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Ryszard S. Romaniuk
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Introduction

The SPIE-IEEE-PSP WILGA Symposium [wilga.ise.pw.edu.pl] is a kind of international Forum of Young Science in Photonics, Advanced Electronics, and Internet Engineering. It is organized twice a year under the eminent patronage of two big international engineering institutions, SPIE [www.spie.org/] and IEEE [www.ieee.org/] and their Polish Counterparts: PSP—Photonics Society of Poland [www.photonics.pl/], successor of Polish Chapter of SPIE [www.spie.pl/] and IEEE Poland Section [www.ieee.pl], with participation of IEEE R8 [ewh.ieee.org/reg/8/sac/cms]. The patrons of the symposium are: PAS—Polish Academy of Science (The Committee on Electronics and Telecommunication) [keit.pan.pl], Association of Polish Electrical Engineers (SEP) [www.sep.com.pl], Polish Committee of Optoelectronics SEP [pkopto.ise.pw.edu.pl], Warsaw University of Technology [www.pw.edu.pl], Institute of Electronic Systems [www.ise.pw.edu.pl].

WILGA Organizers: The Symposium is organized by a group of devoted young people - photonics, mechatronics, and electronics researchers - gathered in the PERG/ELHEP Research Group of the Institute of Electronic Systems at the Faculty of Electronics and Information Technology of WUT. Most of these young researchers are active members of PSP, SEP, SPIE, OSA, and IEEE. The symposium is diligently done by young researchers for young fellow researchers and the main aim is to have a lot of fun and to learn a lot.

WILGA Publications: The WILGA Symposium publishes its papers in the following proceedings series, technical and peer-reviewed journals: Proceedings of SPIE, since 2002; IEEE eXplore, Internet publication data base; Photonics Letters of Poland, since 2009; Elektronika, SEP Journal, since 1998; JET—Intl. Journal of Electronics and Telecommunications, PAS.

WILGA Proceedings of SPIE: There has been a long tradition of WILGA publishing its works in the Proceedings of SPIE. This volume is the 12th published of the WILGA-SPIE series. All of the WILGA-SPIE volume series contain more than 1000 papers; all WILGA Symposiums published more than 2500 papers with around 5000 participants. This is an extraordinary achievement for a modest symposium oriented solely on young researchers. No one event of similar character could compare to this achievement. This success was only possible due to big involvement of young researchers in their work. The following WILGA Proc. SPIE were published: Wilga 2002 – Proc. SPIE 5125; Wilga 2003 – Proc. SPIE 5484; Wilga 2004 – Proc. SPIE 5775; Wilga 2005 bis – Proc. SPIE 5948; Wilga 2005 – Proc SPIE 6159; Wilga 2006 – Proc. SPIE 6347; Wilga 2007 – Proc. SPIE 6937; Wilga 2008 – Proc. SPIE 7124; Wilga 2009 – Proc. SPIE 7502; Wilga 2010 – Proc. SPIE 7745; WILGA 2011 – Proc. SPIE 8008; WILGA 2012 – Proc. SPIE 8454.

SPIE Poland 2005: The SPIE Poland meetings in 2005 were very special because then the Polish Chapter of SPIE (predecessor of Photonics Society of Poland) hosted together with SPIE and some other regional SPIE Chapters, the SPIE Warsaw Congress on Optics and Optoelectronics – SPIE COO Warsaw 2005. WILGA 2005 Symposium was split to two parts – one held usually in WILGA and the second jointly with the COO'05.

WILGA ways and topics: The official language of the symposium is English. Peer reviewed papers are published in a renowned, internationally recognized series called the Proceedings of SPIE. The symposium is designed mainly for Ph.D., M.Sc., and B.Sc. students (from physics, electronics and mechatronics, as well as material research) and their tutors/mentors. WILGA has a number of main topical tracks. Historically, the first one was Photonics and Web Engineering. Generally, WILGA embraces advanced photonic, mechatronic and electronic systems, in the following aspects: theory, modeling, algorithms, simulations, emulations, design, hardware, software, hardware-software interaction and integration, measurements, testing, commissioning and exploitation. WILGA also addresses new research tendencies like 3D photonics and electronics design, micro- and nano-systems, material engineering including meta-materials.

Topical sessions are organized by leading experts. Sessions usually begin with current tutorials and are filled with contributed papers by students and young researchers. One of the most important session tracks in WILGA are photonics applications and systems for superconductive accelerator (and free electron laser) technology and high energy physics experiments. We invite warmly students, young researchers and their tutors to participate in WILGA.

WILGA XXXth Jubilee Symposium: The WILGA 2012 January Edition was held on 26–29 January 2012 at WUT's FE&IT. WILGA 2012, the May edition, was held on 28 May–2 June 2012 in a resort owned by Warsaw University of Technology. More than 300 presentations were delivered during both editions of Wilga, covering a broad area of photonics applications and web engineering. Nearly 350 persons participated. An exceptionally efficient chair of the Organization Committee of WILGA 20121 was traditionally Dr. Maciek Linczuk [M.Linczuk@elka.pw.edu.pl].

The working research Sessions of 30th WILGA 2012 were: general photonics, optical fiber technology, optical communications, optoelectronics, applications of optical fibers, integration of electronics, photonics and mechatronics, distributed measurement systems, LHC and CMS at CERN, JET and ITER tokamaks, optics and optoelectronics for astronomy, fundamentals of FPGA-DSP systems, object oriented design of hardware, terabit optical data links, software-hardware co-design, biomedical engineering, computational intelligence of advanced systems, development of photonics and electronics in Europe and Poland, radar technology, terahertz photonics, free electron lasers, E-XFEL and POLFEL lasers, EuCARD – European Coordination of Accelerator Research and Development, TIARA, etc.

WILGA offsprings: The WILGA Symposium gave birth to a few topical meetings and conferences which then struck out on their own. These include students regional meetings (Opole, Wrocław, Kielce, Białystok, Lublin, Toruń and others), of SPIE student chapters, IEEE student branches, but also stand-alone conferences. Some of these meetings are still held periodically with Wilga, while some of them gained complete independence. WILGA is very proud of this sort of partnership, since the very good idea of WILGA is proliferating elsewhere. One of such meetings is, now fully nondependent, SPS – Signal Processing Symposium which started at Wilga in 2003.

SPIE – PSP WILGA 2013: The organizers of WILGA 2012 Symposium, to be held on 27 May – 02 June 2013, warmly invite interested young researchers and students in photonics and related fields to participate in this exceptional and very friendly research event oriented to host young researchers from Poland and all over Europe.

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