



National Technical University
"Kharkiv Polytechnic Institute"



Integration of the National Technical University «Kharkiv Polytechnic Institute» to the European and International Educational and Scientific space



Rector of NTU «KhPI»
professor Yevgen SOKOL



INTEGRATION STRATEGY

- ✓ Active participation in the activities of international university associations;
- ✓ Development of academic collaboration with universities in Europe, America, Asia and Africa;
- ✓ The inclusion of international components in the educational and scientific spheres of the university's life;
- ✓ Participation in international educational and scientific projects and programs;
- ✓ Promotion of academic exchange of students, teachers and scientists;
- ✓ Providing university graduates with professional skills of intercultural communication in foreign languages;
- ✓ Increasing of the permanent contingent of foreign students and postgraduates.





ACTIVITIES OF NTU «KhPI» IN INTERNATIONAL ORGANIZATIONS



An important stage in the life of the university was the signing of the «Magna Charta Universitatum» at the University of Bologna (Italy) in September 2005 by the Honorary Rector of NTU «KhPI» Leonid Tovazhnyanskyy.

NTU «KhPI» is a member and partner of the following international organizations:

- ✓ **Since December, 1998** - a member of the Alliance of Universities for Democracy (AUDEM).
- ✓ **In March 2007**, the university was admitted to the European University Association (EUA) as a full individual member.
- ✓ **Since September 2007**, NTU «KhPI» has been a member of the Black Sea Universities Network (BSUN).
- ✓ **Since March 2009** – a member of the Euroasian Universities Association (EUA).
- ✓ **Since 2018**, NTU «KhPI» has become a member of:
 - Society of Petroleum Engineers (SPE);
 - European Federation of Chemical Engineering, (EFCE);
 - International organization of engineers in the field of electrical engineering, radio electronics and radio electronics industry «Institute of Electrical and Electronics Engineers», (IEEE).





WORK OF NTU «KhPI» IN THE ASSOCIATION OF EUROPEAN UNIVERSITIES

Within the framework of the annual conference of the Association of European Universities (April 19-21, 2023, Gdansk, Poland), the delegation of our university was the only representative from Ukraine at the seminar «Expanding opportunities for researchers at risk». All proposals of the Rector of NTU «KhPI» Yevgen SOKOL regarding the strategy of assistance to Ukrainian universities were included in the recommendations of the Association of European Universities on this issue developed by the seminar.

- The delegation of our University made a significant contribution to the decision of the conference seminar, which was devoted to the digitalization of society, the integration of digital tools in learning and teaching, as well as the administrative activities of universities.
- Within the framework of the conference of the Association of European Universities, the Rector of NTU «KhPI» Yevgen SOKOL gave an extended analytical interview to the respected publication Research Professional News (Great Britain). The interview concerned the life of the university in the conditions of russian military aggression, damage of the research infrastructure, restoration and existing challenges, participation of Ukrainian universities in international programs, as well as integration into the European university environment.





NTU «KhPI» IN WORLD RANKINGS

In the most influential and global **QS World University Rankings**, NTU «KhPI» holds the title of the best technical university of Ukraine for the fourth year in a row, and from 2022 it occupies the second place among all Ukrainian universities.

In 2023, NTU «KhPI» entered the QS World University Rankings by Subject 2023 for the first time in the subject **"Engineering: mechanical engineering, aircraft construction and production"** and took second place in Ukraine.

According to the British agency The Times Higher Education, in 2019 the university entered the annual world ranking of research universities **The Times Higher Education World University Rankings**, becoming one of the two technical universities of Ukraine which were included in this prestigious world ranking.

For the third year in a row, our university participates in the **World University Ranking** and for the second time in a row it occupies third place among all the universities of Ukraine which took part in it, and from 2022 it becomes the best Ukrainian technical university.

In this rating, we have high results in all areas, namely:

- technical sciences - the first place among the universities of Ukraine;
- life sciences - the fourth place among the universities of Ukraine;
- natural sciences - the fourth place among the universities of Ukraine;
- social sciences – the fifth place among Ukrainian universities;
- humanities - the fourth place among the universities of Ukraine.





INTERNATIONAL COOPERATION OF NTU «KHPI»

- ✓ Partnerships with **244** educational institutions and companies from **39** countries of the world;
- ✓ **211 direct contracts** with foreign universities and organizations;
- ✓ **51** educational and research **international projects**;
- ✓ **4 Erasmus+KA2 projects** (large projects of university consortia), another **3 projects** submitted to the EU contest in 2023;
- ✓ **37 international academic mobility programs** under the Erasmus+KA1 program (semester studies in European countries);
- ✓ **15 double degree programs** with universities in Germany, Slovakia, France, Austria, Poland, the Czech Republic, Bulgaria, South Korea and China;
- ✓ **The Educational Center «German technical Faculty»** is working.





