

EOS NEWSLETTER

THE OFFICIAL PUBLICATION OF THE EUROPEAN OPTICAL SOCIETY

Key technology areas to receive focus groups

EOS shortlists eight technologies for new focus groups.

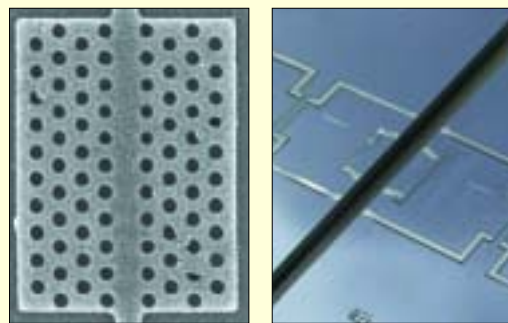
Following a recent survey of its members, the EOS has identified eight areas of photonics for its new focus groups – the series of networks it aims to set up for scientists and engineers working in particular fields of optics.

The topics about which members have expressed the greatest interest are:

- optical MEMS
- terahertz and microwave radiation
- optical fabrication
- photonic crystals
- colorimetry
- information optics
- physiological optics
- metrology.

This announcement follows the report in the last *EOS Newsletter* (OLE February 2005) that the Society has recently established its first focus group. The group is looking at the topic of imaging, and is being chaired by former EOS president Chris Dainty.

In each of the above technology areas, Europe has an active and strong research community that will benefit from increased networking between leading scientists, relevant companies and potential end-users. This approach is also consistent with the recommendations of a recent report sent to the European Commission. The report, "Photonics for the 21st century: a consoli-



MEMS, photonic crystals, physiological optics and optical fabrication are just four of the eight technologies that will be covered by the new focus groups.

dated European photonics research initiative" (see *OLE* May 2005), highlights the need for better co-operation and networking within Europe.

"The aim of establishing the focus groups is, among other things, to bring together specialists in particular fields and organize dedicated topical meetings for their subject areas," said Klaus Nowitzki, executive director of the EOS. "The focus groups will act as the centre of discussion for determining new trends in science and technology."

If you are interested in getting involved in any of these focus groups, then please contact the EOS at info@myeos.org.

Autumn topical meeting goes to Amalfi Coast

September sunshine: the island of Capri in Italy is the location of an EOS meeting on optical microsystems this autumn.



The EOS is holding a topical meeting on optical microsystems this autumn. The event will take place on the beautiful Italian island of Capri, near Naples, on 15–18 September. It will focus on a range of technologies, such as silicon-based optoelectronics and MOEMS; photonic crystal and nanophotonics; nonlinear and quantum optics; integrated optics; microsensors; and new charac-

terization methods for materials and devices.

The meeting is being chaired by three local Italian scientists:

- Ivo Rendina, CNR-IMM, Naples
- Eugenio Fazio, Università La Sapienza, Rome
- Pietro Ferraro, CNR-INO, Naples.

For more information about this event, please visit the EOS website at www.myeos.org.

OPERA to improve networking



**NEWS
FROM BRUSSELS**

The EC aims to unite photonics research through a new common information platform.

The European Commission (EC) has launched a new project within its Sixth Framework Programme (FP6) which aims to strengthen communication and networking between European photonics research initiatives.

The goal of the project, named "Optics and Photonics in the European Research Area" (OPERA 2015), is to create a central information platform that lists all of the relevant European (FP6) projects and national initiatives on photonics. The idea is that by pooling information on research activities, OPERA 2015 will enable more efficient and easier information exchange between interested parties.

Altogether, 19 countries are involved in the development of OPERA 2015, with input from the EOS and other important players, including the European Photonics Industry Consortium (EPIC), the Association of German Engineers (VDI), Enterprise Ireland and the Optics Valley in France, among others.

The platform is also expected to help strengthen the interaction between European and international organizations such as EOS, SPIE, VDI, EPIC, EUREKA, EUROM and the EPS, as well as relevant companies. Ultimately, OPERA 2015 hopes to create a common strategy between industry and research in the photonics area.

There is no doubt that this common strategy

would be of great benefit. Photonics is one of the most important key technologies for Europe in the 21st century, but in order to be able to compete with tough competition from low-wage countries, the powers of industry, research and politics need to be brought together.

