REPORT

on the results of the work of the external expert commission for the evaluation for compliance with the requirements of the standards of specialized accreditation of educational programs
6B07306 ENGINEERING SYSTEMS AND NETWORKS
7M07304 ENGINEERING SYSTEMS AND NETWORKS
7M06301 COMPREHENSIVE INFORMATION SECURITY

Non-profit joint stock company "Kazakh National Research Technical University named after K.I. Satbayev"

Date of EEC visit: from April 19 to April 21, 2023

INDEPENDENT AGENCY FOR ACCREDITATION AND RATING

External expert commission

REPORT

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Almaty   **April 21, 2023**

(I) LIST OF SYMBOLS AND ABBREVIATIONS

ECTS	European Credit Transfer and Accumulation System
AIS	Automated information system
HEI	higher education institution
SUC	State utility company
GF	Grant funding
IM SB RAS	Institute of Mining of the Siberian Branch of the Russian Academy of Sciences
ICT	Information and Communication Technologies
RC	Research Center
CED	Catalog of elective disciplines
MES RK	Ministry of Education and Science of the Republic of Kazakhstan
MEP	Modular educational program
MTB	Material and technical base
IAAR	Independent Agency for Accreditation and Rating
NAQAE	National Agency for Quality Assurance in Education
research institute	scientific research institute
research	Research work
NCE	National Chamber of Entrepreneurs
EO	Educational organization
EP	Educational program
teaching staff	Teaching staff
PTF	Project-targeted financing
RK	Republic of Kazakhstan
WC	Working curriculum
mass media	Mass media
SIW	Student's independent work
IWST	Independent work of the student with the teacher
LLP	Limited Liability Partnership
TTA	Technical training aids
EMA	Educational-methodical association
EMW	Educational and methodical work
EMC	Educational and Methodological Council

(II) INTRODUCTION

In accordance with the order of the Director General of the Independent Agency for Accreditation and Rating 37-23-OD dated February 23, 2023, from April 19 to April 21, 2023, an external expert commission conducted evaluation of educational programs 6B07306- "Engineering systems and networks", 7M07304 - "Engineering systems and networks", 7M06301- "Comprehensive information security" of the Non-profit joint-stock company "Kazakh National Research Technical University named after K.I. Satpayev" for compliance with the standards of primary specialized accreditation of the educational program (dated May 25, 2018 No. 68-18 / 1-OD, first edition).

The report of the external expert commission (EEC) contains an assessment of the quality of the submitted educational programs to the IAAR criteria, recommendations of the EEC for further improvement of educational programs and the conclusion of the expert commission according to the parameters of the specialized profile (ex - ante), the EEC visit program, as well as the results of a survey of teachers and students of educational students' programs.

The composition of the EEC:

Chairman of the EEC – Belykh Yury Eduardovich, Cand. Sc. (Phys.-Math.), associate professor, expert of the 1st category IAAR.

EEC Coordinator - Niyazova Guliyash Balkenovna, Head of the Project for Institutional and Specialized Accreditation of *IAAR Universities* (Astana, Republic of Kazakhstan).

Cluster 1. Specialized accreditation

6B07306 Engineering systems and networks and 7M007304 Engineering systems and networks	IAAR expert - Eremeeva Yulia Nikolaevna, Cand. Tech. Sc., senior lecturer of the East Kazakhstan Technical University. D. Serikbayeva (Ust-Kamenogorsk, Republic of Kazakhstan).
7M06301 Comprehensive information security	IAAR expert - Daribaev Beimbet Serikovich, PhD, Head of the Department of Information Security of the Kazakh National University named after. al-Farabi (Almaty, Republic of Kazakhstan). *IAAR expert II category, employer* - Kopishev Ilyas Ertaevich, director of LLP " EL - IT " (Almaty, Republic of Kazakhstan). *IAAR expert, student* - Yerlanov Bauyrzhan Yerlanuly, student of the educational program 7M06106 Information systems of Almaty University of Power Engineering and Telecommunications named after Gumarbek Daukeyev (Almaty, Republic of Kazakhstan).

Cluster 2. Specialized accreditation

6B04102 Mathematical economics and data analysis	IAAR Expert Category I – Pogrebitskaya Marina Vladimirovna, Cand. of Pedag.Sc., associate professor of the North Kazakhstan University named after M. Kozybayev, member of the Expert Commission on Higher Education IAAR (Petropavlovsk, Republic of Kazakhstan). *IAAR expert, student* - Sarabek Nazerke Erikkyzy, a 3rd year student of the educational program, a teacher of primary classes of a humanitarian college (Aktobe, Republic of Kazakhstan).
6B07304 Geospatial digital engineering	IAAR expert - Rustamov Eldar Jahangir oglu, Professor of the Azerbaijan University of Architecture and Construction (Baku, Republic of Azerbaijan).

Cluster 3. Primary specialized accreditation

6B11201 Occupational health and safety at work	IAAR Expert Category I – Irina Yurievna Chidunchi, PhD, Associate Professor of Toraigyrov University (Pavlodar, Republic of Kazakhstan).

6B07502 Standardization, certification and metrology (by industry)	*IAAR expert, student -* Fayzullina Dinara Nurbaevna, student of the educational program 6B07502 Standardization, certification and metrology (by industry) of the West Kazakhstan Engineering and Technical University (Uralsk, Republic of Kazakhstan).

Cluster 4. Primary specialized accreditation

6B11310 Digital logistics	*IAAR Expert I category -* Pak Yuriy Nikolaevich, Doctor of Technical Sciences, Professor of the Karaganda Technological University (Karaganda, Republic of Kazakhstan).
	IAAR expert, student - Koshetaev Dias Sansyzbayuly, student of the 1st year of the educational program 7M11301 Logistics (by industry) (Astana, Republic of Kazakhstan).
6B04103 Business engineering	*IAAR expert I category -* Zakirova Dilnara Ikramkhanova, PhD, Professor of Turan University (Almaty, Republic of Kazakhstan).
6B04104 Startup bachelor's degree	*IAAR Expert Category I, employer –* Pilipenko Yury Alexandrovich, Chairman of the International Association of Producers of Goods and Services "Expobest" (Almaty, Republic of Kazakhstan).

(III) REPRESENTATION OF THE EDUCATIONAL ORGANIZATION

Non-profit joint stock company "Kazakh National Research Technical University named after K.I. Satpayev".

History of University:

1934 - foundation of the Kazakh Mining and Metallurgical Institute (KazMMI);

1960 - renaming of KazMMI into the Kazakh Polytechnic Institute (KazPTI);

1994 - transformation of KazPTI into the Kazakh National Technical University (KazNTU).

1999 - renaming of KazNTU into KazNTU named after K. I. Satbayev;

2001 - assignment of a special status to KazNTU named after K. I. Satbayev;

2014 - assignment of the category "National Research Technical University";

In 2017 KazNRTU named after K.I. Satpayev was renamed Satbayev University.

Kazakh National Research Technical University named after K.I. Satpayev acts on the basis of the Charter approved by the order of the Minister of Education and Science of the Republic of Kazakhstan dated February 16, 2021 No. 57.

The university has a license (No. KZ56LAA00005304 dated July 11, 2015) for 41 educational programs of higher and postgraduate education, of which: 15 undergraduate programs; magistracy - 15; doctoral studies - 11.

According to the Order of the Ministry of Education and Science of the Republic of Kazakhstan dated October 13, 2018 No. 569 "On approval of a new classifier of directions", applications to the License were reissued and received in 42 areas of training: bachelor's degree - 16; magistracy - 15, doctoral studies - 11.

The university implements programs of 138 educational programs: bachelor's degree - 57, master's degree - 47, doctoral studies - 37.

The university operates: 8 academic institutes, 6 research institutes, 6 accredited laboratories, including 2 scientific laboratories for collective use, 2 training grounds, 27 departments, 3 research and educational centers, 46 scientific laboratories, 15 sports sections, 450 companies - partners, 10 sports sections, 14 student organizations.

Satbayev University is the largest technical university in Kazakhstan, a scientific and educational complex with a well-developed infrastructure for scientific and innovative research and training of highly qualified personnel. At the moment, work is underway to transform the university into the largest research hub in the Central Asian region.

Research activities at Satbayev University are aimed at developing fundamental and applied scientific research in the field of high technologies and are focused on 10 scientific areas that are priority for the development of the economy of the Republic of Kazakhstan.

Satbayev University conducts contract studies with such well-known private and state enterprises as "Kazzinc", "Kazchrome", "PetroKazakhstan Kumkol Resources", "Tospa Su", "Kazatomprom, Parasat", "Pavlodar Petrochemical Plant".

The active strengthening of the international cooperation of the University in the scientific direction is being carried out. Joint scientific teams have been created that have formed scientific projects for future grant program-targeted financing together with scientists from Israel (Scientific and Engineering Center of Maalot), the USA (Pennsylvania State University), the People's Republic of China (Shandong Academy of Sciences).

The University has signed an Agreement of Intent between KazNRTU and Hanguk University of Foreign Languages (Seoul, Korea), a Memorandum of Cooperation with KazNRTU and Kazan Federal University (Kazan, Russia).

The total student body of Satbayev University is 9020 people. The educational process at all levels of educational programs is conducted using credit technology in the state (72%), Russian (25%) and English (3%) languages.

The total number of faculty members of the university as of September 2022 is 656 people, of which: 63 Doctors of Sciences, 191 Candidates of Sciences, 90 PhDs and 219 Masters.

Satbayev University occupies a leading position in national and international rankings, maintaining the status of a technical university No. 1 in Kazakhstan.

According to the accredited programs 6B07306 "Engineering Systems and Networks" and 7M07304 "Engineering Systems and Networks" and 7M06301 "Comprehensive information security": the educational process 6B07306 "Engineering Systems and Networks" and 7M07304 "Engineering Systems and Networks" is provided by the Department of Engineering Systems and Networks" (ES&N) of the Institute of Architecture and Construction, 7M06301 "Comprehensive information security" - Department of "Cybersecurity, Information Processing and Storage" (CIP&S) of the Institute of Automation and Information Technologies.

Contingent of teaching staff for EP

EP	Total PTS	Of them				
		full-time	Doctor of Sciences	Candidate of Sciences	PhD	master
6B07306 "Engineering systems and networks"	17	13	1	9	1	5
7M07304 "Engineering systems and networks"	17	13	1	9	1	5
7M06301 "Comprehensive information security"	47	22	2	6	7	28

The degree of teaching staff at the university for 2021 is 47.9%, the average age of the teaching staff of the university is 45 years.

The degree of teaching staff at the department "ES&N" - 65%, at the department "CIP&S" - 41%.

The contingent of students in the EP

Educational program	Contingent of students			
	2020-2021 academic year	2021-2022 academic year	2022-2023 academic year	
	Total	Total	autumn	spring
6B07306 "Engineering systems and networks"	109	138	175	180
7M07304 "Engineering systems and networks"	36	34	42	49
7M06301 "Comprehensive information security"	13	5	10	21

Undergraduate program 6B07306 "Engineering Systems and Networks" took 1st place in the rating of NCE RK "Atameken" in 2022, and in 2019 1st place in the rating "NAQAE" of educational programs of universities of Kazakhstan-2019 under the undergraduate program "5B075200" "Engineering systems and networks".

The volume of the library fund of the university as of 01.01.2022 is 1,625,548 copies, of which there are 978,813 copies of textbooks and teaching aids, scientific publications - 633,223

copies. There are also the following information resources: Electronic library systems (collection of EBS "Lan" "Engineering and technical sciences", digital educational resource IPRSmart, electronic database "Epigraph"); thematic collections of electronic books (Springer publishing houses - Engineering CRY 2014, Engineering CRY 2015, thematic collections of Springer Nature: a collection of books Engineering); subscription foreign databases (Wiley, IEEE Xplore Digital Library).

(IV) DESCRIPTION OF THE PREVIOUS ACCREDITATION PROCEDURE

Educational programs 6B07306 (5B075200) "Engineering systems and networks", 7M07304 (6M075200) "Engineering systems and networks", 7M06301 "Comprehensive information security" (7M06104 "Comprehensive information security" / 6M100200 "Information security systems) NJSC "KazNRTU named after K. I. Satpayev" external assessment for compliance with the standards of specialized accreditation of educational programs of organizations of higher and (or) postgraduate education were held at the IAAR in 2018 with a 5-year accreditation period, valid from 11.07.2015-13.06.2023.

The degree of implementation of comments and suggestions based on the results of the II post-accreditation period for EP 6B07306 (5B075200) "Engineering systems and networks", 7M07304 (6M075200) "Engineering systems and networks":

1. Specify the signs of individuality and uniqueness of the accredited EP, including taking into account the consistency of the EP development plan with the university's strategy. It is recommended to determine the strengths and unique features of your programs, place the development plans for the EP on the pages of the departments.

Conclusion: the recommendation was implemented by 50%. The EP development plan is posted on https://official.satbayev.university/download/document/30894/Plan%20development%20OP%20 6B07306,%207M07304%202019-2024.pdf . Information about the uniqueness of the EP is not posted on the site.

2. On an ongoing basis, update the university website with up-to-date information on the development of the university and educational programs.

Conclusion: the recommendation was 100% implemented. Additionally, links to official social media accounts are provided.

3. Detail information about the teaching staff and provide access to this information on the university's website.

Conclusion: the recommendation is 100 % implemented. A link to the profiles of the teaching staff of the department is given.

