation format**
Bill P. P. Kuo, P. C. Chui and Kenneth K. Y. Wong, The University of Hong Kong
- 10:00 – 10:15 **A5: Generation of ultrafast dark RZ using detuned filter after a SOA**
L. Xu , P. S. Chan, H. K. Tsang, The Chinese University of Hong Kong
- 10:15 – 10:30 **A6: Pedestal free soliton pulse compression in non-uniform fiber Bragg gratings**
Li Qian, K. Senthilnathan, and P.K.A,Wai, The Hong Kong Polytechnic University
- 10:30 – 10:45 **A7: Non-uniform Raman gain in the Raman-assisted four-wave mixing**
S. H. Wang, and P. K. A. Wai, The Hong Kong Polytechnic University;
Lixin Xu, University of Science and Technology of China, Hefei, China
- 10:45 – 11:00 **A8: Sensitivity enhancement of phase-sensitive surface plasmon resonance biosensor using multi-pass interferometry**
W. Yuan, H. P. Ho, C. L. Wong, S.Y. Wu, Y. K. Suen, S. K. Kong, Chinlon Lin, The Chinese University of Hong Kong

Photonics Devices

(Chair: Prof. Hon K. Tsang, The Chinese University of Hong Kong)

- 11:15 – 11:30 **B1: Efficient optical pumping in spiral-shaped microdisks for silicon Raman lasers**
Hui Chen, Jonathan Y. Lee, Andrew W. Poon, The Hong Kong University of Science and Technology;
H. K. Tsang, The Chinese University of Hong Kong
- 11:30 – 11:45 **B2: Conditions for polarization independent ring resonator for a mid-infrared silicon Raman laser**
Xia Chen, H K Tsang, The Chinese University of Hong Kong
- 11:45 – 12:00 **B3: Lightwave trapping in asymmetric non-evanescent notch-coupled spiral microresonator-based filters in SiN**
Jonathan Y. Lee, Xianshu Luo and Andrew W. Poon, The Hong Kong University of Science and Technology
- 12:00 – 12:15 **B4: Spiral resonator-based channel filters with tilted notch-coupling waveguide**
Xianshu Luo, Jonathan Y. Lee and Andrew W. Poon, The Hong Kong University of Science and Technology
- 12:15 – 12:30 **B5: Silicon electro-optical logic gate based on coupled microring resonators**
Chao Li and Andrew W. Poon, The Hong Kong University of Science and Technology
- 12:30 – 12:45 **B6: Depletion-type microring EO modulator with embedded Schottky diode**
Nick K. Hon and Andrew W. Poon, The Hong Kong University of Science and Technology

Photonics Subsystems

(Chair: Prof. Kenneth Wong, The University of Hong Kong)

- 14:15 – 14:30 **C1: Optically controlled buffer using PCF-based nonlinear optical loop mirror**
C. C. Lee, P. K. A. Wai, H. Y. Tam, The Hong Kong Polytechnic University;
Lixin Xu, University of Science and Technology of China, Hefei, China;
Chongqing Wu, Beijing Jiaotong University, Beijing, China
- 14:30 – 14:45 **C2: High-speed data and pulse-carver alignment in RZ-OOK systems using delay tap asynchronous waveform sampling**
Y. C. Ku and C. K. Chan, The Chinese University of Hong Kong
- 14:45 – 15:00 **C3: Dynamic gain slope and transient compensation with electronic variable optical attenuator**
Y. Liu, C. H. Kwok, H. K. Tsang and Chinlon Lin, The Chinese University of Hong Kong;
C. W. Chow, University College Cork, Ireland
- 15:00 – 15:15 **C4: A novel data reading system of the WMM based on the RW-DBR laser and the AWG**
Tao Yang, K. T. Chan, Kejian Chen, The Chinese University of Hong Kong;
Zhongcheng Liang, Nanjing University of Posts and Telecommunications
- 15:15 – 15:30 **C5: A novel OTDM scheme with hybrid RZ-ASK/DPSK formats and its enhanced tolerance to demultiplexing misalignment**
Ning Deng and C. K. Chan, The Chinese University of Hong Kong
- 15:30 – 15:45 **C6: Simultaneous strain and temperature measurement using a distributed Bragg reflector fiber laser**
Li-Yang Shao, Xinyong Dong, Hwa-Yaw Tam, The Hong Kong Polytechnic University;
Sailing He, Zhejiang University, Hangzhou, Zhejiang, China.
- 15:45 – 16:00 **C7: A novel internetworking architecture over a wavelength division multiplexed passive optical network based on RF tones identification**
Qiguang Zhao and C. K. Chan, The Chinese University of Hong Kong
- 16:00 – 16:15 **C8: NRZ-to-PRZ format conversion using silicon microring resonator based notch filters**
Linjie Zhou, Hui Chen and Andrew W. Poon, The Hong Kong University of Science and Technology