2018 Annual Report

Utsunomiya University SPIE Student Chapter

December 2018
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INTRODUCTION

The Utsunomiya University Student Chapter of International Society for Optics and Photonics (SPIE) in Japan was established in November 2013. Since then, we have organized and participated in various kind of events and activities such as visiting lecturer, optical science classes, workshops and lectures for students from elementary school, junior high school, high school and university students, and social events. This report contains a brief overview of all events conducted in 2018.
MEMBER LIST

1.1 Director and Advisor

SPIE Immediate Past President
Center for Optical Research and Education Director
Prof. Toyohiko Yatagai

Utsunomiya Univ.
SPIE Student Chapter Advisor
Prof. Yukitoshi Otani

1.2 SPIE Student Chapter Officers 2017

President: Yu-Hsuan Huang
Vice President: Ryo Sato
Secretary: Erina Abe
Treasurer: Masayuki Suzuki
Support Officer: Yuuki Hori

SPIE Officers 2018
1.3 Member Roster in 2018

We have been maintaining the number of SPIE student members which is around 13 students. All the students come from different laboratories and so does our current and coming officers. Involving many students from different laboratories can help increase interest and curiosity in other students to get involve in our activities. Starting this year, we can see positive feedback from students and we are expecting more new students to join us in the future.

Current members

<table>
<thead>
<tr>
<th></th>
<th>Name</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>Erina Abe</td>
<td>8</td>
</tr>
<tr>
<td>2</td>
<td>Suchandra Banerjee</td>
<td>9</td>
</tr>
<tr>
<td>3</td>
<td>Ittoku Hirashima</td>
<td>10</td>
</tr>
<tr>
<td>4</td>
<td>Yuuki Hiro</td>
<td>11</td>
</tr>
<tr>
<td>5</td>
<td>Yu-Hsuan Huang</td>
<td>12</td>
</tr>
<tr>
<td>6</td>
<td>Tsuyoshi inoue</td>
<td>13</td>
</tr>
<tr>
<td>7</td>
<td>Hayato Kato</td>
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</tbody>
</table>
ACTIVITIES

2.1 Visiting Lecturer

This year we are honored with the visit of three distinguished visitors:

a) Prof. Andreas Ostendorf (supported by Visiting Lecturer Program)
b) Prof. francois goudail
c) Prof. Yves Bellouard

2.1.1 Prof. Andreas Ostendorf from Ruhr University Bochum

We took the opportunity of Prof. Andreas Ostendorf to attend SLPC2018 in Yokohama Japan and invited Prof. Andreas Ostendorf to come to Utsunomiya university to give us a talk. We held three activities: Lab tour, seminar about “Assembling of complex microsystems using optical forces” and tour to Oya History Museum after the expert talk. The seminar was held in collaboration with Utsunomiya Univ. student chapters of Optical Science of America (OSA) and the Japan Society of Applied Physics (JSAP).

We produced English and Japanese posters to promote this rare opportunity.
The OSA and JSAP student chapters also helped to organize the event, and many students participated in the event on that day.

Pro. Hasegawa Satoshi introduce our Lab's research to Prof. Andreas Ostendorf. After seminar, we take Professor to Oya History Museum.

2.1.2 Prof. Francois Goudail from Institut D'optique Graduate School

We took the opportunity of Prof. Francois Goudail to attend OPJ2018 in Tokyo Japan and invited Prof. Francois Goudail to come to Utsunomiya university to give us a talk. Prof. Francois Goudail visited us on November 2018. We held a seminar about “Polarization and optical co-design”.

This time there are many foreign students attending this seminar.
2.1.3 Prof. Yves Bellouard from Swiss Federal Institute of Technology in Lausanne

Prof. Yves Bellouard visited us on September 2018. We held a seminar about “Femtosecond laser three-dimensional exposure of silica substrate in the non-ablative regime: from laser-induced modification to applications”. The seminar was held by Utsunomiya Univ. student chapters of Optical Science of America (OSA). Our chapter is co-organized.

2.2 International Day of Light

In International day of light, we celebrated together with some food and drink and invited the PhD exchange student Adriana Silva from Mexico to give us a lecture about “3D shape profilometry by out-of-focus projection and phase-shifting algorithms”. In the final, we drew “IDL2018” by light painting.

This lecture was from 6pm, but still a lot of people came to attend it and celebrate the International day of light. And because in the night, so we drew light painting outside.
2.3 Open Campus

The university opens its door to the public twice a year (in summer and fall) that offers several events including campus tour, exhibitions, lecture demonstrations. The purpose is to show the high school students and their family the opportunities and the facilities that Utsunomiya University has for their future education and career development.

On July and October 2018, we organized tour to all of our laboratories in our center, 3D display, and exhibitions about polarizations, interferometry, OCT and etc. The main organizer of this event is the university and students are involved as the demonstrators. In fall Open Campus, All the members and volunteers were given free drinks and lunches during the event provided by the chapter.
2.4 CORE Research Meeting

In collaboration with Utsunomiya Univ. OSA Student Chapter and JSAP Student Chapter, we organize a colloquium for all students in Center of Optical Research and Education (CORE) to give a research talk in October 29 and November 14 in 2018. The presenter are students from three Lab in CORE. And through this colloquium, we can get advice from professors and discuss our research with students from different lab. We have the coffee break after the colloquium provided by SPIE student chapter.

