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© O. Velychko, Dr. Sc., Professor, Igor Sikorsky KPI, Kyiv, Ukraine

**DEPARTMENT OF THE REPROGRAPHY  
IN THE CONTEXT OF MODERN REQUESTS OF SOCIETY****Educational tasks of the Department of the Reprography  
in the context of modern society requests for successful  
labor of graduates.****Keywords: education; Department of the Reprography;  
modern society; employment of graduates; Ukrainian higher  
education; curriculum.**

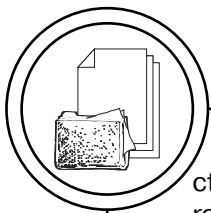
The development of science, technology, society in general is marked by a progressive and unvigilant growth and accumulation of new knowledge, theories, views, creation of new techniques, technologies and materials. On this path education, technical erudition is given an important role. In particular, applicants for education and educational process are required interrelation and constant search, inspiration, ability to learn and create new knowledge. Since technological advances in ten years cardinaly changes the structure and organization of production, technology, technique, life of man.

For 30 years the Department of Reprography has been carrying out scientific-pedagogical and educational work as a part of leading University of Ukraine for the flagship of training of scientific, technical and engineering personnel — Igor Sikorsky Kyiv Polytechnic Institute. Therefore, summing up the Thirty years activities, identifying the experience and outlining the ways of improving and defin-

ing tasks in the context of modern challenges for the Department of the Reprography is relevant.

At the time of foundation of the Department acquired Distribution Computer publishing systems, highly automated and computerized printing machines and printing devices — hardware and software complexes, which provide with high accuracy and repeatability of reproduction of text and illustrative information in visual, audiovisual and material forms, introduced the latest technological processes ‘from computer to plate (to press, to print)’. That is all contributed to the expression of educational activities-training specialists in publishing and printing production, able to provide technological processes, saturated with computerized systems.

In its educational activities the Department as the component of a highly organized structure Igor Sikorsky Kyiv Polytechnic Institute, guided by the laws of Ukraine, presidential decrees, decrees of the Cabinet of Ministers, orders and recommendations and instru-



ctions of the Rector, the first Vice-rector, the Scientific Council and the Methodological Council of the University, the director's orders of the Publishing and Printing Institute (PPI), where it is included as one of the links of the comprehensive educational process for the formation of Specialists of the publishing and printing industry, together with colleagues from the departments, graphics, publishing, and editing.

In the process of reforming higher education in Ukraine, a large number of measures aimed at improving the teaching system itself were launched. For example in the Igor Sikorsky Kyiv Polytechnic Institute is more focused on practical and laboratory works, computer workshops, independent work of students. In general, this contributes to the intensification of student training. The transfer of knowledge through deepening understanding of theoretical and applied aspects that may be acquired only if the desire of higher education applicants to receive them, and on the part of teachers — to develop a detailed methodological support for knowledge mastering. This concept is implemented in educational and working curricula of the Department and is related to the general European approach to the educational process.

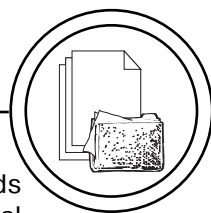
One of the challenges of society now is the demographic situation in Ukraine, which significantly deepened the problem of government order implementation to recruit students. Therefore, the involvement of entrants was an extremely urgent task. And here the department of the Reprography was actively involved in the work

together with all departments PPI. Thanks to the substantial site of the chair, the news and various information about educational and research processes, active participation in open days, school visits, colleges became possible in the difficult last years of state order fulfillment, although the situation continues to be tense.

Constantly communicating with graduates of the department, with manufacturers, as well as tracking the curriculum of European and world educational institutions, teachers improve the training programs and make proposals for the creation of new cycles of academic disciplines, laboratory works, workshops. During the whole period, and especially in recent years, the department has been very actively improving the content of training of specialists, giving new disciplines for acquiring knowledge, skills, and experience that deepen the adaptation of graduates in the conditions of modern economic space.

In particular, the following disciplines:

- Reproduction of tone gradient by means of reproduction;
- Scientific and practical fundamentals of plastic cards production;
- Photoregistration processes technologies;
- Basics of tribology;
- Materials with special properties;
- Normative documentation and quality management systems of printing productions;
- Technology of notebooks fastening;
- Technologies of thermal transfer and large-format printing;



— Engineering and technical support for VPV. Module 2 — Implementation of projects;

— Electronic media;

— Font design;

— Design of publications and packages;

— Digital photography;

— Systems of control and control of materials properties;

— Technologies of processing and utilization of products;

— Creation of the basic models of publishing and polygraphic complexes;

— Physic-chemical foundations of polygraphy-2: physic-chemical foundations of polygraphic production technologies;

— Modelling software means;

— Software and technical means of multimedia publications;

— Technological support of media production;

— Ergonomics of media production;

— 3D-modelling and animation;

and other disciplines, which are now reflected in the newest curricula of bachelor's degree, scientific and professional masters, are presented on the website of the department.

