



Report of Activities of the SPIE Penn State Univ. Chapter (September 2010 through August 2011)

Yi Ma, Chapter President

Name of Chapter

The Pennsylvania State University Student Chapter of the SPIE.

Chapter Leadership

Yi Ma	<i>President</i>	yxm141@psu.edu
Chuan Yang	<i>Vice-President</i>	czy111@psu.edu
Jimmy Yao	<i>Secretary</i>	jty112@psu.edu
Shuo Zhao	<i>Treasurer</i>	sxz154@psu.edu
Chao Wang	<i>Webmaster</i>	cuw163@psu.edu
Dr. Zhiwen Liu	Chapter Faculty Advisor	zliu@engr.psu.edu

Member Count: 20 members (as of 9/01/2011)

Abbreviated SPIE-PSU Expense/Income Report

<u>Description</u>	<u>Date</u>	<u>Amount</u>
O&P 2011 Trip Total expenses	August 2011	\$3,900.00
Grants from SPIE (Officer Travel Grant)	August 2011	\$1,900.00
Expected grants from EE & COE	TBD	\$2,000.00
Current chapter balance:	8/31/2011	\$885.39
Outreach account:	8/31/2011	\$388.53

Chapter activities from September 1st 2010 - August 31st 2011

The events are listed here in chronological order. Officer only meetings are not listed.

Nov 13th 2010: SPIE Social Meeting- Bowling Night

Seven students attended a short meeting to discuss upcoming plans for the Penn State SPIE chapter at school. After the meeting, the students had a little physical excise for a special bowling game night. There were some competition games with several prizes. The students enjoyed themselves and got to know everyone better through the night.

Mar 22th 2011: SPIE-PSU Information Section and Optics Demo for EE320 undergraduate class

The SPIE-PSU had an information session to introduce our activities for the upcoming year. Junbin, the President for the 2010~2011 term reviewed all the activities of the chapter from 2008 to 2010, and introduced the benefits of being a member to the undergraduate students for EE 320. Dr. Svetla Jivkova was invited to give an introduction talk about the famous Michelson-Morley experiment. After that, the undergraduate students had a short tour with optics demos from our three major optics groups.

Mar 28th 2011: SPIE-PSU/OSA-PSU chapter officer meeting

The SPIE-PSU student chapter was happy to announce that we are going to reactivation of the OSA-PSU chapter and some possible plans to merge/work in parallel with SPIE.

Five of the dual members for both societies joint the meeting. Perry Edwards was selected as the first president for the OSA chapter, with Jimmy Yao as the vice president, Yi Ma as the secretary and Shuo Zhao as the treasurer officer.

Apr 19th 2011: Invited Talk “Ongoing Optics Research in the Ultrafast and Nonlinear Optics Lab at Penn State” given by Dr. Zhiwen Liu

Right after the Dr. Liu’s talk, we announced our preliminary O+P 2011 travel plan and followed by the new officer elections. Yi Ma was elected as the new chapter President for the 2011~2012 term.

June 3rd 2011: SPIE-PSU chapter talk with 'Women in Engineering'

Representatives from the SPIE-PSU chapter had discussed with 'Women in Engineering' Office of College of Engineering about cooperation to help enhance the influences of women in the field of engineering.

Aug 20th ~ Aug 25th 2011: SPIE Optics and Photonics 2011, San Diego, CA

The following is a list of students, post-doctorate scholars, and faculty member affiliated with SPIE Penn State chapter who developed papers to be presented in Optics and Photonics 2011, San Diego, CA

(underline indicates the person who will physically attend the conference)

Students:

Jimmy Yao, Chao Wang, Yunching Chang, Jeremiah P. Turpin, Alexej V. Pogrebnyakov, Jeremy A. Bossard, Jiping Cheng, Muhammad Faryad, Kuan-Lun Hong, Shuo Zhao, Ryan D. Pensack, Junbin Huang, Yi Ma, Yaohui Gao, Tianjing Li

Advising faculty members:

Iam Choon Khoo, Douglas Werner, Shizhuo Yin, Theresa S. Mayer, Akhlesh Lakhtakia, Nikolas J. Podraza, Carlo G. Pantano, Rudeger H. T. Wilke, Susan Trolier-McKinstry, Dale M. Grimes, John B. Asbury, Qi Li, Joan M. Redwing, Kurt Gibble

Papers to be presented:

[Conference section number] authors, title

[8165B-54] Douglas H. Werner, Theresa S. Mayer, Nikolas J. Podraza, Jeremiah P. Turpin, Alexej V. Pogrebnyakov, Jeremy A. Bossard, et.al, "Adaptive phase change metamaterials for infrared aperture control"

[8120-62] Shizhuo Yin, Jiping Cheng, Jimmy Yao, et.al, "Recent advances of IR supercontinuum with single crystal fibers and waveguides"

[8120-54] Shizhuo Yin, Chao Wang, Yunching Chang, et.al, "Enhance Raman signal with tunable and controllable photonic nanostructures"

[8104-26] Carlo G. Pantano, et.al, "The stability of carbon nanostructures in silicon oxycarbide materials"

[8147-58] Susan Trolier-McKinstry, Rudeger H. T. Wilke, et.al, "Toward adaptive x-ray telescopes"

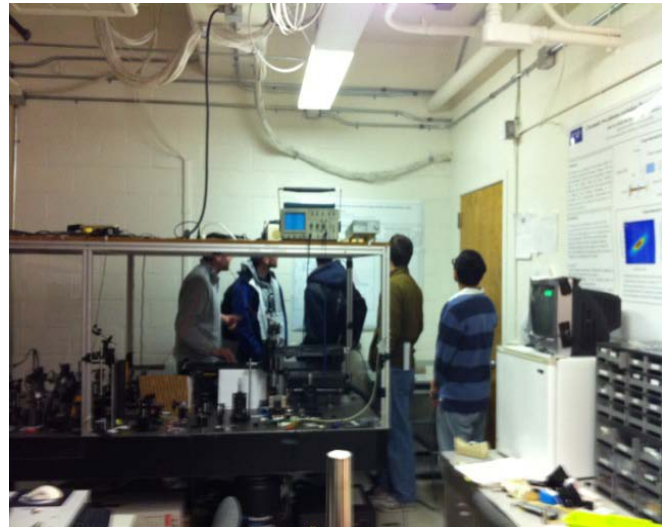
- [8121-16] Dale M. Grimes, et.al, "A photon and its source"
- [8120-56] Shizhuo Yin, Yunching Chang, Chao Wang, et.al, "Electrically and mechanically tunable photonic metamaterials"
- [8110-13] Muhammad Faryad, Akhlesh Lakhtakia, "Enhanced absorbance of light due to multiple surface-plasmon-polariton waves"
- [8114-22] Kuan-Lun Hong, Shuo Zhao, Iam Choon Khoo, "Broadband ultrafast all-optical processing with nematic liquid crystals"
- [8098-19] John B. Asbury, Ryan D. Pensack, "Beyond the adiabatic limit: charge separation in organic photovoltaic materials"
- [8114-35] Iam Choon Khoo, Junbin Huang, Yi Ma, "Plasmonics-enhanced optical fields and nonlinearities in liquid crystals"
- [8120-53] Shizhuo Yin, Qi Li, Tianjing Li, Yaohui Gao, Jimmy Yao, "Growth, characterization, and applications of ZnO/MgZnO multilayer structures"
- [8120-55] Shizhuo Yin, Yaohui Gao, Jimmy Yao, "Terahertz wave generation with multi-physics mechanisms"
- [8104-2] Akhlesh Lakhtakia, "Multiplasmonics"
- [8106-5] Joan M. Redwing, "Intentional doping and epitaxial regrowth of radial p-n silicon nanowires grown with alternative catalysts"
- [8132-10] Kurt Gibble, "Frequency shifts of colliding fermions in optical lattice clocks"
- [8114-15] Iam Choon Khoo, et.al, "Toward cloaking in nanosphere dispersed liquid crystal (NDLC) metamaterial: Monte Carlo studies"
- [8093-60] Akhlesh Lakhtakia, et.al, "Geometric-optical studies for metamaterial representations of curved spacetime"

Future Directions:

The SPIE student chapter is working hard to create a beneficial experience for its student members. The SPIE chapter officers get together on a bi-monthly basis to discuss and plan events. A year in and year out goal is to have a strong showing at the O&P conference, and this will continue for the 2012 O&P conference next August. We look forward to having the same pleasant learning / networking experience from the previous years in San Diego. And we will continue to seek more cooperation opportunities with others.

Pictures from our activities:

Mar 22th 2011: SPIE-PSU Information Section and Optics Demo for EE320 undergraduate class



2011 SPIE O&P Trip, San Diego

