

POLISH ACADEMY OF SCIENCE
COMMITTEE FOR ELECTRONICS AND TELECOMMUNICATIONS

Index 363189
ISSN 0867-6747
Print run 200 copies

ELECTRONICS AND TELECOMMUNICATIONS QUARTERLY

KWARTALNIK ELEKTRONIKI I TELEKOMUNIKACJI

VOLUME 54 – No 2

WARSAW 2008

Photonics Society of Poland established

Warsaw, June 2008



Each bigger research and technical community in this country and elsewhere has its own representation inside the social space in a form of a professional society. Either the society has a broad topical extent covering the whole community activities or it is a number of narrow topical societies each active in their own fields. The subject of activity of a professional society is usually: expertise in the field, training, social, publishing, cooperation and integration, information, etc.

The above concerns also the national research and technical community of optics, optical fiber communications, laser technology, optoelectronics and photonics. Some time ago, the research, technical and industrial communities in this country were organized in professional societies within a formal framework of the Federation of Engineering Associations. Since that time the federation has never regained its high administrative meaning. The president of the federation was at that time a deputy prime minister of the country. Today, such a strengthening of research, technical and hi-tech communities and industries, through giving back this high role for a renewed Federation of Engineering Associations might have other meaning, other influence and would give other possibilities. There is a clear need in this country for strong consolidation and rebuilding of the self-organization of the technical professional communities. They have to accommodate themselves to the dynamic changes and evolutions of the contemporary society of knowledge. A clear reflection of these vivid processes is a formation of the Photonics Society of Poland (PSP).

TRANSFORMATION OF SPIE POLAND CHAPTER TO PSP

Since the first half of 2007, there have been carried out formal endeavors by the national research and technical communities of photonics to transform the Poland Chapter of SPIE –The International Society for Optical Engineering (SPIE-PL) [www.spie.pl], existing since 1988, into the Photonics Society of Poland (PSP) [www.photonics.pl]. During the turn of the year 2007/2008 and at the beginning of 2008, the Administrative Court for Warsaw, after

some changes and improvements in the bylaws and after two plenary meetings of the Society members approved the change in the name and the new bylaws of the new (transformed) research and technical Society. Prof. T. Woliński of WUT [www.if.pw.edu.pl/~opto] was elected the first president of PSP. The headquarters of PSP is the Faculty of Physics, Warsaw University of Technology [www.if.pw.edu.pl]. The PSP has applied to the court for the right to start and run business activities. It will soon apply to be elevated to the status of a society of a higher public service. PSP has now more than 200 members, mainly from the academic world and from governmental institutes, and still too small number of members from industrial, business and administration communities. The PSP members originate from the whole country but the majority come from the following large academic centers: Warsaw, Wrocław, Poznań, Lublin, Białystok, Kraków, Gdańsk, High Silesia, Szczecin, Rzeszów, Łódź. The PSP is open for international and corporate members. The aim of the PSP is integration of the national research and technical community of photonics and undertaking important actions, from the point of research, technical, financial, organizational, business and political point of view, in the name and on behalf of the whole national professional photonics community in relation to the industry, local and national administration, international partners, European programs, consortia and technological platforms, etc.