Considerable contribution to structuring of curricula and input of new disciplines is made due to thorough research work (GDR) in the State budget financing and within the frames of working time of the lecturers — initiative research, where students — applicants of bachelor's and master's degree, and postgraduate students — are actively involved. Thus, the Department implemented the following GDR (by the number of State registration):

0111U001868 — 'Methods and means of improving thermal transfer printing on tissues', supervisor — Associate Professor Rozum Tetiana;

0111U001866 — 'Environmentally friendly materials for creating polygraphic varnishes and inks biodegradable', supervisor — Associate Professor Khokhlova Rozalia;

0111U001867 — 'The theoretical basics of technology restoration of print publications in electronic form', supervisor — Associate Professor Kokhanovskyi Oleksandr;

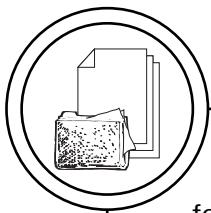
0109U002289 — 2286-p 'Development and research of hybrid inks for the normalization of color in the technological processes of the decoration of book-magazines and packaging products', supervisor — Professor Velychko Olena;

0111U001470 — 2463-p 'Development of composite composition of printing ink and investigation of technology of reproduction of full-color images on non-absorbing surfaces', supervisor — Professor Velychko Olena;

0115U000207 — 2821p 'Development and research of the dampening solutions with antibacterial effects to use in packaging and other offset printing production', supervisor — Professor Velychko Olena;

0215U003135 — 'Market analysis of label-packing production and the search for potential customers to receive in the use of Group technical conditions on labelling and packaging products', supervisor — Associate Professor Rozum Tetiana; contract № 5 from 16.10.2014, customer PAT 'UkrSRISVP'.

Teachers of the Department continue scientific researches within such GDR:



0115U004720 — ‘Technological foundations for the production and application of flexographic printing-based inks, biodegradable’, supervisor — Associate Professor Khokhlova Rozalia;

0118U004750 — ‘The process of publishing and packaging with reproduction’, supervisor — Associate Professor Skyba Vasyl;

0119U103038 — ‘Processing and reproducing grayscale tones and colors by digital printing’, supervisor — Associate Professor Zorenko Yaroslav;

0119U001988 — ‘Standardization technology printing editions and e-books’, supervisor — Associate Professor Rozum Tetiana;

0119U103565 — ‘Development and research of technologies of reproducing highly-technological systems’, supervisor — Associate Professor Zolotukhina Kateryna.

In PPI Igor Sikorsky Kyiv Polytechnic Institute is on scientific school on technological support of publishing and printing production, techniques, processes and systems of reproduction, in which the Department of the Reprography is actively work. The founder of the scientific School was Gavrysh Anatolii Pavlovych (23.04.1934–30.09.2015), Professor, Honored scientist and techniques of Ukraine, Laureate of the State Prize of Ukraine, Head of the Department of Engineering Technology (1979–2002). The school was formed during 1978–2003 biennium Developing engineering, exploring the mechanical processing of high-alloyed metals; Automation and robotization of production; Automation Engineering; Improving the strength and durability of the surfaces of machinery parts and

mechanisms; Automation technological preparation of production.

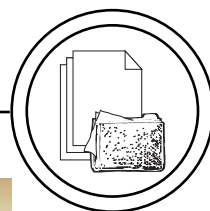
Since 2003 the school is headed by Petro Kyrychok, Doctor, Professor, Honored scientist and techniques of Ukraine, Director of the PPI, Head of the specialized Scientific Council D 26.002.10, Deputy head — the Head of the Department of the Reprography Velychko Olena. Leading researchers of the school focused and expanded the topics of research in the direction of printing production, exploring, developing, improving and introducing technological providing of publishing and printing production, engineering, processes and systems of reproduction.

The team, formed within the framework of the school, defended 7 Ph.D. theses under the scientific guidance of Professor Olena Velychko, of which six candidates of sciences work at the department.

In general in the period 2007–2017 at the Department of the Reprography 10 candidate’s theses, one doctoral (Morfliuk Valerii) were defended. Young teachers Associate Professors Skyba Vasyl and Zorenko Yaroslav working on doctoral dissertations.

Achievements that the Department prides itself on today: Laureates of the Academy of Sciences of Ukraine and president of Ukraine for young scientists!

