

CONFERENCE, READING, WORKSHOPS

КОНФЕРЕНЦІЇ, ЧИТАННЯ, СИМПОЗІУМИ

International Youth Symposium on the History of Science and Technology «Priorities of Ukrainian Science»

On April 13–14, 2023, the International Youth Symposium on the History of Science and Technology «Priorities of Ukrainian Science» was held in Kyiv, Ukraine. The topics of the Symposium covered the issues on the history of science and technology in Ukraine and the world as a phenomenon of national and world culture, historical biographies of scientists and organizers of science, a scientific approach to the preservation of historical heritage, popularization of the best experience of scientists, engineers and inventors of Ukraine, ways to increase the prestige of intellectual work, museology, the using of historical-scientific research and educational courses in higher school, the patriotic importance of studying the history of science and technology of Ukraine, as well as the social challenges of modern technologies, the formation of a new world reality in crisis periods of social development. Within the framework of the Symposium, two conferences were held, the target audiences of which are student youth and young researchers, respectively.

On April 13, 2023, the XXI International Youth Scientific and Practical Conference «History of the Development of Science, Technology and Education» was held, dedicated to the 125th anniversary of the National Technical University of Ukraine «Igor Sikorsky Kyiv Polytechnic Institute». The event was organized by the Faculty of Physics and Mathematics of the National Technical University of Ukraine «Igor Sikorsky Kyiv Polytechnic Institute», the Scientific and Technical Library of Igor Sikorsky Kyiv Polytechnic Institute, the Borys Paton State Polytechnic Museum at Igor Sikorsky Kyiv Polytechnic Institute, the Council of Young Scientists at the Ministry of Education and Science of Ukraine, and the G. M. Dobrov Institute for Scientific and Technical Potential and Science History of Studies National Academy of Sciences of Ukraine. The event was held online and gathered nearly a hundred participants, including pupils, students, postgraduates, and experienced specialists in the field of natural sciences and history of science.

The conference was devoted to the historical aspects of the development of physical, mathematical and technical sciences in Ukraine and the world; the contribution of scientists and engineers of the National Technical University of Ukraine «Igor Sikorsky Kyiv Polytechnic Institute» to world science and technology; the importance of the history of science and technology for the patriotic education of students; the contribution of technical universities to the development of science and technology education, methods of teaching physical and mathematical sciences; the role of the personality in science and the phenomenon of scientific schools.

The event was opened by the chairman of the organizing committee, chairman of the Academic Council of Igor Sikorsky Kyiv Polytechnic Institute, director of the Department of Information Technology, academician of the National Academy of Sciences of Ukraine, Professor Mykhailo Ilchenko, who, addressing the participants and guests of the conference, emphasized that in this very difficult time of war for the country, Igor Sikorsky Kyiv Polytechnic Institute is worthy of facing the challenges of today. He noted that during its 125-year history, Kyiv Polytechnic Institute has educated many outstanding personalities

who have left a bright mark in the history of world and national science and technology. Co-chairman of the conference organizing committee, Dean of the FMF of Igor Sikorsky Kyiv Polytechnic Institute, Professor Volodymyr Vanin, welcomed the participants and emphasized the importance of highlighting the contribution of KPI teachers and professors to the world's treasury of science, which is facilitated by holding conferences on the history of science and technology. Head of the Department of General Physics and Modeling of Physical Processes of the FMF of Igor Sikorsky Kyiv Polytechnic Institute, Professor Vitaliy Kotovskiy, noted the importance of the conference for shaping students' worldview and increasing their interest in studying professional disciplines. Leading Scientist from G. M. Dobrov Institute for Scientific and Technical Potential and Science History of Studies NAS of Ukraine Alla Lytvynko emphasized the Institute's long-term scientific connections with Igor Sikorsky Kyiv Polytechnic Institute in the field of history of science and technology, and the importance of this discipline for the scientific worldview of students and raising the level of higher education.

A number of reports were devoted to highlighting the scientific activity of outstanding scientists of KPI: «Professor M. P. Kalabukhov and the formation of physical research at KPI» (D. V. Savchenko), «Academician Viktor Baryakhtar: an outstanding researcher, scientist, teacher» (D. V. Provolovska, G. V. Samar), «Destinies of pioneer aviators – students of KPI» (A. O. Lykholat), «Dreams of space settlements. Volodymyr Fartushny – an outstanding graduate of KPI» (G. T. Ivanova, S. I. Grachov), «N. P. Volerner's contribution in the development of domestic radio engineering science» (A. P. Seredin, N. V. Pisarevska).

