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TROHYMENKO YAROSLAV KARPOVICH – 100TH ANNIVERSARY OF THE BIRTH

Анотація. *Публікація присвячена 100-річчю із дня народження видатного ученого в галузі радіотехніки Трохименка Ярослава Карповича. Описуються його основні здобутки як науковця, керівника на посадах декана радіотехнічного факультету, завідуючого кафедрою теоретичних основ радіотехніки, ін.*

Abstract. *The publication is dedicated to the 100th anniversary of the birth of the outstanding man scientist in the field of radio engineering Trokhymenko Yaroslav Karpovich. His main achievements as a scientist, dean of the radio engineering faculty, the head of the department of theoretical basics of radio engineering, etc. are described.*

Ключові слова: *методи досліджень в теорії радіотехнічних кіл, програмування перших малих ЕОМ.*

Keywords: *research methods in the theory of radio engineering circles, programming of the first small ECM.*

In August this year, we celebrate the 100th anniversary of the birth of the distinguished figure in science, the laureate of the State Prize of Ukraine in the fields of science and technology, the Honorable Radio Technician, and the distinguished professor of the Kyiv Polytechnic Institute, Yaroslav Karpovich Trokhymenko. Yaroslav Karpovich was born on 26 August 1924, in the family of the People's Artist of Ukraine, Karp Demyanovich Trokhymenko, a master of genre, historical, and landscape painting.

Yaroslav Karpovich was one of those prominent scientists who were at the forefront of modern radio engineering theory. He developed new methods for calculating radio engineering circuits. The scientist's legacy includes over 350 scientific works and monographs on the theory of radio engineering circuits. As a young scientist, he participated in the development of the world's first powerful continuous-backward-wave generator in the centimetre range. [1] He was the first in domestic radio

engineering to propose analyzing linear circuits on transistors with a conductivity matrix. His monograph "Transistor Radios" underwent five editions. One of the first, the scientist generalized the method of structural numbers by S. Bellert and G. Voznyak for analyzing active electrical circuits. This method was described by Yaroslav Karpovich in the work "The Method of Generalized Numbers and the Analysis of Linear Circuits". Besides his method, this book presented a comprehensive review of the symbolic analysis methods of electrical circuits known at that time. This work is still used today by specialists in symbolic analysis. The scientist developed a method of analysis in which he proposed replacing operations on matrix elements with operations on their indices. This method significantly reduced the computational time of the computer while ensuring the necessary accuracy. The methods of analysis of electrical circuits developed by him and his colleagues were significantly more efficient than traditional methods. [2] Under the guidance of Yaroslav Karpovich, software was developed for the first small electronic computing machine for engineering calculations "MIR" and programmable calculators. Among his works are "Engineering Calculations on Microcalculators" (1980), "Engineering Calculations on Programmable Microcalculators" (1985), "Radio Engineering Calculations on Programmable Microcalculators" (1988). These works were among the first that stimulated the development of modern computing in the field of computers. Yaroslav Karpovich was invited to collaborate with leading universities around the world. He lectured in Poland, Bulgaria, Czechoslovakia, and the Academy of Sciences of Cuba.

Yaroslav Karpovich Trokhymenko headed the basic scientist Association for a long time, their works related to the development of the theory of ECM application. For many years, the scientist managed the Kyiv organization "Knowledge". In the 1970s, he headed the editorial office of the magazine "News of the Higher educational institutions. Radio electronics". During Yaroslav's Karpovich stay as the editor-in-chief, the publication gained worldwide recognition in scientific space and began to be published in English under the title "Radioelectronics and Communications Systems". In the vast majority the publications of this journal reflected significant scientific research in the field theories of radio engineering circles. Specialized issues were published annually, showcasing the results of design automation research. Yaroslav Karpovich paid great attention to work with authors, that influenced positively on the quality of publications and encouraged young scientists. In 1961, Trokhymenko Ya. K. was elected dean of the Radio engineering faculty of Kyiv Polytechnic Institute. From 1973 to 1989, he was the head of the department of theoretical basics of radio engineering. On the table in his office, as a sign of honor to the first radio technicians,

stood one of the first tube transmitters of radio-technical signals. Yaroslav Karpovich was surprisingly modest and an intelligent person, an excellent manager and organizer. Trokhymenko Ya. K. was awarded two orders and 16 medals for services to the homeland.

A warm memory remains in the hearts of colleagues and students of Yaroslav Karpovich about this kind and talented person.

REFERENCES

[1] Trokhymenko Yaroslav Karpovich: access: https://uk.wikipedia.org/wiki
[2] Trokhymenko Yaroslav Karpovich: access: https://kpi.ua/ru/837-13