4. Analyze the possibility of implementing double-degree education and strengthening internal and external academic mobility.

Conclusion: Recommendation under implementation. A program of academic mobility for undergraduates has been implemented. At the stage of consideration are agreements on double-degree education with the Kazan State University of Architecture and Civil Engineering and the St. Petersburg State University of Architecture and Civil Engineering (Appendix 26).

5. Expand the possibilities and ways of informing stakeholders about any planned or taken actions in relation to the EP.

Conclusion: recommendation implemented a. Links are given: https://official.satbayev.university/ru/subdivisions/ro/tsentr-karery and https://t.me/sucareecenter

6. To continue development of own researches of faculty in the field of teaching of academic disciplines.

Conclusions: done. The acts of introduction into the educational process are presented.

7. Consider the possibility of supporting the academic mobility of students in accordance with the concluded memorandums.

Conclusion: recommendation under implementation.

8. Strengthen the work on attracting graduates of accredited EPs in the work of collegiate bodies, including alumni associations.

Conclusion: recommendation under implementation.

9. Strengthen work on the conditions for motivating teaching staff to use innovative methods and ICT in the educational process.

Conclusions: The recommendation is under implementation.

10. Continue work aimed at supporting and social protection of various groups of students in accredited EPs, in particular, students with disabilities, as well as providing access to education for socially vulnerable segments of the population.

Conclusions: recommendation under implementation -70%.

11. Continue work on the systematic replenishment of the library fund of professional literature in the context of accredited educational programs, including in electronic format.

Conclusion: the recommendation was implemented by 70%. A list of published printed works of the teaching staff of the department is presented. The analysis of the library fund of professional literature in the context of the EP is not presented.

12. Continue work to improve the university website and create content in the state, Russian and English languages.

Conclusion: the recommendation has been implemented.

The degree of implementation of comments and suggestions based on the results of the II post-accreditation period according to EP 7M06301 "Comprehensive information security":

VEC recommendation for EP 6M10000 - "Information Security Systems":

1. By the beginning of the new 2018/19 academic year, draw up a plan and organize introductory courses for EP leaders on planning learning outcomes, organizing the educational process for educational programs in accordance with the CTO and implementing the basic principles of the Bologna process.

Conclusions: Recommendation under implementation. Attached certificates of other advanced training courses

2. Through the development and implementation of joint educational programs with the universities of Kazakhstan, to increase the number of students implementing internal academic mobility

Conclusions: Recommendation under implementation. Provided a memorandum on the implementation of a joint educational program with the institution "Eurasian Law Academy named after D.A. Kunayev"

3. For accredited educational programs, develop a plan for the introduction of dual education for 2018-2021. Ensure a comfortable temperature regime in educational buildings in winter.

Conclusions: Recommendation under implementation. Provided supporting documents in the form of a photo.

(V) DESCRIPTION OF THE EEC VISIT

The work of the EEC was carried out on the basis of the Program of the visit, agreed by the rector of the Non-profit Joint Stock Company "Kazakh National Research Technical University named after K.I. Satpayev" and approved by the Director General of IAAR on April 4, 2023 using a hybrid model for conducting specialized and primary specialized accreditation of educational programs of the Non-Profit Joint Stock Company "Kazakh National Research Technical University named after K.I. Satbayev".

In order to coordinate the work of the EEC, on April 17, 2023, a kick-off meeting was held, during which powers were distributed among the members of the commission, the schedule of the visit was specified, and agreement was reached on the choice of examination methods.

To obtain objective information about the quality of educational programs and the entire infrastructure of the university, to clarify the content of self-assessment reports, meetings were held with acting. the rector, vice-rectors of the university in areas of activity, heads of structural divisions, with the heads of educational programs, heads of departments, representatives of teaching staff, students, graduates (for educational programs with graduates), employers. A total of 52 representatives took part in the meetings (Table 1).

Table 1- Information about employees and students who took part in meetings with the EEC IAAR

Participant category	Quantity
Chairman of the Board - Rector	-
Vice-Chancellors, Members of the Board	3
Heads of structural divisions	14
Institute directors	5
Heads of EP, heads of departments	6
teachers	6
Students, undergraduates	11
Graduates	3
Employers and representatives of the practice base	4
Total	52

During the visit, and watching videos, members of the EEC got acquainted with the state of the material and technical base.

At the meetings of the EEC IAAR in a hybrid format with the target groups of the university, the mechanisms for implementing the policy of the university and the specification of individual data presented in the self-assessment report of the university were carried out.

Members of the EEC visited the bases of practices evaluated by the EP: "SUC on REM "Almaty Su", RSE "Institute of Information and Computing Technologies" of the SC of the Ministry of Education and Science of the Republic of Kazakhstan, LLP "Scientific and Production Enterprise ASKB Alatau".

During the visit, the following classes were attended:
in the disciplines "Heat supply", "Integrated use of water" according to the educational program 6B07306 "Engineering systems and networks";
in the discipline "Organization of protection and security of the database" according to the educational program 7M06301 "Comprehensive information security".

(VI) COMPLIANCE WITH SPECIALIZED ACCREDITATION STANDARDS

6.1. Standard "Management of the educational program"

✓ *The organization of higher and (or) postgraduate education must have a published quality assurance policy. The quality assurance policy should reflect the relationship between research, teaching and learning.*

✓ *The organization of higher and (or) postgraduate education must demonstrate the development of a culture of quality assurance, including in the context of EP.*

✓ *Commitment to quality assurance should apply to any activity performed by contractors and partners (outsourcing), including the implementation of joint/double-degree education and academic mobility.*

✓ *The management of the EP demonstrates its readiness to ensure transparency in the development of the EP development plan based on an analysis of its functioning, the actual positioning of the EP and the focus of its activities on meeting the needs of the state, employers, students and other stakeholders. The plan should contain the dates for the start of the implementation of the educational program.*

✓ *The EP management demonstrates the existence of mechanisms for the formation and regular revision of the EP development plan and monitoring its implementation, assessing the achievement of learning goals, meeting the needs of students, employers and society, making decisions aimed at continuous improvement of the EP.*

✓ *The EP management should involve representatives of stakeholder groups, including employers, students and teaching staff, in the formation of the EP development plan.*

✓ *The management of the EP must demonstrate the individuality and uniqueness of the EP development plan, its consistency with national priorities and the development strategy of the organization of higher and (or) postgraduate education.*

✓ *The organization of higher and (or) postgraduate education must demonstrate a clear definition of those responsible for business processes within the EP, an unambiguous distribution of staff duties, and delimitation of the functions of collegial bodies.*

✓ *The management of the EP must provide evidence of the transparency of the educational program management system.*

✓ *The management of the EP must demonstrate the existence of an internal quality assurance system for the EP, including its design, management and monitoring, their improvement, decision-making based on facts.*

✓ *The management of the EP must carry out risk management, including within the framework of the EP undergoing primary accreditation, and also demonstrate a system of measures aimed at reducing the degree of risk.*

✓ *The management of the EP should ensure the participation of representatives of employers, teaching staff, students and other interested parties in the collegiate management bodies of the educational program, as well as their representativeness in making decisions on the management of the educational program.*

✓ *The EO must demonstrate innovation management within the EP, including the analysis and implementation of innovative proposals.*

✓ *The management of the EP must demonstrate evidence of readiness for openness and accessibility for students, teaching staff, employers and other interested parties.*

✓ *The management of the EP should be trained in education management programs.*

Evidence part

The basis for the development of accredited educational programs is the Strategy development non-profit joint-stock Society "KazNRTU K.I. Satpayev" on 2022 - 2026 years , Politics V areas quality of KazNRTU K.I. Satbayeva , Academic policy of KazNRTU K . I. Satbayeva .

EEC members were presented with development plans for accredited EP 6B07306 and 7M07304 "Engineering systems and networks" for 2019-2024 (approved by the director of the T.K. Basenov Institute of Architecture and Construction) https://official.satbayev.university/download/document/30894/Plan%20development%20OP%20 6B07306,%207M07304%202019-2024 .pdf and EP 7M06301 "Comprehensive information security" for 2022-2027 (approved by the director of the AIIT Institute). The plans for the development of programs in structure correspond to the Development Strategy of the university, which ensures the interconnection of strategic documents.

The purpose of the educational program 6B07306 - "Engineering systems and networks" is the preparation of a graduate as a highly qualified, competitive a specialist in the field of engineering systems and networks: design, installation, reconstruction and operation of engineering systems and structures, namely heating, gas supply, heat supply,

ventilation, air conditioning, water supply and sewerage systems.

The purpose of the educational program 7M07304 - "Engineering systems and networks" is the preparation of a highly qualified competent specialist in the construction and engineering sector of the economy of the Republic of Kazakhstan, who is able to quickly adapt to rapidly changing market conditions and innovative trends.

The purpose of the educational program 7M06301 "Comprehensive information security" is to train specialists in the field of infocommunication technologies and information security technologies.

At NJSC KazNTU named after K.I. Satpayev the Quality Policy was developed and approved , supported by the academic and scientific community of the university. The policy defines the mission, vision, purpose and objectives of the university, as well as the basic principles and strategic stakes.

The internal quality assurance system of the University is regulated by the Quality Guide approved by the decision of the Board of October 15, 2020, protocol No. 35.

An objective confirmation of the effectiveness of the internal quality system of the University is its participation and passing:

- institutional accreditation at the National Agency for Quality Assurance in Education, IQAA (2020) https://www.eqar.eu/qa-results/search/by-institution/institution/?agency=IQAA&country&activity_type=programme&id=3092 ;

- international institutional assessment in the European Association of Universities (EUA) under the International Assessment Program (IEP, International Evaluation program). https :// www . iep - qaa . org / reports - publications . html .;

- international ranking, participation in the QS World University Rating with a position (405);

- national ranking of technical universities (permanent leading 1st place).

The management of the university clearly defines those responsible for business processes, unequivocally distributes the duties of teaching staff and employees, the functions of collegiate bodies through the existing three-level system of regulatory documentation https://official.satbayev.university/ru/docs

During the interviews, the heads of structural divisions, heads of educational programs and teachers also demonstrated the unambiguity of understanding and distribution of functions between responsible persons.

The risk management system is regulated by the Risk Management Policy approved by the Board of Directors dated November 25, 2022 and DP KazNRTU 613 "Risk Management", approved by the decision of the Board of Directors of NJSC "KazNRTU named after K.I. Satpayev" dated April 14, 2022 No. 3.

The main risks of the university are defined in the Risk Map in the "Risk Management Policy" and include, among other things, the risks associated with the implementation of the EP. The Development Plans of accredited educational programs do not include risk analysis.

The collegiate bodies include representatives of employers, teaching staff, students and other interested persons. For example, the Academic Council includes: a 2nd year student in EP 6B07306 "Engineering Systems and Networks", T.K. Basenova.

The management of the EP is trained in education management programs. For example, chief Department of "ES&N " Alimova K.K. completed training under the program "Training of internal auditors of quality management systems in accordance with ISO 9001:2015" and certified as an internal auditor of quality management systems. Head of the department "CIP&S " Satybaldiyeva R.Zh. participated in the seminar "practice of application of ARQA standards for higher education institutions" held by an independent agency for ARQA accreditation and examination of the quality of education.

Analytical part

EEC IAAR, having conducted conversations and interviews with the rector, vice-rectors, deans, heads of departments, heads of structural units, students, teaching staff, representatives of employers' organizations and graduates, as well as conducting a survey of teaching staff and

students, familiarizing experts with strategic documents and the content of the EP notes the following.

The university has a published quality policy, a documented internal quality assurance system that reflects the relationship between research, teaching and learning.

The university demonstrates the development of a culture of quality assurance. The quality system of the university as a whole complies with the Standards and Directives for Quality Assurance of Higher Education in the European Area, developed by the ESG and the requirements of the national system for assessing the quality of education.

Due to the lack of a general procedure for developing an EP development plan and the lack of   evidence of management of EP development plans in the course of interviews with key stakeholders, members of the EEC commission note the need to determine a unified approach in the university to the development, management and monitoring of EP development plans.

In case of developing a common procedure, the management of the EP will need to revise the Development Plans of the accredited programs.

Members of the EEC note the placement of approved development plans for accredited EPs on the pages of the department on the university website in the public domain. The development plan of the EP "Engineering Systems and Networks" does not provide for measures that can ensure its uniqueness and individuality and, accordingly, needs to be adjusted.

The university has adopted two fundamental documents on risk management. At the same time, experts note a formal approach to identifying risks at the EP level, and in some cases its absence.

Despite the existence and implementation of individual innovative proposals at the university, the participants of the meetings could not demonstrate the mechanisms for managing innovation within the framework of the EP (management, motivation, control)

During interviews with students, employers and teaching staff of the 6B07306 program, the special role of the program management, active support and interaction of the head of the department and directors of institutes in solving strategic and operational issues was noted.

Questioning of the teaching staff, conducted during the visit of the EEC IAAR, showed that 92.7% rated the involvement of teaching staff in the process of making managerial and strategic decisions on the management of the EP as "very good and good".

The university is currently developing a Regulation on KPI and social GPA for students.

The management of the EP "Comprehensive information security" did not provide certificates of training in education management programs.

