

Photonics Society of Chinese-Americans

Issue 0035: April 1, 1999

Editors: Chun-Ching Shih and Su-Miau Shih

Contact: Tel (310) 814-0318; Fax (310) 812-4975; cc.shih@trw.com

President's Message

Dear PSC members:

Time flies by fast. It is hard for me to realize that my term as the PSC President is about to expire. I would like to thank all of you for providing me with this opportunity to serve you. I also like to thank current and past PSC officers who have helped me and provided me with guidance. We have elected our new President: Dr. Bob Lin from the Northern California Chapter. The rest of the newly elected officers are Dr. Y.J. Ray Chen as First Vice President, Dr. Raymond Wang as Second Vice President, Dr. Yanhua Shih as Treasurer, Dr. Li Yan as Corresponding Secretary, and Mr. Ren-Sue Wong as Recording Secretary. The biggest upcoming PSC event will be our annual meeting on Sunday, May 23, 1999 in Baltimore, co-located with the CLEO'99 Conference. Please mark on your calendar and plan to attend. For more detail, please check PSC web page: www.psc-a.org. I am also pleased to announce that all three chapter web sites are linked now. Just go to any of these three web sites (www.psc-sc.org for the Southern California Chapter and www.brigadoon.com/~eoa for the Northern California Chapter) to find out the activities of PSC. Please visit these three sites as frequent as possible since we plan to advertise our industrial sponsors on our web pages. A high hit rate will justify a higher industrial support for our society.

Recently there have been a lot of discussions among some members to put our quarterly newsletter, Photonics Link, on-line. I deem this trend inevitable. As you can see, we are working in this direction starting from this issue. As a trial, the newsletter will be published simultaneously in three web sites. A flyer will be sent to all PSC members announcing this change and urging everyone to read the newsletter on-line. We would like to have feedback from our members. Please take time to tell us what you think. The main reason for this change is to cut the cost of printing and mailing of Photonics Link. Due to the tight financial situation of PSC (mostly because members do not pay their yearly dues) the only way for PSC to survive and continue to serve you is by cutting costs dramatically. With so many of us working in the Optics and Photonics field we should establish a collective voice to the main stream professional societies and other media. We should continue to work together for this goal in the future by having a strong society such as PSC. I would like to ask those of you who can afford it to be a life member by paying \$200. Hopefully this will improve our financial status greatly. Finally please let me know about your idea of how to make PSC more useful to you and other members. I may be reached by e-mail: chlee@eng.umd.edu.