OPERATING PROJECTS OF THE ERASMUS+ KA2 PROGRAM

(large projects of university consortia)

In 2022, NTU «KhPI» participated in the realization of two ERASMUS+KA2 projects (development of university potential and cooperation for innovation and exchange of best practices), which were successfully completed:

- «Digital competence for Ukrainian teachers and other citizens», «dComFra» project

Grant holder - Kaunas Vytautas Magnus University, Lithuania.

- «Digital business tools and support for businesswomen»

Grant holder – Institute of Business of the University of National and World Economy, Bulgaria.

In 2023, the university won two new projects financed by the ERASMUS program:

- The INTERACT project – Development of new ways of internationalization through the EU GREEN consortium

Grant holder - Wroclaw University of Environmental Sciences, Poland.

- ECIU4 Ukraine project - involvement of Ukrainian partners in the activities of activities that support academic cooperation and exchange

Grant holder – Technical University of Lodz.





SUBMITTED PROJECTS OF THE ERASMUS+ KA2 PROGRAM

(large projects of university consortia)

Project "MEDIAR" - "Modernization of medical education using innovative approaches of augmented reality"

Grant holder - University of Deusto, Spain.

Project "ACRONYM" - "Electronic digital training for women"

Grant holder - University of National and World Economy, Bulgaria.

Project "DigiUni" - "Digital University - Open Ukrainian Initiative"

Grant holder - Kyiv National University. Shevchenko, Ukraine.





OPERATING PROJECTS OF THE ERASMUS+ KA1 PROGRAM

(semester studies at European universities)

Currently, NTU «KhPI» participates in the realization of 37 projects under the ERASMUS+ KA1 program (international academic mobility) with the following EU universities:

- ✓ Rhine-Westphalia University of Technology Aachen, Germany;
- ✓ Otto von Herricke University of Magdeburg, Germany;
- ✓ Alpen-Adria University of Klagenfurt, Austria;
- ✓ Lithuanian Maritime Academy, Republic of Lithuania;
- ✓ University of Western Attica (Technical University of Piraeus), Greece;
- ✓ University of Paris 13, France;
- ✓ Poznań Polytechnic, Poland;
- ✓ University of Lumière Lyon 2, France Technological and Humanities University named after Casimir;
- ✓ Istanbul Technical University, Istanbul, Turkey;
- ✓ University of Rome La Sapienza, Italy;
- ✓ University of West Bohemia, Czech Republic.



In 2023, the university received funding for 23 ERASMUS+ KA1 mobility projects. According to the projects operating at NTU «KhPI» in the 2023/24 academic year, according to the quotas provided to us, 66 students and 79 teachers and employees of the university are planned to go to study, for lectures and internships.



DOUBLE DIPLOMA PROGRAMS

- ✓ Otto von Guericke University of Magdeburg, Germany;
- ✓ School of Economics and Management in Public Administration, Slovakia;
- ✓ Pomeranian Academy in Slupsk, Poland;
- ✓ Alpen-Adria University of Klagenfurt, Austria;
- ✓ Liberec Technical University, Czech Republic;
- ✓ Technical University of Sofia, Bulgaria;
- ✓ Korea Institute of Science and Technology, South Korea;
- ✓ Higher School of Health and Safety Management in Katowice, Poland;
- ✓ Baltic International Academy, Riga, Latvia;
- ✓ Warsaw Polytechnic, Poland;
- ✓ Harbin Polytechnic University, China;
- ✓ Lublin Polytechnic, Lublin, Poland;
- ✓ University of Bielsko-Biala, Poland.



In 2022, 20 students of NTU «KhPI» went abroad to study under double diploma programs.

214 students have been enrolled and studying in the 1st year of NTU «KhPI» to participate in the double diploma program with Magdeburg University in the next academic year.



