

# Shanghai Jiao Tong University SPIE Student Chapter

## Member List

| No. | Name                        | Email                     |
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Date: Nov 29<sup>th</sup>, 2004



## **Details of Chapter activities**

### ***1. Guest lectures***

Time: October 14<sup>th</sup>, 2004

Place: Institute for laser medicine & Biophotonics

Speaker: Prof. Zhuang Songlin

Topic: The development of negative-index media

On October 14<sup>th</sup>, Prof. Zhuang Songlin was invited to our institute to give a report on the development of a new material with negative optical index and its application. Prof. Zhuang Songlin is now a national academician of optics, Dean of China Institute of Metrology and College of Optics and Electronics Engineering, University of Shanghai for Science and Technology.

His report was focused on a unique media with negative refraction index, so called left-handed media, which has become popular in solid-state physics, material science, optics and applied electromagnetism in recent two years. The appearance of new material will lead to a revolution in the history of applied technology. For instance, the replacement of

traditional electronics-crystal by optical crystal has introduced people to new optical era. This is the same with negative-index media, with the wide range application in the future. Left-handed media can be used to filter, control and focus microwave, and be possibly used in new wave-guide and fiber.

Prof. Zhuang's wonderful lecture excited all the students in our chapter and we were encouraged to be devoted to optical science and discovering new world.



## ***2. Plant/facility tours***

Time: September 10th, 2004

Place: Shanghai Institute of Optics and Fine Mechanics

Visitors: 11 Students from Shanghai Jiao Tong University SPIE Student Chapter

On September 10th, the students set off for Shanghai Institute of Optics and Fine Mechanics, which is located in No.390, Qinghe Road, Jiading, Shanghai. Shanghai Institute of Optics and Fine Mechanics (SIOM), Chinese Academy of Sciences (CAS). It was established in 1964. It is the earliest and the largest institute in China specializing in laser science and technology. It has now developed into a comprehensive scientific research institute with modern optics as the leading orientation with exploration of significant fundamental science frontiers, the development of large engineering techniques and pioneering laser and optoelectronic applications as the focal point, with high-tech innovation and basic research for applications being the major task.

Guided by Ms. Li, Director of Foreign Affairs Department in SIOM, we visited 3 basic research laboratories (the Key Laboratory for High Intensity Optics of CAS, the Key Laboratory for Quantum Optics of CAS, and the Laboratory for Information Optics), 2 high-tech. application and innovation research laboratories (the National Laboratory for High Power

Laser Physics, the High Density Optical Storage Laboratory).

We were moved by their concrete achievements to our national industrial development, especially in “Shenguang” High Power Laser Facility which is the only one in China and one of a few in the world. We were informed with wider range of knowledge in optics and realized the use of theory into practice.

After the tour, students gathered and had supper together. During the meal, we talked about the feeling after visiting and exchanged our ideas about the development of laser science.



### ***3. Attendance at SPIE Events***

Meeting: Photonics ASIA, 2004

Time: November 8-12<sup>th</sup>, 2004

Place: Beijing International Convention Center, Beijing, China

Number of Students: 2

In November, President Qi Li and Vice President Sheng Vik Cheng went to Beijing to attend Photonics ASIA (PA), and gave presentations respectively, with the topic of ‘Correlation Among Auto-refractor, Wavefront Aberration, and Subjective Manual Refraction’ and ‘Design of a Synchronized Scanning System for Size Measurement of Human Body’. At the same time, two other student’s papers were posted in the conference.

The conference provided a large range of optical knowledge in various fields. The two students took back some advanced developing information in optical design, optics in health care and biomedical optics, adaptive optics, etc and shared it with other students for discussions when they came back.

#### ***4. Chapter Meetings***

Time: October 30<sup>th</sup>, 2004

Place: Institute for Laser Medicine & Biophotonics

On October 30<sup>th</sup>, all the students in our institute took part in the chapter meetings, and our advisor Prof. Qiushi Ren also attended. During this meeting, we reported the development of our work and outlined the possible directions in the future of his and her subjects, respectively. Since most students are in different workshops and this is a good opportunity for them to broaden their views in science. They exchanged information and gained good suggestions from our advisor and colleagues.

### **Details of planned activities for the future**

1. Try to invite more famous professors in biomedical engineering, laser medicine and dermatology to visit our institute and give lectures and directions to us. Prof. Bille, the world famous specialist in Ophthalmology, will come to visit our institute again and give us lectures and instructions in March 2005.
2. Try to attend the annual meeting of SPIE and other important international conferences to broad our views.
3. Try to visit more fellow institute in China and communicate with the students and directors to improve each other. We expect to visit some institutes for summer vacations, to include Shandong Academy of Medical Science, Medical College of Fudan University and Bio-medical institute of Qingdao Ocean University. And if possible, try to visit the International Institute in Biomedical Engineering, Laser Medicine and Dermatology.

## Financial information

### *Beginning balance*

\$490(RMB 4062, exchange rate=8.29)

### *Funds Raised*

\$472(RMB 3915, exchange rate=8.29)

It was from the School of Life Science and Technology, Shanghai Jiaotong University.

### *Funds expended (indicate how it was spent)*

| Item  | Amount                     |
|---|----------------------------|
| Food expenditure (Dinner, For activity 2)           | RMB154.00                  |
| Batteries (Camera, For activity 2)                  | RMB 6.00                   |
| Beverage (For activity 2)                           | RMB 30.00                  |
| Traffic expenditure (For activity 2)                | RMB 227.00                 |
| SPIE PA registration fee (4 people, For activity 3) | RMB 3600.00                |
| Bed and lunch (2 people, For activity 3)            | RMB 800.00                 |
| Traffic expenditure (2 people, For activity 3)      | RMB 1630.00                |
| <b>Sum</b>  | <b>\$778 (RMB 6447.00)</b> |

### *Ending balance*

\$185(RMB 1530)

## Names and email addresses of elected officers

(Keep unchanged at present)

- President

Qi Li      qili@sjtu.edu.cn

- Vice President

VictorSheng Cheng      chengsheng77@263.net

- Secretary

Huayong Ge      huayongge@yahoo.com.cn

- Treasurer

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