Chi H. Lee

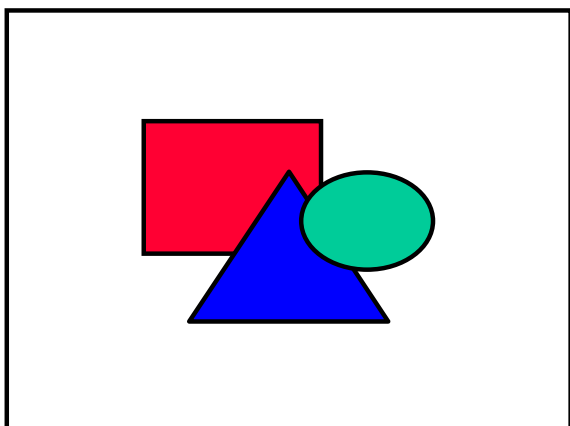
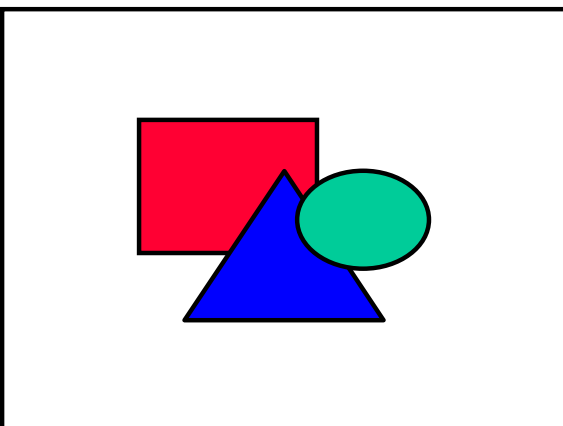
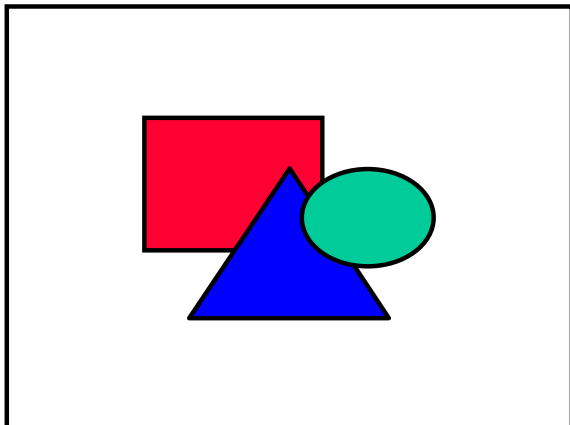
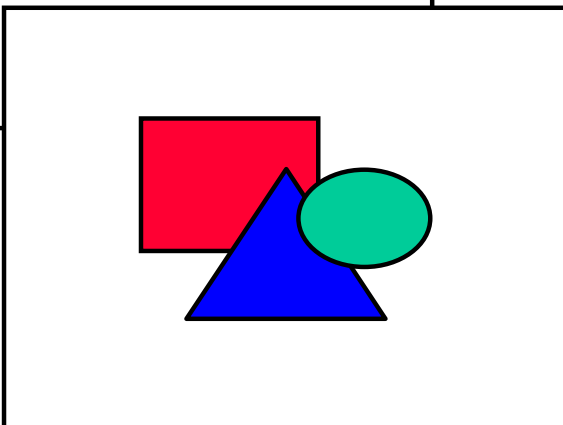
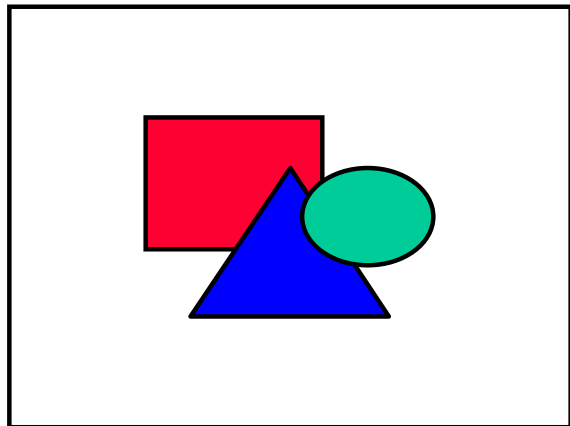
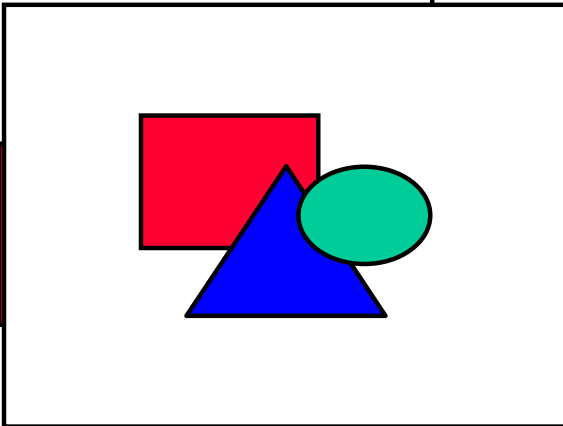
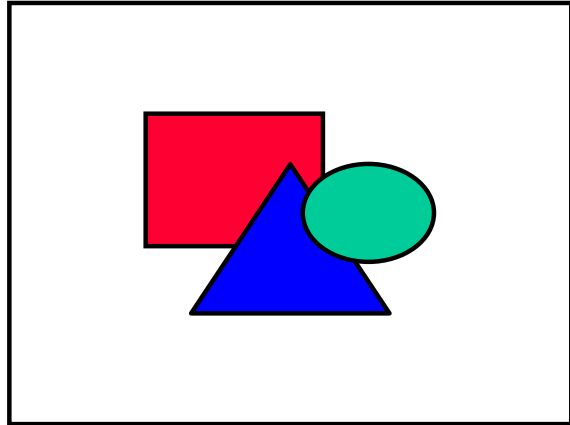
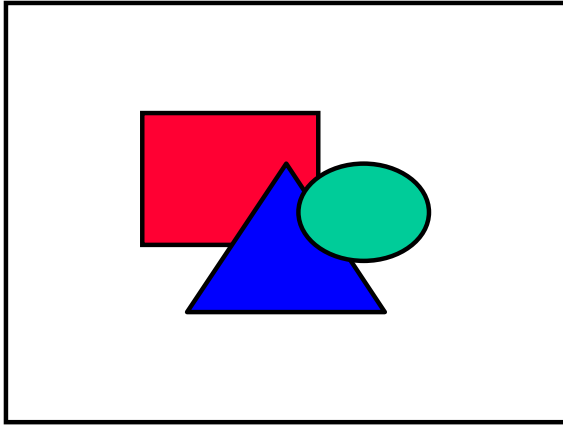
Elected 1999 PSC Officers:

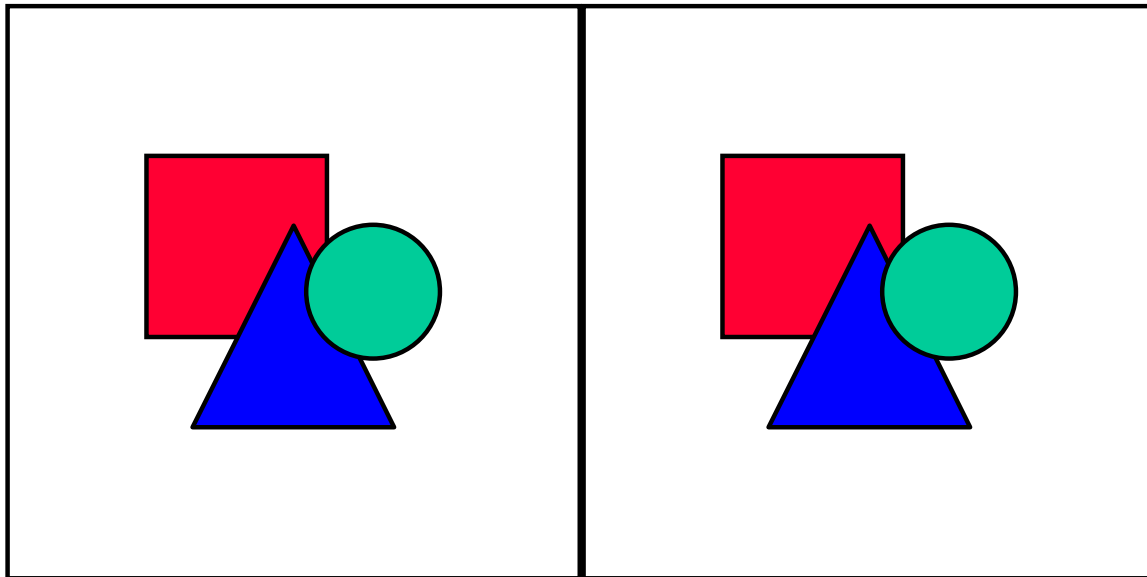
Board of Directors	Dr. Chi. H. Lee (Chair) Dr. Hsing Kung Dr. Shi-Kay Yao	(310) 405-3739 (510) 683-5900x126 (714) 572-6075	chlee@eng.umd.edu hkung@aol.com shikay@aol.com
President	Dr. Bob Lin	(415) 857-7218	blin@spica.hpl.hp.com
First Vice President	Dr. Y.J. Ray Chen	(410) 455-3507	ychen@umbc.edu
Second Vice President	Dr. Raymond Wang	(714) 730-6256	raymondwang8@compuserve.com
Treasurer	Dr. Yanhua Shih	(410) 455-2558	shih@research.umbc.edu
Corresponding Secretary	Dr. Li Yan	(410) 455-3558	liyang@research.umbc.edu
Recording Secretary	Mr. Ren-Sue Wong	(415) 493-6100x210	ren-sue_wang@hp.com

Special Committees:

Fellowship Committee	Dr. Pochi Yeh	(805) 893-3981	pochi@ece.ucsb.edu
Scholarship Committee	Dr. Chun-Ching Shih	(310) 814-0318	cc.shih@trw.com
Publication Committee	Dr. Chun-Ching Shih Dr. Su-Miau Wu Shih	(310) 814-0318	cc.shih@trw.com

PSC Dinner Meeting at San Diego on February 25, 1999 (Y.J. Ray Chen)





1999 PSC

Annual Meeting

Date: May 23, 1999

Time: 9:00 AM- 6:00 PM

Place: ECS Lecture Hall, University of Maryland, Baltimore County, MD

Organizer: Prof. Charles S. Ih

ih@eecis.udel.edu

302-831-8173 (O); 302-831-4316 (F)

Purpose of the Meeting

Annual business and technological information exchange among PSC members and Guests

Agenda

Morning

9:00 am - 9:30 am Registration

9:30 am – 10:00 am President's Address
Regional PSC Chapters' Reports
Announcement of New PSC Fellows
Announcement of Bor-Uei Chen Memorial Scholarship Award Recipients

10:00 am – 11:40 am Invited Talks by new PSC Fellows and International Distinguished Guests

11:40 am - 1:30 pm Lunch

Afternoon

1:30 pm - 2:30 pm Invited Technical Talks

2:30 pm - 3:00 pm Invited Talks by 1999 Bor-Uei Chen Memorial Scholarship Award Winners

3:00 pm – 3:30 pm Break

3:30 pm – 5:30 pm Panel Session: How to organize PSC for year 2000 and beyond?