The stages of development of the history of science and technology as a scientific direction in the National Academy of Sciences of Ukraine were highlighted in the report «Development of the history of science and technology in Ukraine. To the 125th anniversary of the birth of academician Yosyp Zakharovych Shtokalo» (A. S. Lytvynko, T. M. Vyvrot), the development of physical science in Ukraine through the prism of extraordinary personalities was revealed in the report «Petro Borzyak – one of the founders of the Institute of Physics» (V. G. Kozyrskiy, O. V. Polevetska, V. A. Shenderovskiy). The issue of the importance of physical science for the formation of the modern technological world was discussed in the reports «Scientific-research complex of scanning tunneling and raster electron microscopy of KPI» (R. V. Tkachenko, O. M. Brukva, S. O. Reshetnyak, G. V. Samar), «Laser beam on guard of health» (I. I. Gamaliya, S. P. Ruda), «ANSYS-FLUENT software complex in modeling thermo-hydraulic characteristics of water heating boilers» (A. Kinzerskiy, V. Y. Kotovskiy). The cycle of reports concerned topical issues of teaching methodology of physical and mathematical sciences. Among them «Application of the PYTHON programming language for teaching physics» (E. K. Pavshuk, F. M. Hareeva), «Innovative service «QUELLE» for distance learning» (V. I. Opatsa, O. O. Lapshin, L. P. Ponomarenko), «Experimental problems in the course of general physics» (D. YU. Sverdlichenko, S. O. Podlasov)

Professor Sergiy Reshetnyak, Deputy Chairman of the Conference Organizing Committee, Head of the Department of General Physics of the Faculty of Physics and Mathematics of Igor Sikorsky Kyiv Polytechnic Institute, made a closing speech. He emphasized that such events help to attract young people to the scientific field, develop scientific skills and scientific outlook, and foster patriotism.

On April 14, 2023, the XXVIII All-Ukrainian Conference of Young Historians of Science, Technology and Education and Specialists on the topic «HISTORY OF SCIENCE AND TECHNOLOGY IN CRISIS PERIODS OF SOCIAL DEVELOPMENT» took place. In connection with the martial law declared as a result of the russian-Ukrainian war, the conference was held online.

The organizers of the conference were the G. M. Dobrov Institute for Scientific and Technological Potential and Science History Studies NAS of Ukraine, Ukrainian Society of Historians of Science, Council of Young Scientists of the Ministry of Education and Science of Ukraine, O. P. Borodin Research Center for the History of Science and Technology of the State University of Infrastructure and Technologies, the Borys Paton State Polytechnic Museum at National Technical University of Ukraine «Igor Sikorsky Kyiv Polytechnic In-

stitute», O. V. Palladin Institute of Biochemistry NAS of Ukraine, O. V. Palladin Memorial Museum, Museum of History of the Paton Institute of Electric Welding NAS of Ukraine, Academician E. O. Paton Memorial Museum, Oles Honchar Dnipro National University, History Museum of Oles Honchar Dnipro National University.

At the event, the issues were considered: the importance of science for social practice for overcoming the difficulties of crisis periods of social development; science and technology as a phenomenon of national and world culture; worldview significance of the history of science and technology; priority results of Ukrainian scientists in the field of natural, technical and social sciences; historical biographies of scientists and organizers of science; popularization of science and museology; ways of increasing the prestige of intellectual work; scientific approach to preservation of historical heritage; social challenges of the modern technological world.

The topics of the reports were grouped to the following sections: «History of the formation of physical and mathematical sciences and astronomy in Ukraine and the world», «Development of technical sciences and technologies in Ukraine in the global context», «Historical and scientific studies of the development of medical and biological, agricultural sciences and sciences about the earth», «Stages of development of social and humanitarian knowledge: historical, philosophical, economic and pedagogical sciences».

At the Opening ceremony the members of the Conference Organizing Committee and guests spoke with greetings: from the Ukrainian Society of Historians of Science and G. M. Dobrov Institute for Scientific and Technological Potential and Science History Studies NAS of Ukraine – deputy chairman of the Organizing Committee, doctor of historical sciences, leading researcher A. S. Lytvynko; from the Institute of Physics NAS of Ukraine – Doctor of Physical and Mathematical Sciences, Professor V. A. Shenderovsky, from the Oles Honchar Dnipro National University – Doctor of Historical Sciences, Professor V. S. Savchuk, from the Transylvania University of Brasov (Romania) – Doctor of Science, Professor E. Helerea; from the Department of Ukrainian Studies, Cultural Studies and History of Science of the National Technical University «Kharkiv Polytechnic Institute» – Doctor of Historical Sciences, Professor V. M. Sklyar; from the O. V. Palladin Institute of Biochemistry NAS of Ukraine and the O. V. Palladin Memorial Museum – Candidate of biological sciences, leading researcher V. I. Nazarenko; from the Borys Paton State Polytechnic Museum at National Technical University of Ukraine «Igor Sikorsky Kyiv Polytechnic Institute» – director N. V. Pisarevska.