Strengths of the EP

for EP 6B07306 "Engineering systems and networks", 7M07304 - "Engineering systems and networks", EP 7M06301 "Comprehensive information security":

- the university is actively developing a culture of quality assurance, this is confirmed by participation in external assessment procedures, maintaining and developing the quality management system and its integration with ESG standards and principles, developing KPI for teaching staff and social GPI for students.

- the level of development of the quality management system of the university, the degree of documentation of processes ensures a clear definition of those responsible for business processes within the framework of the EP, the distribution of job responsibilities of personnel, and the delineation of functions of collegiate bodies;

for EP 6B07306 "Engineering systems and networks"

- the management of the EP provides a high degree of openness of accessibility for students, teaching staff, employers, government agencies in their field.

EEC recommendations

for EP 6B07306 "Engineering systems and networks", 7M07304 - "Engineering systems and networks", EP 7M06301 "Comprehensive information security:

- until December 2023 a year for the university management to ensure the development of a common regulatory document for the formation, revision and monitoring of the EP development plan;

for EP 6B07306 "Engineering systems and networks", 7M07304 - "Engineering systems and networks":

- by the beginning of the 2023-2024 academic year, the management of the EP will update the development plans for the EP, providing for measures to ensure its individuality and uniqueness;

- leadership of the EP in the Program Development Plan to ensure the identification and management of risks within the university risk management system;

- the management of the EP in the Program Development Plan to include a comprehensive analysis of the implementation of the recommendations of the EEC based on the results of accreditation (2018 and 2023) and improvement measures;

-develop an innovation management system within the EP, providing for planning, implementation algorithm, analysis and monitoring of results.

for EP 7M06301 "Comprehensive information security":

- the management of the EP to ensure transparency in the development of the EP development plan based on an analysis of its functioning and focus on meeting the needs of students, the state, employers and other stakeholders;

- by the end of 2024, the management of the educational program will be trained in education management programs to improve managerial competence.

Conclusions of the EEC according to the criteria according to the standard "Management of the educational program":

according to EP 6B07306 "Engineering systems and networks", 17 criteria are disclosed, of which 3 have strong positions, 12 are satisfactory positions, 2 require improvement.

According to EP 7M07304 - "Engineering systems and networks", 17 criteria are disclosed, of which 2 have strong positions, 13 are satisfactory positions, 2 require improvement.

according to EP 7M06301 "Comprehensive information security" disclosed 17 criteria, of which 2 have strong positions, 12 - satisfactory positions, 3 - suggest improvement.

6.2. Information Management and Reporting Standard

✓ The EO must demonstrate the existence of a system for collecting, analyzing and managing information based on the use of modern information and communication technologies and software tools and that it uses a variety of methods to collect and analyze information in the context of the EP.

✓ The management of the EP must demonstrate the existence of a mechanism for the systematic use of processed, adequate information to improve the internal quality assurance system.

✓ The management of the EP must demonstrate fact-based decision making.

✓ Within the framework of the EP, a system of regular reporting should be provided, reflecting all levels of the structure, including an assessment of the effectiveness and efficiency of the activities of departments and departments, scientific research.

✓ The PA must establish the frequency, forms and methods for assessing the management of the EP, the activities of collegial bodies and structural divisions, top management, and the implementation of scientific projects.

✓ The TOE must demonstrate the determination of the procedure for and ensuring the protection of information, including the identification of persons responsible for the reliability and timeliness of the analysis of information and the provision of data.

✓ An important factor is the availability of mechanisms for involving students, employees and teaching staff in the processes of collecting and analyzing information, as well as making decisions based on them.

✓ The management of the EP must demonstrate the existence of a mechanism for communication with students, employees and other interested parties, as well as mechanisms for resolving conflicts.

✓ The PA must demonstrate the existence of mechanisms for measuring the degree of satisfaction with the needs of teaching staff, staff and students within the framework of the EP.

✓ The PA should provide for an assessment of the effectiveness and efficiency of activities, including in the context of the EP.

✓ *The information expected to be collected and analyzed within the framework of the EP should take into account:*

- *key performance indicators;*
- *the dynamics of the contingent of students in the context of forms and types;*
- *academic performance, student achievement and dropouts;*
- *satisfaction of students with the implementation of the EP and the quality of education at the university;*
- *availability of educational resources and support systems for students.*

✓ *The PA must confirm the implementation of the procedures for processing personal data of students, employees and teaching staff on the basis of their documented consent.*

Evidence part

In KazNRTU named after K.I. Satpayev have been introduced and are operating the following systems for collecting, analyzing and managing information based on the use of modern information and communication technologies and software:

information management within the framework of the official website of the university (https://satbayev.university) ;

-management of educational and methodological information within the framework educational portals HeRo Study Space (https://satbayev.hero.study/) and LMS P olytechonline (https://polytechonline.kz/) ; _ _ _ _ _ _

- systems and automation of the electronic hostel " Dormitory " (https://dormitory.satbayev.university/) ;

-HR accounting system (http://hr.satbayev.university/) ;

-electronic document management Salem Office (https://salemoffice.kz/) ;

- Microsoft software product Office 365 (https://www.office.com/).

- Anti-plagiarism system http :// strikeplagiarism . com / en /

The university website contains DP KazNRTU 702. Formation of a contingent of students (bachelor's degree), which defines information on enrollment, transfer, restoration and expulsion of students.

From the moment of admission, all student data is associated with the learning process and accumulated on the educational portal, starting with bypass data, current achievements and output data. Collected data allows for cross-sectional analysis one student, study group, courses, covering all elements of education. In the system of the educational portal https://admin.satbayev.hero.study/site/login , students and teaching staff can view the schedule of classes and exams, gradebook, transcript and general announcements.

Access to information posted in closed databases is carried out for lawful purposes by officials who have access to information processing, after passing mandatory authorization, within the framework necessary to perform specific job duties. Access to information posted in public databases, data is provided without mandatory authorization. Teachers, students and advisers have personal accounts, access to which is carried out by login and password. To protect information Satbayev University is guided by the Information Security Policy .

Evaluation of the activities of the management of the departments, as structural divisions of the university, is carried out in accordance with the Documented procedure for DP KazNRTU 801. Internal audit twice a year. All work under this procedure is controlled by the quality manager and chief auditors. The system for monitoring the activities of the department is presented in the form of annual semi-annual and annual reports of the departments in accordance with F KazNRTU 705-10. The work plan (report) of the institute (department) , which contains a comprehensive assessment of the activities of the teaching staff and students. To assess the effectiveness of the teaching staff at the university, a KPI system is being developed.

Students, teachers and employers are involved in the processes of collecting and analyzing information by questioning, interviewing, and making decisions based on them during meetings of collegial bodies (according to EP 6B07306 and 7M07304 "Engineering systems and networks" - protocol of the extended meeting of the Academic Council dated 09/06/21 and dated 07.09.2022; minutes of the meeting of the department "ES&N " dated 17.01.2022; according to EP 7M06301

"Comprehensive information security" - minutes of the meeting of the department "CIP&S " dated 23.08.2022)

The University has developed and operates the Documented procedure DP KazNRTU 714. "Questionnaire survey. Customer Satisfaction Assessment".

Questionnaires used to survey students and employers: "Teaching staff through the eyes of a student", "Student satisfaction with the university", "Satisfaction with the quality of teaching disciplines", "Employer satisfaction with the quality of training Satbayev graduates University ".

The results of the survey are discussed at the academic council of the institute, meetings of departments to improve the efficiency of pedagogical work, the formation of the motivation of the teaching staff.

The collected and analyzed information covers the key performance indicators of the EP, the dynamics of the contingent of students and their level of performance, taking into account the satisfaction of students with the quality of the EP implementation, the availability of training resources, the demand for EP graduates in the labor market and their career growth; the effectiveness of teaching, monitoring indicators of the department. The results of the analysis of the degree of satisfaction with the needs of students, teaching staff of the EP and staff are prescribed in the Management Analysis with recommendations for improvement and the adoption of appropriate decisions.

The information and feedback system are implemented through the work of collegiate bodies, holding scheduled meetings of the Chairman of the Board-Rector with the staff, students, organizing the reception of acting. Chairman-of the Board-Rector on personal and official issues, the functioning of the rector's blog, the official web portal, conducting sociological surveys.

At the departments of ES&N and CIP&S, as well as at other departments of the university, communication with students is carried out using instant messengers in MS Teams software, WhatsApp, telegrams. Each student knows the teacher's email. In addition, students can express their ideas and problems in the SU solutions mobile application, the main purpose of which is to regularly study the public opinion of students and employees.

Interaction with other participants in the educational process such as employers, practice bases is carried out through the relevant structural units of the university, for example, the Registrar's Office or directly using corporate mail.

Each employee (including teaching staff) upon employment, along with personal documents, provides HR with a signed consent to the collection and processing of personal data in the form F KazNRTU 601-22. Consent to data processing. doc , as well as to protect their personal data in ways that do not contradict the legislation of the Republic of Kazakhstan.

Evaluation of the effectiveness of the performance of the EP in the implementation of the EP also occurs due to the feedback and reviews provided by employers.

The above mechanisms are the basis for evaluating the implementation of educational programs.

On the website of the university there is a "Rector's Blog", in which everyone can ask questions to the first head of the university and get an answer. Frequently asked questions are highlighted in a separate section.

The university strives to provide scientific research with all the necessary information resources. In NJSC KazNTU named after K.I. Satpayev, information support for scientific research was organized, a system of information and library support for scientific research was implemented in the scientific library, which provides users with information search in databases, electronic catalogs (EC). In order to assist students and researchers on the website of the library of NJSC KazNRTU named after K.I. Satbayev, a section "For Researchers" was created. university It has test access to scientific bases data such as: De Gruyter, CNKI (China National Knowledge Infrastructure), China Academic Journals Full-text Database, Academic Focus, China Data Insights. Performers of research, teaching staff and students have access to scientific literature from any computer of the university with Internet access at the university's IP addresses.

Currently, university educational programs are being developed taking into account new professions and competencies presented in the atlas of the Republic of Kazakhstan. Each educational program has an

R&D section that links scientific research with teaching. Students enrolled in these programs are involved in the performance of work within the framework of research projects, which ensures the research work of students in the priority areas of information security and engineering systems and networks.

In 2022, methodological seminars were held with the participation of Professor of the Faculty of Information Sciences of the University of Library Science and Information Technologies Iotsov V. from Sofia, Bulgaria. The seminars discussed topical issues of applying and evaluating the effectiveness of various teaching methods in the framework of the educational program "Comprehensive information security" with the participation of teaching staff, undergraduates and doctoral students.

Analytical part

An analysis of the activities of the university in accredited EPs according to the criteria of this standard allows us to draw the following conclusions.

The university has demonstrated the existence of a system for collecting, analyzing and managing information based on the use of information technology and monitoring of student enrollment, academic performance, staffing, etc. The information collected and analyzed by the university takes into account the availability of educational resources and support systems for students.

The EEC notes that the management of accredited EPs has not shown evidence of informing teachers and staff about the results of all surveys conducted at the university. Interviews with teachers showed that they are not fully aware of the results of the questionnaire surveys.

The University provides a continuous measurement of the satisfaction and needs of stakeholders. At the same time, the management of the EP needs to identify problems in the most systematic way and develop corrective measures based on the results of the surveys.

A survey of students showed that satisfaction:

- informing students about courses, educational programs and academic degrees: fully satisfied and partially satisfied - 84.9%;

- informing the requirements in order to successfully complete this specialty: fully satisfied and partially satisfied - 87.1%.

Communication with students, employees and other stakeholders, including conflict resolution, is built on the basis of effective mechanisms: the SU Solutions mobile application, regular meetings with the university administration and EP, and the well-organized work of advisers.

Members of the EEC note the active work of the teaching staff of the ES&N department in research (they are leaders and participants in grant projects, targeted programs). The results of research are being introduced into the bachelor's program "Engineering Systems and Networks" and are aimed at familiarizing students with the latest achievements in technical solutions in relevant areas (rational use of water energy, innovative heating of residential and industrial premises using a panel-radiant heating system, rational rise of groundwater and etc.).

In addition, the leadership of the EP introduces the results of research by foreign scientists into the educational process, for example, the software package "Calculation of the heat supply system" (Heat Supply) which is the result of the doctoral dissertation of Ph.D., associate professor of NGASU (Sibstrin) Rafalskaya T.A.

The department of CIP&S conducts methodological seminars aimed at modern teaching methods, exchange of experience in the application and evaluation of the effectiveness of various teaching methods, in which colleagues from universities of Kazakhstan and foreign universities participate.

Every year, undergraduates of the program "Comprehensive information security" participate in the republican research competition NIRS, and the results of their research are introduced into the educational process, in the preparation of bachelors and masters in information security.

Strengths

according to EP 6B07306 "Engineering systems and networks", 7M07304 - "Engineering systems and networks", EP 7M06301 "Comprehensive information security":

- availability of effective communication mechanisms with students, employees and other stakeholders, including conflict resolution.

according to EP 6B07306 "Engineering systems and networks", EP 7M06301 "Comprehensive information security":

- the management of the EP trains specialists on the basis of scientific research, providing the necessary information to students in the relevant areas by introducing the results of research as the teaching staff of the department and foreign scientists into the student training program.

EEC recommendations

for EP 6B07306 "Engineering systems and networks", 7M07304 - "Engineering systems and networks", EP 7M06301 "Comprehensive information security":

- o ensure that teachers and staff are informed on a regular basis about the results of all surveys conducted at the university.