OPERATING RESEARCH PROJECTS (2023 YEAR)



NATO project «Selective quantum sensor for detection of CBRN agents in gas and liquid media»

**Latvian-Ukrainian project
«New progressive methods
of functionally anisotropic
composite materials
designing»**



**Polish-Ukrainian project
«Determining the reliability
of public information in social
media with using
•the text analytics approach»**



EDUCATIONAL CENTER «GERMAN TECHNICAL FACULTY»

Tasks of the educational center:

- ✓ - Coordination of cooperation with German and Austrian universities;
- ✓ - Coordination of Erasmus+ projects;
- ✓ - Coordination of international scientific projects of IVAC;
- ✓ - Comprehensive training in the German language «German-speaking engineer»;
- ✓ - Double degree programs for bachelors and masters.





INTERNATIONAL AGREEMENTS OF EC GTF



Agreement DSG and DSG:2 between NTU “KhPI” and OVGU



Agreement Erasmus+ KA107 (2017-2027) THWS, Germany



Agreement Erasmus+ KA107 (2020-2023) with FH Kärnten



Education research project IVAC with THWS „Green IT“, FHWS, Germany



Cooperation agreement with Allfein Feinkost GmbH, Germany



INTERNATIONAL AGREEMENTS OF EC GTF

Educational program – «German-speaking engineer»

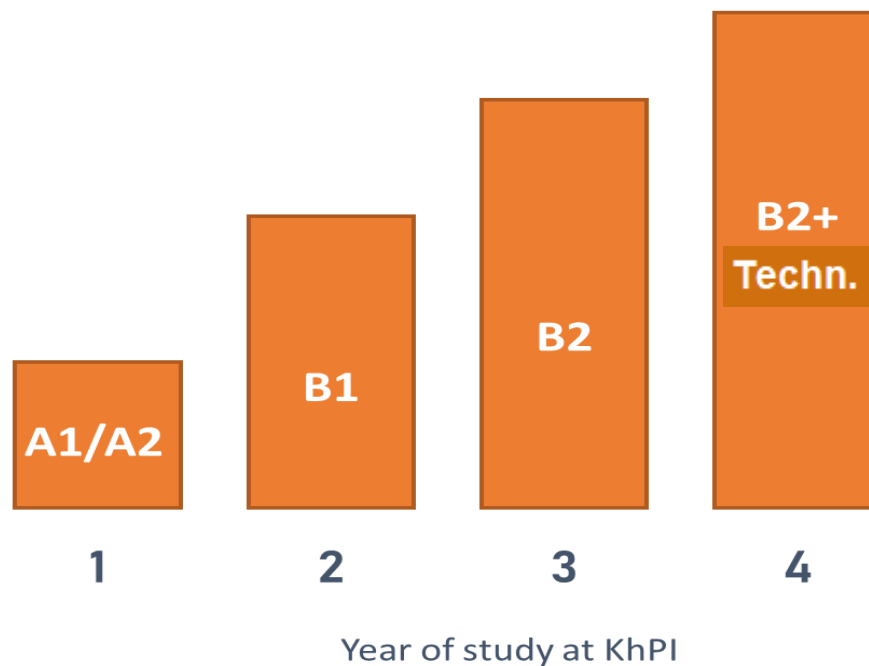




LEARNING GERMAN LANGUAGE

The training of students in the German language lasts from the first year to the fourth. Students have the opportunity to start their studies without knowing German. But students who already have a certain level have the opportunity to extend their studies in a group of their level.

In the fourth year, technical German is taught, taking into account the student's field of study.





DSG PROGRAM:

OTTO-VON-GERIKE UNIVERSITÄT MAGDEBURG OVGU

DSG

Language training
(4 weeks) with a
scholarship 800 Euro for
students of 2 year of study
of engineering specialties
(10 months);

