



**RIZHNIAK Renat Yar.,**  
Doctor of Historical Sciences  
Professor of the Department of  
Mathematics  
Of the Volodymyr Vynnychenko  
Kirovohrad State Pedagogical  
University  
(a city of Kirovohrad)

## **HISTORY OF SCIENTIFIC RESEARCH COMPUTER SCIENCE AND AUTOMATION OF MANUFACTURING PROCESSES IN KHARKIV POLYTECHNIC UNIVERSITY DURING THE TWENTIETH CENTURY**

Higher educational institutions of Ukraine during the second half of the twentieth century - beginning of the XXI century performed a significant amount of research on the development of national science. The article examines the history of formation and development of scientific research in computer science and automation of manufacturing processes at the National Technical University «Kharkiv Polytechnic Institute» throughout the XX–XXI century. The achieving the goal of the study was conducted by solving the following tasks: a) determination of the list and content of major historical developments on the subject of the study; b) clarification of the basic facts of scientific thought about the history of formation and development of computer science and automation of manufacturing processes at the National Technical University «Kharkiv Polytechnic Institute» within a specified period; c) identification of key factors and conditions that affect the subject and effectiveness of scientific research at the university.

The fundamentals of scientific research of scientists NTU «KPI» concerning automation of production (in particular – electric) processes were laid in the late XIX – early XX century when led by Professor P.P. Kopniaev there was initiated an electrotechnical school of the Institute of Technology. In the institute (then at the

University) during the twentieth century there was founded and formed a number of academic schools: the School of High-voltage technique (established by S.M. Fertyk in the 30's), School of Automation and Telemechanics (organized by B.F. Vashur and F.A. Stupel), School of development of electronic measuring devices (founder K.S. Polulyah, heads of schools V.I. Dyakin and O.V. Fedorov later – S.M. Terentyev), School of studies of the problems of automatic traffic control (the founder and first head of the school – A.V. Dabahyan), School of application of mathematical models of computer technology in the automation process control and scientific research (the founder and head – Y.T. Kostenko) and others.

The paper identified the most influential factors on the quality, productivity and effectiveness of scientific research in computer science and automation of production processes in NTU «KPI» – the defining role of heads of departments of universities in the deployment areas of research, degree of communication between the researchers and representatives of the production sphere, the level of development of computer technology.

**Keywords:** *research, Computer Sciences, Automation of production processes, Kharkiv Polytechnic Institute, scientific school, factors of influence on the efficiency of research.*