



**Institute of «Architecture and construction named after T.K. Basenova»  
Department of «Engineering systems and networks»**

## **EDUCATIONAL PROGRAM**

**6B07306 «Engineering systems and networks»**  
Code and name of educational program

Code and classification of the field of education: **6B07 Engineering, Manufacturing and Civil engineering**

Code and classification of training directions: **6B073 Architecture and Civil engineering**

Group of educational programs: **B074 Urban planning, construction work and civil engineering**

Level based on NQF: **6**

Level based on IQF: **6**

Study period: **4 years**

Amount of credits: **240**

**Almaty 2025**





Educational program 6B07306 "Engineering systems and networks" was approved  
code and name of educational program  
 at the meeting of K.I. Satbayev KazNRTU Academic Council.

Minutes №10 dated «06» 03 2025.



was reviewed and recommended for approval at the meeting of K.I. Satbayev KazNRTU Educational and Methodological Council.

Minutes №3 dated «20» 12 2024.

Educational program 6B07306 "Engineering systems and networks" was developed  
code and name of educational program  
 by Academic committee based on direction 6B073 «Architecture and civil engineering».

Full name	Academic degree/ academic title	Position	Workplace	Signature
<b>Teaching staff:</b>				
Alimova Kulyash Kabpasovna	cand. tech. sciences	Head of Department	NPJSC «Kazakh National Research Technical University named after K.I.Satbayev», department "Engineering systems and networks"	
Halkhabay Bostandyk	cand. tech. sciences, docent	Associate Professor	NPJSC «Kazakh National Research Technical University named after K.I.Satbayev», department "Engineering systems and networks"	
Khoyshev Amirkhan	cand. tech. sciences	Associate Professor	NPJSC «Kazakh National Research Technical University named after K.I.Satbayev», department "Engineering systems and networks"	
<b>Employers:</b>				
Zhumartova Aliya		Headmaster	LLP "Research Center Eco Zhobalau"	
<b>Students:</b>				

NON-PROFIT JOINT-STOCK COMPANY  
«KAZAKH NATIONAL RESEARCH TECHNICAL UNIVERSITY named after K.I.SATBAYEV»

Kabaev Batyrkhan		Student	3rd course, EP ESaN	
Baikenes Asylan		Master's student	2nd course, EP ESaN	

## General information

<b>№</b>	<b>Field name</b>	<b>Comments</b>
1	Code and classification of the field of education	6B07 Engineering, Manufacturing and Civil engineering
2	Code and classification of training directions	6B073 Architecture and Civil engineering
3	Educational program group	B074 Urban planning, construction work and civil engineering
4	Educational program name	6B07306 "Engineering systems and networks"
5	Short description of educational program	<p>Training of specialists in the field of engineering systems and networks, design, installation, reconstruction and operation of engineering systems and structures, namely heating systems, gas supply, heat supply, ventilation, air conditioning, heat generating installations, water supply and sewerage.</p> <p>Students study the methods of design work, gain skills in the operation and installation of heating, ventilation and air conditioning systems, water supply, sewerage, heat supply, gas supply and boiler houses, as well as the reconstruction of these systems.</p> <p>Students learn to make calculations of elements and structures of engineering systems and networks, draw up high-quality technical solutions, develop technical specifications for construction in the design and reconstruction, taking into account the requirements of energy saving, ecology and life safety.</p>
6	Purpose of EP	The purpose of the educational program is to prepare graduates as a competitive specialist for the construction industry, possessing critical thinking, able to use theoretical and practical information for the design, construction, operation and reconstruction of engineering systems and networks using innovative technologies to form personal, professional qualities and develop creative potential.
7	Type of EP	New
8	The level based on NQF	6
9	The level based on IQF	6
10	Distinctive features of EP	No
11	Education form	full-time
12	Period of training	4
13	Amount of credits	240
14	Languages of instruction	Kazakh, russian, english
15	Academic degree awarded	Bachelor of engineering and technology
16	Developers and authors	Alimova K.K., Berdikul N.I., Aliyakbarova U.H.