2006 KNU OSA Student Chapter activities report

- membership
- educational projects
- public outreach activities
- recruitment drives
V. Karazin Kharkiv National University (KNU) OSA Student Chapter was founded in December 2005 by eight graduate and PhD students of the School of Radiophysics at KNU (Nikolay Karyaka, Vladimir Kozlyakov, Svetlana Pishko, Eugene Derevyanko, Maxime Legenkiy, Misha Vidil, Sergei Radionov, and He Shi). During its first year of existence, the Chapter almost doubled the membership, and now has 14 student members. Students of KNU and other Kharkiv universities interested in the fields of electromagnetics and photonics are encouraged to join our Chapter. Membership in KNU OSA Student Chapter provides excellent opportunities for students to meet people with similar interests, to expand their knowledge of optics and related disciplines, to improve leadership skills, to organize and participate in various entertaining activities, as well as the opportunity to make an impact in the local educational community and to receive international recognition for their activities and community services.

President for 2005-06: Nikolay Karyaka (Dept of Theor Radiophys, KNU)  
Faculty Advisor: Dr. Svetlana V. Boriskina (Dept of Theor Radiophys, KNU)
Russian translation of OSA Optics Discovery Kit

The OSA Discovery Kits are excellent home learning tools for all age groups. Suitable for fifth grade and up, these unique kits are available in single or classroom setups through Edmund Industrial Optics. The kit features 11 experiments to demonstrate the basic principles of optics using the kit’s components, which include lenses, color filters, polarizers, optical fibers, a mirror, a hologram, a diffraction grating and an optical illusion slide — plus a detailed instruction booklet.

We have translated the OSA Optics Discovery Kit instructions into Russian. The instructions are being used for presentations in Kharkov high schools and are made publicly available through our website and the OSA website.

Project coordinator: Dr. Svetlana V. Boriskina
Other project participants: Svetlana V. Pishko
Photography contest
“Physics behind the scenes”

Kharkiv National University OSA Student Chapter is sponsoring a photography contest in order to encourage high school and university students to photograph images of optical phenomena in nature and human life and to understand the physics underlying the captured phenomena.

Photo ideas:

Project coordinator: Svetlana V. Pishko
Other project participants: Nikolay Karyaka, Vladimir Kozlyakov, Maxime Legenkiy, Oleg Batrakov, Aleksey Simachov, Dr. Svetlana V. Boriskina
Special thanks to: Dr. Anna V. Shishkova
Photography contest
“Physics behind the scenes”

Subject: The contestant should submit either a black & white or a color photograph demonstrating an optical phenomenon, explain what is happening in the photograph, explain the physics of the phenomenon, and identify when and where the photo was taken.

Format: The entry must be a 10 cm x 15 cm photograph mounted on A4-sized white paper sheet. You may also include a larger version of the photograph and/or a CD with an electronic image.

Judging: A panel of expert judges drawn from the worlds of science and photography will select the winning entries. The selection criteria include: originality, creativity, demonstrable thought behind photographic content and composition.

Prizes: The winner will receive a camera and his/her adviser (e.g., student’s physics teacher or supervisor) will receive an OSA Optics Discovery Kit. 10 finalists will receive additional prizes. The photos of the winner and finalists will be displayed on the KNU OSA Student Chapter website and at a special exhibition at KNU. All the finalists, their advisers and judges will be invited to a special awards ceremony at the School of Radiophysics KNU.
In October 2006, we launched our Student Chapter Website. The website contains helpful information for chapter members, prospective members, advisors, and collaborating organizations, including:

- current and completed chapter projects
- calendar of events
- useful links to optics and photonics resources
- on-going contests announcements
- current grant opportunities
Young Researchers Career Development Workshop

June 26, 2006
V. Karazin Kharkov National University, Ukraine
in the frame of Electromagnetics and Photonics Week
sponsored by:
V. Karazin Kharkov National University OSA Student Chapter
Abdus Salam International Centre for Theoretical Physics (ICTP)
The International Society for Optical Engineering (SPIE)

Young Researchers Career Development Workshop (YRCDW) was held as a satellite meeting to the Electromagnetics and Photonics Week in Kharkov, Ukraine, on June 26, 2006. The event was organized by V. Karazin Kharkov National University (KNU) OSA Student Chapter and the Institute of Radiophysics & Electronics Young Scientists Council (IRE YSC) in cooperation with several other Ukrainian and overseas student chapters of international professional societies:

Project coordinator: Dr. Svetlana V. Boriskina
Other project participants: Svetlana V. Pishko, Vladimir Kozlyakov, Maxime Legenkiy, Andrey Nosich, Aleksey Simachov, Oleksii Galan, Elena Smotrova
Special thanks to: Dr. Artem V. Boriskin, Elena P. Boriskina, Dr. Michael Ye. Tolstorukov
Young Researchers Career Development Workshop

YRCDW was a day-long event focusing on helping students who are in the early stages of their academic careers in electromagnetics and photonics. The workshop attracted more than 30 participants from all around Ukraine as well as from Russia and Belarus, most of them graduate or Ph.D. students. The workshop consisted of four related components, including:

(i) tutorials presented by Prof. Sergei Tretyakov from Helsinki University of Technology (Finland) and by Dr. Vladimir Gavrilenko from Norfolk State University (USA), as well as demonstration of educational movies: “Optical catastrophes” and “Vortices in nature and technology” presented by the OSA&SPIE Student Chapters of Taurida National V. Vernadsky University (Ukraine);

(ii) interactive career development seminars presented by the workshop organizers;

(iii) roundtable discussions and poster presentations of participating Student Chapters showcasing their programs and activities;

(iv) student paper contest.

The winner of the Student Paper Contest, Mr. Maxim Nesterov (Institute of Radiophysics & Electronics NASU, Kharkov, Ukraine) was awarded with a travel grant to attend the 2007 ICTP Winter College on Optics, which will be focused on Fiber Lasers and Advances on Fiber Optics.
Young Researchers Career Development Workshop

Workshop participants during lectures.

Workshop presenters: Prof. Sergei Tretyakov, Dr. Vladimir Gavrilenko, Dr. Artem Boriskin, and Dr. Svetlana Boriskina
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