Annual Report
Institute for Atomic Physics Student Chapter
Romania

June, 2013
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2013 Chapter Officers

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Chapter status

Our Chapter’s status is currently active, as it has been since April 2001. We have members from a broad spectrum of institutions like National Institute for Laser, Plasma and Radiation Physics and University of Bucharest. There have been some changes regarding our members: some of our old members left, but we have had an influx of new members as well.

Meetings take place at least once a week, for discussions on current issues, activities, and planning for future events. Special
meetings are a way of getting together for team building and celebrations, from time to time.

At the beginning of 2013, elections for the Board of our Chapter took place.

**Chapter member list**

Let us introduce you our current members:

- Miss Tatiana ALEXANDRU
- Miss Iulia ANGHEL
- Miss Anca BADOI
- Mr. Mihai BONI
- Miss Catalina Alice BRANDUS
- Miss Ana Maria BRATU
- Miss Andra DINACHE
- Miss Maryam ILCHI-GHAZAANI
- Mr. Florin JIPA
- Mr. Viorel NASTASA
- Mr. Silviu POPESCU
- Mr. Laurentiu RUSEN
- Miss Gabriela SALAMU
- Miss Agota SIMON
- Mr. Alexandru STOICU
- Mr. Alexandru ZORILA
- Ms. Adriana SMARANDACHE
- Miss Alina IONESCU
- Miss Banu Nicoleta
The Romanian SPIE team

A picture of a part of SPIE Romania team; from left to right: Alina Ionescu - treasurer, Tatiana Alexandru - president, Angela Staicu - chapter advisor, Gabriela Salamu - vice-president (former president 2012), Viorel Nastasa (former president 2010) Laurentiu Ruse-secretary, and Mihai Boni (former president 2011).
Chapter Activities since the Last Report

1. August 2012, San Diego USA

The participation in August 2012 at the “SPIE Optics & Photonics” Conference, “Student Leadership Training” Workshop in San Diego, USA, was made possible thanks to Officer Travel Grant received from SPIE by Gabriela Salamu, former president of our chapter. During these events the SPIE Romanian Student Chapter has actively participated in the sessions and it was possible to promote the Romanian chapter and the National Institute for Lasers, Plasma and Radiation Physics. Collaboration with other SPIE Student Chapters was discussed and future plans were made.

Alina Ionescu was able to participate at the conference being supported by the Institute for Atomic Physics Chapter, Romania and also because she received a grant that was offered by SPIE and Newport Spectra Physics. The work she presented was entitled “A. Ionescu, M. Mernea, I. Vasile, C.A. Brandus, M.E. Barbanta-Patrascu, L. Tugulea, D. Mihaiilescu, T. Dascalu “Study of supported phospholipid bilayers by THz-TDS,” SPIE Optics and Photonics Conference, 12-16 August 2012, San Diego, USA, paper 8496-39; poster presentation.

At the presentation of the poster with our chapter activities performed during 2012
Outreach Activities

Institute for Atomics Physics Chapter has been active in the past with creating awareness and popularization of Optics in schools from Romania. This year besides recruiting new members, our chapter organized outreach activities including visits of Master, high school and primary school students at the National Institute for Lasers, Plasma and Radiation Physics, Magurele, in different laboratories.

2.1. Laboratory visits at the INFLPR of 1st year Master students.

The chapter advisor, Dr. Angela Staicu, PhD students, Mihai Boni, Andra Dinache, Tatiana Alexandru, and Master student, Simon Agota, organized, with the help of their group, “Laser Spectroscopy Group” http://lsg.inflpr.ro/, and the “Laser-Surface-Plasma Interaction Laboratory” http://lspi.inflpr.ro, a visit of young students from the University of Bucharest, Faculty of Physics, at the National Institute for Lasers, Plasma and Radiation Physics. The research activities that are
performed in the laboratories were presented, hoping that they will find these very interesting and will take into account for a future career in optics research field.