The conference was attended by 123 participants from 15 cities and villages of Ukraine, Romania and Canada, who presented 99 scientific reports. These are Kyiv (86), Zhytomyr (2), Odesa (1), Kharkiv (17), Cherkasy (4), Dnipro (2), Kropyvnytskyi (1), Chernihiv (1), Mykolaiv (1), Kramatorsk (1), Nizhin (3), Novosafonivka (1), Terebovlia (1), Brasov (Romania) (1), Montreal (Canada) (1). **Among them are 22 doctors and 34 candidates of sciences.**

58 organizations were represented, including **14 scientific institutions** – O. V. Palladin Institute of Biochemistry NAS of Ukraine, G. M. Dobrov Institute for Scientific and Technological Potential and Science History Studies NAS of Ukraine, Bogolyubov Institute for Theoretical Physics NAS of Ukraine, Institute of Physics NAS of Ukraine, G. S. Skovoroda Institute of Philosophy NAS of Ukraine, Paton Institute of Electric Welding NAS of Ukraine, M. G. Kholodny Institute of Botany NAS of Ukraine, The Main Astronomical Observatory NAS of Ukraine, M. M. Hryshko National Botanical Garden NAS of Ukraine, R. E. Kavetsky Institute of Experimental Pathology, Oncology and Radiobiology NAS of Ukraine, Sytenko Institute of Spine and Joint Pathology National Academy of Medical Sciences of Ukraine, Center for Humanitarian Education NAS of Ukraine, Astronomical Observatory of Taras Shevchenko National University of Kyiv, Kyiv Research Institute of Electromechanical Devices; **20 universities** – Taras Shevchenko National University of Kyiv, National Technical University of Ukraine «Igor Sikorsky Kyiv Polytechnic Institute», National Technical University «Kharkiv Polytechnic Institute», Odesa Polytechnic National University, T. G. Shevchenko National University «Chernihiv Collegium», The National Defence University of Ukraine named after Ivan Cherniakhovskyi, Kyiv National University

of Culture and Arts, Black Sea National University named after Petro Mohyla, Kyiv National Linguistic University, National Aviation University, National Transport University, Polissya National University, Interregional Academy of Personnel Management (Zhytomyr Institute), State University of Infrastructure and Technologies, Cherkasy State University of Technology, Dnipro Humanities University, Kyiv Academic University, Volodymyr Vynnychenko Central Ukrainian State University, Transylvania University (city Brasov, Romania), McGill University, (Montreal, Canada); **5 museums** – Boris Paton State Polytechnic Museum on Igor Sikorsky Kyiv Polytechnic Institute, Nizhyn Museum of Local History named after Ivan Spassky, O. V. Palladin Memorial Museum, Academician E. O. Paton Memorial Museum, History Museum of Oles Honchar Dnipro National University; **3 libraries** – National Library of Ukraine named after V. I. Vernadskyi, National Scientific Agricultural Library of the National Academy of Agrarian Sciences of Ukraine, Scientific and Technical Library of the Igor Sikorsky Kyiv Polytechnic Institute; **2 archives** – Institute of Archival Studies of the National Library of Ukraine named after V. I. Vernadskyi, The central State Scientific and Technical Archive of Ukraine; **4 secondary and special educational institutions** – Kyiv professional and pedagogical vocational college named after Anton Makarenko, Separate structural subdivision «Odesa Automobile and Road Professional College» of the National University «Odesa Polytechnic», Polytechnic Lyceum of Igor Sikorsky Kyiv Polytechnic Institute, Terebovlya College of Culture; **2 enterprises and organizations** – Kramatorsk Plant of Power Engineering, Book Chamber of Ukraine named after Ivan Fedorov; **8 scientific and educational organizations** – Ukrainian Society of Historians of Science, National Academy of Higher Education Sciences of Ukraine, National Union of Local Historians of Ukraine, O. P. Borodin Research Center for the History of Science and Technology of the State University of Infrastructure and Technologies, International Encyclopedic Bureau of Physics, Ukrainian Center for Preservation and Activation of New Ideas, Kyiv Small Academy of Sciences, Kharkiv City Center for the Protection of Historical and Cultural Heritage.