(Please note that this new project should not be confused with a different FP6 project also called OPERA, which is carrying out research into power-line communication systems.)

OPERA 2015's key tasks are:

- the development of an information and communications platform in the Internet;
- the development of a European information medium (e.g. a newsletter) on publicly-funded research projects. The Internet platform and the newsletter will list all enterprises carrying out photonics research and development activities, research institutes in this field and organizations of research politics;
- the development of stable Europe-wide communication structures between national and international clusters and networks;
- to represent national and international support programmes and structures;
- to represent the state-of-the-art of current European support projects in optical technologies and photonics;
- the development of a common strategy for research and industry.

Imaging season is under way

Munich and London host EOS topical meetings this month.

Registration is now open for the EOS topical meetings taking place in Germany and the UK this month. The first of the two events is the three-day Munich-based EOS conference on industrial imaging and machine vision, which is held in conjunction with LASER 2005. World of Photonics on June 13–17.

Danièle Fournier from the Pierre & Marie Curie University, Paris, France, kicks off proceedings on Monday with the first of the meeting's four themed sessions entitled Imaging Methods, Sensors and Processing. The session plans to explore the broad spectrum of sensor operation, from X-rays to terahertz radiation, touching on the theory and application of imaging sensors and methods.

On Tuesday, it is the turn of Pieter Jonker of the University of Delft, The Netherlands. He chairs the meeting's Shape and Pattern Recognition session, which aims to emphasize subjects such as shape perception, shape description in stochastic geometry, reinforcement and shape reconstruction from multiple views.

Two sessions take place on Wednesday, which is the event's final day. Imaging in Robotics is chaired by Ulrich Schmucker, Fraunhofer Institute for Factory Operation and Automation, Magdeburg, Germany, and features the exploits of industrial, mobile and autonomous robots.

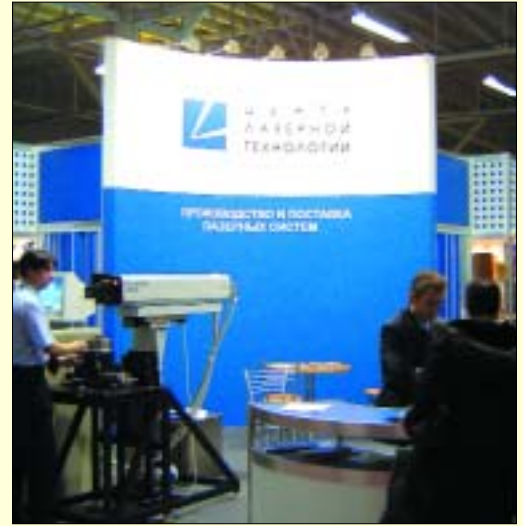
Don Braggins, of Machine Vision Systems Consultancy in the UK, takes the helm for the conference's Machine-Vision Session. Attendees can expect discussion on a wide range of topics, such as sub-pixel metrology, high-speed web inspection, innovative illumination, and camera evaluation and matching.

The second EOS topical meeting taking place in June, entitled Advanced Imaging Techniques, is being held in London at Imperial College on June 29–July 1 and focuses on a number of novel methods introduced to meet the challenges of multi-dimensional imaging.

● Further details on both topical meetings, such as registration rates for students and non-members, can be found by visiting www.myeos.org.

Russian laser market update

Ivan Kovsh describes the trends at this year's LIC Russia trade show.



Activities at LIC Russia 2005: scenes from this year's four-day event, which took place in March in Moscow.

There is no better way to gain an insight into Russia's laser market than by attending the LIC Russia Lasers Optics Electronics trade show. This year's event took place in Moscow on 1–4 March and was organized by the Laser Association and MVK – International Exhibition Company.

LIC Russia stands for “Laser Innovation Capabilities in Russia” and neatly summarizes the key theme of the show. About 110 domestic laser and optics manufacturers attended as exhibitors and took advantage of the opportunity to showcase a wide range of high-quality optical and photonics products.

Although most of the firms were Russian, companies from Belarus, Ukraine and Lithuania were also well represented. The range of exhibits included laser sources of radiation (from HeNe to fibre, and continuous-wave up to femtosecond-pulse generators), laser optics, materials-processing machines and devices for industrial measurement and diagnostics, ecology monitoring, and materials analysis.