Conclusions of the EEC according to the criteria according to the standard "Information Management and Reporting":

according to EP 6B07306 "Engineering systems and networks": 17 criteria are disclosed, of which 2 are valid, 15 are satisfactory positions, 0 - suggest improvement.

according to EP 7M07304 "Engineering systems and networks": 17 criteria are disclosed, of which 1 are valid, 16 are satisfactory, 0 require improvement.

according to EP 7M06301 "Comprehensive information security": 17 criteria are disclosed, of which 2 are valid, 15 are satisfactory positions, 0 - suggest improvement.

6.3. Standard "Development and approval of the educational program"

✓ *The TOE shall define and document the procedures for the development of EPs and their approval at the institutional level.*

✓ *The management of the EP must ensure that the content of the EP complies with the established goals, including the intended learning outcomes.*

✓ *The management of the EP must demonstrate the existence of mechanisms for reviewing the content and structure of the EP, taking into account changes in the labor market, the requirements of employers and the social demand of society.*

✓ *The management of the EP should ensure the availability of developed models of the EP graduate that describe the learning outcomes and personal qualities.*

✓ *The management of the EP must demonstrate the conduct of external reviews of the content of the EP and the planned results of its implementation.*

✓ *The qualification awarded upon completion of the EP must be clearly defined and correspond to a certain level of the NSC and QF-EHEA.*

✓ *The management of the EP should determine the influence of disciplines and professional practices on the formation of learning outcomes.*

✓ *An important factor is the possibility of preparing students for professional certification.*

✓ *The management of the EP must provide evidence of the participation of students, teaching staff and other interested parties in the development of the EP, ensuring its quality.*

✓ *The management of the EP should ensure that the content of the academic disciplines and the planned results correspond to the level of education (bachelor's, master's, doctoral studies).*

✓ *The structure of the EP should provide for various types of activities that ensure the achievement of the planned learning outcomes by students.*

✓ *An important factor is the correspondence between the content of the EP and the learning outcomes of the EP implemented by organizations of higher and (or) postgraduate education in the EHEA.*

Evidence part

EP 6B07306 "Engineering systems and networks", 7M07304 - "Engineering systems and networks" and 7M06301 "Comprehensive information security" are developed on the basis of state regulations and intra-university regulatory documents (Regulations on the development of EP P 029-03-02-02.1-2022.

https://official.satbayev.university/download/document/25125/Regulation%20about%20developing%20ed
ucational%20programs%202022.pdf   download/document/28850/Academic%20policy%202022.pdf ,
university development strategies).

The development of the EP is carried out by the Academic Committee, which includes teaching staff, representatives of employers, students and other interested persons (Order No. 401-P / Ѳ - dated 11/23/2022 "On approval of Academic committees"). Each educational program by the decision of the Academic Council of the Institute is considered by the educational and methodological council of the university and approved by the academic council of the university.

When developing the EP, the university ensures that the goals of the EP correspond to the university development strategy, the availability of expected learning outcomes, the participation of students and other stakeholders in the development of the EP.

The revision of the content and structure of the EP, taking into account changes in the labor market, the requirements of employers and the social demand of society, takes place at the meetings of the graduating departments (extract from the protocol No. 9 of the meeting of the ES&N department dated 01/17/2022) . To review the EP, external experts are involved - employers (for EP 6B07306 and 7M07304 "Engineering systems and networks" LLP "NIC Eco-Jobalau") and specialists from partner universities (for EP 7M06301 "Comprehensive information security" RSE "Institute of Information and Computing Technologies "). Employers take an active part in the development of the EP in the formation of elective disciplines. The proposals from the interested parties accepted during the discussion are recorded and recommended for implementation in the training and production process. For example, in the new developed (2022) RUE according to EP 6B07306 "Engineering systems and networks", new modules "Module of the basis of anti-corruption culture, ecology and life safety" were introduced into the educational process - the disciplines "Fundamentals of anti-corruption culture", "Fundamentals of entrepreneurship and leadership » "Ecology and life safety" and "Module "R&D"", in the Basic training module - the discipline "Hydrogasdynamics".

The fundamental documents for the implementation of the accredited EP are the modular EP and CED, formed on the basis of individual curricula of students and regulating the procedure for mastering the educational program.

Sutbayev University Graduate Framework Model Pr -029-03-01.1.14-2019 (approved by the decision of the Board of NJSC KazNRTU named after K. Satpayev dated December 27, 2019 No. 40) is represented by five types of competencies:

- Natural-scientific and theoretical-ideological competencies;
- Socio-personal and civic competencies;
- General engineering professional competencies;
-Communicative and IT virtual competencies;
-Special professional competencies, including additional (Minor).

The management of the EP of the departments of ES&N and CIP&S ensures the availability of developed models of graduates accredited by the EP, describing the learning outcomes and personal qualities.

The study plans of the EP include educational and professional practices (bachelor's degree); pedagogical and research (master's), which form the required learning outcomes for students and undergraduates. The duration of all types of practice is carried out in accordance with academic calendar KazNRTU .

Qualifications are clearly defined in the developed EPs, assigning upon completion of EP 6B07306 - Bachelor of Engineering and Technology, according to 7M07304 and 7M06301 - Master of Technical Sciences, types and objects of professional activity are described, a list of possible positions is provided.

The training of specialists in the field of engineering systems and networks in the Republic of Kazakhstan is carried out by 6 universities, and only 4 universities are training under the master's program. The initiator of the opening of this specialty was the Department of "Engineering Systems and Networks" KazNRTU named after. K.I. Satbayev. The uniqueness of the EP "Engineering Systems and Networks" lies in the study of the theoretical foundations and the acquisition of practical skills in the design and operation of both internal and external engineering

networks of the city and settlements along two trajectories. Training of specialists is carried out using innovative technologies and the latest equipment using modern computer programs for calculating engineering systems and networks. The high quality of graduate training is confirmed by letters of thanks from employers and positive feedback received during interviews with employers. The department keeps in touch with the companies of Russia, Austria, Italy, Germany, Poland, which deal with the issues of improving the equipment of engineering systems. So, for example, in the current academic year, a unique Austrian company with a big-name HERZ installed a new laboratory stand free of charge, which will be used in the preparation process for conducting laboratory classes in the discipline "Heating". Also this year, CLIVET SPA, which is a leading European company for the development , production and supply of air conditioning, ventilation and air purification systems with a wide range of solutions for private, commercial and industrial applications, is equipping a showroom with a modern ventilation and air conditioning system with systems automation. According to EP 6B07306 and 7M07304 "Engineering systems and networks", there are high rates of employment of graduates.

The quality of student training is facilitated by the training and professional certification opportunities provided by the leadership of the EP on the basis of Cisco and Huawei training centers, which are leading in the field of network technologies and security.

KazNRTU them. K.I. Satbayeva is actively developing international cooperation, one of the directions of which is the conclusion of agreements with foreign partner universities for the joint training of specialists in double-degree education programs and academic mobility. According to *EP* 7M07304 "Engineering Systems and Networks", the leadership of the ES&N department is currently in correspondence with the Kazan State University of Architecture and Civil Engineering (Russia) and the St. Petersburg State University of Architecture and Civil Engineering (Russia)).

Analytical part

The university has defined documented procedures for the development of the EP and its approval at the institutional level. The management of the EP provided the developed models of the EP graduate describing the learning outcomes, demonstrated the presence of external expertise.

The qualification obtained upon completion of the EP is clearly defined, explained and corresponds to a certain level of the NSC.

The management of the EP presented evidence of the participation of students and employers in the development of the EP, ensuring their quality, which was also confirmed in the interview.

EEC experts noted that despite the fact that KazNRTU named after. K.I. Satbayeva maintains ties with many leading universities in the near and far abroad in the field of education, the implementation of joint educational programs on EP 6B07306 and 7M07304 - "Engineering Systems and Networks" with partner universities is not observed.

The experts also noted the existence of international cooperation agreements with the Institute of Mining of the Siberian Branch of the Russian Academy of Sciences, Russia and NGASU (Sibstrin), Russia, but the leadership of the ES&N department did not provide evidence of the implementation of these agreements.

The content of the disciplines of EP 6B07306 "Engineering Systems and Networks" is defined in the context of the latest achievements of science in the field of engineering systems: the use of modern software products (BIM technology of engineering systems), the inclusion of teachers' research results in the content of the programs and takes into account the most important strategic tasks of the country in matters of energy and resource-saving policy, integrated use of water and use of alternative heat sources. The results of the disciplines are focused on the student's professional area.

The content of EP 6B07306 "Engineering systems and networks" also provides for an additional educational program Minor " Design, installation and operation of internal engineering systems of buildings and structures", following the results of the development of which a certificate is issued.

Training of highly qualified, competitive specialists in the field of engineering systems and networks, focused on solving issues of industrial and innovative development of the economy of the Republic of Kazakhstan; the possibility of studying in 2 educational trajectories and mastering an additional educational program (Minor); the presence of a modern laboratory base and positive feedback from employers makes the EP 6B07306 "Engineering systems and networks", 7M07304 - "Engineering systems and networks" are unique.

In the course of studying the syllabuses and attending the lesson "Organization of the protection and security of the database", members of the EEC found that the content of this discipline was duplicated with the discipline of the doctoral studies of the department "CIP&S ".

Strengths of the EP

according to EP 6B07306 "Engineering systems and networks", 7M07304 - "Engineering systems and networks", 7M06301 "Comprehensive information security":

- the management of the EP provides a high degree of openness and accessibility for students, teaching staff, employers in the development and quality assurance of the EP.

EP 6B07306 "Engineering systems and networks":

- the correspondence of the content of disciplines and learning outcomes to each other demonstrates a graduate who has not only fundamental knowledge, but also a specialist who meets the requirements of today.

According to EP 7M06301 "Comprehensive information security":

- the management of the EP provides professional certification to students based on Cisco and Huawei training centers, which are leading in the field of network technologies and security.

EEC recommendations:

for EP 6B07306 "Engineering systems and networks", 7M07304 - "Engineering systems and networks" and 7M06301 "Comprehensive information security":

– Until 2027, ensure the development and implementation of a joint (s) and / or two-degree EP with foreign universities.

– Until September 2023, the leadership of the EP should ensure the revision and updating of the graduate model in connection with the introduction of new modules and disciplines into the curricula of educational programs.

for EP 6B07306 "Engineering systems and networks", 7M07304 - "Engineering systems and networks":

– The management of the EP in 2024 to ensure the possibility of professional certification of students on an ongoing basis.

7M06301 "Comprehensive information security":

– before the start of the 2023-2024 academic year, conduct a comparative analysis of the academic disciplines of the accredited EP at the entire level in order to eliminate duplication of the content of disciplines in syllabuses.

Conclusions of the EEC according to the criteria:

According to the standard "Development and approval of the educational program"

according to EP 6B07306 "Engineering systems and networks": 12 criteria are disclosed, of which 1 have strong positions, 10 are satisfactory positions, 1 suggest improvement.

according to EP 7M07304 - "Engineering systems and networks": 12 criteria are disclosed, of which 0 have strong positions, 10 - satisfactory positions, 2 - suggest improvement.

according to EP 7M06301 "Comprehensive information security":

disclosed: 12 criteria were disclosed, of which 2 have strong positions, 8 - satisfactory positions, 2 - suggest improvement.

6.4. Standard "Continuous monitoring and periodic evaluation of educational programs"

✓ *The PA should determine the mechanisms for monitoring and periodically evaluating the EP to ensure the achievement of the goal and meeting the needs of students, society, and show the focus of the mechanisms on the continuous improvement of the EP.*

✓ *Monitoring and periodic evaluation of the EP should include:*

- *the content of the program in the light of the latest achievements of science in a particular discipline to ensure the relevance of the discipline taught;*
- *changes in the needs of society and the professional environment;*
- *workload, performance and graduation of students;*
- *the effectiveness of student assessment procedures;*
- *expectations, needs and satisfaction of students with EP training;*
- *educational environment and support services, and their compliance with the objectives of the EP.*

✓ *The management of the EP must demonstrate a systematic approach in monitoring and periodically assessing the quality of the EP.*

✓ *The EO, the management of the EP should determine a mechanism for informing all interested parties about any planned or taken actions in relation to the EP.*

✓ *All changes made to the EP must be published.*

Evidence part

Monitoring and periodic evaluation of the EP is carried out at the level of the department, the Institute and the administration with mandatory analysis and consideration of reports on the dynamics of the program at meetings and the adoption of appropriate decisions for their implementation, taking into account the requirements of employers and the social demand of society. The procedure for monitoring the periodic evaluation and revision of the content of educational programs at the university is supervised by the Department of Corporate Development and the Department of Planning and Organization of the Educational Process Office of the Registrar.

Monitoring and evaluation of the EP is carried out in accordance with internal regulations P 029-03-02-02.1.01-2022 "Regulations on the development of educational programs", P 029-03-02-02.1.03-2022 "Regulations on the academic committee for educational programs", P 029-03-02.1.01-2022 "Regulations on the Council for Academic Quality". DP KazNRTU 708 "Quality control of the educational process" provides for monitoring the quality of the educational process at the University.

