

Ministry of Science and Higher Education of the Republic of Kazakhstan

Korkyt Ata Kyzylorda University



Educational program

DEVELOPMENT PLAN

6B07189 – «Automation and control»

for 2025-2029

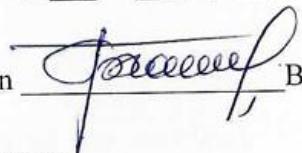
Kyzylorda, 2025

APPROVED

At the meeting of the Academic Quality Committee of the Institute of Engineering and Technology

Protocol № 1 « 02 » 09 2025.

Chairman



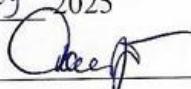
B.B. Abzhalelov

REVIEWED

At the meeting of the EP "Electric Power Industry, technosphere safety and Ecology"

Protocol № 1 « 02 » 09 2025

Head of the EP



G.K. Sydykova

THE BASIS FOR THE DEVELOPMENT OF AN EDUCATIONAL PROGRAM PLAN:

Strategic development plan of KU KorkytAta for 2025-2029

1. Key Features of the Individuality and Uniqueness of the Educational Program

Regional Orientation and Labor Market Relevance

The educational program 6B07189 “*Automation and Control*” is focused on meeting the needs of the economy of the Republic of Kazakhstan and is adapted to the requirements of regional and national labor markets. The program has been developed taking into account the demands of industrial enterprises, the energy sector, the oil and gas industry, and automated production systems.

Practice-Oriented Approach

The program includes practical classes, laboratory work, industrial internships, and elements of dual education, enabling students to acquire real professional skills in the fields of automation, measurement technology, control systems, PLC, SCADA, and industrial electronics. Joint projects with enterprises and industrial partners are actively implemented.

Interdisciplinary Approach

The educational program integrates knowledge in automation and control, electrical engineering, electronics, information technologies, metrology, and digital systems, ensuring the development of comprehensive engineering competencies required for work in modern automated systems.

Relevance and Modernity

The content of the educational program is regularly updated in accordance with technological advancements, industrial digitalization, the implementation of intelligent control systems, and international standards in the field of automation and measurements.

Personalized Learning Approach

The program provides individual educational trajectories, academic advising, and a wide selection of elective courses, allowing students to develop professional competencies in line with their interests and career goals.

Flexibility and Academic Mobility

Students are given the opportunity to choose disciplines and modules aimed at in-depth study of technological process automation, robotics, digital and intelligent control systems, as well as participation in academic mobility programs.

Active Student Engagement

The educational program encourages student participation in research activities, startup projects, olympiads, conferences, and professional skills competitions, contributing to the development of engineering, research, and innovative competencies.

Qualified Faculty

The implementation of the educational program is ensured by highly qualified faculty members and industry practitioners with professional experience in automation, control, and industrial electronics, who are also actively involved in scientific and applied research.

EP Developers

Members of the Employers' Council for the EP	Karakozov B.K. Seraliev A.E.
Main employers	Karakozov B.K. Usain M. Seraliev A.E. Kalmenova G.S. Nuratdinov K.T.
Members of the Academic Council among employers	Kalmenova G.S.
The main educational institutions and enterprises with which cooperation is carried out within the framework of the EP	Kyzylorda Electric Grid Distribution Company JSC, State Enterprise «Kyzylordateploelectrocenter»
Branches of the OP	Kyzylorda Electric Grid Distribution Company JSC, State Enterprise «Kyzylordateploelectrocenter»

1. THE MAIN OBJECTIVES OF THE EDUCATIONAL PROGRAM DEVELOPMENT

Strategic direction 1. Expanding access to university educational services

№	Performance indicators (share, percentage, quantity)	Unit	2025	2026	2027	2028	2029
1.	The contingent of students	human	40	42	40	60	60
2.	The contingent of students after secondary technical education. Secondary education profiles (accelerated.training.)	human	11	20	25	30	32
3.	The contingent of students after higher education	human	-	-	-	-	-
4.	Admission to full-time education, 4 years	human	40	60	40	60	60
5.	Admission to accelerated education (3 years, 4 years)	human	-	20	25	30	32
6	Graduates	human	-	-	-	48	40

