

XXIIIrd IEEE-SPIE Symposium on Photonics and Web Engineering 30-31 January 2009, Warsaw, FE&IT WUT



Participants of one of sessions during the 23rd IEEE-SPIE Symposium on Photonics and Web Engineering, Faculty of Electronics and Information Technologies, Warsaw University of technology, FE&IT, WUT, 31.01.2009, in front of the prof. J.Groszkowski bust monument, patron of the Faculty. There are sitting (l to r): dr Tomasz Czarski, dr Maciej Linczuk, prof. T.Morawski – invited speaker, prof. R.Romaniuk – symposium Chair, dr Krzysztof Pożniak, mgr Arkadiusz Kalicki.

During the weekend days of 30-31 January 2009, at the Faculty of Electronics and Information Technologies, Warsaw University of Technology, there took place the next 23rd Symposium on Advanced Applications of Photonic and Electronic Control and Measurement Systems. The Symposium was attended by over 50 young researchers, a number of them members of IEEE. The young researchers originate from WUT and collaborating institutions like DESY, CERN, Max-Planck Institute, etc. There were presented over 40 research papers. The Symposium official language is English. The Symposium is organized under the eminent patronage of domestic institutions: PSP - Photonics Society of Poland, Committee of Electronics and Telecommunications of Polish Academy of Sciences, FE&IW WUT, as well as international institutions: IEEE-R8, and SPIE-Europe. The Symposium is organized two times a year, since 12 years. The proceedings are published in the USA in the series of Proc.SPIE, and in this country as special issues of *Elektronika Monthly* – a professional journal of the Association of Polish Electrical Engineers, and *Electronics and Telecommunications Quarterly* – a Journal by Polish Academy of Sciences.

The subject of WILGA Symposium series are advanced applications of photonic and electronic distributed, large, control and measurement systems in high energy physics research, astrophysics of elementary particles, superconducting accelerator technology, laser technology of FEL, etc. The Symposium participants usually take part in various large research experiments around the globe like: LHC and CMS, E-XFEL and FLASH, ILC and CLIC, Auger and Chandrayaan, ALBA, GSI, FAIR and CBM, BESSY, PITZ, and others. Two times a year they meet face to face at home in WILGA to discuss the results and work development. Usually, during the everyday work course, only the video conferences are possible, as well as e-mails. The best ones from the young researchers, who show exceptional skill in team work and display research creativity have big chances in doing their M.Sc and Ph.D. theses at one of the biggest experiments. Quite a number of PERG/ELHEP students spend their vacations in big European HEP research institutions like DESY in Hamburg and CERN in Geneva, also in Fermilab in Chicago. They participate in summer student programs. The experience gained there is exceptional and uncomparable.

International Research Collaboration „Pi-of-the-Sky” (with participation of members from PERG/ELHEP Laboratory) discovered in March 2008 an exceptionally massive gamma ray burst (GRB) with an accompanying optical flash. The GRB was catalogued as 080319. The GRB was probably associated with formation of a super-massive black hole. The distance from the event was estimated for 7,5bln light years, i.e. half of the age of our universe. The flash was visible with a naked eye for a minute. The observation was done by a system of four-coupled wide angle super-sensitive cameras constructed by the collaboration and ELHEP Ph.D. students. The cameras were positioned in ESO’s Las Campanas facilities. The discovery was published in NATURE, nr.455, 2008.

International Research Collaboration on CMS – The Compact Muon Solenoid (with participation of PERG/ELHEP members) finished in November 2008 the construction of the detector at LHC in CERN. The ELHEP Laboratory took part in building of the muon trigger. A 300 pages manual on The CMS was published by IOP/SISSA in October 2008. A number of ELHEP members and Ph.D. students are active in the works on the construction and upgrade of the LHC. The work goes on Linac 4, SPS accelerator, LHC booster, also on a new generation of the safety system (Lock-In) for the LHC.

International research consortium organized around the Indian Moon satellite Chandrayaan-1, with participation of PERG/ELHEP Ph.D. students, and coordinated by Max Planck Institute, has finished work on some apparatus for the satellite. The satellite was launched and positioned on an orbit around the Moon in December 2008 and started regular measurements. A Ph.D. student from ISE participated in construction of the SIR-1 near infrared spectrometer. SIR-1 actually collects measurement data from the Moon’s surface.

ELHEP Laboratory (Photonics and Electronics for HEP Experiments) traditionally closely cooperates with a number of institutions in this country which participate in large, international research experiments. These are among others: Sołtan Institute for Nuclear Studies (IPJ) in Świerk/Otwock, Institute of Experimental Physics at Warsaw University. The young researchers from these institutions actively participate in the WILGA Symposium. Some of the Ph.D. students of WUT are employed at IPJ in order to continue their research and to supplement for modest university Ph.D. fellowship. During their stays with the experiments they are paid per diem for short stays and experiment fellowships during longer stays.

The WILGA Symposia, organized in winter – smaller but international and with more focused topical range, and the spring ones, organized during the whole last week of May, much bigger, fully international, play in this country a completely unique role. During the most popular years the May Symposia gather more than 350 young researchers from this country and from around all Europe. These are very special meetings of young researchers, indeed. The meetings are completely void of any formalities and any idealistic approach. They are devoted only to the science, research, new technologies and the conditions of research work for young scientists in different parts of Europe and IEEE-Region 8. During more than a dozen of years of WILGA Symposium activities, it has gathered a few thousand of young researchers. The results of their work was published in nearly 20 volumes of Proc.SPIE accessible via Internet data bases of American Institute of Physics, IEEE eXplore, Scitopia, SPIE Digital Library, Amazon, Scopus and others. The young researchers which went through WILGA school may be encountered all over the world in big research experiments and advanced engineering and technology businesses like in: Spain, Italy, England, Switzerland, France, Argentina, Germany, USA, India and other places.

The Symposium organizers express solid hope that the IEEE-SPIE WILGA Symposium cycle will be successfully continued. The next Symposium from the series is scheduled for the last week of May, 25-31.05.2009. It will be held traditionally in WILGA on Vistula River near Warsaw in the WUT creative work resort. The organizers warmly invite B.Sc., M.Sc., Ph.D. students, young researchers and their tutors/mentors to WILGA. The Symposium is nearly cost free. There is no entrance fee. Cheap nights and cheap but extremely good food is offered by the summer WUT WILGA Resort staff. A unique research-gastronomical specialty of WILGA Symposium are late night topical working sessions combined with a grill sponsored by Photonics Society of Poland and IEEE. SPIE funds special awards for the best presentations during the Symposium. Full information about WILGA are accessible through the Symposium web: <http://wilga.ise.pw.edu.pl>.

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WILGA Symposium Chair*