INTEGRATION ACTIVITIES OF THE NATIONAL RESEARCH AND TECHNICAL COMMUNITY OF OPTICS AND OPTOELECTRONICS

Establishment of the Photonics Society of Poland is a crowning achievement in a long lasting organization, technical and research activity of the national community of optics, optoelectronics and photonics in order to coordinate common endeavors in this country. At the beginning of the 80s there were undertaken in this country some attempts, by INOS – Institute of Applied Optics, PTF – Polish Physical Society and WUT – Warsaw University of Technology, to establish an Optical Society of Poland. These trials were, at that time, not successful enough. In the middle of the 70s, the Committee of Electronics and Communications [keit.pan.pl] of Polish Academy of Sciences has established a Section of Optoelectronics with Working Groups on Optical Fiber Technology, Integrated Optics and Optoelectronic Sensors. This body organized during the years of 1976, 1979, 1982 (shifted to 1983), 1986 the first, second third and the fourth National Symposia on “Optical Fibers and Their Applications” in Jabłonna. The Section of Optoelectronics organized also the National Symposia on Laser Technology in Szczecin/Świnoujście. The SPIE was present during all of these conferences in a form of tabletop SPIE literature exhibits organized from the beginning by SPIE sympathizers and next members. The Polish Optoelectronics Committee (PKOpto) of SEP – Association of Polish Electrical Engineers was established in 1985 [ww.sep.com.pl]. There were only few members of international optical organizations, in this country, at the beginning of the 80s, like SPIE [spie.org], OSA -Optical Society of America [www.osa.org], LIA – Laser Institute of America [www.laserinstitute.org], IEEE – LEOS-Laser and Electro-Optics Society [www.ieee.org/portal/site/leos/], and later EOS – European Optical

Society [www.europeanopticalsociety.org]. A very concrete results emerged from the initial talks and technical, research and organization activities between Polish researchers and SPIE, Bellingham, WA, USA. These difficult contacts were carried out done at conditions of incompatibility of the currencies.

Individual contacts with SPIE of persons from academic and governmental institutes in this country go back as far as to 1976. More official talks, between professional societies of SPIE and SEP started in 1982. During the years 1982-1985 the talks resulted in formation in this country of a Polish Group of SPIE Members, gathering above 10 persons. The activity of this Group resulted in participation of a number of persons from Poland in SPIE conferences in Los Angeles (1982), Stuttgart (1984), Boston, San Diego, Paris, Hague, Hamburg, organization of small exhibits during some of SPIE symposia, publishing of the first papers from Polish optical research community in the Proceedings of SPIE (vols. 403-404 from 1983), publishing of the first „Polish” volume of Proc.SPIE (vol 670 from 1986), the first visit of SPIE representatives from the SPIE headquarters with executive secretary Joseph Yaver in Poland. The Polish Group of SPIE Members was officially affiliated with the PKOpto, SEP in 1985 and approved by the Boards of both societies SPIE and SEP. During this period, the Polish Group of SPIE Members, chaired by the late professor Adam Smoliński, was reporting periodically, two times a year, about their activities at the plenary meetings of PKOpto SEP, then very frequently attended by the professional optics community.

ACTIVITY OF SPIE POLAND CHAPTER

The Polish Group of SPIE Members was transformed into SPIE Poland Chapter in 1988 (SPIE-PL). A legal technical association under the name of Polish Chapter of the International Society for Optical Engineering was registered then by the administrative court [www.spie.pl]. During the first period the SPIE-PL was chaired by prof A.Smoliński and then by prof.M.Pluta. The SPIE headquarters were situated in the Institute of Applied Optics, during the period of 1990-2002. During the period of 1986-2008, the Polish Group of SPIE Members, then SPIE-PL and now PSP published over 200 volumes of Proc. SPIE. In 2005, the SPIE-PL in cooperation with SPIE headquarters organized a large Middle-European Congress on Optics and Optoelectronics at Warsaw University of Technology. The congress consisted of 14 combined topical conferences. It was well attended by more than 700 professionals from all over the world. Long lasting, very active, profitable for all sides and frank contacts of the Polish photonics community, since 1988 organized in SPIE-PL, with the SPIE headquarters, were one of the major foundations of nomination for prof. Malgorzata Kujawska of WUT in 2005 for the first woman and the first non-American president of the SPIE. During her presidency prof. M.Kujawska wrote her name down in golden letters in the history of this great engineering society of global extent

