Students of the CPIE department have the opportunity to improve their professional skills and competencies by undergoing practical training at leading enterprises of the Republic of Kazakhstan: "Kazphosphate" LLP, "Department of Agrochemical, Soil Surveys and Comprehensive Survey Work of Almaty", "Kazazot", "Kazferrosteel", "Kazakhmys", "Kazatomprom"; Research Institute: "Ecology" Turkestan, JSC "Institute of Chemical Sciences named after. A.B. Bekturov", JSC "Institute of Fuel, Catalysis and Electrochemistry named after. D.V. Sokolsky"; enterprises of the Near Abroad: JSC "Orenburg Minerals" (Russia), LLP Scientific and Technical Center "Zhalyn", RSE "Institute of Combustion Problems" of the KN MES RK, JSC "Karazhanbasmunai", State Industrial Complex "Zhylyoisu", Metropolitan of Almaty, Department of Ecology for the Kyzylorda Region, LLP "Industrial Construction group" Aktobe, "Kazakhstan Agency of Applied Ecology" LLP, "Carlsberg Kazakhstan" LLP, "KAZ Minerals Aktogay Mining and Processing Plant" LLP, "Kazecology Research Institute", "Laboratory of Hydrochemistry and Environmental Toxicology", "Shin-line" LLP, "Delma" LLP, etc.

The department continues to develop cooperation with partner universities and other organizations in foreign countries. Work is actively underway to invite foreign teachers with extensive experience in order to improve the educational process and exchange experience.

In 2021, the Department of CPIE concluded a memorandum with:

- 1. Research Institute of Ecology at the International Kazakh-Turkish University named after H.A. Yasawi
- 2. "Kazphosphate" LLP
- 3. "INTEKNO SG LLP (Intekno)"
- 4. RSE Institute of Combustion Problems of the Scientific Committee of the Ministry of Education and Science of the Republic of Kazakhstan
- 5. JSC "Institute of Chemical Sciences named after A.B. Bekturov"

In the 2022-2023 academic year, the Department of CPIE concluded the following international memorandums and agreements on cooperation:

- 1. Memorandum of understanding with the National University of Uzbekistan named after Mirzo Ulugbek;
- 2. Memorandum with Fergana Polytechnic Institute;
- 3. Memorandum of understanding with the Tashkent Institute of Chemical Technology;
- 4. Memorandum of cooperation with the Public Foundation "Bilim Barine";
- 5. Memorandum of cooperation with the Department of agrochemical, soil surveys and comprehensive survey work;
- 6. Memorandum of cooperation with JSC "Scientific Center for Anti-Infective Drugs";
- 7. Memorandum of cooperation with "Delma" LLP:
- 8. Memorandum of cooperation with "Karatau mine" LLP;
- 9. Memorandum of understanding and cooperation with the Association of Environmental Organizations of Kazakhstan;
- 10. Memorandum of cooperation in the research field between "EuroCircuit Technology Sdn Bhd (ECT)" and "Perfect Trading Company" LLP;
- 11. Memorandum of understanding and cooperation with "INCREASE-FOOD" LLP;
- 12. Memorandum of understanding and cooperation with the State Enterprise at the "Talgar Su" storage facility in the Talgar region;
- 13. Memorandum of understanding and cooperation with the Public Foundation "Corporate Social Responsibility and Sustainable Development of Kazakhstan";
- 14. Memorandum of cooperation with Kremenchug National University named after Mikhail Ostrogradsky;
- 15. Memorandum on the implementation of a joint (Double Degree) educational program in online form with the National Research Tomsk Polytechnic University;
- 16. Memorandum of cooperation with NJSC "North Kazakhstan University named after M. Kozybayev";

In 2023, the Department of CPIE concluded an agreement on mutual cooperation with the RSE on the right of economic management "Institute of Nuclear Physics" of the Ministry of Energy of the Republic of Kazakhstan.

Academic mobility of students

As part of the academic mobility program, our students Diana Petrash, in the fall semester of 2021, studied at one of the leading universities in Poland at the <u>Adam Mickiewicz</u> University in Poznan.

One of the best students of our department, <u>Kenzhebaev Galamat</u> and <u>Tolegen Sabyrzhan</u> (EP 6B07110 - "Chemical and Biochemical Engineering", CTIS direction) studied at <u>Tomsk</u> Polytechnic University in the spring semester of 2021.

In the fall semester 2022-2023 academic year, student of the Department of CPIE <u>Utegenova Aruzhan</u> (EP 6B05205 – "Chemical and Biochemical Engineering", Ecology) and student <u>Tolegen Sabyrzhan</u> completed academic mobility training at <u>Peter I St. Petersburg Polytechnic University</u>.

In the autumn semester of the 2023-2024 academic year, a student of the department of EP 6B07116 - "Technology of basic production and new materials" Ihsan Nuray studied at the University Sains Malaysia (Penang, Malaysia).

Double degree programs

In December 2022, an Agreement was signed between KazNRTU and <u>Tomsk</u> <u>Polytechnic University</u>, a Memorandum on the implementation of a joint (Double Degree) educational program in online form for EP 7M07110 – "Chemical processes and production of chemical materials".

Dual training

According to the instructions announced by the Minister of Education and Science on May 20, 2021 regarding the implementation of dual education, in the spring semester of the 2022-2023 academic year, the Department of Chemical Processes and Industrial Ecology, as part of dual education, sent graduate students to undergo practical training at KazPhosphate LLP", LLP "INCREASE-FOOD (Shinline)".

In the 2023-2024 academic year, 3rd and 4th year students of the department, as part of dual training, will undergo the practical part of classes on:

- 1. "KazEkoanalitika" LLP;
- 2. State Enterprise "Almaty Su";
- 3. "Green Bridge" LLP (Astana).