When conducting intra-university control, the compliance of the content of the EP with the latest achievements of science in specific disciplines is assessed, taking into account the changing needs of society and the professional environment, the need and degree of satisfaction of students, the compliance of the educational environment and the activities of support services with the goals of the EP.

Students and teaching staff of the department, employers are involved in the processes of collecting and analyzing information through questioning, interviewing, and making decisions based on them during the meetings of the departments.

Analysis of the results of the survey, schedules, frequency and types and forms of the survey are annually presented in the management analysis report.

The results of monitoring the quality of the implementation of the EP are drawn up in the form of analytical reports, reports and are considered at meetings of the collegiate bodies of the university in the context of taking preventive and corrective measures.

To assess the quality of educational programs and achieve goals in the learning process at the university, the following methods are used: a questionnaire survey of students and teachers, annual certification of teaching staff, interviews with students, business representatives, open lectures and practical classes, mutual attendance of teaching staff classes, attendance of teachers by members of various commissions , involvement of employers in the evaluation of educational programs and conducting classes, external examination of educational and methodological documents, current control of knowledge, midterm control of knowledge, final control of knowledge.

Questionnaires used to survey students and employers: "Teaching staff through the eyes of a student", "Student satisfaction with the university", "Satisfaction with the quality of teaching disciplines", "Employer satisfaction with the quality of training Satbayev graduates University ".

The EP management conducts an annual review of the content of working curricula, modular educational training programs, working curricula, CED, taking into account changes in the educational labor market, the wishes of students and teachers, and also involves employers, students and interested parties in decision-making.

After completion of all procedures for making adjustments / changing the EP, all interested parties are informed about the upcoming adjustments / changes. Informing all interested parties about any actions in relation to the EP is carried out using portal electronic means of communication and distribution of invitations.

Updated passports of educational programs are published on the website official.satbayev.university in the section "Documents: Educational programs" in three languages.

Information about the development of the University and news about the implementation of educational programs is posted on social networks (Instagram, Facebook, Twitter, YouTube), information about educational programs is published in advertising booklets, career guidance stands. Interested parties can obtain information about the processes of formation and implementation of the EP development plan by submitting an official request to the office.

Analytical part

The university monitors and periodically evaluates EP 6B07306 "Engineering systems and networks", 7M07304 - "Engineering systems and networks", 7M06301 "Comprehensive information security". However, the members of the EEC note that there is no general procedure regulating the frequency, forms and methods for assessing the EP.

Constant monitoring and periodic evaluation of accredited EPs is carried out taking into account the proposals of students participating in the process of selecting and forming a list of elective disciplines, the proposals of students based on the results of professional internships and the proposals of employers. The evidence of the participation of students, employers and other stakeholders in the revision of the EP is the minutes of the meetings of the department.

The university has an official website. However, members of the EEC note that there is no information on the changes in the EP on the website of the university.

A survey of students conducted during the visit of the EEC IAAR showed that students assess the quality of the educational program as a whole as fully satisfied and partially satisfied - 87.7%, the overall quality of training programs as fully satisfied and partially satisfied - 88.6%.

Strengths

according to EP 6B07306 "Engineering systems and networks", 7M07304 - "Engineering systems and networks", EP 7M06301 "Comprehensive information security": none.

EEC recommendations

for EP 6B07306 "Engineering systems and networks", 7M07304 - "Engineering systems and networks", EP 7M06301 "Comprehensive information security":

- by the beginning of 2024, the leadership of the university should ensure the development of a general procedure that regulates the frequency, forms and methods of assessing the EP;

- before September 1, 2023, update the description of educational programs on the official website of the university (supplement the description with links to the content of programs, curricula, characteristics of program changes, etc.);

- before the end of the 2022-2023 academic year and then on an ongoing basis, ensure the publication on the university website of information about changes in the study program.

Conclusions of the EEC according to the criteria according to the standard "Continuous monitoring and periodic evaluation of educational programs":

According to 6B07306 "Engineering systems and networks", 7M07304 - "Engineering systems and networks", 10 criteria are disclosed, of which 0 have strong, 9 satisfactory positions, 1 - suggests improvement.

EP 7M06301 "Comprehensive information security" disclosed 10 criteria, of which 0 have strong, 9 satisfactory positions, 1 - suggests improvement.

6.5. Student-Centered Learning, Teaching and Assessment Standard

✓ *The management of the EP should ensure respect and attention to the various groups of students and their needs, provide them with flexible learning paths.*

✓ *The management of the EP should provide for the use of various forms and methods of teaching and learning.*

✓ *An important factor is the presence of own research in the field of teaching methods of academic disciplines of the EP.*

✓ *The management of the EP should demonstrate the existence of feedback mechanisms on the use of various teaching methods and the assessment of learning outcomes.*

✓ *The management of the EP should demonstrate the existence of mechanisms to support the autonomy of students with simultaneous guidance and assistance from the teacher.*

✓ *The management of the EP must demonstrate the existence of a procedure for responding to complaints from students.*

✓ *The EO must ensure the consistency, transparency and objectivity of the mechanism for evaluating learning outcomes for each SP, including appeal.*

✓ *The PA must ensure that the procedures for assessing the learning outcomes of students of the EP correspond to the planned results and goals of the program, publishing the criteria and assessment methods in advance.*

✓ *The PA should define the mechanisms for ensuring the achievement of learning outcomes by each EP graduate and ensure the completeness of their formation.*

✓ *Assessors should be proficient in modern methods of evaluating learning outcomes and regularly improve their skills in this area.*

Evidence part

Student-centered learning provides respect and attention to various groups of students and their needs, allows them to provide them with flexible learning paths and create conditions for successful personal and professional self-realization of students based on the use of various teaching methods and technologies.

The student, regardless of the form of study, the terms of study, independently builds his educational program in the form of an IEP, compiled as part of the curriculum of the educational program and the catalog of elective disciplines (CED). Students, regardless of the language of instruction, are given the opportunity to choose a specific educational trajectory in accordance with their life goals, with basic education, abilities and opportunities.

When choosing elective courses, base of practice, topics of theses and dissertations, supervisor of work, areas of research, individual characteristics, inclinations, needs and cultural experience of students are taken into account.

Evidence of attention to the needs of students on the part of the management of the university and the management of the accredited SP is also the following facts: the placement of information material on the website of the university in three languages, the presence week for adaptation of freshmen, Add / Drop weeks when the student can withdraw from the discipline and / or sign up for a new one at will; the use of Blended Learning technology (master's and doctoral studies) for employed students studying on a rotational basis or students with disabilities; providing a hostel for freshmen and foreign students; the use of distance learning technology for the comprehensive provision of the organization of the educational process; access to the electronic library and adaptation of the infrastructure of the university with ramps, etc. for students with disabilities. The university takes part in the development of a national scale project on inclusive education, the

purpose of which is to provide people with special needs with access to higher education.

On the part of the management of the EP, ensuring equal opportunities for students is also achieved by the development of educational, methodological, organizational, methodological and information support for the educational process in two languages of instruction, the appointment of advisers who play the main role in assisting in the formation and promotion of the educational trajectory (P 029-03 -02-02.1.02-2022 Advisory Regulation).

Teaching on accredited programs is based on modern achievements of world science and practice in the field of training, on the use of various modern teaching methods. So, for students of EP 6B07306 "Engineering Systems and Networks", when conducting practical work to form professional competencies and practical design skills, the 3D modeling software package Autodesk Revit, AutoCad , etc. is used . In addition, the teaching staff of accredited educational programs uses in educational learning platform Microsoft Team. A good material and technical base of the university and its constant renewal contributes to teaching based on the achievement of world science and practice. So, in 2023, for EP 6B07306 "Engineering systems and networks", on a free basis, the world's leading manufacturer of equipment and fittings in heating systems, the Austrian company HERZ installed a laboratory stand for laboratory work on the course "Heating". In the same year, it is planned to create a laboratory by the leading European company CLIVET SPA, for the development, production and supply of air conditioning, ventilation and air purification systems (the list of equipment supplied has been approved, the contract for the gratuitous transfer of material assets is at the stage of adjustment).

The teaching staff of the Institute of Automation and Information Technologies of KazNRTU owns modern teaching methods and regularly improves their qualifications in this area, including international centers and universities. Teachers receive positive experience by participating in attestation and expert activities, at the request of educational organizations and independent agencies for accrediting universities.

In the educational process, teachers of the department "ES&N " and "CIP&S " use innovative teaching methods that are oriented to the needs of employers and consumers.

To ensure equal opportunities for students in achieving learning outcomes, great importance is attached to the independent work of the student: independent work (SIW), independent work under the guidance of a teacher (IWST), term papers / projects. The departments have schedules for consultations of teaching staff, additional information is presented in syllabuses for disciplines, the student can also contact the teacher by e-mail.

Education is combined with industrial (bachelor's), pedagogical and research practices (master's).

The teaching staff's own research in the field of methods of teaching academic disciplines in EP 6B07306 "Engineering Systems and Networks" and 7M07304 "Engineering Systems and Networks" is represented by the implementation of research results, the use of laboratory equipment, the introduction of the Microsoft learning platform into the educational process Team using the entire set of tools: Forms, OneNote, Kahoot, Images, Stream, etc. The annexes to the self-assessment report present the implementation of the above results, which indicate a significant improvement in the quality of training specialists with modern achievements in the field of water lifting equipment and water resources. In addition, the teaching staff of the department has acts of introduction into production, the form of implementation of which is the implementation of prototypes (batch) of hydrocyclone type minihydroelectric power plants and a submersible pump with a vacuum hydrocyclone.

To improve the quality of training of students, teachers of the ES&N department develop teaching aids, teaching and methodological instructions for practical and laboratory classes in the state and Russian languages, as well as electronic textbooks and teaching aids.

For example, for students EP 6B07306 "Engineering systems and networks" Unaspekov B.A. developed 6 electronic manuals, which are placed in the Satbayev electronic library university (Gas supply - Unaspekov B.A. , Ventilation and air conditioning - Unaspekov B.A. ,

Engineering systems and networks - Unaspekov B.A. , Zhylutekhnikasy - Unaspekov B.A. , Zheldetu zhane gas zhyyeleri - Unaspekov B.A. , Gazben zhabdyktau - Unaspekova B.A.).

Knowledge assessment is carried out according to the established international practice of an alphabetic system with a digital equivalent (positive grades, in descending order, from "A" to "D", and "unsatisfactory" - "FX", "F"), transfer from course to course is carried out according to the results of the session and the results of the summer trimester, taking into account the transfer score (GPA). The mechanism for assessing the knowledge, skills and qualities acquired by the student in the process of passing the training is reflected in the following documents: DP KazNRTU 706 "Knowledge assessment and liquidation of debt (bachelor's degree), DP KazNRTU 708 "Quality control of the educational process". The University conducts constant (annual) monitoring of the effectiveness of the educational services provided by systematically conducting surveys of students, undergraduates, teaching staff and employees using a questionnaire. The feedback tool for studying the quality of teaching disciplines is the questioning of students "Satisfaction with the quality of teaching disciplines."

The leadership of the Institute of Automation and Information Technologies and the Institute of Architecture and Construction maintains contact with employers and with its graduates in order to determine the strengths and weaknesses and adjust the content of the EP in accordance with their recommendations through the established EP Advisory Council.

rector on the University website, electronic access to the anti-corruption service, etc. according to the admission hours posted on the university website (Main/About the University/Guidelines).

In order to offer ideas for improving the quality of the university's work and solving students' problems , the university has developed the SU Solutions mobile application, which can be downloaded for free in the App Store for iPhone and iPad. In institutes, by order of directors, a disciplinary council is annually created, whose competence includes receiving and considering complaints from students. The appeal of the results of the academic progress of students is carried out through the work of the appeal commission.

Analytical part

The interests of students, their individual abilities and opportunities are fundamental in ensuring the educational process. EEC members note the active participation of students during the interview. In the course of the survey, students confirmed their ability to choose the trajectory of learning on the basis of the RUP and CED, the choice of teachers, the formation of their own schedule of in-line classes. Also, students of accredited EPs noted the active work of advisors of the departments "ES&N ", "KO&H" who combine the functions of educational work and academic mentoring 24/7.

The development of own methods for teaching staff of the ES&N department is presented mainly only for EP 6B07306 "Engineering systems and networks" in the form of implementing research results, using laboratory equipment, using a training platform and developing electronic teaching aids.

The analysis of the provided acts of implementation in the educational process for EP 7M07304 "Engineering Systems and Networks" showed the lack of development of own research teaching staff, however, there is an act of introducing the software complex "Calculation of the heat supply system" into the educational process, developed by Ph.D., associate professor of the Novosibirsk State Architectural Institute -Construction University Rafalskaya Tatyana Anatolyevna.

To collect complete information about the needs, interests of students, a survey is conducted by type of activity; at the same time, the effectiveness of the data obtained to improve the activities of the university and the implementation accredited by the EP is not traced.

The active work of the rector's blog and the efficiency of using the SU mobile application are noted solution.

The members of the EEC noted that modern information and pedagogical technologies are

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used within the framework of the implemented EPs.