A number of professionals from Poland were awarded, during these years, the prestigious titles of the Fellow of SPIE. These important professional distinction titles stem definitely from

the individual virtues of the awarded researchers but there was also a strong supporting factor caused by unprecedented and incomparable activity of the SPIE-PL. Fellowship in the society is awarded for individual scientific achievements and the process goes through a few international reviewers. The Polish SPIE Fellows are professors: Maksymilian Pluta-INOS (1992), Ryszard Romaniuk-WUT (1993), Antoni Rogalski-MUT (1995), Romuald Jóźwicki-WUT (1995), Małgorzata Kujawińska-WUT (1997), Krzysztof Patorski-WUT (1998), Tadeusz Kryszczyński-INOS (2001), Katarzyna Chałasińska-Macukow-WU (2003), Leszek Jaroszewicz-MUT (2003), Andrzej Domański-WUT (2004), Tomasz Woliński-WUT (2004), Tomasz Szoplik-WU (2006), Wacław Urbańczyk-WrUT (2007).

ACTIVITY PLANS OF PHOTONICS SOCIETY OF POLAND FOR NATIONAL AND REGIONAL PROFESSIONAL COMMUNITY

It seems that in the circumstances, which the science is now in this country, the Photonics Society of Poland has to fulfill important function for the integration, efficiency increase and reconfiguration of the local research, technical, business and administration communities in photonics. In the framework of this policy the PSP has undertaken recently a number of initiatives. Some of them are continuation of the activities of SPIE-PL and some of them are quite new. Some of these ideas are described below. They embrace endeavors in the field of European cooperation, industrial, academic, educational, conferences, continuous training, publishing, organizational and lobbying.

NATIONAL COOPERATION

The most important foundation of PSP existence is domestic activity and cooperation. It seems that by gathering relevant representatives of all national communities, the PSP has a chance to work out a common platform for the constructive actions of such organizations in the similar fields (with their permission) like: Polish Committee of Optoelectronics of SEP (chair prof W.L.Wolinski-WUT), Section of Optoelectronics, Committee of Electronics and Telecommunications PAS (chair prof T.R.Wolinski-WUT), Section of Optics, Polish Physical Society (chair prof. Henryk Kasprzak-WrUT), Section of Metrology (previously also Section of Optics) SIMP – Polish Association of Mechanical Engineers [www.simp.pl], Polish Association of Synchrotron Radiation [www.synchrotron.org.pl/], Polish Association of Sensor Technology [www.ptts.pl], IEEE-LEOS Chapter Poland (chair, prof. Sergiusz Patela-WrUT), OSA Member Group in Poland, Student Chapters of SPIE, OSA and IEEE in Poland, Polish Technological Platforms (Advanced Materials – IWC PAN, Opto and Nanoelectronics – NOT), Consortium of Polish Optoelectronics – ITME [www.optoelektronika.com.pl], NOT – Federation of Engineering Associations, and others. The proposed platform of cooperation concerns mainly building of a practical industrial coalition in this country in the frames of operational programs, structural, topical, ordered and other European ones.

INTERNATIONAL COOPERATION

The international cooperation of the Photonics Society of Poland embraces primarily the SPIE Institute. It is also directed towards other societies of global extent like: OSA, IEEE, LEOS, EOS, national associations of optics, optoelectronics and photonics like: DGaO – Deutsche Gesellschaft für angewandte Optik [www.dgao.de], analogous associations in the UK, France, Russia and in all neighboring countries. The international cooperation includes also optics industry active in the European scale as European Technology Platform Photonics 21 [www.photonics21.org], and others.

COOPERATION WITH SPIE

A special meaning for the Photonics Society of Poland is close cooperation with SPIE. PSP extends its activities beyond the boundaries of its own country, especially to the neighboring regions. Despite that it remains a local association representing the profession in this country and this geographical region. The Institutes like IEEE, SPIE, OSA have different duties to fulfill, but to a large extent complementary to the duties of local societies like PSP. Speaking of any competition between global and local societies, as it is put forward by some opponents of cooperation and globalization, is a complete misunderstanding. An important role of PSP may be supporting SPIE in building a global network or federation of local professional societies in optics, optoelectronics, photonics and related fields. As for now there does not exist such a global federation. This is caused probably by various reasons, and among others, by misunderstanding the difference in the character of activity scales on the global and local levels. It is clearly seen that there are a lot chances for the global community integration. The closest to this global character is perhaps the IEEE, however, not due to its federation character but the size. If the SPIE Institute is going to be brave enough to undertake this difficult, challenging and looking far into the future endeavor, to start building a global professional federation of photonics (because this is a duty for one of the global societies, which has to fill a role of a crystallization triggering center for the process), the PSP would be more than ready, with all its strength and devotion, to participate in this important process of reconfiguration of the professional intellectual resources of the world. In some foreseeable future, without this kind of consolidation, the progress may be slowed down or endangered.