The author’s collective of graduates of the PPI Scientific School as a part of the lecturers of the Department of the Reprography Vitsiuk Yu. Yu., Department of Printing of Polygraphic production technology Khmiliarchuk O. I. and the Department of Technology Engineering Melnyk O. O. — Laureates of the



At the ceremony of handing the prizes of President of Ukraine for young scientists (from left to right 2014; 2018): Yaroslav Zorenko, Anton Neskhoziievskiy, Vasyl Skyba, Kateryna Zolotukhina, Liliia Hrynevych (Minister of Education and Science of Ukraine, 2016–2019), Nadiia Talimonova, Tetiana Klymenko

National Academy of Sciences of Ukraine for young scientists, a diploma from 16 February 2011.

Together with Department of Technology of printing production the author's collectives of young scientists received the prizes of President of Ukraine for young scientists: Skyba Vasyl, Zorenko Yaroslav, Neskhoziievskiy Anton — Decree of the President of Ukraine no 659/2013 dated December 02, 2013; Zolotukhina Kateryna, Klymenko Tetiana, Talimonova Nadiia — Decree of the President of Ukraine no 458/2017 dated December 29, 2017.

Students of the Department of Reprography are the winners of the All-Ukrainian contests of scientific student works:

— from current problems of packaging industry 'Golden Chestnut' Bohdan Sokolan (2014), Nataliia Deineko (2015), Nadiia Rudyk (2017), Kateryna Holovan (2019);

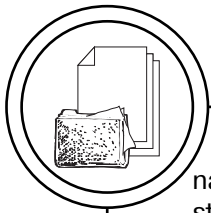
— 'Youth and Polygraphy': 2016 — Daria Shpeko and Anastasiia Petryshyna; 2017 — Liliia Boiarkina, Tetiana Khodakivska and Tetiana Horova; 2018 — Daryna Baranova and Valeriia Sanchenko.

In the IV startup competition of the innovative Projects Festival 'Sikorsky Challenge 2015' was Kseniia Shyshkova with project 'Interactive edition 'The first road on walking'.

Master's issue 2018 Tetiana Horova received the honorary diploma and degree in the Internatio-



Kseniia Shyshkova on the 'Sikorsky Challenge 2015'



nal Contest of scientific works of students and applicants in the field of printer technologies and medi-communication in the Technological University of Belarus (Minsk, Belarus, 2019).

A special place occupies the initiative of students of the department to commemorate the completion of their training in the PPI. Here it is necessary to emphasize their full independence in determining this form of mark the graduation of his native University. This tradition was initiated by alumni of group SRP-51m, SRP-51c, SMV-51c, SPM-51c in 2011, which planted the first tree—a small magnolia, which already blooms in white in 2018.

У 2012 graduates SMV-61m, SRP-61m, SPM-61m, SRP-61c, SMV-61c, SPM-61c planted sakura pink, 2014 — SRP-81m, SRP-81c, SMV-81c, SMV-81m, SPM-81m, SPM-81c planted magnolia blue topaz, 2015 — RP-31m, RP-31c, MV-31m, MV-31c, TM-31m, TM-31c — pink sakura.

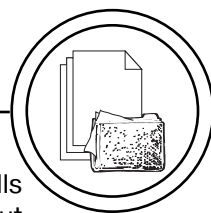
Katalpa beautiful — from students of SRP-71c, SMV-71c, SPM-71c, SPM-71m, SRP-71m, SMV-71m in 2013 for good memory of the years of study, successes and achievements.

The following small sakuras landed alumni RP-41m, RP-41c, MV-41m, MV-41c, TM-41m, TM-41c; RP-51m, RP-51c, MV-51m, MV-51c, TM-51m, TM-51c; RP-61m, RP-61c, MV-61m, MV-61c.

Trees grow and admire the eye, recalling beautiful, successful, and sometimes difficult moments of educational process. However, we are confident that our graduates, graduates of the KPI named after Igor Sikorsky are professionals, who are able to think critically, take weighted and original technical solutions. And this status is not just got them.

During the time of training we collaborated in a real tandem teacher-student, where everything that was performed by a student depended on him, and the fact that the teacher developed — depended





solely on his erudition, scientific and technical training, ideas, professionalism, practical approach, the ability to interpret complex algorithms and formulas.

So we are very pleased to watch our professional and personal growth, in the successes and achievements of our students, undergraduates, postgraduates who not only found

the use of their knowledge, skills and experience in the industry, but also supported the Department in the teaching staff as assistants — Oleksandra Zlenko, Tetiana Horova, Halyna Krombet, Oksana Oliinyk.

The average age of the teaching staff of the department 39 years — so many more tasks, ideas, projects and plans ahead!

**Окреслено освітні завдання кафедри репрографії в контексті вимог сучасного суспільства задля успішного працевлаштування випускників.**

**Ключові слова: освіта; кафедра репрографії; сучасне суспільство; працевлаштування випускників; українська вища освіта; навчальний план.**

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