Questioning of students showed that 89.1% were completely and partially satisfied with the speed of response to feedback from teachers on the educational process; 89.7% are fully satisfied and partially satisfied with the quality of examination materials (tests and examination questions, etc.); 87.5% are completely and partially satisfied with the objectivity of assessing knowledge, skills and other educational achievements; the clarity of the evaluation criteria used by the teacher are fully and partially satisfied - 78%

Strengths
according to EP 6B07306 "Engineering systems and networks" and 7M07304 - "Engineering systems and networks", 7M06301 "Comprehensive information security":
- conflict resolution is built on the basis of effective mechanisms: the SU Solutions mobile application, meetings with the university administration and the EP, the well-organized work of advisers.
according to EP 6B07306 "Engineering systems and networks" and 7M07304 - "Engineering systems and networks":
-respect and attention to various groups of students and their needs, providing them with flexible trajectories is expressed in the individual approach of the head of the EP and teaching staff of the department for working students and undergraduates studying on a paid basis and for senior students working in their specialty, regarding the convenience of the schedule and application of Blended Learning technology, accompanied by professional consulting, supporting the desire of students for self-realization and self-assertion in the professional field, attracting gifted students to research.

EEC recommendations
for EP 7M07304 - "Engineering systems and networks", EP 7M06301 "Comprehensive information security":
- on an ongoing basis to ensure the planning and conduct of the teaching staff's own research in the field of teaching methods of academic disciplines, including in the context of student-centered learning.

Conclusions of the EEC according to the criteria:
According to the standard "Student-centered learning, teaching and performance assessment" EP 6B07306 "Engineering systems and networks", 10 criteria are disclosed, of which 2 have strong, 8 satisfactory positions, 0 - suggests improvement.
According to the standard "Student-centered learning, teaching and performance assessment" EP 7M07304 "Engineering systems and networks", 10 criteria are disclosed, of which 2 have strong, 7 satisfactory positions, 1 - suggests improvement.
According to the standard "Student-centered learning, teaching and assessment of progress" EP 7M06301 "Comprehensive information security": 10 criteria are disclosed, of which 1 have strong, 8 satisfactory positions, 1 - suggests improvement.

6.6. Standard "Students"
✓ *The PA must demonstrate the existence of a policy for the formation of a contingent of students in the context of the EP, ensure transparency and publicity of its procedures governing the life cycle of students (from admission to completion).*
✓ *The management of the EP should determine the procedure for the formation of a contingent of students based on:*
  - *minimum requirements for applicants;*
  - *the maximum size of the group when conducting seminars, practical, laboratory and studio classes;*
  - *predicting the number of government grants;*
  - *analysis of available material, technical, information resources, human resources;*
  - *analysis of potential social conditions for students, incl. provision of places in the hostel.*

✓ *The management of the EP must demonstrate its readiness to conduct special adaptation and support programs for newly enrolled and foreign students.*

✓ *The PA must demonstrate the compliance of its actions with the Lisbon Recognition Convention, the existence of a mechanism for recognizing the results of academic mobility of students, as well as the results of additional, formal and non-formal education.*

✓ *The PA should cooperate with other educational organizations and national centers of the "European Network of National Information Centers for Academic Recognition and Mobility / National Academic Recognition Information Centers" ENIC / NARIC in order to ensure comparable recognition of qualifications.*

✓ *The PA should provide an opportunity for external and internal mobility of students of the EP, as well as readiness to assist them in obtaining external grants for training.*

✓ *The management of the EP must demonstrate readiness to provide students with internship places, promote the employment of graduates, and maintain contact with them.*

✓ *The PA should provide for the possibility of providing EP graduates with documents confirming the qualifications received, including the learning outcomes achieved, as well as the context, content and status of the education received and evidence of its completion.*

Evidence part

The educational program management (EP) pursues a policy of forming a contingent of students in the EP, monitoring the transparency of its procedures from admission to graduation. The profile-preparatory department (PPS) of the department conducts career guidance in the schools of the city and regions of Kazakhstan in order to form a contingent of students. Every year, the university and institutes hold events such as "Open House" and "School Tours" to attract students to the university and provide an informed choice of major. These processes are regulated by relevant documents, such as DP KazNRTU 701 "Vocational guidance work" and DP KazNRTU 702 "Formation of a contingent of students" (bachelor's degree).

Students are the main consumers of educational services, so the interests of students are at the head of the implementation of educational programs.

The educational environment models the characteristics of students, such as individuality, freedom, integrity of the process, personal and professional growth, independence and self-respect. The analysis carried out showed a noticeable improvement in enrollment in accredited EPs, which has led to the fact that enrollment for these programs has been growing rapidly over the past two years.

Contingent of students

Educational program	Contingent of students			
	2020-2021 academic year	2021-2022 academic year	2022-2023 academic year	
	Total	Total	autumn	spring
6B07306 "Engineering systems and networks"	109	138	175	180
7M07304 "Engineering systems and networks"	36	34	42	49
7M06301 "Comprehensive information security"	13	5	10	21

New website (http://satbayev.university/) KazNRTU named after. K.I. Satbayev, stands and a guidebook provide freshmen with information about the university and its departments, including information about the administration and structural divisions, work schedule and contact numbers, as well as the organization of the educational process in accordance with the procedures established by the quality management system.

For first-year students, meetings are held with directors of institutes and consultations of advisers, as well as teachers who help students adapt to the educational process. The schedule of

consultations is posted on the information stands of the departments.

Newly converted students are given an orientation week to familiarize themselves with the educational and methodological documentation. Based on this information, students form an individual curriculum and choose teachers and courses according to their needs.

For foreign and non-resident students, free accommodation is provided in the hostels of the university on the basis of a quota provided by the Department of International Cooperation of KazNITU. These measures are taken as part of the process of adapting students to the learning environment of the university.

The university pays attention to socially vulnerable students. In 2021-2022, 13 students (orphans) were organized work on the payment of a lump sum cash allowance and a lump sum payment for uniforms, 83 students (orphans, disabled people, students at the DU for tuberculosis) were paid monetary compensation for food. Orphan students studying on a contractual basis are provided with a 25% discount on tuition (GPA of at least 2.5), and free repayment of no more than 6 credits for re-studying disciplines within 1 academic year is also allowed. Students with hearing and visual impairments (6 students) receive 75% scholarship supplements, as well as students on a paid basis, tuition discounts of 10-20% are provided. According to P029-05-01-02.8.01-2020 Regulations on the provision of discounts for educational services and material incentives (incentives) for students of NJSC KazNTU named after K.I. Satpayev (http://surl.li/fatkx) 69 students received discounts on educational services in different social categories. For the victory in the XIV Presidential Olympiad in Natural Sciences and Mathematics, the students of the school were awarded 10 Satbayev University educational grants.

Accommodation in student dormitories is carried out on the basis of the Rules for the allocation of places in the dormitories of NJSC "KazNRTU named after K.I. Satpayev" (http://surl.li/fatsq).

Satbayev University is not only the first technical university in Kazakhstan, but also an international community. Hundreds of foreign students from Uzbekistan, Kyrgyzstan, Russia, Belarus, Ukraine, Mongolia, China, Afghanistan, Tajikistan, Turkmenistan, Iran, Turkey, Azerbaijan, Iraq, Georgia, Pakistan, Egypt, Syria and so on study here. For foreign students on the university website in the "Admission" tab there is a separate page "For foreign applicants" with useful information https://satbayev.university/ru/foreignApplicants-guide . Foreign students are assisted in adapting to a new educational and cultural environment.

According to the accredited EP in recent academic years, studied: 6B07306 "Engineering systems and networks" - 2 students from Uzbekistan, 7M07304 - "Engineering systems and networks" - 4 students from Afghanistan.

The procedures for admission of students from other universities, recognition and credit offset are based on the principles of the Lisbon Recognition Conference. Admission of students from other universities is carried out in accordance with the Rules for the transfer and restoration, approved by order of the Minister of Education and Science of the Republic of Kazakhstan dated 20.01. 2015 No. 19. When transferring students from other universities, the academic difference is determined in the disciplines of working educational pans, studied by them in previous academic periods. The procedure for the elimination of academic differences, debts is set out in the DP KazNRTU 706 "Evaluation of knowledge and elimination of debts (bachelor's degree)".

In order to integrate into the international educational space, improve the quality of knowledge, comparability and recognition of educational programs with programs of foreign universities, strengthening internationalization, the university implements academic mobility of students. Academic mobility (internal and external) is carried out through the International Relations office and the Office of the Registrar of Satbayev University.

With the support of the Ministry of Education and Science of the Republic of Kazakhstan, since 2011, Satpayev University has been successfully implementing academic mobility for students and undergraduates in partner universities in the USA, the EU, Southeast Asia and the Russian Federation. According to the program of internal academic mobility of KazNRTU named after K.I. Satbayeva cooperates with 15 leading universities of the Republic of Kazakhstan.

So, for example, within the framework of the agreement on academic mobility with the Azerbaijan Architectural and Construction University of Baku, from March 30 to April 18, 2023, 5 undergraduates of the Engineering Systems and Networks program were sent for internships. In 2021, undergraduates (32 people) EP 7M06101 "Software Engineering", 7M06102 "Machine Learning & Data Science", 7M06103 "Management of Information Systems" and 7M06301 "Comprehensive information security" were sent for an internship from May 19 to May 29, 2021 at the National Aviation University in Kiev, Ukraine.

The lack of implementation of programs for external outgoing academic mobility of EP 6B07306 "Engineering systems and networks" by the leadership of the "ES&N" department is explained by the difficult economic situation of students.

Support for academic mobility of students is carried out in accordance with the DP KazNRTU 718 "Academic Mobility" (https://official.satbayev.university/download/document/16637/DP%20KazNITU%20718%20Academic%20mobility.pdf) where the order of work is established, associated with academic mobility.

University graduates are provided with a diploma supplement in accordance with the requirements of the state standard of the Republic of Kazakhstan, indicating the disciplines studied, the amount of labor intensity of the material studied in the credits of the Republic of Kazakhstan and in the EC T S system in 3 languages.

The university is actively interacting with major employers in organizing practice bases, developing curricula, evaluating learning outcomes and employment. The University has drawn up agreements with organizations, enterprises, institutions identified as practice bases for various periods covering all specialties (in the form F KazNRTU 709-04. Agreement on organization and conduct of practice):

- according to EP 6B07306 "Engineering systems and networks" bilateral agreements with SUC "Almaty SU", LLP "ArkhInzhProekt", LLP " PSI engineering ",
- according to EP 7M07304 "Engineering systems and networks" - SUC "Almaty SU";
- according to EP 7M06301 "Comprehensive information security" - LLP "KazInfoTech ADC", RSE "Institute of Information and Computing Technologies".

Planning and implementation of employment activities is described in DP KazNRTU 710 "Employment of graduates" (https://official.satbayev.university/ru/2-uroven-dp-KazNRTU).

To improve the employment of graduates, a job fair is held annually, where employers can meet with interested graduates.

The event brings together more than 40 companies, including Schlumberger, KazTransOil, Baitau Partners, Kazakhmys Corporation, Philip Morris Kazakhstan, Caspimunaigas, Basis, Bureau Veritas Kazakhstan, Consulting Engineers and Borusan Makina Kazakhstan.

Employment of graduates

Academic year	Release	Employed	%
6 B 07306 Engineering systems and networks			
201 9 academic year	21	19	90
2020 academic year	7	7	100
2021 academic year	22	19	8 6
20 22 academic year	91	72	79
7M07304 Engineering systems and networks			
201 9 academic year	5	5	100
2020 academic year	15	15	100
2021 academic year	20	18	90
20 22 academic year	16	13	81
7M06301 "Comprehensive information			

Academic year	Release	Employed	%
security"			
2022 academic year	10	10	100

On the website of the university, a special section "Alumni" is dedicated to graduates (https://satbayev.university/ru/alumni) the purpose and objective of which is to establish and strengthen business ties with companies and organizations in which university graduates successfully work. Social networks (vk.com , facebook.com , instagram.com , twitter.com) are also used to maintain feedback with graduates of different years .

The university provides students with all the opportunities for professional growth, self-realization in social activities, creativity and sports.

At the university, special attention is paid to the work on encouraging and material incentives for gifted students, in accordance with the Regulations on the provision of discounts on educational services and material incentives (incentives) for students of NJSC KazNTU named after K.I. Satbayeva (http://surl.li/fatkx).

Analytical part

Based on the results of the analysis of the self-assessment report, according to the results of meetings with students, graduates, employers, the EEC members found that Satbayev University conducts outreach and career guidance work with applicants, created an educational environment for students to achieve the required professional level, provided representation of students in collegiate management bodies of the university, methods of feedback and informing students have been developed, the cultural and social life of students has been organized.

In the course of interviews with vice-rectors and heads of the EP, the involvement of foreign students in joint participation in events (national holidays) related to the culture and traditions of Kazakhstan was confirmed.

The Commission identified the creation of conditions for supporting socially vulnerable students, gifted students, providing discounts, grants for education, stimulating creative activity, etc., as well as adaptation programs for foreign students and equal learning conditions.

During the interviews, representatives of employers and practice bases noted close cooperation with graduating departments in all accredited programs, satisfaction with the quality of student training, and also expressed their interest in supporting and being in demand for the EP. To provide students of EP 6B07306 "Engineering Systems and Networks" with practice places, the university entered into bilateral agreements with SUC "Almaty SU", LLP "ArchInzhproekt", LLP " PSI engineering ". The base of pedagogical practice for undergraduates is the Department of Engineering Systems and Networks, the passage of research practice is carried out in accordance with the concluded tripartite agreements between undergraduates and employers at enterprises where it is possible to conduct experimental research. The high quality of training of specialists in EP 6B07306 "Engineering Systems and Networks" is confirmed by letters of thanks from ArchInzhproekt LLP, Santekhproekt LLP, KSR LLP Construction", OMNI Project LLP, Project Plus LLP.