RAPID INTERNET PUBLICATION – PHOTONICS LETTERS

One of the main intentions of the Photonics Society of Poland is to launch, in close cooperation with SPIE a rapid Internet publication: Photonics Letters (PL) – A publication of the PSP. The simplest way to start the journal would be by using the existing infrastructure like MYSPIE paper management and publication web engine [myspie.org] and a large publication database SPIEDL [spiedl.org]. These systems are analogous to other interactive publication

databases run by other societies like: OpticsInfoBase by OSA and Xplore by the IEEE, but also Versita Internet publications. A totally Internet based publication, without accompanying printed version, identified by on-line ISSN ID, would publish very fast, initially faster than a month, very short, four pages long, research and technical letters, of the internal structure of the full length paper. Photonics Letter would not compete with any international journal issued locally and indexed by the ISI Thomson Scientific like: Optica Applicata – published by Wrocław Uni.Technology [www.if.pwr.wroc.pl/~optappl] and Opto-Electronics Review – published by MUT in cooperation with Versita and Springer [www.versita.com/science/physics/oer/], [www.springerlink.com/content/120191/]. Photonics Letters would supplement these regular journals initially in the local scale and then perhaps more widely. Photonics Letters would be more similar to the kind of publication represented by global and very successful Optics Express run by OSA [www.opticsexpress.org].

The PSP has nominated Editorial Board of a new rapid Internet publication. Each person in the EB of Photonics Letters is responsible for a narrow subject, coherent with the scientific expertise of a particular person. The EB of Photonics Letters consists of the following photonics experts, university professors: Krzysztof Abramski, WrUT, (laser photonics A); Rajmund Bacewicz, WUT (photovaltaice); Anna Cysewska-Sobusiak, PUT (photonics applications); Roman Dąbrowski, MUT (liquid crystal photonics); Andrzej Domański, WUT (polarization photonics); Jan Dorosz, BUT, (nontelecom photonics, lighting); Leszek Jaroszewicz, MUT, (photonic sensors); Zbigniew Jaroszewicz, INOS, (diffraction photonics); Mirosław Karpierz, WUT, (nonlinear and integrated photonics); Bogdan Kosmowski, GUT, (display photonics); Andrzej Kowalczyk, UMK, (biomedical and image photonics), Małgorzata Kujawińska, WUT, (interferometry and photonics metrology); Jan Rayss, UMCS, (photonic materials); Antoni Rogalski, MUT, (infrared photonics); Ryszard Romaniuk, WUT, editor-in-chief, (optical fiber photonics, high energy photonics); Tomasz Szoplik, WU, (metamaterial photonics); Andrzej Zając, BUT and MUT, (laser photonics B). The International Advisory Board of Photonics Letters, is under establishment. It is chaired by prof. T.R.Woliński. The aim of the IAB is to help the Photonics Letters in international field.

EDITORIAL SERIES "PROCEEDINGS OF SPIE"

