



Main achievements of scientific activity of the National Technical University «Kharkiv Polytechnic Institute» for 2025

Research • Innovation • Partnerships • Impact

2025 in key figures

2025 became a period of growth in applied research and strengthened international scientific cooperation by NTU «KhPI». The university carried out state, commercial, and international scientific projects, the results of which are aimed at developing industry, energy, defense capabilities, and infrastructure sustainability.



Funding
110 million UAH



Number of R&D projects
145



International grants
25



Publications in Scopus and WoS
700



Patents
45



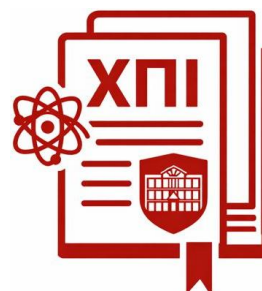
Defense of dissertations
63

2025 in key figures

NTU «KhPI» demonstrated the comprehensive development of its scientific ecosystem — from active international communication and its own scientific publications to infrastructure development, startup support, and strengthening the university's position among the leaders of higher education in Ukraine.



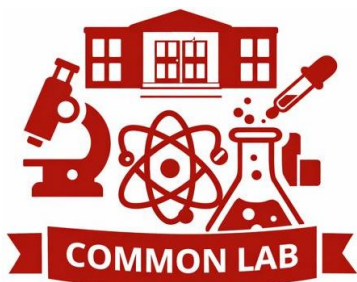
NTU «KhPI» in the **TOP-5**
HEIs of Ukraine



1.000 articles published in
publications of NTU «KhPI»



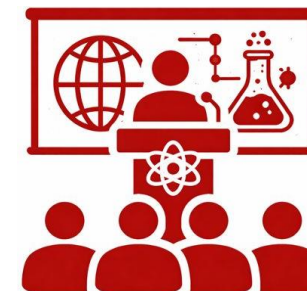
Over **100** monographs
have been published



4 collective use centers have
been created



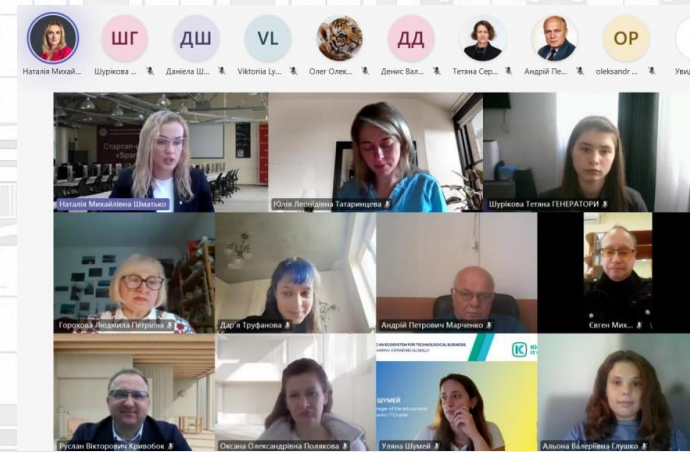
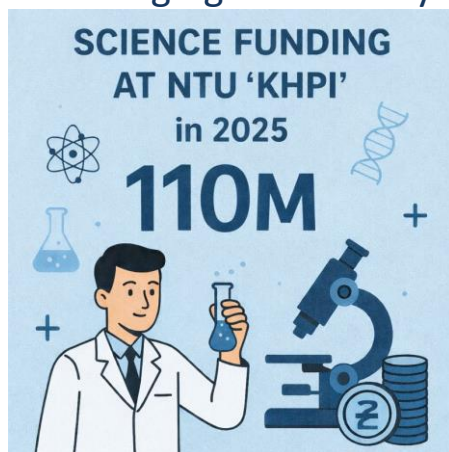
StartUp projects
65



International conferences
34, materials **3** in Scopus

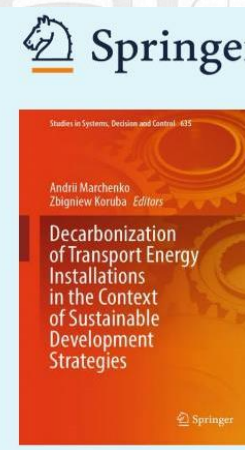
Main achievements in scientific activity