There is a positive trend in the increase in the number of students enrolled in the educational program "Engineering Systems and Networks".

Despite the existence of an alumni association, the commission noted its inactivity, since none of the graduates confirmed their membership in this organization, but at the same time, employers confirm that the management of the accredited EPs constantly keeps in touch with them, involves them in the development and implementation of the EP.

Also, EEC experts note a low percentage of participation of students in academic mobility programs of accredited EPs. The EP development plan does not reflect the participation of students in internal and external academic mobility programs. Satpayev University actively cooperates with Kazakhstani and foreign universities; however, it would be necessary to strengthen the work in the

field of academic mobility of students, including in the online format.

According to the results of the survey, only 55.1% of students express complete satisfaction with the availability of academic counseling; availability of health services - 62%; availability of library resources - 68.6%; satisfaction with existing educational resources - 63.1%; overall quality of study programs – 60.9%; relationship between student and teacher - 60.3%.

Strengths

according to EP 6B07306 "Engineering systems and networks", EP 7M06301 "Comprehensive information security":

- the presence of bilateral agreements with practice bases, close interaction of graduating departments with practice bases, positive feedback from employers and representatives of practice bases.

according to EP 6B07306 "Engineering systems and networks":

- carrying out a transparent policy of forming a contingent of students in the EP, from admission to graduation, demonstrates a steady increase in the number of students and maintaining a high% employment of graduates;

- along with the work of all university services for the adaptation of first-year students and foreign students, there is a purposeful work of advisers and management of the EP to assist this category of students to a new educational and cultural environment, through joint activities related to culture, traditions and the existing generally accepted system norms and values.

according to 7M07304 "Engineering systems and networks": none

EEC recommendations

for EP 6B07306 and 7M07304 Engineering systems and networks, 7M06301 "Comprehensive information security":

- to strengthen the work on attracting graduates of accredited EPs in the work of the alumni association.

for EP 6B07306 and 7M07304 Engineering systems and networks:

- the leadership of the EP to strengthen internal and external academic mobility with leading Kazakh and foreign universities. Consider the possibility of supporting the academic mobility of students of the EP in accordance with the concluded memorandums, agreements on international cooperation. Continue work on the academic mobility of undergraduates. Deadline: until September 1, 2024.

- the leadership of the EP to include in the Plans for the Development of Educational Programs the following items: "participation of students in the program" incoming and outgoing academic mobility "including online. Deadline: until September 1, 2023.

for EP 7M07304 "Engineering systems and networks":

-conclude bilateral agreements with enterprises on the basis of which it is possible to conduct experimental research undergraduates for research practice. Deadline: until December 1, 2024.

Conclusions of the EEC according to the criteria:

according to EP 6B07306 "Engineering systems and networks" according to the "Students" standard, 12 criteria are disclosed, of which 3 have strong, 9 satisfactory positions, 0 - suggests improvement.

according to EP 7M07304 "Engineering systems and networks" 0 have strong, 11 satisfactory positions, 1 - suggests improvement.

according to EP 7M06301 "Comprehensive information security" According to the "Students" standard, 12 criteria are disclosed, of which 1 have strong, 10 satisfactory positions, 1 - suggests improvement.

6.7. Standard "Teaching Staff"

✓ The PA must have an objective and transparent personnel policy, including in the context of the EP, including recruitment, professional growth and development of personnel, ensuring the professional competence of the entire staff.

✓ The PA must demonstrate the compliance of the staff potential of the teaching staff with the specifics of the EP.

✓ The management of the EP must demonstrate awareness of responsibility for its employees and provide favorable working conditions for them.

✓ The management of the EP should demonstrate the change in the role of the teacher in connection with the transition to student-centered learning.

✓ The PA must determine the contribution of the teaching staff of the EP to the implementation of the development strategy of the PA, and other strategic documents.

✓ The PA should provide opportunities for career growth and professional development of the teaching staff of the EP.

✓ The management of the EP must demonstrate readiness to involve practitioners in the relevant sectors of the economy in teaching.

✓ The PA must demonstrate the motivation for the professional and personal development of EP teachers, including encouragement for the integration of scientific activity and education, the use of innovative teaching methods.

✓ An important factor is the readiness to develop academic mobility within the framework of the EP, to attract the best foreign and domestic teachers.

Evidence part

Personnel policy of the University KazNRTU named after K.I. Satpayev (posted on the official website of SU) is an integral part of the strategic policy of the university, designed to bring human resources in line with the mission and goals of the university.

The University has an objective and transparent personnel policy, including in the context of accredited EPs, including recruitment, professional growth and development of personnel, ensuring the professional competence of the entire staff.

The staff of the university is staffed in accordance with the legislation of the Republic of Kazakhstan (Rules for the competitive filling of positions of teaching staff of KazNRTU named after K.I. Satpayev Pr.029-06-01.3.02-2020). Competitive selection of candidates for filling vacant positions is carried out in accordance with the qualification characteristics of the positions. Informing about the competition for the selection of teaching staff and personnel carried out by the HR Service by placing ads in national newspapers and the University website .

Selection of teaching staff from among applicants who have submitted documents for participation in competition, is held at meetings of the competition commission, in accordance with Regulations on the competition commission, approved by the Ministry education and science of the Republic of Kazakhstan. Responsibility for hiring, selection and appointment of personnel, termination, conclusion and extension of the TD lies with the HR Service.

Management decisions on the admission, transfer, promotion of the PSS are made on the basis of Rules for the competitive replacement of vacant positions of the teaching staff of NJSC "KazNRTU named after. K.I. Satbayev" and the Rules for the certification of the teaching staff of KazNRTU named after K.I. Satbayev.

Job descriptions for different categories of teaching staff are compiled on the basis of qualification requirements for educational activities. The heads of structural divisions determine the requirements for the competence of personnel on the basis of job descriptions, qualification requirements, and the specifics of the work performed. Planning of the need for personnel is determined by drawing up a draft staffing table.

In order to develop, retain and promote talented and qualified employees, including young teachers, the university creates and maintains a personnel reserve system.

The staff of teachers who ensure the implementation of EP 6B07306 and 7M07304 "Engineering Systems and Networks" is formed from highly qualified and competent employees with a fairly large experience in scientific, pedagogical and practical activities. An analysis of the qualitative composition shows that the graduating department for EP 6B07306 and 7M07304 "Engineering Systems and Networks" has a high human resources potential. Out of 17 full-time

teachers, 1 Doctor of Science, 9 Candidates of Science, 1 PhD, 5 Masters work at the department. The grade is 65%. With the Hirsch index equal to "1", there are 2 teachers in the department, with "2" - one teacher, with "4" - one teacher.

The Department of Cybersecurity, Information Processing and Storage has 22 full-time employees, 9 of them have a degree.

The website of the university provides information about the heads of structural divisions with an indication of e-mail addresses, feedback functions. Interested persons can obtain information about the qualifications of teaching staff on the university website, which provides data on teachers, a list of major works, information on participation in scientific projects, etc. To determine the level of competence of teaching disciplines at the departments, mutual and control visits to classes are carried out, open classes are held.

The teachers of the department are actively involved in the implementation of contractual work, the State Fund for scientific and (or) scientific and technical projects, the PTF Science Committee of the Ministry of Education and Science of the Republic of Kazakhstan. The list of R&D for the ES&N department is given in Appendix 34 of the Self-Assessment Report. At the department of "ES&N " special attention is paid to the implementation of the results of scientific research in the educational process.

Young teachers who graduated from the master's program in the areas of "Engineering systems and networks", "Water resources and water use", "Water resources management using IT technologies" work at the ES&N department.

Teaching staff of the department "ES&N" Kasymbekov Zh.K. was awarded a letter of gratitude from the Minister of Education and Science for her great contribution to the development of the education system of the Republic of Kazakhstan, Alimova K.K. was awarded a letter of thanks from the Ministry of Science and Higher Education of the Republic of Kazakhstan for making a significant contribution to the development of education and science of the Republic of Kazakhstan.

Academic mobility of teaching staff is one of the important areas of international and educational activities in the field of improving the quality of higher and postgraduate education of the university. For the implementation of academic mobility of the teaching staff, the leadership of the department " ES&N " has drawn up a plan for academic mobility, according to which Ph.D., Ass. Professor " ES&N " Sidorova N.V. leaves for lecturing in Russia, MGSU for the period from 01.05.23-15.05.23 and Ph.D., Ass. Professor Khoyshiev A.N. in Kyzylorda, KAKU. Korkyt Ata for the period from 09/11/23 to 09/24/2023. The plan for inviting teaching staff for academic mobility was approved by the director of the Institute of Information and Communication Systems on August 16, 2022.

The University, with the support of the Ministry of Education and Science of the Republic of Kazakhstan and partial funding, annually invites foreign teachers to give lectures to students. The management of the department " ES&N " has developed a plan for inviting foreign scientists, approved by the director of the Institute of IAIS. T.K. Basenov dated 16.08.2022. Reading guest lectures to undergraduates and bachelors is planned by Doctor of Technical Sciences, Professor of ES&N Javier Rodrigo Ilarri (Spain) from 03/01/2023 to 03/15/2023 (according to the head of the department, the planned event was postponed to September 2023), and Dr. RnD VK Thammer Ahmad Mohammad (Malaysia) in the period from 10.10.2023 to 20.10.2023.

The university provides opportunities for career growth and professional development of teaching staff, including young teachers. The HR service is guided in its activities by the document DP KazNRTU 602-2022 Staff development and training. Every year the university allocates funds from the university budget to improve the qualifications of the teaching staff of the university.

The high level of professional competencies of the University staff is maintained and developed in the system of continuous training and advanced training. Every year, a plan is formed to improve the qualifications of the teaching staff of the departments of accredited EPs, and monitoring of the passage of these courses is carried out. Certificates of advanced training are presented in Appendix 29 to the self-assessment report of EP "7M06301 - Comprehensive

Information Security" and Appendix 30 to the self-assessment report of EP 6B07306 - "Engineering Systems and Networks" and 7M07304 - "Engineering systems and networks", indicate that that the teaching staff of the departments "Cybersecurity, information processing and storage" and "Engineering systems and networks" take part in seminars and trainings, in conferences and certification programs.

To strengthen the practical orientation of the educational process, specialists - production workers are invited to conduct classes. So, according to the EP Engineering Systems and Networks from the Design Institute "PK Kazgiprovodkhoz" a specialist was involved in teaching - Botantaeva B.S., a production worker, whose basic education corresponds to the profile of the department. In the process of training undergraduates of EP 7M06301 CIS, production specialists from relevant industries with professional competencies are involved in teaching (App. CIP&S 28).

The publication activity data presented in Appendix 34 to the self-assessment report of the EP "7M06301 - Comprehensive Information Security" and Appendix 31 to the self-assessment report of the EP 6B07306 - "Engineering Systems and Networks" and 7M07304 - "Engineering Systems and Networks" shows involvement in the science of teaching staff.

The university has developed a Regulation on the remuneration of employees and students at NJSC KazNRTU named after K.I. Satpayev for publications in rating (peer-reviewed) scientific journals.

KazNRTU implements the mechanisms of moral and material incentives: declaration of gratitude, awarding diplomas, payment of bonuses, presentation for the title of "Honorary Worker of Education of the Republic of Kazakhstan", recommendation for participation in the competition "Best University Teacher", providing an opportunity to improve qualifications at the expense of KazNSTU, etc. So, the associate professor of the department of CIP&S Begimbayeva E.E. became the Best Teacher 2022 (App. CIP&S 30). Teaching staff of the ES&N department Kasmbekov Zh.K., Alimova K.K. were awarded a badge for the contribution of science and education of Sutbayev University. KazNRTU has developed a system for providing social assistance to teaching staff and employees.

Teaching staff of accredited specialties of the departments actively participate in the public life of the city and the republic: participation in work in two polling stations, in the intra-university sports contest "Densaulyk" and the inter-university sports contest "Parasat", membership in the jury during various competitions and championships, etc.

Participating as members of the jury of the VIII Open Championship in robotics and innovative technologies for the cup of the Akim of Almaty, the teaching staff of the department Satybaldiyeva R.Zh., Ogan A., Kalaman E. received letters of thanks. (Appendix ES&N 39) (Appendix CIP&S 30).

The role of the teaching staff of the university in the development of education and science of the city and the republic is significant. This is evidenced by competitions of scientific projects, as well as ongoing scientific seminars and conferences. Materials of KazNRTU scientists aimed at strengthening the public image of the university are regularly published in the media.

Analytical part

Analysis of the EP according to this standard allows us to draw the following conclusions. The university has an objective and transparent personnel policy. Experts note that the staff of the teaching staff of the EP is staffed in accordance with the legislation of the Republic of Kazakhstan and the Rules for the Competitive Substitution of Positions for Scientific and Pedagogical Personnel of Higher Educational Institutions.

The management of the university has developed a mechanism and is systematically working to motivate the professional and personal development of EP teachers. One of the instruments of such encouragement is the system of payment categories, which takes into account the publication activity of scientists and university teachers.

