INSTITUTO NACIONAL DE ASTROFÍSICA, ÓPTICA Y ELECTRÓNICA

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LIST OF MEMBERS OF THE SPIE
STUDENT CHAPTER AT INAOE

1.- María de la Paz Hernández Garay
2.- Rosario Guadalupe Porras Aguilar
3.- Sandra Eloísa Balderas Mata
4.- María Luisa Cruz López
5.- Mario Enrique López Medina
6.- Adalberto Alejo Molina
7.- Ibis Ricárdez Vargas
8.- Luis Ignacio Olivos Pérez
9.- Benito Canales-Pacheco
10.- Gerardo Díaz González
11.- Miguel Loredo-Robledo
12.- Beatriz Morales-Cruzado
13.- Helen Janeth Zúñiga Osorio
14.- Edmundo Rodríguez Vázquez
15.- Juan Carlos Juárez Morales
16.- Óscar Javier Zapata Nava
17.- María de la Luz García Cruz
18.- Daniel Rojano Guido
19.- Alberto Sánchez Castillo
20.- Luis Rodríguez Castillo
21.- Brasilia Cabrera Pérez
22.- Juan Carlos Valdiviezo Navarro
23.- Raul Ochoa-Valiente
24.- Esteban Rueda
25.- Jaime Gutierrez Gutierrez
26.- Ileana Guizar Iturbide
27.- Reyle Mar Sarao  
28.- Miguel Velásquez de la Rosa Becerra  
29.- Iván Hernández Romano  
30.- Miguel Bello  
31.- Daniel López Cortés  
32.- Anmi García Arellano  
33.- Joel Herrera Vázquez  
34.- Mauro Sánchez Sánchez  

**Introduction**

We steal having a great time in our Student Chapter, full of activities both academic and social. This has created a very enthusiastic atmosphere among the Chapter members. At these times we are 34 members but we hope to increase the number of members at the beginning of the next year.

In our last report we set the goals for our future activities, namely:

1. - Increase the number of workshops (holography).
2. – Give informal talks about optics and also tours to the optics labs for students from kindergarten to undergraduate.
3. - Participation in SPIE conferences.
4. - Short course of Dr. Calvo on February 2007, confirmed for (January 26- February 2).
5. - Participation with a workshop in the International Book Fair for kids and young people (Feria Internacional del Libro Infantil y Juvenil).
4. - The creation of a magazine to promote science, this project will be supported by SPIE and OSA. The name of the magazine will be, "Light Hunters".
5. – Optical kits.
6. - Continue with the cultural film projections.

In resume, we continue with the informal talks. This year some SPIE Student Chapter members went to some SPIE conferences and workshops, or SPIE-OSA conferences. Among they are; Photonics West, Astronomical Telescopes, International Optical Design Conference, International Workshop on Information Optics, and Optics & Photonics.

We are remodelling the web page and it will be on line again in January of 2007. We will continue with the film projections, we have projected more than 10 movies from January to May.
Chapter Activities

Workshops and Scientific informal talks

a) In this year Sandra E. Balderas, apply to the SPIE officer travel grant. She represented our Chapter in the SPIE’s 51st Annual Meeting, in company of Maria de la Paz Hernandez.

b) Science workshop for high school students (“Taller de Ciencia para jovenes”).

It was focused on general optics; The Chapter members who participate gave a workshop on black & white photography with a pinhole camera. Also, some students gave a lab talk in which they explain image formation with simple optical elements.

Joel Herrera is giving a talk about Light.

Students in a laboratory where they did some experiments.

c) Science workshop for children (“Baños de ciencia con el GTM”), September 9, 2006.
We took part of this event thanks to an invitation from “Centro de vinculacion del INAOE”, these event was hold in “Ciudad Serdán”, it is a little town near to the GTM, (Gran Telescopio Milimetrico).

Mario Lopez is giving a talk about optical illusions.

There were a lot of children.
d) Activities at Technological Institute of Puebla.

During the 13th national week of science and technology, our SPIE student chapter participated at Technological Institute of Puebla with experiments related with optics, a workshop and a disclosure talk.

