



Semiannual Report

SPIE Student Chapter CIO

December 15, 2007

León, Gto. México

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Chapter 1

Introduction

This a transition epoch in the CIOs Student Chapter, new officers were elected in November, new students have become part of our project and in the future we expect all the CIO students to be members of the chapter.

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. 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. Alvarez Herrera, Cornelio Mr (3007335).
2. Cabellos Quiroz, José Mr
3. Cardenas Sevilla, Guillermo Alejandro Mr (3115647)
4. Ceballos Herrera, Daniel Mr (3123979)
5. De la Cruz May, Lelio Mr (3115648)
6. del Valle, Josue Mr
7. Escobar Acevedo, Marco Antonio Mr (3079653)
8. Flores Moreno, Jorge Mauricio Mr (3003134)
9. Galan Maximiliano Mr (3039079)
10. González González Alejandro
11. Gonzalez Valdez, Christian Adonai Mr

12. Cabrera Guerrero, Araceli Miss
13. Gutierrez Herrera, Enoch Mr (3003283)
14. Martinez Jimenez, Luis Adan Mr.
15. Osornio Rocha, Laura Miss
16. Parra Michel, Jorge Ramon Mr. (3070012)
17. Ramirez, Claudio Mr. (813777)
18. Romero, Victor Hugo Mr. (3056980)
19. Solís Santana, David (3072369)
20. Vacas Jacques, Paulino Mr (688385)
21. Vazquez Jaccaud, Camille (3039078)
22. Villegas Garcia, Irma Lorena Miss (3121919)

Chapter 3

Chapter Activities

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

3.1 Hands-on Workshop

We continue the activities for the best high school students from León, they come to visit the CIO and take part in laboratory practices and experiments.

Some of the experiments shown were:

- Focal distance measurement.
- Microscope, telescope and periscope.
- Michelson interferometer.
- White light dispersion.
- Stereogram.
- Projector.
- Holography.



Figure 3.1: Second Hands on Workshop for High School Students.



Figure 3.2: High school students in one of the labs.



Figure 3.3: Hands on Workshop for High School Students.

- Fundamentals of optical fiber.

The visit took place on September 24 and 26 (2007) in two schedules 9:00 to 12:00 hours and 15:00 - 18:00 hours. We received around 65 students in morning and evening schedules and according to the planned activities everything was satisfactory.

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, Christian Adonái González, Cruz Yuliana Calderón, David Rodríguez, David Solis, Juan Arturo Aranda, Karla Salas, Luis Adán Martínez, Luis Enrique Toledo, Luis Escalante, Marco Antonio Escobar, María Eugenia Sánchez, Matías Hernández, Maximiliano Galán, Rigoberto Castro, Ruth Ivonne Mata, Saúl Ruiz, Victor Hugo Romero, Victor Ulises Lev Loera y Yenisey Ponce de León.

Topics for Science Club for Children.

Tensión superficial (Superficial tension) Date: May 31 Speaker: Ph.D. Raúl Vázquez Nava.

La Química en casa (Chemistry at home) Date: June 28 Speakers: ITESM Campus León.

La ciencia en la vida diaria (Science in life) Date: July 12 Speakers: Miraflores High School Students.

Robótica (Robotics) Date: August 30 Speaker: Erika del Rocío Rangel, (ITESM).

Rayos qué son y cómo protegernos? (Lightning, What are and how to protect from them?) Date: October 4 Speaker: Ph.D. Ismael Torres.



Figure 3.4: Science Club for Children.



Figure 3.5: Science Club for Children.

3.3 Student Seminars

We continue with the students seminars activity:

Title: Quasi-distributed Sensor based on Bragg Gratings Interferometric Sensors Speaker: Ms.C. Trinidad Guillen.

Title: Novel Combination of LCoS and Temporal Phase Unwrapping for 3D Shape Reconstruction. Speaker: Christian Adonaí González Valdez.

3.4 Optical Science Museum

This autumn CIO opens the doors of the Optical Science Museum, this 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 3.6: Optical Science Museum exhibition.

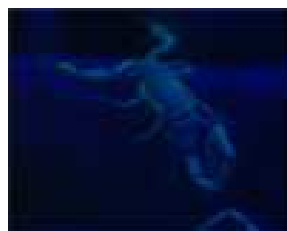


Figure 3.7: Optical Science Museum exhibition.

3.5 Posada

As part of the chapter activities and as a way to celebrate one year more and promote the convivence between the students, we organized a “Posada”, a Mexican Christmas tradition, for “Las Posadas” neighbors get together each day at a different neighbors home and act the journey of Joseph and Mary traveling to Bethlehem. There is a nativity in each home, the homeowners represent the people that would or would not open their houses to Mary and Joseph. The other adults represent the family asking for a place to stay. Songs and prayers accompany the procession. After all the prayers, it is turn for the children to celebrate with a Piñata.

3.6 Election of officers

In a solemn ceremony presided by Carlos Villaeño who rigorously followed the SPIE rules and with the participation of almost all the chapter members, New officers were elected: Doctorate student Christian González (president), Master dstudent Guillermo Cárdenas (Vice-president), Master student Araceli Guerrero (Secretary), Doctorate student Victor Romero (Treasurer).



Figure 3.8: Chapter Officers.

3.7 Graduation

We are very proud of our friends that received their grade as Master in Science and Doctor of Philosophy. In a solemn ceremony students receive from Ph.D. Fernando Mendoza (Director of CIO) their Diplomas that officially recognize them as new members of the scientific community.

Master Degree.

- Jose Samuel Perez Huerta
- Dalia Martinez Escobar
- Marco Antonio Escobar Acevedo
- Chrithian Adonaí González Valdez
- Ana Dinora Guzmán Chávez
- Rigoberto Castro Beltrán
- Luis Escalante Zarate
- Luis Adán Martínez Jimenez
- Yuliana Cruz Hermosillo
- Mario Cesar Wilson Herrán
- Araceli Sanchez Alvarez

Doctor of Philosophy.

- Edgar Saucedo Casas
- María Eugenia Sanchez Morales
- Ma. del Socorro Hernandez Montes

- Lorenzo Juarez Palafox
- Gilberto Anzueto Sanchez



Figure 3.9: Graduation.

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 Maria L. Calvo or Leszek R. Jaroszewicz 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 December 2007 the Chapter received the annual transference of funds from SPIE. The initial balance for this report is \$1055 MXN (Mexican Pesos), that is to say \$99.06 USD (1 USD = 10.65 MXN, rate at report date).

SPIE STUDENT-CHAPTER				
2007				
Date	REVENUES	EXPENSES	DESCRIPTION	TOTAL
November 1-07	1055	0	INITIAL BALANCE	1055
December 7-07	449	0	POSADA COVER	449
December 9-07	0	348.5	SODA & OTHERS	-348.5
December 10-07	0	14.5	SOLID ALCOHOL	-14.5
December 10-07	0	55.5	GIFTS	-55.5
December 10-07	0	25	GARBAGE BAG	-25
December 10-07	0	721	FOOD	-721
December 11-07	11770	0	FUNDS FROM SPIE	11770
			FINAL BALANCE	12109.5

Chapter 6

Chapter Officers

President MSc. Christian Adonáí González Valdez, adonai@cio.mx

Vice-President Lic. Guillermo Alejandro Cardenas Sevilla, memorias@cio.mx

Secretary Lic. Araceli Guerrero Cabrera, araceli_gro@cio.mx

Treasurer MSc. Victor Hugo Romero Arellano, vicromare@cio.mx

Advisor Ph.D. Oracio Barbosa García, barbosag@cio.mx

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