Annual Report

SPIE Student Chapter CIO

November 8, 2008
León, Gto. México
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Chapter 1

Introduction

This a transition epoch in the CIOs Student Chapter, new students have become part of our project and this time, the family of the Student Chapter have new people coming from the new graduate program Master of Science degree in OPTO-MECHATRONICS.

This incorporation would benefit and strengthened the Chapter as a whole and our institution. In addition to the activities proposed, and implemented, during 2007, with the aid of the CIO Student Chapter, we are carrying out diverse tasks to fulfill the Chapters three main objectives, and this time the CIOs Student Chapter is on TV. We are encouraging members to participate in SPIEs international conferences and as the same time we started new season seminars.

For new student recruitment purposes, we have popularized the Chapters activities, and outreach. Furthermore we have underlined the importance, and benefits, of active involvement in Chapter activities.
Chapter 2

Current Chapter Members

During a period of time we reached the quantity of 22 members, some of our members are carrying on research in foreign universities at the moment and probably forgot to renew other students this month received their grade as Master in Science or Doctor of Philosophy. This is the current list of members:

1. Mariana Alfaro Miss.
2. Laura Aparicio Ixta Miss.
3. Diana Arroyo-Almanza Miss.
4. José Cabellos Quiroz Mr.
5. Josué del Valle Mr.
6. Armando Gomez-Vieyra Mr.
7. Christhian Gonzalez Valdez
8. Yadira Marquez Barrios
9. Orlando Medina Cazares
10. Jorge Roberto Oliva-Uc
11. Jorge Parra Michel
12. Diecenia Peralta Dominguez
13. Luis Pia Villalpando
14. Claudio Ramirez
15. Juan Ramirez-Granados
16. Laura Rocha-Osornio
17. Victor Hugo Romero Arellano
18. Karla Salas Alcantara
19. Oliver Sanchez Barbosa
20. David Solis Santana
21. Camille Vazquez-Jaccaud
22. Carlos Villaseñor-Mora
Chapter 3

Chapter Activities

During this period, we continued to participate in diverse activities proposed and implemented during the last administration: chapter meetings, science club for children, student seminars.

3.1 Women in Science

We happily collaborated in the logistic of the even Women in Science that was held at the CIO, May 21-23, where more that 600 posters were presented, details can be found at the event webpage http://www.cio.mx/5_enc_mujer/nuevo_index.htm.

3.2 Science Club for children

The Chapter members, as well as those not pertaining to it, contribute with experiment explanations. This activity aims to awaken the childrens interest towards science, and physical phenomena as a whole. Here we would like to express our gratitude to Ph.D. Cristina Solano, responsible for the project.

Collaborating students: Ana Dinora Guzman, Armando González, Carlos Villaseñor, Christhian Adonai González, Cruz Yuliana Calderón, David Rodríguez, David Solis, Juan Arturo Aranda, Karla Salas, Luis Adán Martínez,
Figure 3.1: Committee Members. Cristina E. Solano, Ph.D., Amalia Martínez, Ph.D, Gloria Vázquez, Ph.D., María E. Sánchez, Ph.D..

Figure 3.2: The people.


Topics for Science Club for Children.

*Tensión superficial (Superficial tension)* Speaker: Ph.D. Raúl Vázquez Nava.

*La Química en casa (Chemistry at home)* Speakers: ITESM Campus León.
La ciencia en la vida diaria (Science in life) Speakers: Miraflores High School Students.

Robótica (Robotics) Speaker: Erika del Rocío Rangel, (ITESM).

Rayos qué son y cómo protegernos? (Lightning, What are and how to protect from them?) Speaker: Ph.D. Ismael Torres.

3.3 Student Seminars

We continue with the students seminars activity, below a short list with some of them:

Title: Medicion Estatica y Dinamica de Entornos Mediante Luz Estructurada. Speaker: Ramón Rodríguez Vera, Ph.D.

Title: Fabricacion de Filtros en Fibra Optica Utilizando Arco Electrico. Speaker: Ruth Ivonne Mata Chavez, Ms.C.

Title: Proceso de Desgaste Abrasivo en Maquinas Esmeriladoras y Pulidoras. Speaker: Luis Carlos Alvarez Nunez, Ms.C.

Title: Pushing on Science (Divulgement Celaya Tech). Speaker: Carlos Villasenor Mora, Ms.C.
Title: Photon Assited Spintronics. Speaker: Bernardo Mendoza Santoyo, Ph.D.

Title: Control de Movimiento por Retroalimentacion Estatica de Robots Manipuladores con Entradas Acotadas Speaker: Arturo Zavala Rio, Ph.D.

3.4 Optical Science Museum

Optical Science Museum has three halls with 40 expositions showing optical effects, 3D shape reconstruction and laser applications. The Optical Science Museum is a project managed by the Committee for Science Divulgation at CIO. The Chapter members contribute as guides with experiment explanations.

Figure 3.4: Optical Science Museum exhibition.

Figure 3.5: Optical Science Museum exhibition.
3.5 Museum of Science EXPLORA

The purpose of the chapter this year was focused on science divulgement outside of the Institute. In this case, people of the CIOs Student Chapter was present at the state museum EXPLORA. The same organization as in the Science Club for Children was applied in this activity but this time as part of the things that a visitor can found in this museum.

![Optical Science Museum exhibition at EXPLORA.](image)

Figure 3.6: Optical Science Museum exhibition at EXPLORA.

3.6 Chapter on TV

The CIOs Student Chapter is now on TV, as a project with the local channel of the Guanajuato government, the chapter has a monthly section on the program TV4 niños (TV4 children), in this section different experiments are performance in real time in order to explain several concepts that are involve in basic science, [http://tv4.guanajuato.gob.mx/ninos.php](http://tv4.guanajuato.gob.mx/ninos.php).

3.7 Visiting Lecture

SPIE student chapter organized the short course: Fibre Optic Sensors: Bringing Ideas in Optics to Engineering Reality the invited speaker was Prof. Brian
Culshaw (SPIE President 2007 - 2008), who kindly accepted to visit our center this year. The lecture took place at CIO from August 5 to August 7.

3.8 National Conference SMF

The CIOs Student Chapter was present in this event in order to show the activities of the Chapter, as the same time we were pushing undergraduate students to get involved with the SPIE and the Chapter activities.
Figure 3.9: SMF Conference.
Chapter 4

Planned activities for the future

Following the line of divulgation that we have established, running promotion activities will be supported by Student Chapter members. We will continue with the students seminars and hand on workshop for high school students.

4.1 Visiting Lecture

We will make a decision between Mark D. Himel or Diana Huffaker in the Visiting Lecturer Program, we will be in contact with one of them, after the student community take a decision next January.

4.2 Optics Fair

Regarding the success that the hands on workshop for high school students, we are trying to implement a similar activity for outstanding in deferents city around León Gto.

4.3 Web Page

The websites main objective is to promote activities, organization, and relevant issues around CIOs Student Chapter. It has served as a very effective means
of communication.

The websites implementation has been of uppermost importance for many of the Chapters activities, and was fundamental for the diffusion of the Visiting Lecturer activity.

A new Web page will be on-line next year in which we can find information about the SPIE Student Chapter and OSA Student Chapter.
Chapter 5

Financial Information

During January 2008 the Chapter received the annual transference of funds from SPIE. The initial balance for this report is $12099.5 MXN (Mexican Pesos), that is to say $1136.01 USD (1 USD = 10.65 MXN, rate at report date).

![Figure 5.1: Financial Information](image-url)
Chapter 6

Chapter Officers

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