SPIE Student Chapter Annual Report

Changchun Institute of Optics, Fine Mechanics and Physics, Chinese Academy of Sciences

September, 2008

2008 Chapter Officers

President          Sheng Cai          cais_ciomp@hotmail.com
Vice President     Zhenhua Tian
Secretary          Yang Wang
Treasurer          Yongli Deng

Chapter Activities

- Time: August 5th, 2007
- Place: Graduate Teaching Building
- Activity: Zhang & Cai give report about their visiting to SIOM
Aug.5.2007  Zhang jian and Cai Sheng gave a report about their visiting to OSA Student Chapter of Shanghai Institute of Optics and Fine Mechanics (SIOM), Chinese Academy of Sciences. This report included a brief introduction of SIOM, an introduction of OSA Student Chapter of SIOM, their visiting details, excellent conclusions and comparisons. Most student members had attended this report.

Zhang and Cai started their visiting from July.22. The President of SIOM OSA Student Chapter Cheng gave them a warm welcome. He gave the visitors a detailed tour of SIOM, and introduced their Chapter about the history, organizing, activities and so on. Zhang and Cai also gave a PPT introduction about CIOMP and our Chapter.

In this visiting report, Zhang and Cai pointed out that the problem about our seminar and lecture organization was because of the dispersion of majors. Comparing with SIOM where students were basically involved in two majors: physics and optics, CIOMP divided students in vast majors that did not have too many connection. Thus, a special lecture with a special topic was not attractive to many students. Zhang and Cai also advised to choose more general topics in future lectures.

This report also introduced many good ideas about the Chapter activities and organizing. For example, making Chapter T-shirts was a good way to arouse members' feeling of recognition; Budgeting book purchase reimburse for every member was a very attractive benefit.

- Time: October 28th, 2007
Place: Graduate Teaching Building

Activity: The first election of chapter president

On the evening of October 28th, 2007, CIOMP SPIE Student Chapter takes the first election of chapter president since the chapter has been found in September, 2006. Sheng Cai were nominated as the president of SPIE. Through a heated discussion, he was successfully elected to be the president of SPIE. After election, he talked about some ideas and suggestions for the development in the future with all the members present. What are more, other chapter officers are as follows:

Vice president: Zhenhua Tian
Secretary: Yang Wang
Treasurer: Yongli Deng

- Time: November 11th, 2007
- Place: Jiuhua Palace, Beijing
- Activity: Photonics Asia Conference and Student Chapter certification

Vice president Zhenhua Tian was invited to the Asia Photonics 2007 Beijing China. And Dr Yutao Feng was sent to participate in the conference as a student member of our chapter. Mr. Tian received the certificate from Arthurs, the SPIE Executive Director at the banquet and also exchanged
their opinions on the development of the student chapters during the information session.
Time: November 29th, 2007
Place: Graduate Teaching Building
Activity: 2007-2008 Recruitment Starts

On Nov.29, our recruitment presentation was performed at the break of the Master’s Student English class, in which most new students attended. Here we would like to especially thank Mr. Zhuang Sun, who generally gave us another 15 minutes of his class to finish our presentation. The President of OSA Student Chapter Jian Zhang and the President of SPIE Student Chapter Sheng Cai introduced OSA and SPIE respectively as well as the student member benefits and the Student Chapters. The Vice President of OSA Student Chapter Shu Yang gave a brief review of our activities in 2006-2007 and the planned activities of the coming year. The Vice President of SPIE Student Chapter Zhenhua Tian and the secretary of OSA Chapter Yang Wang were in charge of delivering OSA/SPIE Student Chapters handbook and collecting the information of interested students.

The following photo is our publicity poster.
Time: December 5th, 2007

Place: Graduate Teaching Building

Activity: The first meeting of our new members

Our chapter held the first meeting of all the members in the graduate teaching building room 307.
The new members joined in our chapter, they made self introduction to each
other, and they filled out a form about the registration of the association, and surrendered the membership dues of next year. The total enrolled number of this year is 50, 22 among them were the members of OSA, 28 among them were the members of OSA,
The president Jian Zhang announced the main officials and chapter responsibilities, and he retrospect the activities of last year’s. A small lecture introduction was given by a member who joined in Imagination Cup last year. He suggested us to join the activities as much as we can. Because of we could not only improve our ability during the process, but also enlarged our chapter’s reputation. As a member in this chapter, we should benefit ourselves of knowledge; and strengthen our chapter as well. At last the OSA president Jian Zhang introduced the plan of next year. It included the seminar report, the regular meeting, and the party and so on.