We produced English and Japanese posters to promote these events.

A lot of students came to attend these events.
2.5 High School Science Program

High school students from inside prefecture came to visit our university and study about “Polarization, Light and Colors” in English and Japanese. Lectures and experiments were held in the assistance of SPIE members as teaching assistants. During lunch time, two of SPIE members including our president who helps as teaching assistants share about their countries: Taiwan and India.

2.6 Children Science Program

Starting from 2016, children science program known as “Hirameki Tokimeki Science” supported by Japanese government program is conducted with the support of members from our chapter as the teaching assistant. Students from elementary school and junior high school will have the chance to enjoy learning science through experiments and workshop. This year event was about “Polarization, Light and Colors, Optical Communication and Hologram”. It was conducted in both English and Japanese. During lunch time, two of SPIE members including our president who helps as teaching assistants share about their countries: Taiwan and India.
Pro. Otani give children a simple Light lecture. And after the lecture and experiment, we give to children a certificate of completion.

We do a lot of interesting light experiments and games with children.
We introduce our center and Lab to children and their parents.

2.7 SPIE Award Commemorative Lecture & Celebration

In 2017, Professor Mitsuo Taketa got Chandra S. Vikram Award, and in the same year, Professor Toyohiko Yatagai got Dennis Gabor Award. In the same year, two professors from Japan got the SPIE’s award is very rare thing. So, our chapter and CORE held a commemorative lecture and celebration for them.

Pro. Mitsuo Taketa gave us a speech about winning Chandra S. Vikram Award. Pro. Toyohiko Yatagai give us a lecturer about his research.
SPIE student chapter’s officers are responsible for reception and master of ceremony
SOCIAL EVENTS

3.1 Thanksgiving Party

In November this year, as appreciation to all our hardworking officers and members, we held a Thanksgiving party. All the food and drinks are supported by our chapter in order to encourage new students to join us. Before we had the party, a one week election for new officers were conducted in each laboratory in our research department. During this party, the chapter president explained about advantages and future plans of the chapter. New officers were announced in this party.

The photo of new officers

We prepared some pizza and drink
Our president represented our chapter to attend the SPIE Chapter Annual Meeting in San Diego California. She had the opportunity to interact in event organized by the SPIE society with the presence of more than 210 students around the world. The focus of the event is to provide platform for the chapter leaders to gather for networking and leadership training. The leadership workshop was led by Dr. Jean-Luc Doumont who discussed leadership and communication across cultures. A lot of time was also provided for group participation and networking during the workshop. The chapter leaders also had chance to receive advice and guidance from the facilitators who mostly used to be student leaders and had many experiences in handling student chapter.
I saw a lot of interesting games from Optics Outreach Games.

Through a lunch with Expert, I heard a lot of interesting things. And I met that professor in Japan, too.

Through the Student Chapter Poster Exhibition, I have seen the operation of other student chapters around the world, and I also introduce the activities and ideas of our chapter.
4.2 Japan Student Meeting 2018

This year, Osaka University held its first Japanese student chapter meeting on September 4th and 5th. This meeting included student chapter of SPIE, Optical Science of America (OSA) and Japan Society of Applied Physics (JSAP) from various universities in Japan. This meeting included group discussions, research presentations, student chapter poster exhibition, etc. Our chapter sent a member to participate this meeting and build the network with student chapter in other universities.

Group photo with other university’s student chapter

Reception for attendance

Group discussion    Lecture
FINANCIAL INFORMATION

This year we received funding from the SPIE Activity Grant, $700 (¥73,438). The general balance from our expenses is shown below.

<table>
<thead>
<tr>
<th>ACTIVITIES</th>
<th>EXPENSES (YEN)</th>
<th>ENTRANCE (YEN)</th>
</tr>
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<tbody>
<tr>
<td>Last year’s balance</td>
<td></td>
<td>46,084</td>
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<tr>
<td>This year’s chapter activity grant</td>
<td></td>
<td>73,438</td>
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<tr>
<td>This year’s initial amount</td>
<td></td>
<td>119,522</td>
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<td>SPIE Award Commemorative Lecture &amp; Celebration</td>
<td>24,715</td>
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<td>Expert talk</td>
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<td>International day of light</td>
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<td>Japan student meeting</td>
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<td>Open campus</td>
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<td>CORE research meeting</td>
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<tr>
<td>Thanksgiving party</td>
<td>18,970</td>
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<td>Total (YEN)</td>
<td>113,993</td>
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<td>Balance (YEN)</td>
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</table>

(‘) The remaining money will be used for our upcoming events in 2018.
NEW OFFICER IN 2019

Through election between all students in CORE, new officers were selected. Aside from 4 main officers, we have also made a new position known as sub-officer. Sub-officers are students who also belong in different student chapter and will act as the intermediary between SPIE Student Chapter with Utsunomiya Univ. student chapters of Optical Science of America (OSA) and Japan Society of Applied Physics (JSAP).

President: Yu-Hsuan Huang
Vice President: Erina Abe
Secretary: Kenya Omori
Treasurer: Tsuyoshi Inoue
Support officer: Yuki Shimamoto

CONTACT

Utsunomiya University SPIE Student Chapter
Email 1: spie.stud.chapter@gmail.com