Middle East Technical University

İpek Düzcören

[ANNUAL REPORT]

Names, email addresses, and Member numbers of elected Officers, List of current Student Chapter Members, Details of Chapter activities since last report, Details of planned activities for the future, Financial information
1. Names, Email Addresses and Member Numbers of Elected Officers

President:
Merve Yağmur Yardımcı
merveyardimci@gmail.com
3538373

Vice President:
İpek Düzgören
ipek.duzgoren@gmail.com
3538367

Treasurer:
Mehmet Ali Nebioğlu
mali.0665@gmail.com
3537055

Secretary:
Ece Kuyululu
e171700@metu.edu.tr
3546181

2. List of Current Student Chapter Members

Merve Yağmur Yardımcı
İpek Düzgören
Ece Kuyululu
Mehmet Ali Nebioğlu
Hakan Cem Özkara
Gizem Kocakuşak
Bartu Şimşek
Dilara Doğan
Feriha Ceren Alkan
Murat Aslan
Alican Yılmaz
İrem Yılmaz
Fatih Kara
3. Details of Chapter Activities Since Last Report

OSA-METU Organized Company Outing

On 11th December, the Middle East Technical University (METU) Student Chapter organized a company outing. We visited Fotoniks Military Electronics and Electro-Optics Company which performs research and development, design and production, and provides life cycle support in Electronics and Electro-Optics. A total of 12 METU chapter members, Associate Professor Hakan Altan and Assistant Professor AlpanBek attended this trip. NamıkAçan and some of the employees of the company greeted us. After meeting and a short conversation, we passed section that contains laboratory. Company has 3 research and development laboratories. They are respectively reserved for Optical, Electro Optical and Laser systems research and development. We visited labs one by one and we had an opportunity to observe
studies carried out, working environment and technical systems that are used during the studies.

After that, we passed meeting room all together. Here, a special presentation, which contains important information about the company's history and their projects, was made. We asked questions that cause confusion in our mind and we wanted more detailed information about the issues that we are interested in. Thus, we have gained the possibility of obtaining more information about Optical, Electro Optical and Laser systems. At the continuation of our conversation, we mentioned about our plans for the future and our opinions about optical systems. At this trip that is approximately 5 hours long, we met valuable and experienced people who spent years in this field and also we have seen studies done in this field up to now and after that what we can do. At the end of the trip, we were more motivated and we won more awareness of many issues. We’re thankful for the opportunity to examine their facilities and for their sincere interest in us.

THE FIRST MEETING OF THE SECOND SEMESTER

On 13th of February 2013, METU-SPIE organized a breakfast to meet the chapter members. The meeting was held on campus in the Teras restaurant. The purpose of breakfast was to talk about new plans and to take a warm start to new academic term. Although time period was start of new term, attendance was very high. There were 12 SPIE members at breakfast. First, SPIE chapter leader Refik Tuzakli talked about Professor who were being planned to meet our conference. After that Refik gave very important information about
European Physical Society and process of the membership of EPS. Breakfast was very proper
decision for first meeting and helpful to learn new plans.

**OSA-METU ORGANIZED A SEMINAR WITH ASSOCIATE PROFESSOR HÜSEYİN SARI**

On 12th of March 2013, the Middle East Technical University (METU) Student Chapter organized a seminar with associate professor Hüseyin Sarı who is lecturer at the department of physics engineering in Ankara University. At the beginning of the presentation, he introduced himself and gave us a little information about his profession. After that, he explained his purpose of this presentation which is about DX centers in the optoelectronic materials and the importance of these materials. Besides, he informed us about what they are and when we are using them. Moreover, he shared his experiences and observations about this topic. During this seminar, we consulted him what we were curious about and how they are used in physics. We thank to Hüseyin Sarı for the seminar and answering our questions. Hence, owing to this seminar, we have a formation of new ideas in our minds about what we can do in the future.

**SPIE-METU ORGANIZED A SEMINAR ON THE RECENT DEVELOPMENTS AND IMPORTANCE OF APPLIED PHYSICS IN INDUSTRY**

We organized a seminar about recent developments and importance of applied physics in industrial field held by Namık Açan, who is advisor of FOTONİKS. The seminar was held on March 26th 2013. Namık Açan arrived 1 hour early. We welcomed him and
made a conversation about our future dreams of our career. The seminar took start at 17.40pm at CavitErginsoy Seminar Room and during the seminar we talked about optics and the optics in business.

He gave advices to us. We talked about business medium and the business opportunities from the optics branch. The seminar lasted approximately 2 and half hours. A number of participants were attended to the seminar including both the SPIE members of METU. It was really good enough to share his experiences to us. We would like to thank him.