Among the authors of the conference materials are well-known scientists (academician, doctors and candidates of sciences, professors and associate professors) and young researchers (doctoral students, post-graduate students, masters, students and lyceum students), which contributes to the effective exchange of scientific work experience. At the beginning of the conference, a block of plenary reports was heard: «Promotion and preservation of technical artifacts in Romania» (prof. Helerea E., Transilvania University, Brasov, Romania); «Initiation of research in the history of Science and Technology in Ukraine (to the 125th Anniversary of the birthday of the academician Yosyp Zakharovych Shtokalo)» (Dr. of Sci., Leading Researcher A. S. Lytvynko, PhD T. M. Vyvrot, G. M. Dobrov Institute for Scientific and Technological Potential and Science History Studies NAS of Ukraine, Kyiv); «Nobel Laureates in Physics with Ukrainian roots» (Dr of Sci., Prof. V. A. Shenderovsky; Ph.D., Senior Research Fellow V. G. Kozyrskyi, engineer O. V. Polevetska, Institute of Physics NAS of Ukraine, Institute of Theoretical Physics NAS of Ukraine); «Plasma in totalitarian context» (Dr of Sci., Prof. O. M. Gabovych, Institute of Physics NAS of Ukraine; Dr of Sci., Prof. V. I. Kuznetsov, G. S. Skovoroda Institute of Philosophy NAS of Ukraine, Kyiv); «Activity of Museums of Ukraine at the time of the Russian-Ukrainian war» (N. V. Pisarevska, director of the State Polytechnic Museum at National Technical University of Ukraine «Igor Sikorsky Kyiv Polytechnic Institute»); «Census of the population of Ukraine 1926 as a source of studying the demographic potential and ethnic composition of the population» (Dr. of Sci., Prof., Head of the Department of Ukrainian Studies, Cultural Studies and History of Science of the National Technical University «Kharkiv Polytechnic Institute» V. M. Sklyar).

Interest was also aroused by sectional reports, including: «Paris Scientific Schools of Radiology and Radiological Safety» (Ye. O. Chala, V. I. Nazarenko, N. I. Adamchuk-Chala), «Some remarks on the art of integration» (N. P. Seleznyova, K. O. Bryazkun); «Mathematics and Democracy» (N. P. Seleznyova, Ya. V. Bespechny); «Archive of Academician YU.M. Shevchenko as a source for the study of the scientist's participation in the III International Congress on Thermal Stresses (1999)» (M. S. Kolomiets); Aviation Scientific and Technical Society at the Kyiv Polytechnic Institute (1923–1926) (to the 100th anniversary of its estab-

ishment) (V. V. Tatarchuk); «Institutions of the National Academy of Sciences of Ukraine in the field of chemical research» (Yu. I. Mushkalo), «Expeditions of the research icebreaker «Noosphere»: new challenges and prospects» (G. A. Doronina); «Atomic energy: history, development and problems: formulation of research objectives» (G. T. Ivanova); «Research and fate of students of the Kyiv cell biologist Oleksiy Krontovsky in the interwar period» (O. I. Boldyrev); «Dnipropetrovsk Hydrobiological School. A new stage of development (2011–2022)» (L. A. Baidak); «Research of university library funds: Ukrainian-language publications in the fund of rare and valuable publications of the scientific and technical library of Igor Sikorsky Kyiv Polytechnic Institute» (M. O. Miroschnychenko); «How much a small non-specialist museum collection can tell» (A. M. Mozgova, L. V. Kazantseva); «Valentina Hryhorivna Gogoleva – introducer, breeder (to the 100th anniversary of her birth)» (N. V. Chuvikina, O. L. Rubtsova); «Student youth in the field of innovative educational technologies» (P. I. Savichenko, R. V. Zakharchenko); «The contribution of the employees of the Kharkiv Research Department on the History of Ukrainian Culture to the commemoration of academician M. F. Sumtsov (1920s)» (Y. O. Stadnik); «Activities of the outstanding phytophysiologist Ye. P. Wotschal at the University of Warsaw (1890–1891). The beginning of a teaching career» (G. V. Soldatova); «Public space of science and public trust in science» (T. M. Karmadonova).

A tradition of the symposium is a professional excursion for the participants. This year, on the occasion of the celebration of the 125th anniversary of the Kyiv Polytechnic Institute, a virtual excursion to the Memorial Museum of Academician E. O. Paton and the History Museum of the Electric Welding Institute named after E. O. Paton were held. Conference participants also watched the documentary film «Patony and KPI».

In general, events such as the International Youth Symposium on the History of Science, Technology and Education «Priorities of Ukrainian Science» stimulate the formation of a scientific outlook and patriotism among young people. This is especially important in crisis periods of social development.

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