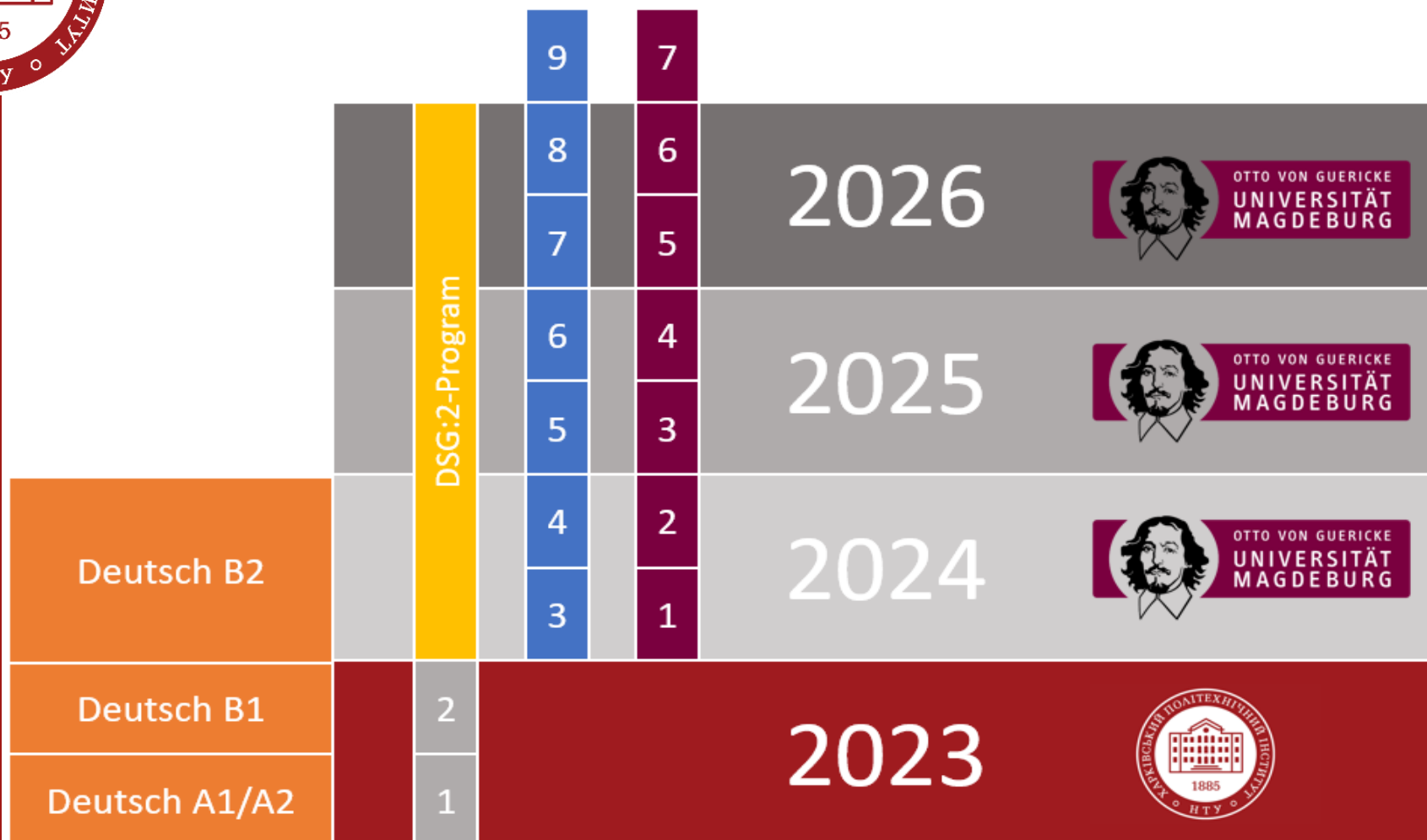
Industrial training
(4 weeks) with a
scholarship 800 Euro for
students of 3 year of study
of engineering specialties
(5 months);

**Double master degree
program** (1,5 years) with a
scholarship 861
Euro/month (6 months).





FUNCTIONING PRINCIPLE OF DSG:2





PROGRAM PARTICIPANTS OF DSG:2



OTTO VON GUERICKE
UNIVERSITÄT
MAGDEBURG



National Technical University
"Kharkiv Polytechnic Institute"

Faculty of Electrical Engineering
and Information Technology
(FEIT)

Institute of Education and Science in
Power Engineering, Electronics and
Electromechanics

Faculty of Mechanical
Engineering (FME)

Institute of Education and Science
in Mechanical Engineering and
Transport

Faculty of Process and Systems
Engineering (FPSE)

Institute of Education and Science
in Engineering and Physics

Institute of Education and Science
in Chemical Technologies and
Engineering



MicroCAD International Scientific and Practical Conference is an example of active integration of the National Technical University «Kharkiv Polytechnic Institute» to the European and global scientific and educational space

- ✓ the conference for its entire more than 30-year history takes place with the active participation of foreign scientists and foreign universities;
- ✓ in peacetime, the results of the international partnership were summed up with the presentation of the annual «Honorary Doctor» diploma for foreign scientists;
- ✓ at the plenary session and in the sections - topical reports on university science and education, international cooperation;
- ✓ active participation in the work of masters and PhD students;
- ✓ scientific reports based on the results of the implementation of domestic and international grants.



Today, the support of European universities and scientists from all over the world during the period of russian aggression against Ukraine is especially important for us. For which we are sincerely grateful to our foreign partners.



**Thank you for your
attention!**