- Time: December 10th, 2007
- Place: Graduate Teaching Building
- Activity: The officers of OSA&SPIE held a meeting to discuss our website issues

In order to make our chapter in CIOMP rather formal this year, we decided to establish a website of OSA&SPIE. Then all of the officials attended a meeting in graduate teaching building.

The purpose of the meeting was to discuss the architecture, the content and the style of the website home page. After the home page type was initially
formed. We discussed the details of colors, photos, contents, and logo and so on. At last we divided the work of prepare the materials which needed to be uploaded to website to some members.

Besides, we checked the budget forms contents of the next year carefully. That was prepared to hand to our general headquarters to apply for funds of next year.

We also discussed the production of member’s name cards, to enlarge our chapters’ reputation. While, we should collected statistical information about our members and uploaded it to the internet.

The outreach program of SPIE was discussed at last, which was really a meaningful activity to us and the counterpart. The content we discussed including locations, time, teaching content and the numbers of participate. If this activity would be carried out smoothly, it must be a shining milestone in the chapter’s history. We all hoped it would come soon.

- **Time:** December 19th, 2007
- **Place:** Graduate Teaching Building
- **Activity:** Cai & Yang give members seminar reports

On December 19th, 2007. As the first seminar report of this term, we invented two officials in our SPIE group. We held it also in the graduate teaching building, room 307. Before the lecture, we made the notice about it, so most of our members joined the lecture, while some other students who
interested in this field also came to attend it.

Sheng Cai was the president of SPIE, he was a excellent doctor now who is majoring in optical engineering, the topic of Sheng Cai was ‘The measure technique of 3-D distortion’. He illustrated the principle of the 3-D measurement to us, and discussed the issue about how to decrease the error in the measurement.

Yang Wang was the sectary of SPIE, he was not only a doctor in the field of LED, but he was also conversant with the establishment of website, he was the main force to establish our website. The topic of Yang Wang was ‘The compensation and collection of illumination in the LED array’. He was an expert major in the electrical and system now. He gave us a specific lecture about the sample technique in the compensation of the LED’s illumination, which led an improvement in the electrical field to us.

All the members were so lucky to ask the two excellent officials to give them lectures, which would make them benefit a lot from it, especially for the postgraduate in the lower degree.
On Dec.23rd, 2007, new student members & New Year party was held in Golden Hans’ Barbecue. 40 new student chapter members (14 from OSA and 26 from SPIE) all came to join us. We enjoyed ourselves very much!
OSA&SPIE student chapter held the first plenary meeting in the graduate teaching building room 307, six thirty pm. in March 19, 2008. The main contents are listed as follows: official arrangements, activity summary) of last semester, plans in the coming semester and website construction.

First of all, the President of OSA Student Chapter Jian Zhang announced the official arrangement since the former vice president Shu Yang would graduate.

In addition, he concluded the activities in the previous semester, including academic communications among members, Christmas dinner in Golden Hens, member card fabrication and some details concerning the website construction.

Furthermore, he arranged the total activity plan in the following semester, and there exist about some details as follows: Continuing with the regular seminar reports; Fabricating member T-shirts as a memorial; inviting domestic and international distinguished experts for professional reports; setting up Book Project for all members; participating in the spring outing; starting the program of educational outreach and the like.

Meanwhile, as the chief official in charge of website construction, Yang Wang introduced the overall development plan.
At last, Shu Yang who was one of founders of the student chapter, the former vice president was invited to give a leaving speech. Shu Yang talked about the original mind and the hard course of the founded chapter. He also gave the later officials some valuable suggestions and expressed his high expectations. Finally, he was looking forward to the better future of the chapter.

Homepage: www.ciomp-osa-spie.com.cn

Forum: bbs.ciomp-osa-spie.com.cn
On the evening of March 26, 2008, our chapter held a seminar report in the graduate teaching building room 307. Not only our chapter members attended the meeting, but some other students also came to join the seminar.

The leading roles we invented were Xu Wang and Hu Zhang, who are two of a few students who had received the foundation for excellent Doctors. They will give us a seminar report respectively.
Xu Wang, a PhD in ciomp, is an excellent doctor now who is majoring in optical fabrication and test.