Other products included laser-medical apparatus, image-processing devices and optical equipment for scientific research (e.g. monochromators, spectrometers and positioning equipment). Among the items that received particular interest from attendees were the Cu-vapor industrial laser for high-pressure cutting in the electronic industry, laser instruments for cosmetic surgery, and a laser-marking system that produces colour pictures on steel plates.

A large number of exhibitors mentioned to the organizers that the event had been commercially worthwhile. The chief reason behind the show's success is that LIC Russia is carefully oriented to the needs of the internal market and domestic customer.

By analysing the show, a number of useful conclusions can be drawn about the laser market in Russia and CIS countries:

- More than 60% of laser equipment in CIS countries is manufactured by small enterprises;
- The majority of laser and optics manufacturing firms are located in a few geographic regions, with well developed industry and engineering in Russia (Moscow, St Petersburg, Volga region and Novosibirsk), in Belarus (Minsk) and in Ukraine (Kiev);
- Domestic laser companies often use imported parts and, as a result, the reliability and maintenance of local products does not differ much from Western analogues, which usually have significantly higher prices;
- The introduction of laser and optical technologies in Russian industrial firms and medical institutions is impeded by a lack of qualified end-users;
- The start-up boom, which caused a dramatic increase in the number of small laser-optical enterprises, is over in Russia, as well as other CIS countries. In contrast with recent years, the laser business community is now stable, with little change in the main players serving the domestic market.

As well as giving attendees a chance to see the latest optical technologies and purchase products, LIC Russia 2005 featured a business programme that included a series of seminars and discussions. Topics covered innovation, venture financing and creating a company, among others. The Moscow Laser Innovation Center, which is organized by a partnership between the Laser Association and Laser Zentrum Hannover, also gave a presentation on its activities.

Ivan B Kovsh is president of the Laser Association.

Calendar

DATE	EVENT	LOCATION
June 6–7	Workshop on Building European OLED Infrastructure 2005	Cambridge, UK
June 8–11	Photonics Prague 2005	Prague, Czech Republic
June 12–16	European Conference on Biomedical Optics	Munich, Germany
June 12–17	CLEO Europe and EQEC 2005	Munich, Germany
June 13–15	EOS Conference on Industrial Imaging and Machine Vision 2005	Munich, Germany
June 13–17	SPIE International Symposium on Optical Metrology	Munich, Germany
June 29 – July 1	EOS Topical Meeting on Advanced Optical Imaging	London, UK
July 13–15	OPTOEL 2005	Elche (Alicante), Spain
July 23–25	Informal Quantum Information Gathering 2005	Paris, France
September 3–7	Diffraction Optics 2005	Warsaw, Poland

For more information on any of these events, please visit www.myeos.org

Are you a member of EOS?

Look at the benefits

Individual members are eligible for:

- a regular EOS Newsletter e-mail
- reduced conference fees
- reduced prices for EOS journals
- free subscription to *Opto & Laser Europe*
- 20% discount on Institute of Physics Publishing books
- members living outside Germany are entitled to a 50% discount on subscription to the German-language journal *Photonik*, published by AT-Fachverlag

Additional benefits for corporate members:

- a company profile in the EOS directory
- a presence on the EOS website
- free advertisements for jobs in the EOS market
- reduced conference fees for all employees



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EOS **IoP**

EOS 2005 membership fees	
Individual members (who do not belong to a branch or affiliated society of the EOS):	€40
Students (who do not belong to a branch or affiliated society of the EOS):	€10
Corporate members (regardless of the number of employees of the company or members of the institute):	€200

Individual members of the branches Dga0 (Germany), SFO (France), SSOM (Switzerland), SOS (Sweden) and SIOF (Italy) are automatically full individual members of the EOS. Individual members of the affiliated societies Promoptica and CBO-BCO (Belgium), CSSF (Czech and Slovak Republic), DOPS (Denmark), FOS (Finland), the Optics Division of the Norwegian Physical Society (Norway), the Optics Division of the Polish Physical Society (Poland), ROS (Romania), SEDO (Spain), LAS (Russia) and the Optical Group of the IOP (UK) are automatically associate members of the EOS.

Membership information

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