Annual Report
Institute for Atomic Physics Student Chapter
Romania

17th of June 2015
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National Institute for Laser, Plasma and Radiation Physics
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Chapter status

The status of the Institute for Atomic Physics Student Chapter is currently active, as it has been since April 2001. Our Chapter includes members from National Institute for Laser, Plasma and Radiation Physics and University of Bucharest. There have been some changes regarding membership status as following: recently new members have joined the Chapter, while several initial members renounced to their membership status. We intend to attract more new members from our and other institutes and universities, therefore various outreach activities, concerning the current and next year, are going to be implemented.

The Chapter holds monthly meetings, where chapter related activities, recruitment of new members, future events and current issues are discussed.

On the 27th of January 2015, elections regarding the Board of Chapter Officers took place, the selected officers being presented below.

2015 Chapter Officers

Chapter President: Miss Ágota SIMON, agota.simon@inflpr.ro, ID#: 3536629
Chapter Vice-President: Mrs. Tatiana TOZAR, tatiana.alexandru@inflpr.ro, ID#: 3448908
Chapter Secretary: Mr. Laurențiu RUSEN, laurentiu.rusen@inflpr.ro, ID#: 772634
Chapter Treasurer: Miss Simona BRAJNICOV, simonabrajnicov@yahoo.com, ID#: 3632116
Chapter Advisor: Dr. Angela STAICU, angela.staicu@inflpr.ro, ID#: 447912

Chapter web site: http://spie.inflpr.ro/
Facebook profile: https://www.facebook.com/SPIE.Romania
Discussion group: SPIE_RO@yahoogroups.com
Contact: +4 021 457 57 39 (phone)
          +4 021 457 57 39 (fax)
Chapter member list

Allow us to introduce the current members of the Institute for Atomic Physics Student Chapter.

Ms. Iulia ANGHEL
Ms. Anca-Daniela BĂDOI
Mr. Adrian-Ionuț BERCEA
Mr. Mihai BONI
Ms. Simona BRAJNICOV
Ms. Lumița DUMITRESCU
Mr. Vicențiu IANCU
Ms. Valentina MĂRĂSCU

Mr. Viorel NĂSTASĂ
Ms. Irina NEGUȚ
Mr. Laurențiu RUSEN
Ms. Ágota SIMON
Ms. Adriana Loredana SMARANDACHE
Mr. Alexandru STOICU
Ms. Tatiana TOZAR
Ms. Anita VISAN

The Romanian Chapter Officers

A part of the SPIE Romanian team; from left to right: Ágota Simon – president, Angela Staicu – chapter advisor, Tatiana Tozar – vice-president (former president 2013), Simona Brajnicov – treasurer and Laurențiu-Nicolae Rusen – secretary (former president 2014).
Chapter Activities since the Last Report

1. Attending SPIE Optics & Photonics Conference and the Student Leadership Training – August 2014, San Diego, USA

Mr. Laurențiu Rusen, former president of the Institute for Atomic Physics SPIE Chapter in 2014, participated in August 2014 at the SPIE Optics & Photonics Conference and Student Leadership Training Workshop in San Diego, USA. His participation was possible thanks to Officer Travel Grant received from SPIE.

During the Student Chapter Leadership Workshop on the 16th of August 2014, the following topics were discussed: intercultural communication, leadership skills development, etc.; conducted under the supervision of Dr. Jean-luc Doumont.

In the same time, collaboration with other SPIE Student Chapters (EPFL SPIE Student Chapter, Charles Univ. Prague Chapter) was discussed. Participation to this event helped to promote the Romanian Chapter and the National Institute for Lasers, Plasma and Radiation Physics. A poster with our Chapter activities was presented during the Chapter presentation poster session.
Laurențiu Rusen at the presentation of the poster with our Chapter activities performed during the period 2013-2014.

The official picture with the chapters’ leaders from all around the world.
2. Outreach Activities

The Institute for Atomics Physics Chapter has been active in the past by creating awareness and popularization of Optics in Romanian schools. This year, besides recruiting new members, our Chapter organized outreach activities including high school and primary school pupils visits at the National Institute for Lasers, Plasma and Radiation Physics, Măgurele, in different laboratories.

Laboratory visits at the National Institute for Lasers, Plasma and Radiation Physics of high school and primary school students – 6-10 April 2015

A large number of high school and primary school pupils visited the National Institute for Lasers, Plasma and Radiation Physics within the frame of the “School in a different way: To know more, to be better” programme, organized by the Romanian Ministry of Education. The programme is devoted to educational extracurricular and non-academic activities, taking place in each year since 2012. This year’s activity was held between 6-10 April 2015.

The main purpose of this programme is to involve students and teachers in various scientific activities in order to highlight their talents and abilities in different scientific fields.

During the programme, the National Institute for Lasers, Plasma and Radiation Physics received a large number of students and their teachers. The pupils had a tour of different laboratories within our research facility. They presented a huge interest in the field of optics, having numerous questions regarding the institute research activities. Our Chapter was deeply involved in the visit organization. We hope that their enthusiasm, after visiting our laboratories, will turn them into future students at Physics Faculties and researchers in the field of optics.