- The university continues to actively attract funds for scientific research. In 2025, NTU «KhPI» has already attracted **UAH 110 million** from all sources of funding, which exceeds the previous year's figures by 15%. The share of the special fund in the university's science budget has also been increased and now stands at **42.5%**. In terms of budget funding, NTU «KhPI» ranks **second place** among higher education institutions in Ukraine.
- According to the results of the state certification of higher education institutions in terms of scientific (scientific and technical) activities over the past 5 years, **NTU «Kharkiv Polytechnic Institute» topped the ranking in the field of engineering and technology and entered the TOP- 5 higher education institutions in the field of natural sciences and mathematics.**
- Well-known scientist **Professor Yury Gogotsi**, whose h-index is over 200, spoke at the plenary session of the **MicroCAD-2025** international scientific conference.
- The Festival of Innovations and Startups, a platform for breakthrough solutions, cross-industry cooperation, and the birth of startups, was held at NTU «KhPI» for the second time. More than **100 startup projects from all over Ukraine**, including foreign students, were submitted. NTU «KhPI» once again confirmed its status as a leader in the innovative environment in Ukraine, where ideas capable of changing the country are born.



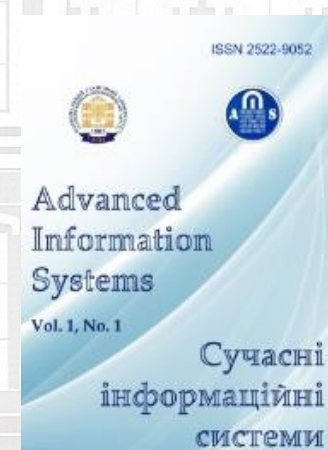
Main achievements in scientific activity

- The final of a unique project, the second season of **StartUP School for schoolchildren**, took place on the eve. The project continues its mission to socialize and support talented schoolchildren by providing them with tools to create innovative business ideas.
- At the 16th International Exhibition «Modern Educational Institutions-2025» and the 17th International Exhibition «Innovation in Modern Education,» NTU «KhPI» confirmed its **position as the leader in higher education in Ukraine**.
- On the initiative of NTU «KhPI» (editor-in-chief Prof. Andriy Marchenko) and with the support of the Technical University of Kielce (editor Prof. Zbigniew Koruba), Springer published a collective monograph entitled «Decarbonization of Transport Energy Installations in the Context of Sustainable Development Strategies.» The monograph brings together research by leading scientists from the United States, Germany, Austria, the Czech Republic, Lithuania, Poland, and Ukraine.
- NTU «KhPI» became one of the co-organizers of the International Scientific Conference on Innovations in Engineering ICIE'2025, held in Prague. The scientific sections of the forum, dedicated to new engineering materials, digital modeling, tribology, and solutions in the field of sustainable mechanical engineering, were moderated by Associate Professors Yevheniia Basova and Marina Ivanova of NTU «Kharkiv Polytechnic Institute».



Main achievements in scientific activity

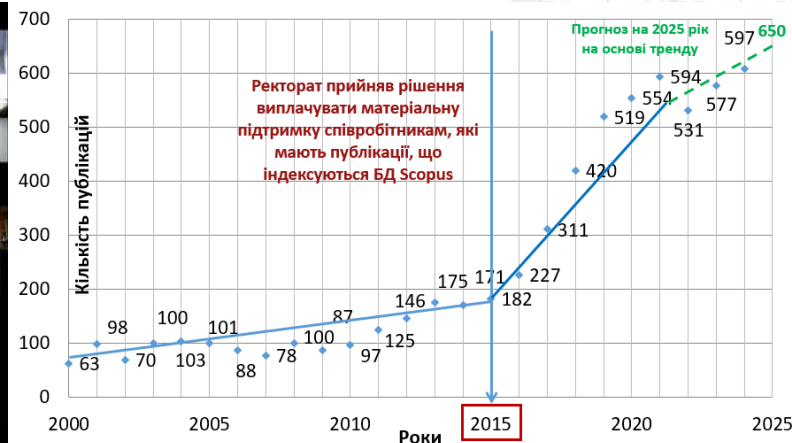
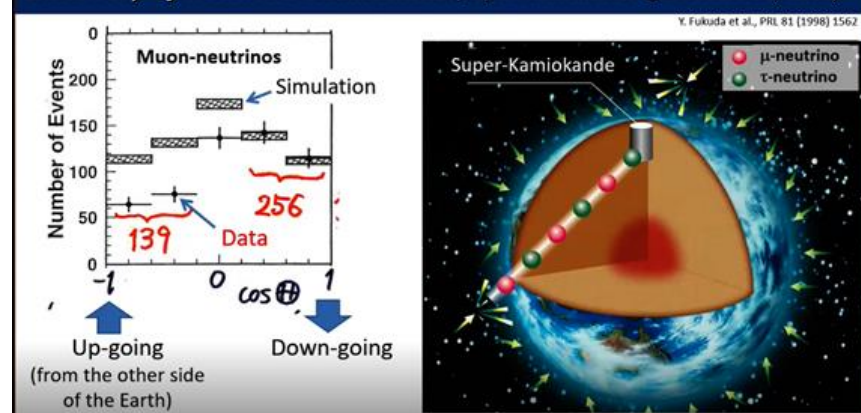
- In 2025, the number of international projects in which our university participates has increased, including the «EURATOM» program – «Horizon Europe» program, the DiTEC project, bilateral research programs, the NATO Science for Peace and Security Program, the Project «Danube Region», Erasmus+ KA2 projects, one of which is the Four-year project «Digital University – Open Ukrainian Initiative (DigiUni)».
- In 2025, three works by NTU «KhPI» received the President of Ukraine Award for Young Scientists, seven young and promising scientists became laureates.
- The scientific journal «Electrical Engineering and Electromechanics,» published by NTU «KhPI» in collaboration with Anatolii Pidhornyi institute of power machines and systems of the National academy of sciences of Ukraine (IPMach of NASU), entered the prestigious 2nd quartile of Scopus.
- After being included in the Scopus scientometric database last year, the journal «Modern Information Systems» received an «A» rating this year.



