

Annual Report On Activities Of National Cheng Kung University Chapter

SPIE. **STUDENT
CHAPTER**
NATIONAL CHENG
KUNG UNIVERSITY



National Cheng Kung University,

Department of Photonics

January, 2014 — December, 2014

February, 2016

Member:

Teachers:

Guo, Tzung-Fang

Hsu, Hsu-Cheng

Students:

none

Chapter Activities:

3rd Optical Electronics Camp

Date: Jan 23 to Jan 27, 2014

Participants: 100(senior high students) + 62(students of DPS, NCKU)

Most of Taiwan's high school students do not know how to choose a major in university. In addition, the ways of understanding “What is photonics” and the Department of Photonics are even fewer. Now we hope that through fun games, interactive courses and hands-on experiments, to inspire senior high school students the interest of photonics.



Fig.1 photos of the staff preparing the materials of simple hand-made electrical candle, that the LEDs on it can cross flashing by using the charging and discharging effect of the circuit contains capacitances, resistances and LEDs.



Fig.2 photo of the participants doing the simply constructed spectrometer.
The CD was served as an optical grating for dispersion of nature light.



Fig.3 photo of invited speaker: Prof. Guo, Tzung-Fang, who introducing the photonics in daily life.

Fast Q&A challenge of photonics topics

Date: March 5, 2014

Participants: 20_(player) + 10_(Staff)

In order to encourage students to enjoy more photonics phenomenon in daily life and know the physics behind, we designed the interesting game related to photonics.



Fig.4 photo of players & staff.



Fig.5 photo of players are discussing.



Fig.6 photo of the host.

Visiting of National Chaiyi girls' senior high school students

Date: May 30, 2014

Participants: 60(student from Chaiyi girls' senior high school)

To stimulate high school students to learn about our department and truly learning environment, the teachers in National Chaiyi girls' senior high school (CYGH) arrangements for a trip to NCKU on a trip to visit our department for their students. The short courses included an introduction to the department, as well as the actual operation of the optical laboratory experiments in teaching lab and experience the processes and working instrument of process engineers in processing lab.



Fig.7 photo of CYGH's students visiting the public laboratory and learning to use the nitrogen gas holder. That was used to manufacture OLED and some devices that need low-oxygen environment.



Fig.8 photo of invited speaker: Prof. Guo, Tzung-Fang, who introducing our department.



Fig.9 photo of CYGH's students visiting the photonics learning laboratory and operating the display topic experiment. That contains the liquid crystal modulated by voltage regulation. And to observe the mixing color from red, green, and blue light change its path and positions in the fig of CIE 1931 color system.

Job practice experience sharing

Date: October 29, 2014

Participants: 40

To explore the view of students in our department, we invited the 3 seniors, 李晨暉, 藍浩琦 and 陳裕凱, to share their experiences on summer intern in companies which related to photonics and electronics (Delta Electronics, United Microelectronics Corporation (UMC) & ASUS).



Fig.10 photo of the audience.



Fig.11 photo of the speaker 藍浩育 sharing his experience of the practice in DELTA electronics.



Fig.12 photo of the speaker 李晨暉 sharing his experience of the practice in UMC (United Microelectronics Corporation).

Fund:

Income:

Beginning balance: \$0

Funds from National Cheng Kung University, Department of Photonics: \$300

Funds from National Cheng Kung University, Office Of Student Affairs: \$150

Funds from SPIE: \$0

Total income: \$450

Cost:

3rd Optical Electronics Camp: \$350

(Include handout copy, electronic materials and some necessary office supplies.)

Fast Q&A challenge of photonics topics: \$30

(Include snacks & drinks for participants and staff)

Visiting of National Chaiyi girls' senior high school students: \$0

Job practice experience sharing: \$70

(Include gifts and the snacks & drinks for participants and speaker)

Total cost: \$450

Total balance: \$0