Photonics Society of Poland would maintain good and long lasting tradition (since 1986) to cooperate with SPIE publications. The editorial series of SPIE Proceedings embraces nearly 8000 volumes and nears fast to a magic number of 500000 papers. The annual rate of the increase in the number of volumes is 350-450 with average contents of a volume reaching over 60. It is decisively one of the most frequently cited optics, optoelectronics and photonics publication series in the world. Proc. SPIE are indexed by all major research and technical publication databases. During the last years, a few Proc. SPIE volumes annually were published from national and international photonics conferences, which originated from Poland. During the most intense period of prof. M. Pluta activities as a chair of SPIE-PL, the number of volumes per year was well over ten. The series of Proc SPIE is, however, not a journal, thus, it is not

indexed by Master Journal List of ISI Thomson Scientific. A consequence in this country is that the Ministry of Science and Higher Education (MNiSW) values the papers published there only for two categorization points (previous edition of this list had four points for Proc.SPIE). This evaluation is not adequate to the objective meaning and weight of this publication series in the world photonics literature. The PSP undertakes relevant activities on the ministerial level trying to change this situation. Keeping the official evaluation on this low level would mean a complete withdrawal of Proc. SPIE from the local market of conference paper publications. The withdrawal of the most popular, the widest extent and technical impact, photonics publication series in the world, from the local market, would mean a major intentional step back in the development of the whole local photonics community.

CONFERENCES

A traditional area of SPIE-PL activity, and its follower the Photonics Society of Poland is organization, co-organization and sponsoring of scientific and technical conferences in the fields of optics, optoelectronics and photonics and related fields like: physics, simulation and design of components, metrology, construction of equipment, sensors, materials research, applications, etc. Inside an area of interest for the PSP, there are the following traditional conferences of the local photonics community: Optical Fibers and Their Applications, organized on exchange basis by Białystok Uni.Technology and Lublin Uni.Technology as well as Optical Fiber Technology Lab. of Maria Curie-Skłodowska Uni. in Lublin; Laser Technology Symposium organized by Szczecin Uni.Technology in Świnoujście; Optoelectronic and Electronic Sensors organized by the Polish Society of Sensor Technology [www.ptts.pl], Photonics Metrology Symposia series organized by the Institute of Applied Optics; traditional Polish-Czech-Slovak Symposium on Contemporary Optics; Photonics Symposium of Young Researchers WILGA organized by WUT in WILGA. The PSP would try to continue to organize, in cooperation with SPIE and relevant photonics societies in the neighboring countries, the cyclic, large Middle and East European Congresses on Optics and Optoelectronics.

RESEARCH PROGRAMS

One of the most important tasks for the Photonics Society of Poland is to initiate the executive consortia, technological platforms, industrial groups, and participation in the realization of research and industrial programs financed from the national and European funds in the area of photonics. There are some undertaken initiatives, concerning continuation of currently realized programs and new actions for future programs in the area of: optoelectronics for industry, environment protection, medicine and homeland security. The single aim is to look for concrete industrial results which stem from and then strongly rest on the local research efforts. The SPIE-PL and now PSP participates in a number of such programs of national, European and global extent, like: LEAP – Linking Europe and Asia in Photonics, NEMO – Network of Excellence in

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Micro-Optics, and other. The task of PSP is to trace the developments in the ERA – European Research Area of all initiatives concerning the field of photonics. The aim is to activate the community and actively participate in these programs.

COOPERATION WITH SMALL AND MEDIUM ENTERPRISES

The area which can not be omitted in the activity of the Photonics Society of Poland as an effective professional association which serves well its community is technical expertise, business activities, cooperation with industry, linking university industry, cooperation with administration on various levels. Together with the development of the PSP an establishment of the Chamber of Photonics Experts is considered, if there is a demand for such services. The main concern is cooperation with relevant chambers of commerce, industry and trade. The PSP continues a more in-depth recognition of the domestic market for photonics products and services. The PSP prepared a questionnaire concerning the status of national photonics and sent it to more than 200 institutions including academic, governmental, administration, business and industrial ones. Till now, more than 70 answers were gathered. It shows the status of community integration and reveals some reserve for taking common decisions and actions of a wider extent. Certain lack of faith to take common actions on behalf of the whole community is observed, which stems from the recent changes in the role of universities, governmental laboratories, and primarily from large changes in the industry. There is not yet observed in this country a strong and active process of formation of small and medium businesses in narrowly defined and highly advanced technologies. PSP, via observation and analysis of these photonics market changes would try to support the favorable components of these complex processes. PSP would try to be an active participant and a sort of intermediary between academia, where young photonics experts are generated and business and industry worlds, where they are to be efficiently and creatively employed. The aim is to provide innovative photonic products needed on to the market.