The topic of Xu Wang’s report was ‘Study on surface optics quality differences of SiC mirror ground with fixed abrasive and slurry’.

Hu Zhang is currently a PhD candidate in optics. His research interests include diffractive optical element design and optical system design.

The topic of his report was ‘Research of the model of the imaging quality evaluation of hybrid optical systems’. The report mainly deals with the hybrid refractive-diffractive optical systems. Also, the basic knowledge of the diffractive optics and optical system design was covered in this process.

The last part of the seminar was the interaction between they and students, they explained the key points again according to the members’ questions. It should be the core of the learning process.

All the members were so luckily to have the two excellent PhDs to give them lectures, which would make them benefit a lot from it. During the meeting our chapter also served fruits and candies to members, they enjoyed themselves.

- Time: April 10th, 2008
- Place: Graduate Teaching Building
- Activity: Officer Meeting
April 10\textsuperscript{th}, 2008, The officers held a meeting to discuss a visit to Songhua Lake and the Spring Picnic Graduate teaching building, room 307.

First of all, they discussed the construction of the forum, and made appointments to each section of the forum.

In addition, the officers decided to arrange a visiting to Songhua Lake recently. Meanwhile, a Chapter picnic was planed during the visiting. The purposes of these activities were to offer a chance for members to know the Feng Man power station in Jilin and get along with each other better, and also to propagandize our Chapter. Chapter would be responsible for expense of tolls, food and drinks.

At last, Chapter determined to launch a T-shirt design competition for all the OSA student members. The poster is as follows:
The T-shirt design competition for all the student members has already continued 10 days. And now the chapter wants to discuss and select the final design concerning the T-shirt design and logo, and prepared for making T-shirts.
• Time: May 6th, 2008  
Place: Graduate Teaching Building  
Activity: **Commendation and mobilization meeting**

In May 6th, 2008, a regular meeting was also held in the Graduate Teaching Building, room 307. Before the meeting, we made the notice about it, so most of our members joined the lecture.

First of all, President Jian Zhang announced the detailed plan concerning the visiting Songhua Lake, Fengman Power Station as well as picnic.

In addition, six new members and two Old members who had made great contributions to the activity organization were awarded with gifts from the Chapter.

At last, the officers distributed the T-shirts to the members.

If this activity would be carried out smoothly, it must be a shining milestone in the chapter’s history. We all hoped tomorrow would come soon.

• Time: May 10th, 2008  
Place: Jilin City  
Activity: **Visiting Songhua Lake and Fengman Power Station**

Since established, it has been the first time for SPIE Student Chapter gathering together to visit a place outside Changchun city.
Songhua Lake located southwest of Jilin city, is 15 kilometers far away from downtown. Due much to its advantageous geographic location, mild climate with four seasons during a year, in combination with beautiful scenery fraught with mountains, Songhua Lake attract numerous tourists both domestically and internationally.

What is more, Songhua Lake is characterized by its hydropower station-Fengman Power Station, which serves as the most prominent role in providing electricity to a large area in the vicinity of Jilin.
In order to enhance scientific innovation capability among postgraduates as well as to improve academic communication among doctors both at home and abroad, 2008 national doctoral academic conference was held between 22th-23th in July, which was organized by Degree Administration and Graduate Education Department, Ministry of Education of People's Republic of China and was operated by Changchun University of Science and Technology.
Technology. This conference was co-organized by Testing Committee of Chinese Optical Society and the theme is “Novel principles and techniques in optical testing”. More than 40 doctors come from various universities and institutes, including Nanjing University, Tianjin University and Tongji University, who took part in this 2-day's conference. Under the organization and guidance of OSA&SPIE student chapter of CIOMP, there are four doctors Feng Yan, Bin Xuan, Sheng Cai and Jinying Yue submitted their papers to the conference and the first three doctors made oral reports and the president of SPIE student chapter made another report in group discussion.