FIELD TRIP TO ASELSAN

On 29th of April 2013, as a student chapter of SPIE we organized a field trip to ASELSAN, which is one of the most advanced companies about R&D in Turkey. Our guide met us in the facility. Before the trip, he delivered a short presentation. This presentation was about design of optical systems and which computer programs they are using. He also gave brief information on production steps of lenses and mirrors. After that we started our trip. During the tour we had a great opportunity to see cutting edge technologies and systems that company is working on. Our guide tried to explain every point and step. At the end of the day we went to cafeteria to have some refreshments and to ask our questions easily to our guide. Participants enjoyed much; furthermore, students who want to familiarize with industrial applications of physics benefited from this activity.
On 23\textsuperscript{th} of October we organized the first meeting of the OSA, SPIE and EPS METU Student Chapters for 2013. This meeting was held on Cavid Erginsoy Seminar Room in Physics Department with 25 student and 2 academicians. The purpose of this meeting was to introduce the OSA-SPIE-EPS and gain new physics students for OSA-SPIE-EPS chapters. First of all, Assist. Prof. Dr. Alpan Bek, faculty advisor of SPIE chapter, talked about the various fields of Optics & Photonics in non-academic related areas; then, he talked
about his own work about these and what SPIE is. After that, Doç. Dr. Hakan Altan, faculty advisor of OSA chapter, talked also about Optics & Photonics and gave information about studies which are going on worldwide. In addition, he discussed the opportunities of our chapters and memberships. Following the speeches of our respectable professors, passed part of the presentation. Merve Yağmur Yardımcı who is the president of OSA, SPIE and EPS METU Student Chapters talked about the general features of our chapters, what kind of activities is organized and introduces the Optical Society. Then, respectively Gizem Kocakuşak and Bartu Şimşek who are members of our chapters introduced International Society for Optics and Photonics and European Physical Society with so many photos that we have taken in our past events. Therefore, we informed the new students about the opportunities of OSA-SPIE-EPS chapters for students. After finished meeting, we went to tea room to socialize with new students and to take their information. We closed the meeting by gathering contact information from fifteen participants who were interested in joining the chapter.
TRIP TO UFOLAB

In November 7, 2013 we arranged a trip to UFOLAB (Ultrafast Optics and Lasers Laboratory) in ARL (Advanced Research Laboratories), Bilkent University. We arrived there with two cabs and eleven participants attended this trip. We paid approximately 25$ to the cabs and 10$ for the parking tickets. We were accompanied by Ibrahim Levent Budunoğlu who is preparing his doctorate study in Physics Department in Bilkent University, and also a consultant for Meteksan Savunma A.Ş. For three hours, we visited four different laboratories and gained knowledge about the ongoing projects in fiber optics consisting interdisciplinary studies.

Furthermore, Mr. Budunoğlu mentioned about the last innovations in high-power fiber Lasers and their past and present important researches and presentations. We observed the setups of Material and tissue processing, biophotonics and non-linear systems; and the conditions in the laboratories. Then, we visited the environment where the assistants and researchers study. Also, together with Mr. Budunoğlu, we discussed the advantages and disadvantages of the new researches and the working environment. Moreover, we talked over how the industrial innovations and the participation of the researches conducted in these laboratories shape the industrial development.
### Activity

<table>
<thead>
<tr>
<th>Activity</th>
<th>Number of Participant</th>
<th>Cost</th>
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<tbody>
<tr>
<td>First Meeting of Second Semester (2012-2013 Spring) Seminar (Dr. Sarı)</td>
<td>12</td>
<td>180$</td>
</tr>
<tr>
<td>Seminar (Applied Physics Industry)</td>
<td>20</td>
<td>40$</td>
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<tr>
<td>Field Trip (ASELSAN)</td>
<td>21</td>
<td>40$</td>
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<tr>
<td>First Meeting (2013-2014 Fall Semester) Field Trip (UFOLAB&amp;FOTONİKS)</td>
<td>11(UFOLAB) 14(FOTONİKS)</td>
<td>35$(UFOLAB(Transportation)) 40$(FOTONİKS(Transportation))</td>
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</table>

### First Meeting

We hosted 25 people as a participant in the first meeting. The total expenditure for this event with announcement, food and drink outgoings is 60$. All members of our section participated in this activity.

### Seminars

**Type – Seminar**

Participation in seminars were be held varies between 20 to 30 people. Poster expenses was be 15$ and food & drink expenses were approximately 25$-45$. Accordingly, total expenditure for these seminars were 80$. All members of our chapter participated for each seminar.

### Company Visits

**Type - Networking**

We planned this activity approximately 10-25 participants. In this event, the cost of 25$-75$ for transportation. We sometimes met cafeteria costs as well.

### Entertainment with members

When this event occurred with a total of 10-15 people and the cost of a person was 15$, the amount of the estimated total expenditure for this event was 150$-225$.

### 4. Planned Activities in the Future

**First Meeting:**

**Type – Networking**

- The purpose of First meeting is to meet new students such as freshmen or others and add them our Student Chapter. The concept of first meeting is planned like a seminar about our SPIE Student Chapter and presentations of our academic advisors. We think
that this type of a meeting is necessary for us in terms of gaining new members and introducing ourselves and our society better.

**Seminars:**

- We had different seminars in this year. These seminars had be given by academicians and advisors of companies who interested in optics, photonics and other branches of applied physics. These seminars were be opened attendance for all students and academicians.

**Company and LAB Visits:**

Type – Networking

- Except from meeting and seminars, we plan the visits to companies for teaching and showing what physicists can do in industry to students in our department. We think that this kind of technical visits will provide great benefits to us. Thus, it will be possible to acquire more permanent information since we can observe in practice what we learn in the theory part of our lectures.

**Ice Breaking Activities:**

- We want to organize a social activity with members, which can be a breakfast-lunch-dinner, opera, theatre, cinema or paintball for socializing other members and exchanging ideas about future section events. We think that it will be a very useful organization in terms of meeting members, sharing our experiences and obtaining a more intimate friendships.

### 5. Financial Information

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