Evening

6:30 pm – 9:00 pm Dinner at a Szechuan Best Restaurant (Optional)

This is only a preliminary agenda.
Updated meeting schedule, registration form, and direction to the meeting site
will be posted on PSC homepage

<http://www.psc-a.org>

Research Lab Profiles

April 1999

Director: Professor Pochi Yeh
Institute: University of California at Santa Barbara
Department: Electrical and Computer Engineering

Biography of Prof. Pochi Yeh

Dr. Pochi Yeh obtained his BS degree in Physics from Taiwan University. After two years of service as a Physics instructor in a military academy, he came to US to pursue his graduate studies. Dr. Yeh obtained his PhD degree in Physics from the California Institute of Technology. Before joining UCSB in 1989, Dr. Yeh was the Principal Scientist of the Optics Function and the Acting Manager of the Department of Applied Optics at Rockwell Science Center. He was responsible for the research and development in the area of electro-optics, nonlinear optics, optical phase conjugation, holography and optical information processing. Dr. Pochi Yeh served as the President of PSC in 1991 and as the member of PSC Board of Directors from 1992 to 1994.

Prof. Yeh is responsible for many fundamental contributions in the field of optics and applications. These include the development of theory of nonlinear optical wave mixing and phase conjugation in photo-refractive media, the development of matrix method for analyzing wave propagation in periodic layered media, including liquid crystal displays and photonic bandgap crystals. Dr. Yeh is also responsible for the invention and innovation of blue-green spectral filters for strategic laser communications, optical gyros for inertial navigation, photo-refractive holograms for optical storage and interconnection, interferometers for information processing and optical neural networks for pattern classification, and thin film compensators for LCD viewing improvement. Dr. Yeh is Fellow of the Optical Society of America (OSA), the Institute of Electrical and Electronics Engineers (IEEE), and the Photonics Society of Chinese-Americans (PSC). He received the 1985 Leonardo da Vinci Award (Engineer of the Year at Rockwell International Corporation). In addition, he and his co-workers received the 1989 Rudolf Kingslake Medal and Prize. He is the author and co-author of over 400 journal papers and 27 US patents, and the following three textbooks:

"Optical Waves in Crystals" (with Amnon Yariv) (Wiley, New York, 1984)

"Optical Waves in Layered Media," (Wiley, New York, 1988)

"Introduction to Photorefractive Nonlinear Optics," (Wiley, New York, 1993)

Current Research Areas:

Current research interests in Prof. Pochi Yeh's Labs include

optical phase conjugation
holographic optical storage
information processing

wave mixing in nonlinear media
phase compensators for LCDs
photonic bandgap structures

nonlinear optics
optical fuzzy logics
optical neural networks

Point of Contact:

Professor Pochi Yeh
Room 5111, Engineering I
Department of Electrical and Computer Engineering
University of California
Santa Barbara, CA 93106-9560
phone: (805) 893-3981; fax: (805) 893-3262
Email: Pochi@ece.ucsb.edu

For more information about the Department of Electrical and Computer Engineering, please visit
<http://www.ece.ucsb.edu>

Alan Hsu - 1999 Bor-Uei Chen Memorial Scholarship Recipient

University: University of Illinois at Urbana-Champaign
Research Area: High-Speed Integrated Laser-Modulator for WDM Applications
Thesis Advisor: Prof. Shun-Lien Chuang

Biography:

Alan Hsu was born in Chicago Heights, Illinois in 1974. He received the B.S. and M.S. degrees in electrical engineering from the University of Illinois at Urbana-Champaign in 1996 and 1998, respectively. Currently, his research interests include the characterization and modeling of integrated semiconductor laser devices for high-speed wavelength-division-multiplexed fiber-optic communications systems as well as all-optical wavelength conversion. He is also working on fiber-optic sensor development for rail break and buckling detection applications. He has conducted research as an intern at NTT Basic Research Laboratories in Atsugi, Japan in 1998, Bell Laboratories at Murray Hill, NJ in 1997, and Qualcomm in San Diego, CA in 1995 and 1996. He has authored or co-authored the following papers:

Publications:

Journal Papers

A. Hsu, S. L. Chuang, W. Fang, L. Adams, G. Nykolak, and T. Tanbun-Ek, "A wavelength-tunable curved waveguide DFB laser with integrated modulator," IEEE J. Quantum Electron., (accepted with minor revisions).