In the followings, let us present you some pictures of our members during the visits in the laboratories. Our Chapter’s member welcomed at least 500 elementary and high school pupils together with their teachers and accompanying persons in our institute.
Mr. Ionuț Relu Andrei, former member of our Chapter, presenting the Nd-YAG laser of the Laser Spectroscopy Group to the high-school students.

Ms. Tatiana Tozar, former president of our Chapter, performing a “laser-microscope” experiment (left) and Ms. Iulia Anghel, member of our Chapter, presenting the application of Solid State Laser Laboratory to primary school pupils (right).

Ms. Simona Brajnicov, our treasurer (left) and Ms. Nicoleta Dumitrescu, member of our Chapter (right), presenting and explaining some of their work to the pupils.
Mr. Alexandru Stoicu, member of our Chapter, explaining optics principles by using the Optics Outreach Kit and explaining the rules of the Ket Laser game.
3. Organizing the International Student Conference on Photonics (ISCP) – 23-26 September 2014, Orăștie, Romania

The ISCP conference is organized annually by the Romanian SPIE Student Chapter. The 5th edition of the conference took place in Orăștie, Romania, between 23-26 September 2014.

The aim of ISCP 2014 was to offer an opportunity of young researchers to promote their recent obtained results, as well as to enhance their knowledge in laser physics, material science and different laser applications. Therefore, we encouraged undergraduate and graduate students, PhD students and young researchers to contribute with oral and poster presentations at ISCP 2014. In order to help students to attend the conference, our Chapter in collaboration with the Faculty of Physics, University of Bucharest, offered grants for two students, who expressed the desire to participate at ISCP 2014 in a motivation letter. In this way, two more students had the chance to promote their work and results.

The conference offered the opportunity for new PhD students to get a further insight into their colleagues’ work. In the same time, the involvement of young researchers in organizing the conference helped them to gain management skills, innovative and constructive thinking.

The topics of the conference were targeted towards some specific priorities like:

- High power lasers and applications
- Optics and Optoelectronics
- Micro and nanotechnologies
- Advanced Materials
- Lasers in life sciences
- Laser metrology and industry
- Physics of plasma sources and application.

In the followings, let us present you some pictures from the conference during oral and poster presentations.
Photos during oral presentations at ISCP 2014.
Photos during poster presentations at ISCP 2014.
The prizes for Best oral presentations and Best poster contributions have been awarded by SPIE Romanian Student Chapter and handed over by our Chapter’s advisor, Dr. Angela Staicu.

Best oral presentations
1. Ágota Simon
2. Tatiana Tozar
   Gabriela Salamu
3. Anita Visan
   Alexandru Stoicu
   Mihai Boni

Best poster contributions
1. Nicoleta Dumitrescu
2. Adrian Scurtu
3. Gabriela Salamu
   Tatiana Tozar

ISCP 2014 was organized at Arsenal Park – Hotel and Adventure Park. The participants enjoyed this open-air Military Museum, which is the only tourist complex based on a military concept in Romania and the South-Eastern Europe. The braver members of the Chapter and participants captured some interesting photos.
Free time activities at Arsenal Park, Orăştie, Romania, during ISCP 2014. Participants “experimentalizing” the military vehicles and planes.
4. Invitation of the visiting lecturer, Dr. Gilles Cheriaux – 23 October 2014

The invited lecturer of our Chapter on the 23rd October 2014 was Dr. Gilles Cheriaux from Laboratoire pour l'Utilisation des Lasers Intenses, Ecole Polytechnique, CNRS, Palaiseau, France. Dr. Cheriaux held his presentation, entitled “Titanium doped sapphire ultra-short duration and intense laser. Description, issues and state-of-the-art” for a large audience composed by our Chapter’s members and researchers from the National Institute for Laser, Plasma and Radiation Physics. After the seminary, the Chapter’s advisor expressed her gratitude for the invited lecturer.
Planned Activities for the future

We are planning to continue our main activities, like educational activities for high school teenagers and students, laboratory visits and outreach activities.

The National Institute for Laser, Plasma and Radiation Physics is organizing the 11th International Conference “Micro- to Nano-Photonics IV- ROMOPTO 2015” during 1-4 September 2015. Our Chapter is planning to participate as part of the organization committee. Several members of the Chapter will also contribute with oral and poster presentations at the ROMOPTO conference.

The following planned activities are briefly listed below:

1. Promoting optics by developing workshops, volunteering programmes and supplementing science education;
2. Organizing seminars, laboratory visits and interactive communications undergraduate students;
3. Maintaining close relations, exchanging experiences and planning scientific activities with other SPIE Chapters around the world;
4. Continuing and improving the collaboration between our Chapter and different universities from our country;
5. Participating at the ROMOPTO 2015 Conference;
6. Organizing the International Student Conference on Photonics 2016;
7. Applying for SPIE grants and scholarships available for the chapter and individual members in order to support travel expenses and research activities.