In fact, the national week of science and technology is celebrated in Mexico every year. In this week every institute of science or technology they should participate with activities to promote the science in our country. Our chapter was invited to participate with optics experiments in order to show the importance of science and optics in our lives. Thus, during two days ten of us were sharing and enjoying the science and technology with children and teenagers.
Mario is explaining an experiment related to index of refraction.

Boys were very interested with the explanation.

The experiments were related to: index of refraction, electromagnetic fields, waves, lasers, holograms, diffraction, polarization, dispersion and solar energy. The main idea of these experiments was to promote our activities as optics students, as well as SPIE student chapter. Children of the ages from 5 to 14 years old were able to listen our explanations and enjoy with the experiments.
Gerardo is explaining the principles of diffraction.

Pedro is explaining the applications of solar energy.
Daniel is talking to the children about lenses and image formation.

Anmi is showing the Lissajous figures.
Carlos is talking about polarization.

Pedro is talking about the principles of fiber optics.

Other activity presented at this institute during this week was the "Matlab workshop". This activity was prepared together with the IEEE student chapter at institute of Puebla. Along the week (15 hours) two people were talking about this software in order to prepare the students in the use of Matlab in the schholar activities. Although the idea of this workshop was an introduction of this software, we also explained its applicability in image processing.
The last activity during this week was a talk of one of our students. Maria de la Paz Hernández Garay presented a lecture talk called “Holography and Materials”. In this talk she explained everything related to her research about and promote the importance of optics in our life.
Maria de la Paz is presenting the lecture "Holography and Materials".

These activities were presented in October 23 to 27. Although it was a busy week, we had the opportunity to disclose the optics out of our Institute.

e) Activities at Technological Institute of Teziutlán.

During the 13th national week of science and technology, our SPIE student chapter participated at Technological Institute of Teziutlán with scientific lectures.

Dr. Gordana Jovanovic Dolecek is presenting the lecture "Digital Signal Processor".
f) Participation of the INAOE SPIE Student Chapter in the 8th International Festival of Puebla.

The International Festival of Puebla (Festival Internacional de Puebla) is a cultural event organized each year by the State of Puebla Government. In this event some countries participate, as Russia, Italy, Spain, India, Venezuela, Argentina, Colombia, USA and Mexico. The festival consists of a whole week of cultural events of its different categories, and reunites public of all the ages.

This year, INAOE SPIE Student Chapter was invited to the 8th International Festival of Puebla to give a workshop for kids to foment the reading, and having like subject Science. Our participation consisted of showing some demostrative experiments of basic optics (Geometric Optics, Physical Optics, Dispersion and Decomposition of light) and of Physics (a bed suspended on paper glasses to explain the pressure concept). The activities were very fun, and in addition to the children, there was teachers participation too, and until some of us also enjoyed our demonstrations.
Showing Physical Optics experiments.

Demonstration of the behavior of light (Geometric Optics).
Explaining dispersion and decomposition of light.

Student’s Chapter giving a true exhibition in Physics.
f) Participation of the INAOE SPIE Student Chapter in the “Baños de ciencia” with experiments and workshops for children, it was hold in “Consejo puebla de lectura” the last December 9.

Water waves.
e) Chapter’s parties

On August and November we had a BBQ, where we could interact in an informal way with the whole Chapter. Also, we discussed some new ideas for the Chapter activities.
Future Activities

1. - Increase the number of workshops “Play with mirrors” for children. We already have the kaleidoscope, and the photography workshops.
2. – Give informal talks about optics and also tours to the optics labs for students from kindergarten to undergraduate.
3. - Participation in SPIE conferences.
4. - Short course of Dr. Calvo on February 2007, (January 26- February 2).
5. - Participation with a workshop in the International Book Fair (Feria Internacional del Libro), in Tonantzintla, Puebla on February 2007.
4. – The creation of a magazine to promote Science, this Project will be supported by SPIE and OSA. The name of the magazine will be, “Light Hunters” and it is about to be ready at the beginning of 2007.
5. – Finalizing develop of the Optical kits.
6. - Continue with the cultural film projections.
Financial report

In this table we show the financial movements from May 2006 until December 2006. All quantities are given in American Dollars.

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