W. Fang, A. Hsu, S. L. Chuang, T. Tanbun-Ek, and A. M. Sergent, "Measurement and modeling of distributed-feedback lasers with spatial hole burning," IEEE J. Selected Topics Quantum Electron., vol. 3, pp. 547-554, 1997.

Conference Papers

A. Hsu and S. L. Chuang, "Wavelength conversion by cross-absorption modulation using an integrated electro-absorption modulator/laser," Conference on Lasers and Electro-Optics (CLEO 99), Baltimore, MD, May 1999 (accepted).

A. Hsu, W. Fang, and S. L. Chuang, "Modeling of normal and backward integrated electro-absorption modulator and laser," Integrated Photonic Research, Victoria, British Columbia, Canada, 1998.

A. Hsu, W. Fang, and S. L. Chuang, "Integrated tunable laser with mode-selection modulator," Photonics West '98, Optoelectronic Integrated Circuits II, San Jose, CA, 1998.

Ming Li - 1999 Bor-Uei Chen Memorial Scholarship Recipient

University: Rensselaer Polytechnic Institute, Physics Department
Research Area: Ultrafast Optoelectronics
Adviser: Prof. X.-C. Zhang

Biography:

Ming Li was born in Beijing in 1964. He received the BS degree from the University of Science & Technology of China in 1988. He also received the MS degree from Institute of Physics, Chinese Academy of Science in 1991.

He was employed as an engineer and later a senior engineer by Institute of Physics, CAS from 1991 to 1995. He was a division director in National Science Foundation of China from 1995 to 1997. He joined the ultrafast optoelectronics group at RPI in 1996. He has been working on the portable THz system and THz applications. He is a member of OSA.

Publications:

- [1] M. Li, G. C. Cho, T.-M. Lu, X.-C. Zhang, S.-Q. Wang and J.T. Kennedy, "Time-domain Dielectric constant measurement of thin film in GHz-THz frequency range near the Brewster angle", *Applied Physics Letters*, **74**, 2113(1999).
- [2] Ming Li, X.-C. Zhang, Gregg Sucha and Donald Harter, "Portable THz system and its applications," *Proceedings of SPIE*, **3616** (1999)
- [3] Gregg Sucha, Ming Li, Don Harter, and X.-C. Zhang, "Gas Spectroscopy Measurements Using a Compact Terahertz System", *Proceedings of VSJ-SPIE98*, (1998)
- [4] P. Campbell, M. Li, Z.G. Lu, J.A. Riordan, K.R. Stewart, G.A. Wagner, Q. Wu, and X.-C. Zhang, "Free Space Electro-optic and Magneto-Optic Samplings", *SPIE* **3269**, 114(1998)
- [5] Ming Li, FengGuo Sun, X.-C. Zhang, " Generation and Propagation of Coherent Sub-millimeter Wave from/in Semiconductor", *ACTA Optica Sinica*, **16**, 593(1996)
- [6] Ming Li, Fengguo Sun, Greg A. Wagoner, M. Alexandra and X.-C. Zhang, "Measurement and Analysis of Terahertz Radiation from Bulk Semiconductors", *Applied Physics Letters*, **67**, 25(1995)
- [7] Yutang Wang and Ming Li, "Review and Prospect of Basic Researches in Opto-electronics", *Laser & Infrared*, **24**, No.6, 3(1995)
- [8] Xiang Liu, Daoqun Deng, Ming Li and Dongsheng Guo, "Retracing Behavior of the Phase-matching Angle of Nonlinear Crystals in Optical Parametric Oscillators", *Journal of Applied Physics*, **74**, 2989(1993)
- [9] Ming Li, Xiulan Zhang, Xiang Liu, Dongxiang Zhang and Daoqun Deng, "Measurement of Ultra-short Pulse-width by Using Non-collinear Sum-frequency Generation", *Chinese Physics Letters*, **9**, 640 (1992)
- [10] Ming Li and Yansong Chen, "Parallel Optical Computing System and Linear Equations' Solving", *Opto-electronics & Laser*, **3**, 322(1991)
- [11] Ming Li and Yansong Chen, "Solving Linear Equations by Optical and Electronic Hybrid System", *ACTA Optica Sinica*, **11**, 951(1991)