4th International Conference on X-ray and Electrovacuum Technique – New Ideas and Developments

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Abstract. In this preface key features of the 4th International Conference on X-ray and Electrovacuum Technique that was held on 23–24 November 2017 in Saint Petersburg, Russia are discussed.

On 23–24 November 2017 the representatives of the leading manufacturers of X-ray equipment, universities and research organizations gathered in the walls of the Saint Petersburg Electrotechnical University “LETI” to discuss the latest ideas, developments and achievements in the industry.

The organizer of the 4th International Conference on X-ray and Electrovacuum Technique was Saint Petersburg Electrotechnical University “LETI” with the support of CJSC “Svetlana-X-Ray”, OJSC SPC “Burevestnik”, CJSC “ELTECH-Med”, Saint Petersburg Scientific and Research Institute of Radiation Hygiene n. a. Professor P. V. Ramzaev, Moscow State Technical University of Radioengineering, Electronics and Automation, All-Russian Scientific, Research and Test Institute of Medical Equipment, CJSC “SRPC Elektron”, CJSC “AMICO”, LLC “Diagnostika-M”, CJSC “Medical Technologies Ltd”, LLC “Spektroflesh”, LLC “Sintez NPF”, LLC “Flash electronics”.

The conference was attended by 48 experts from the technical universities and industrial enterprises: Saint Petersburg Electrotechnical University “LETI”, LLC “Spektroflesh”, LLC “CB X-ray devices”, CJSC “Svetlana-X-Ray”, LLC “Kurs-AS1”, LLC “Pulse technologies”, LLC “Ekroskhim”, LLC “SPC SPECTRON”, CJSC “Medical Technologies Ltd”, FSUE “SRI SPC LUCH”, JSC “CSRI Electron”, SBEHC “Scientific-practical center of medical radiology DZM”, JSC “Vimatek”, CJSC “Sintez NDT”, JSC “Scientific instruments”.

In his welcoming speech the Vice-Rector for Research of Saint Petersburg Electrotechnical University “LETI” Dmitrii V. Gaivoronskii wished the participants of the 4th International Conference on X-ray and Electrovacuum Technique mutual understanding, interesting solutions to current problems, and new contacts and business partners.

“The issues that will be discussed today cover not only medical subjects, but also flaw detection, data transfer in the X-ray frequency ranges. The Conference has already passed the period of formation, has grown to the scale of International” – Vice-Rector for Research of Saint Petersburg Electrotechnical University “LETI” Dmitrii V. Gaivoronskii.

In his report head of Department of electronic instruments and devices of Saint Petersburg Electrotechnical University “LETI” Nikolay N. Potrakhov told about the visit of the team of specialists from Saint Petersburg Electrotechnical University “LETI” to the World's Fair of Medical Equipment MEDICA 2017, which took place from 13 to 16 November 2017 in Dusseldorf.
The participation of the delegation of the Saint Petersburg Electrotechnical University “LETI” became possible thanks to long-term cooperation of the University with the Committee on Industrial Policy and Innovation of Saint Petersburg. At the exhibition was presented one of the latest developments of Saint Petersburg Electrotechnical University “LETI” performed in cooperation with a small research and development company CJSC “ELTECH-Med” – mobile X-ray complex “PARDUS-Stoma”. The device caused an increased interest of foreign experts – the Minister of one of the lands of Germany for more than two hours talked with representatives of Saint Petersburg Electrotechnical University “LETI”.

During the Conference (figure 1) were presented more than twenty speeches by heads of leading Russian enterprises specializing in design and manufacture of X-ray equipment. The presentations covered both theoretical issues and examples of practical applications of X-ray and electrovacuum equipment in a range of medical industries – neonatology, brachytherapy and dentistry, as well as in industry and agriculture.

"Participants thank us for that we have revived the tradition of holding Conferences on X-ray technology. In Soviet times, there were many events to discuss the latest advances in our industry, but after the collapse of the Soviet Union, such meetings were not held for over 20 years. Next year we plan to invite more foreign participants to our fifth Conference, and also be part of the event on the basis of CJSC "Svetlana-X-Ray" – Head of Department of electronic instruments and devices of Saint Petersburg Electrotechnical University “LETI” Nikolay N. Potrakhov.

The Conference has become an effective communication platform on which were discussed the most promising research works in the development of new X-ray instruments, was generalized experience of introduction and exploitation of new models of domestic X-ray equipment, outlined prospects of development of production of X-ray and electrovacuum equipment in Russia."