Strategic direction 2. Innovative provision of educational activities

№	Performance indicators (share, percentage, quantity)	Unit	2025	2026	2027	2028	2029
2.	The results of the rating of the EP NPP Atameken	place	-	-	-	5	3
3.	Accreditation of the EP	fact	+	+	+	+	+
4.	Development of an educational program with the participation of large companies, national companies, government agencies, associations	fact	-				

	and employers						
5.	Updating the EP taking into account the requirements of the labor market	fact	+				
6.	The number of specialists involved in the educational process in the relevant industry	human	-	2	3	4	4
7.	The share of teaching staff with an academic degree in EP	%	40	41	42	43	44
8.	The number of teaching staff who have completed advanced training courses in the subject area	human	5	10	12	14	16
9.	The share of graduates of the educational institution employed in the first year after graduation (from the total number of graduates)	%	-	-	-	70	80
10.	The proportion of university graduates participating in the assessment of the quality of educational services (full-time education)	%	-	-	-	-	-
11.	The number of employers involved in the assessment of the quality of professional training	human	1	2	3	4	4
12.	The proportion of students participating in the assessment of teaching activities of teaching staff (full-time education)	%	-	100	100	100	100
13.	The proportion of graduates who have passed the NCT threshold score (only for pedagogical specialties)	%					
14.	The number of MOOCs developed by the teachers of the EP	unit	-	1	2	3	4
15.	The share of applicants to universities with the "Altyn Belgi" marks, winners of international Olympiads and competitions of scientific projects of the last three years, winners of the presidential, republican Olympiads and competitions of scientific projects of the current academic year (awarded with diplomas of the first, second and third degrees) from their total number	%	-	-	-	1	1

Strategic direction 3. International cooperation and internationalization

No	Performance indicators (share, percentage, quantity)	Unit	2025	2026	2027	2028	2029
----	--	------	------	------	------	------	------

1.	Interuniversity partnership within the framework of the EP: Double-degree EP	unit					
	with a foreign university	unit	-	-	-	-	1
	with a Kazakh university	unit	-	-	-	-	1
2.	The number of subjects in English by EP	unit	-	-	-	-	1
3.	The number of students participating in the external outgoing academic mobility program	human	-	-	-	-	1
4.	The number of students participating in the internal outgoing academic mobility program	human	-	-	-	1	1
5.	The number of students participating in the internal incoming academic mobility program	human	-	-	-	1	1
6.	The number of teaching staff participating in the internal outgoing academic mobility program	human	-	-	-	1	2
7.	The number of teaching staff participating in the internal incoming academic mobility program	human	-	-	-	1	2
8.	The number of foreign scientists involved	human	-	-	-	-	1
9.	The number of teaching staff participating in the external outgoing academic mobility program	human	-	-	-	1	1
10.	The number of teaching staff teaching in English	human	-	-	-	1	1

Strategic direction 4. Development of the innovation ecosystem

No	Performance indicators (share, percentage, quantity)	Unit	2025	2026	2027	2028	2029
1.	The number of teaching staff participating in educational and research projects	human	4	5	5	6	6
2.	The number of teaching staff involved in the implementation of fundamental and applied research	human	-	1	1	1	2
3.	The number of publications in publications included in quartiles 1, 2 and 3 according to the Journal Citation Reports of ClarivateAnalytics or having a CiteScore percentile indicator in the Ssris database	unit	2	3	3	3	4
4.	The number of publications of doctoral students' scientific articles in journals with a non-zero impact factor included in the ThomsonReuters/Scopus databases	unit	-	-	1	1	1

5.	The number of research projects carried out within the framework of international cooperation	unit	-	1	1	1	1
6.	Number of publications in publications submitted by the committee for control in the field of Science and higher education of the Ministry of education and science of the Republic of Kazakhstan for publication of the results of scientific activity	unit	4	4	5	7	9
7.	The number of publications of students	unit	2	2	4	4	5
8.	The number of students taking part in scientific research	human	1	1	2	2	3
9.	The number of students taking part in scientific competitions	human	1	1	2	2	3
10.	The number of students taking part in the republican Olympiads	human	2	2	3	3	4

Strategic direction 5. Modernization of infrastructure

No	Performance indicators (share, percentage, quantity)	Unit	2025	2026	2027	2028	2029
1	Development of a computer park	unit	1	1	2	2	2
2	Purchase of software	unit	-	1	1	2	2
3	Purchase of laboratory equipment, etc.	unit	2	2	2	3	3
4	Replenishment of the library fund	unit	5	10	15	15	20
5	Purchase of furniture	unit	10	10	20	20	20

Risk management

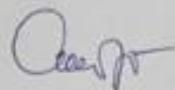
The EP may face a number of risks that hinder the achievement of the goal and the achievement of target indicators.

The name of the risks that may affect the achievement of the goal	Risk management measures
The outflow of applicants to other regions of the country and to countries near and far abroad	- the use of various material and technical resources in the course of career guidance work with students
Decrease in the proportion of teachers with academic degrees	- attracting PhD doctors; - targeted training of PhD doctors
Insufficient knowledge of the teaching staff of the English language	- involvement of teaching staff in learning English; - organization of teachers' participation in foreign internships
An increase in the proportion of doctoral graduates who completed their studies without defending a doctoral dissertation	- participation in seminars on scientific publications

Low proportion of international students

- strengthening ties with educational institutions of the far and near abroad;
- participation in online forums for foreign citizens

Head of the OP



G.K. Sydkova