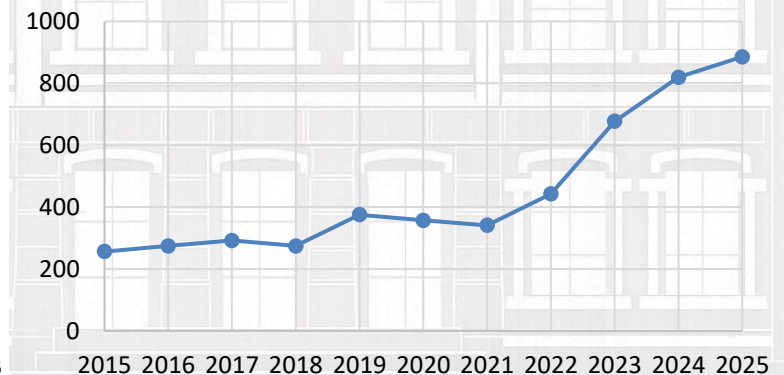
Main achievements in scientific activity

- At the invitation of our university and as part of the celebration of the 140th anniversary of NTU «KhPI», two Nobel Prize winners in physics gave lectures to the Ukrainian scientific community. **Professor Takaaki Kajita** gave a lecture on «Japanese science -focusing on Japanese cosmic ray physics-» and **Professor Ferenc Krausz** gave a lecture on «From Attosecond Physics to Infrared Molecular Fingerprinting: Shaping the Future of Preventive Healthcare.»
- The annual number of publications by NTU «KhPI» employees in publications included in the Scopus scientometric database continues to grow. As of early January, we already have **491 publications**, and after adding the remaining articles, we expect to have 650 publications for 2025.
- Currently, there are **885 postgraduate students** and **22 doctoral students** studying at NTU «KhPI». The contingent of domestic postgraduate students: **budget – 578; contract – 278**. The contingent of foreign postgraduate students – **full-time 29**. The contract form of training allowed to attract **UAH 7.8 million** to the university budget.

Discovery of neutrino oscillations (Super-Kamiokande @Neutrino 98, 1998)



Контингент аспірантів





We express our sincere gratitude to the scientific and scientific-pedagogical staff of the university, in particular to the heads of scientific projects, who have taken on this responsible mission for the first time. We are convinced that their hard work and dedication to science will soon lead to significant and recognized scientific achievements.

Kharkiv Polytechnic Institute is entering 2026 with significant achievements, including:

- 25 transitional budgetary research topics totaling **UAH 26.5 million**;
- 3 projects within the framework of competitions held by the National Research Fund of Ukraine totaling **UAH 9.5 million**;
- 20 international research grants;
- 4 centers for collective use of scientific equipment;
- an active and developed innovative ecosystem at NTU «KhPI» (**SPARK startup center, StartUP school for schoolchildren**, All-Ukrainian startup festival, Science Park).

These and many other achievements form a reliable foundation for the further development of the university, the creation of modern research centers and laboratories, the renewal of material and technical resources, and the establishment of new university enterprises.

With best wishes for the new year,

Andriy MARCHENKO,

vice-rector for Scientific Work

Ruslan KRYVOBOK,

head of the Scientific and Research department

