The International Day of Light - May 16th

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During 39th session of UNESCO General Conference held on 7th November 2017, the date of **May 16th** was proclaimed as the **International Day of Light (IDL)**. This decision was made after the success of the International Year of Light (IYL) celebrated in 2015. It confirmed that raising the awareness of photonics social role is crucial for its further development. Based on the rich experience of IYL 2015 ("more than 13,000 activities took place in 147 countries to reach an estimated 100 million people"), the most important goals to be followed by the IDL, include: raising social awareness, education, showing the influence of photonics on culture and art, promoting foreign cooperation and the important role of conducting basic research. As a result, it will lead to the creation of new solutions based on photonic technology, which has resulted in increased energy efficiency and improved quality of our life.

The inauguration of the International Day of Light will be at the headquarters of UNESCO in Paris of May 16, 2018. During this event many activities will be proposed at very different levels and fields to attract people of all ages. Optical societies from around the world are invited to organize numerous campaigns promoting photonics during **IDL**. Among others, the Photonic Society of Poland (http://photonics.pl/) decided to organize IDL on May 18, 2018 in Warsaw, Poland co-located with the 10th Anniversary of our Society.. The official logo (Fig.1) and more information about IDL can be found at the web page https://www.lightday.org/.

Fig. 1. The International Day of Light – the official logo

The inspiration for choosing the date of May 16 may seem rather curious at first. It is the anniversary of the first laser action observed in 1960 by Theodore Maiman. At present, it would be difficult to imagine our reality without fiber-optic telecommunication, high power lasers, photonics integrated optics, mass storage components or medical diagnostics.

One of the main directions of photonics development associated with new light sources is the use of lanthanide ions, which thanks to the shielded 4f electron shell allow to obtain efficient luminescence. The latest research on various active materials, i.e. glasses, polymers and glass-crystalline materials have been presented during the 7th International Workshops on Photoluminescence of Rare-Earth: Photonic Materials and Applications (PRE'17),which was held 30 Nov-2 Dec, 2017 in Rome. It covered a wide range of research topics concerning the properties and applications of rare-earth ions in optoelectronics and photonics (http://pre17.fbk.eu/).

The current 36th PLP issue contains publications on a wide range of topics i.e. photonic materials, theory and developing lasers and sensor systems. Pisarska e*t al.* discuss two different glass-host based on borate and germanate glasses doped with erbium, suggesting the latter (germinate) as a promising materials for near-infrared luminescence and up-conversion applications. Zmojda e*t al.* present the possible mechanisms of interaction between the emission of Eu^{3+} ions and surface plasmon resonance from Ag nanoparticles in antimony-germanate glasses. Miluski e*t al.* Show a multicolor emission in Tb^{3+}/Eu^{3+} co-doped poly(methyl methacrylate) obtained by energy transfer and antenna effect. Klosowski e*t al.* present a system for optical detection of trapped calcium ions. Strzelec e*t al.* propose UV-VIS investigations of Al alloys and composites characterised by the LIBS method. Sulej e*t al.* invent a method of optical distortion compensation which allows to achieve a significant accuracy improvement of membrane shape mapping. Torres e*t al.* present the imaging properties of the peacock eye optical element which enables to maintain the acceptable resolution, contrast and brightness of output images for a wide range of defocusing. Yalçın e*t al.* calculate a uniform diffracted field from the edge of an opaque parabolic surface with the boundary diffraction wave theory. Bouchene e*t al.* propose a novel semiconductor laser structure based on the Fabry-Pérot laser sandwiched between two gain-coupled distributed feedback (DFB) laser sections.