M.SC. AND PH.D STUDENTS SECTIONS

Photonics Society of Poland is very close to all affairs combined with students and young researchers studying and developing photonics. PSP would always try to support students and young researchers by offering them fellowships, research awards, creating employment possibilities, etc. There will be continued a fruitful cooperation with Student Chapters of SPIE, OSA, IEEE. There are ideas to built own students organization. PSP stands for extending of the university curricula in photonics and related fields of nanotechnologies. It seems to be necessary to increase the number of promoted Ph.D. students in photonics in this country. There are now practical possibilities to internationalize considerably the educational models for Ph.D. students in such an advanced branch as the photonics.

INAUGURATION SYMPOSIUM OF PHOTONICS SOCIETY OF POLAND

The ceremonial Inauguration Symposium of the Photonics Society of Poland was held on 30th May – 1st June 2008. On 30th May there was organized a working meeting between the representatives of both cooperating societies SPIE and PSP. A draft of the memorandum of understanding was discussed during this meeting. The main symposium sessions were held in the Faculty of Physics on 31st May. The scientific program of the symposium embraced a number of plenary presentations delivered by the key experts in some of the most current fields of photonics: Philip Russel, Max Planck Inst., Nanoscale photonic structures in fibre form; Brian Culshaw, Strathclyde Univ., Fibre optic sensors, a perspective on science, technology and application; Allan Boardman, Univ. of Salford, Metamaterials: from concepts to applications; Andrzej Kowalczyk, Nicolaus Copernicus Univ., Optical coherence tomography in ophthalmology and art conservation. The technical program of the symposium embraced a couple presentations on the photonics community organization in Europe and in Poland: Małgorzata Kujawińska, PW, Photonics 21 – Advocating for optics and photonics in Europe; Ryszard Romaniuk, PW, Photonics Letters: Publication of the Photonics Society of Poland; Tomasz Woliński, PW Photonics and optical technologies in Poland. After the plenary sessions, there was an award ceremony and a reception. PSP awarded a few key persons from SPIE for promoting the long lasting and fruitful cooperation. The following persons were awarded: Joseph Yaver, previous Executive Director of SPIE; dr Emery Moore, 1990 SPIE President, prof Brian Culshaw, 2007 SPIE President, prof. Mieczysław Szustakowski, MUT, a member of the first Board of SPIE-PL in 1988. On 1 June, a delegation of both societies participated in a special student paper competition session in WILGA. The session was organized during the annual WILGA conference on Photonics and Web Engineering [wilga.ise.pw.edu.pl]. The awards for students were funded by SPIE.

COOPERATION OFFER

Photonics Society of Poland is ready to undertake a cooperation with every organization of public benefit, including local and national administration, industrial, business and lobbying, which has an aim of science and hi-tech industry development in Poland. The science development for the PSP means: chances for young, gifted people to fulfill successfully their own research career, creation of good working condition for the researchers, building of the modern research infrastructure, timely renewing of this infrastructure, creation of real and strong mechanisms of industry development, this industry which uses actively the results of applied research. PSP encourages individual persons working or interested in optics, optoelectronics and photonics to enroll.

Tomasz R. Woliński, Ryszard S. Romaniuk, on behalf of the psp board



Ceremonial Inauguration Symposium of the Photonics Society of Poland. Faculty of Physics, Warsaw University of Technology, 31 May 2008; (L) there are standing l to r professors: A.Domański, L.Jaroszewicz, S.Kłosowicz, T.Kidger, E.Moore, M.Kujawińska, B.Culshaw, R.Romaniuk, T.Woliński; (P) Ms Krisinda Plenkovich from SPIE headquarters presents to prof. T.Woliński a commemorative plaque for the inauguration of PSP, in the presence of prof.B.Culshaw of Strathclyde Univ. in Glasgow.