Mr. Mihai Boni explaining to the students which the main parts of a laser are

Miss Andra Dinache explaining her work to the students.
2.2. Laboratory visits at the INFLPR of high school and primary school students

The program “Să știi mai multe, să fii mai bun!” (“To know more, to be better”) is part of the national program “Scoala altfel” (“School in a different way”) which started in 2012 and it lasts one week every year, being organized by the Ministry of Education. This year, the activity took place between 1-5 April. The week was dedicated to curricular and extracurricular educational activities, visits to museums, research
institutes, universities, industrial factories, public institutions (mayor house, hospitals, orphanages, public libraries, and so on).

The program aims to involve all students and teachers and meet their interests and concerns, to showcase their talents and abilities in various fields, not necessarily present in the National Curriculum and to encourage their participation in various activities in a non-formal context.

The National Institute for Lasers, Plasma and Radiation Physics received a large number of high school students and also primary school students. They presented a huge interest in optics field, having numerous questions regarding the institute research activities.

Mr. Ionut Relu Andrei explaining how it is working a Nd-YaG laser to primary school pupils.

Mr. Mihai Boni explaining how is working a Nd-YaG laser to high school student.
3. “10+ years of active participation in education” Party

For our 10+ years of active participation in education, professional development, and leadership in optics and photonics, SPIE Student Services sent us a very nice anniversary plaque and also sponsor a party for your chapter to celebrate this achievement. We organized a dinner at a restaurant and it was a very good way for getting together, to know our new members, and for team building.

Members of SPIE Romania Chapter at the “10+ years” party.


The aim of the ISCP 2013, the 4th edition of International Student Conference on Photonics, was to reassemble young researchers with the aim of promoting recent results obtained by students and to enhance their knowledge in laser physics, material science and laser applications.
ISCP conference is organized every year by Romanian SPIE Student Chapter and follows the previous ISWLA conferences. The 2013 edition was organized as a satellite to International Conference "MODERN LASER APPLICATIONS", INDLAS 2013.

ISCP 2013 offered the opportunity to new PhD students to get a further insight into their colleagues’ work.

In the same time, the involvement of young researcher in organizing the conference helped them to gain management skills and innovative thinking.

The topic of the conference was targeted toward some specific priorities like: high power lasers, laser in material science and processing, nonlinear photonics, optoelectronics and optical components, laser metrology and testing, laser environment and life science, physics of plasma sources and applications.

Our chapter has as visiting lecturer, Prof. Gabriel Popescu from University of Illinois at Urbana-Champaign. He presented a very interesting lecture based on his last achievements in the field of “Quantitative Phase Imaging: Principles and Applications to Biomedicine”.

During ISCP 2013, 15 PhD students in Optics and Photonics had the opportunity to give oral presentations about their recent results. Also, the poster session had a good attendance, 30 contributions of PhD and master students brought lively discussions and communications.

The prizes for best oral presentation and best poster contribution have been awarded by SPIE Romanian Student Chapter. Prof. Mircea Guina from Optoelectronics Research Centre- Tampere University of Technology offered two scholarships for the participation in the
International Photonics Summer School organized by his university on August 2013.

Best oral presentation
1. Stoicu Alexandru
2. Jipa Florin
3. Albu Catalina

Best poster contribution
1. Cristina Nita
2. Cristina Matei
3. Stancalie Andrei

Photos during the ISCP 2013.
**Planned Activities for the future**

We are planning to continue our main activities, like educational activities for high school teenagers and students, laboratory visits, outreach activities. One of the main goals of our Chapter is to continue the International Student Conference on Photonics because the feedback received was a positive one, and had impact on the new members;

The following is the brief list of planned activities:
1. Promote optics to pre-university students: develop workshops, volunteer to supplement science education.
2. Attracting undergraduate’s students from Physics by giving seminars, tours and having interactive communications.
3. Maintain close relations, interchange experience and plan common activities with other SPIE chapters around the world. Especially during the annual meeting in San Diego, it is a great opportunity to build relationship for future collaborations.
4. Continue the extensive collaboration with different universities from our country.
5. Organizing the International Student Conference on Photonics 2014.
6. Apply for SPIE grants and scholarships available to chapter and individual chapter members to support travel and research activities.