In the opening ceremony, 22nd, July, Professor Liwei Zhou, an academician of Chinese academy of sciences, made an invited report for all the attendees named "12 advices and suggestions to the doctors", sharing his experiments and conclusions in his longtime scientific research with us and providing valuable references and suggestions for us young postgraduates in order to form a good scientific habit. In the afternoon, 15 doctors from different areas made their research report and three of them from our institute, Bin Xuan, Feng Yan and Jinying Yue's presentations were 《Mid-frequency surface error test with a Foucault apparatus》, 《The manufacturing and testing of an unrotational-symmetric SiC mirror》 and 《A novel optical testing of multi-eye diffraction telescope system》 respectively. In the morning group discussion meeting,23th, doctor Sheng Cai made a communication report named <<technology of 3-dimension distortion measurement》. In the afternoon, the closure ceremony was held and some awards including "the best scientific question", "the best academic innovation" and "the best
presenter" went to different attendees, respectively. Finally, on behalf of the whole attendees, Feng Yan gave a short speech showing his earnest acknowledges to the organizers and meanwhile presented two feelings as follows: the conference is a good opportunity for us to learn from academia and old experts; besides, it is beneficial for us to communicate and cooperate and he wished we would obtain better scores together later.

In this activity, Feng Yan and Jian Zhang from CIOMP were awarded “the best academic innovation" and “the best presenter" respectively. It is a good chance for us to communicate with various persons, such as academician, old professors and young students. In addition, the whole attendees from CIOMP exhibited our excellent quality in science and research as well as spiritual aspects. Most importantly, our chapter fully took this advantage of this time to introduce our chapter to others through visiting CIOMP as well as issuing brochures, strongly enhancing our influence as well as constructing better developmental fundamentals in learning and communication.
Invited by SPIE, vice president Zhenhua Tian participated in Optics & Photonics 2008, San Diego, CA, US. It is a very important event to our chapter. Mr. Tian joined in the SPIE Student Leadership Workshop and shared the experiences with other student leaders. The students were warmly served by the SPIE and they learn each other friendship was established. Four free courses were afforded by the SPIE and Mr. Tian gain a lot. During the “Lunch with expert” session, President Tian showed the Introduction book of our chapter and make oral invitations according to the “Traveling Lecture” program.
• Time: October, 2008

Place: A small countryside

Activity: Outreach Teaching and Donation

We have got a plan for outreach in countryside nearby, such as five counties outside our city. In the countryside, small towns and even individual homes may be separated by a few kilometers of wide badlands. The traffic from the countryside to city is not so convenient that the educational outreach there is very necessary. Providing adequate educational resources to the children who live in these areas is therefore a great challenge. And it makes good sense to put in practice teaching optics in the countryside. The CIOMP SPIE Student Chapter has created a science outreach program that our SPIE Student Chapter members will communicate optics with the teachers and students of countryside high schools.
As is known to the world, on the afternoon of May 12, 2008, an earthquake measuring 7.9 on the Richter scale hit Sichuan Province, a mountainous region in Western China. By the next day, the death toll stood at 12,000, with another 18,000 still missing. Over 15 million people live in the affected area, including almost 4 million in the city of Chengdu. Nearly 2,000 of the dead were students and teachers caught in schools that collapsed.

To commemorate the worldwide tragic event, we have three national calamity days. The members of our SPIE Student Chapter are also very sad about it. We decided to do some things for the disaster area.

- Time: October 24th, 2008
- Place: Graduate Teaching Building, Room 307
- Activity: Recruitment and Reformation

The main officials of our Student Chapter will hold a meeting in graduate teaching building in October 24th. In that important meeting, the existing problems about recruitment and reformation will be solved through a heated discussion. We will divide our Student Chapter into three teams, including secretary team, academy team and website team. Every fresh blood must attend one team (at least) to serve our Student Chapter, so their English must be very good. Of course, their service to chapter must be of their own accord.
Therefore, our Student Chapter will be better and the members will be more responsible for the chapter.

- **Time**: November 22\textsuperscript{nd}, 2008
- **Place**: Graduate Teaching Building
- **Activity**: Traveling lecture

We have invited Dr. Vijaya Ramarao as our traveling lecturer to come to our institute (CIOMP for short) in September. Her main research fields are nonlinear fiber optics and photonic crystal. With the help of Mr. Dirk, we have come to agreement that she will come to our institute in November 22\textsuperscript{nd} and give a lecture to students in the next day. Then she will give the rest time to meet some experts and communicate with them. The travel expenses will be reimbursed by SPIE and our Student Chapter. We have arranged her schedule in the three days and she is busy on preparing for this traveling lecture now.