



Student Chapter Semi-Annual Report-2007 University of Dayton

Chapter officers :

President :

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Chapter Scientific Adviser:

Dr. Partha Banerjee
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Student Members :

There are 17 students members listed in our chapter .

Weibin Chen
Brad Birchfield
Emily Fehrman
Wenzao Li
Aziz Mahfoud Familia
Linda Moore
Georges Nehmetallah
Mengshu Pan
David Pikas
Mohammad Saleh
Nkorni Katte
Anup Pandey
Jason Schmidt
Mohammad Siraj
Neil Smith
Lirong Sun
Alain Tschimwangan

Chapter Activities :

General Meeting

We have a general meeting on Jan 25, 2007. On this day we discuss about our future activities. We have decided on this day to have an outreach in Miamisburg High School on May . Also we plan to invite a speaker in fall and have a field trip.

TechFest 2007

University of Dayton SPIE Student Chapter Report on Miami Valley TechFest 2007 Held at the David H. Ponitz Center (Building 12) of Sinclair Community College on February 17-18, 2007 Saturday (10 a.m. – 6 p.m.) and Sunday (11 a.m. – 5 p.m.)

Attendance

There were a total of six University of Dayton (UD) volunteers who helped at the UD Electro-Optics Program (EOP) display booth for Miami Valley TechFest 2007. Those volunteering included Mohammad Masud Siraj (President), Dr. Joseph Haus (Electro-Optics Program Director), Dr. Aziz Mahfoud , Lirong Sun , Wei Bin Chen and Nkorni Katte (vice President).

University of Dayton Electro-Optics Program Exhibit

Electro-Optics (EO) students met with Dr. Haus at 9 a.m. on Saturday to transport and set up the EOP display booth at Miami Valley TechFest 2007. The display booth with the exhibits was assembled by 10 a.m. The display booth included posters detailing UD's EO graduate programs and several optics-related exhibits. In this program, we asked the young spectators to create a kaleidoscope. We gave them the materials to create the kaleidoscope. We got this materials from Dr. James Grote . The Young spectators liked the challenge to create this and they were amazed by what they saw. Another popular exhibit was the optical communication which demonstrated how light could transfer the signal from one point to another point without any wire. Other exhibits included the concepts of light polarization and optical birefringence. Many people were amazed when two polarizer were crossed to demonstrate the light extinction of polarized light. Miami Valley TechFest 2007 concluded at 5 p.m. on Sunday.

Conclusion

Overall, the chapter's contributions to Miami Valley TechFest 2007 helped to make it a success. The volunteers enjoyed talking with people about UD's EO graduate programs and answering their questions about the optics exhibits. Children, students, and adults alike enjoyed learning about optics principles, particularly those that can be demonstrated in commercial products or encountered in everyday life. Our chapter volunteers, like other volunteers at Miami Valley TechFest 2007, share in the hope that our efforts will help the public gain a better understanding of science and engineering and appreciate the important role that technology plays in our lives. More information about Miami Valley TechFest 2007 can be found at <http://www.ascd Dayton.org/TechFest2007/index.html>

The Pictures taken at this event :



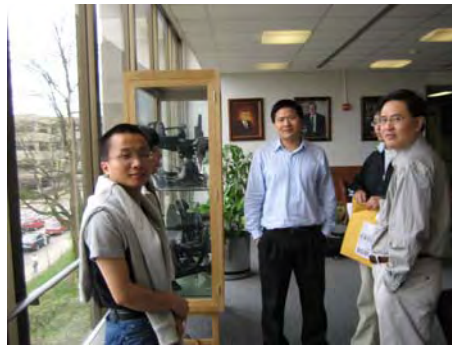
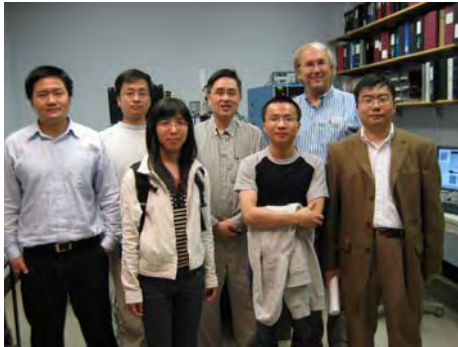
General Meeting

We have a general meeting on March 5, 2007. On this day we mainly discuss about our field trip to Indiana University School of Optometry, Bloomington, Indiana . Also we discussed on this day how we can increase our student members.

Field Trip to Indiana University School of Optometry, Bloomington, Indiana

A group of student members from SPIE student chapter visit the Indiana University School of Optometry, Bloomington, Indiana on March 30, 2007. Those are, Dr. Qiwen Zhan (Assistant Professor of Electro-optics) , Mohammad Masud Siraj (President) , Mengshu Pan and Weibin Chen . In this tour , we learnt how we could use our optics knowledge in the field of optometry. We visited the lab of Dr. Stephen Burns where he demonstrated us how to obtain the exquisite images of the cells of the retina by using a scanning laser ophthalmoscope (SLO) which is optimized for imaging the eye. Then we visited Dr. Donald T. Miller's lab where he and his group members showed us the technologies that coined adaptive optics (AO) and optical coherence tomography (OCT) to image non-invasively single retinal cells in subjects. Then we visited the lab of Dr. Arthur Bradley where we learnt from him and his group members about the effect of the eye's optical aberrations on visual perception. We learnt lot from this tour specially in the field of adaptive optics.

The Pictures taken at this event :



General Meeting

We have a general meeting on May 4, 2007. On this day we mainly discuss about our outreach in Miamisburg High School. We discussed about what optics demo we were going to show them .

Outreach

We performed an outreach in Miamisburg High School on May 10 , 2007. This was our second time. They liked our first outreach program that was held in 2006 and for this reason they invited us to organize another one. Five members from the chapter volunteered on that day. Mohammad Masud Siraj gave an optics presentations in the first-hour session to the students. The presentations were intended to give the students information about our chapter and to provide them with a basic understanding of optics and the important role it plays in our world for many applications in science and engineering. Then we also showed one videos that demonstrated examples of modern optical technology produced by SPIE. Then we demonstrated them polarizer, holograms, optical fibers, laser Communications , diffraction gratings ,spectrometers and the eye model. In each demonstration, we illustrated the optical principles behind it. During each presentation, students were encouraged to ask questions if a concept or description was unclear. This time they liked our program and teachers of the Miamisburg High School wanted us to do it again end of this year.

The Pictures taken at this event :



Expenses :

Beginning Balance	: 286.14
Grant from SPIE	: 500.00
General Meeting (3)	: 152.00
Field Trip	: 165.00
Outreach	: 110.00
Current Balance	: 359.14