The Commission of the EEC notes the stable classical supply of educational material for students of accredited EPs. The teaching staff also use distance technologies (Polytech Online) and online learning tools (Microsoft Teams). However, as part of the development of distance learning technologies, the teaching staff of the department needs to continue to develop the skills of using information and communication technologies and software in the educational process, developing massive open online courses and posting it on the university website. The limiting factor in the use of ICT in the educational process is that the MUK building (small educational building), where classes are mainly held for students of the accredited EP "Engineering Networks and Systems", is not fully equipped with TTA tools for lecturing (interactive whiteboards, Smart TV and etc.).

Obtaining theoretical and practical knowledge, skills and abilities in the preparation of technical specialists is provided within the walls of the university. In interviews with students, students expressed their desire to receive more practical training and skills.

The leadership of the EP has demonstrated purposeful actions for the development of young teachers.

EEC experts note that the accredited EP "Engineering Systems and Networks" is working on external and internal outgoing academic mobility of teaching staff, as well as attracting foreign teachers to give lectures offline. In addition, it is necessary to consider the possibility of lecturing by foreign scientists online.

Teachers implementing the accredited educational program 7M06301 "Integrated Provision of Information" do not sufficiently realize the possibility of exchanging experience within the framework of the academic mobility program in the universities of Kazakhstan.

The Commission of the EEC notes that there are no international educational and scientific projects at the Department of Cybersecurity, Information Processing and Storage, accredited by the EP "7M06301 – Comprehensive Information Security". Guideline OP 7M06301 - Comprehensive Information Security "should work out the compliance of the teaching staff with the qualification requirements.

The results of the survey conducted during the visit of the EEC showed that the teaching staff of the EP is assessed as "very good" and "good":

- opportunities for professional and personal growth for each teacher and teaching staff - 95.1%;

- encouragement of innovative activity of teaching staff - 95.1%.

In addition, to the question "What other problems do you face in your work?" - The teaching staff indicated - Renewal of computers in lecture halls (not all halls have interactive whiteboards).

Strengths of the EP
According to 6B07306 and 7M07304 "Engineering systems and networks": none.
According to EP 7M06301 " Comprehensive Information Security":
- the university management considers candidates for filling vacant positions of teaching staff on the basis of competitive commissions, where they check the compliance of teaching staff with qualification requirements, university strategy, and objectives of the EP.
EEC recommendations

for EP 6B07306 and 7M07304 "Engineering systems and networks":

- until 09/01/2024, to involve in teaching specialists from relevant industries with professional competencies (dual training) in order to improve the practical skills of students and undergraduates or organize branches of the department in production.

- annually attract foreign and domestic teachers to give lectures to students of the EP, ensure the participation of the teaching staff of the department in the programs of internal and external academic mobility both offline and online.

- the management of the University, together with the head of the EP, to consider the possibility of equipping all lecture halls of the MUK with technical teaching aids "smart boards", plasma panels, monitors, projectors for demonstrating presentations, individual videos, images, etc.

for EP 7M06301 " Comprehensive Information Security":

-until the end of the 2023-2024 academic year, provide internships for full-time teaching staff of the Department of Cybersecurity, Information Processing and Storage as part of the academic mobility program at universities in Kazakhstan and abroad for at least two weeks.

- by the end of the 2023-2024 academic year, conduct joint research with representatives of universities or research organizations in Kazakhstan or abroad.

Conclusions of the EEC according to the criteria:

According to the standard "Teaching staff" for EP 6B07306 and 7M07304 "Engineering Systems and Networks", 10 criteria are disclosed, of which 0 have strong, 10 satisfactory positions, 0 - suggests improvement.

According to the standard "Teaching staff" according to EP 7M06301 "Comprehensive information security":

10 criteria are disclosed, of which 1 have strong, 8 satisfactory positions, 1 - suggests improvement.

6.8. Standard "Educational resources and student support systems"

✓ *EO must guarantee a sufficient number of educational resources and student support services to ensure the achievement of the goal of the EP.*

✓ *The EO must demonstrate the sufficiency of material and technical resources and infrastructure, taking into account the needs of various groups of students in the context of the EP (adults, employed, foreign students, as well as students with disabilities).*

✓ *The management of the EP must demonstrate the existence of procedures for supporting various groups of students, including information and counseling.*

✓ *The management of the EP must demonstrate the compliance of information resources with the specifics of the EP, including:*

- technological support for students and teaching staff (for example, online learning, modeling, databases, data analysis programs);

- library resources, including a fund of educational, methodical and scientific literature on general education, basic and major disciplines on paper and electronic media, periodicals, access to scientific databases;

- examination of the results of research, final works, dissertations for plagiarism;

- access to educational Internet resources;

- functioning of WI-FI on the territory of the educational organization.

✓ *EO demonstrates the planning of providing the EP with educational equipment and software similar to those used in the relevant sectors of the economy.*

Evidence part

The University shall ensure that sufficient, accessible and appropriate educational resources and student support services are available. Infrastructure and material and technical base in KazNRTU named after. K.I. Satpayev is represented by administrative, educational and educational and laboratory buildings, auxiliary premises and student houses for students and employees to live, has modern resources, provides the conditions necessary for the provision of quality educational services. The corresponding development of the infrastructure used for the implementation of the EP is carried out based on the results of monitoring the satisfaction with the infrastructure by students, teachers, employees and other interested parties. When distributing, planning and providing educational resources, the university takes into account the needs of various groups of students.

The ES&N department has a total production area of 569.4 m2 in the small educational building of the university (MUK), which houses 3 classrooms, 6 laboratories, 1 computer class, 1 conference. hall and 4 rooms (the office of the head of the department, professorial and teaching). Educational laboratories of the department " ES&N ": "Heating and ventilation", "Pumps and fans", "Water supply and sewerage", "Heat engineering and heat generating plants", "Hydropower and hydropower plants", "Water chemistry and microbiology", a conference room and a computer Class.

The management of the EP strives to ensure that the equipment used for the development of educational programs is similar to that used in the engineering systems industry. So, in 2023, the Austrian company HERZ updated the MTB of the Heating and Ventilation laboratory free of charge, and it is also planned to supply equipment for a modern ventilation and air conditioning system with automation systems to the leading European company CLIVET S.P.A.

The technical support of students is effectively functioning at the university based on the use of modern information and communication technologies and software tools: HeRo Study Space, LMS Polytechonline, "Dormitory", Microsoft Office 365, SU solutions.

The university has 49 WiFi access points. Of these, 4 points are in hostels and 45 points are on campus.

Scientific Library of KazNRTU named after K.I. Satpayev is an information and resource base for the educational, methodological and scientific process for the training of scientific and technical personnel. The library infrastructure consists of 7 subscriptions and 8 reading rooms. At the service of students and teaching staff are printed documents provided in a stationary mode, electronic information resources and online services that correspond to the goals of the implemented EP. The availability of resources in remote mode is ensured by the Electronic Catalog.

The library fund is completed in accordance with the profile of the university, on the basis of curricula and educational programs, applications of departments for the necessary literature. The general fund of the library is 1,625,548 copies as of January 1, 2022, including 369,832 copies in the state language. At the service of readers 508 150 copies. textbooks on general education disciplines, including in the state language - 158,552 copies. The fund contains 978813 copies. textbooks and teaching aids, in the Kazakh language - 306,376 copies. The library has 633,223 copies. scientific literature, Kazakh. language - 48715 copies.

Students, teaching staff and researchers are provided with free access via IP addresses to the following information resources: electronic library systems ("Lan" "Engineering and Technical Sciences", digital educational resource IPRSmart, electronic database "Epigraph", thematic collections of electronic books, subscription foreign databases (Wiley, IEEE Xplore Digital Library).The university's digital library (EL) also provides the needs of students and teaching staff in the necessary information and educational resources. Access to up-to-date scientific information for users is guaranteed thanks to the subscription to periodicals organized by the university. (scientific library) provides complete information about the activities and resources of the library, there is online access to the "Electronic Library", to the electronic catalog and scientific databases.

The University has an innovative High Flex auditorium, which includes audiovisual equipment and an innovative workplace in room 265 of the MMC.

The university has 52 computer labs with 665 computers, of which 338 are high-performance graphics stations. For students and teachers of Satbayev University, licenses and software distributions were purchased that are used in work at the world's largest industrial enterprises, such as: Autodesk products - AutoCAD, Civil 3D, 3DS Max, Revit, Fusion 360, Inventor, etc.; CHEMCAD; Schlumberger products - Petrel, Techlog, ECLIPSE, PIPESIM, etc.; KAPPA Engineering products - Saphir Pressure Transient Analysis, Topaze Rate Transient Analysis, Emeraude Cased Hole Logging, etc.; Microsoft M365 cloud products - Teams, SharePoint, OneDrive, Outlook, Word, Excel, etc.; Free access for all students and employees of Satbayev University to the main legislative base of the Republic of Kazakhstan IS "Paragraph" was organized.

In the NJSC "KazNRTU named after. K. Satpayev" students' final works (thesis/projects, master's and doctoral dissertations) must be checked for uniqueness using the "Anti-plagiarism system" http://strikeplagiarism.com/en/, regulated by the "Rules for the verification of final works for plagiarism (StrikePlagiarism.com)» Ex.029-04-01.03.1.05-2022.

The university is working on the issues of participation of institutions in competitions for grant funding, PTF, etc., seminars are held to clarify the rules and competition documents. This is confirmed by the active participation of teaching staff in various competitions for program-targeted and grant funding of the Science Committee of the Ministry of Education and Science of the Republic of Kazakhstan. The total amount of financing of the concluded agreements, including the GF and PTF, amounted to 2.4 billion tenge, which is 19 percent of the total budget of the university. In 2022, 44 projects of the economic contract direction were implemented for a total amount of 858 million tenge. At the moment, the university is implementing 21 contract studies for a total of 680 million tenge, as well as at the stage of concluding an agreement with industrial enterprises in the amount of 580 million tenge.

In 2022, 30 applications were submitted (together with subsidiaries and affiliates) for commercialization grants organized by Science Foundation JSC.

In 2022, the first startup competition was held among employees and students with real funding for the winners. 51 applications were submitted, 6 winners were determined.

Analytical part
A variety of learning resources and student support services are available at the university.

The university has a scientific library, students have access to various databases and teaching materials. At the same time, the members of the EEC note that the management of the EP " ES&N " did not provide a certificate on the availability of books for the educational process of the EP from the scientific library, which did not allow us to evaluate this indicator.

All educational and methodical works of the teaching staff, subject to publication or publication, are tested to prevent plagiarism under the program of the Anti-plagiarism Internet System Strikeplagiarism.com.

In the course of the accreditation procedure, the compliance of the necessary material and technical resources for all cluster EPs was revealed. The improvement of equipment is carried out in a planned manner within the framework of accredited EPs. In addition, the participation of the world's leading companies in the renovation of equipment in the field of engineering systems on a gratuitous basis is noted. In connection with the installation of a new laboratory stand and the planned supply of new equipment for ventilation systems, it is required to develop a MS for conducting laboratory and practical classes in the disciplines "Heating", "Ventilation and air conditioning" for students of EP 6B07306 "Engineering systems and networks".

The buildings and facilities of the university comply with the current sanitary standards and fire safety requirements.

As a result of a visual inspection of the laboratories of the ES&N department, the presence of primary fire extinguishing equipment and fire alarms, the presence and maintenance of safety journals and a first-aid kit were noted.

The university needs to continue to ensure the availability of wireless (Wi-Fi) Internet in all hostels where students and undergraduates live.

According to the results of a survey of students with the level of availability of library resources, 68.6% are fully satisfied, 21.4% are partially satisfied; 57.7% are completely satisfied with classrooms, auditoriums for large groups, 26.6% are partially satisfied; 57.7% are fully satisfied with the support of educational materials in the learning process, 28.9% are partially satisfied; 59.7% are fully satisfied with the availability of computer classes, 25.1% are partially satisfied; 51.1% are completely satisfied with student lounges, 28.0% are partially satisfied; 59.7% are fully satisfied with the availability of Internet resources, 25.1% are partially satisfied; 56.6% are completely satisfied with the existing scientific laboratories, 26.9% are partially satisfied; 56.6% are completely satisfied with the available computer classes, 30.9% are partially satisfied; 58.9% are completely satisfied with the provision of the hostel, 29.4% are partially satisfied.

Strengths
according to EP 6B07306 "Engineering systems and networks", 7M06301 "Comprehensive Information Security":
- the management of the EP demonstrates the availability of a sufficient number of laboratories for the study of special disciplines and their high level of equipment with modern equipment from leading world companies.
according to 7M06301 " Comprehensive Information Security ":
- the university management provides modern educational resources, licensed software in sufficient quantities, which correspond to the goals of the accredited study program.
- the university management creates conditions for conducting scientific research, publishing the results of research work of teaching staff, providing research laboratories, collaborating with research institutes (RI) in the field of accredited EP to carry out research projects and programs, and also attract leading scientists from research institutes for conducting training sessions, managing practice and dissertations.

EEC recommendations
for EP 6B07306, 7M07304 "Engineering systems and networks", 7M06301 " Comprehensive Information Security ":
- ensure the functioning of a high-quality wi-fi network on its territory, including in hostels. Deadline: until 01.09.2023
for EP 6B07306, 7M07304 "Engineering systems and networks":
- by September 2023, educational programs must specify the need for resources in accordance with the current "Regulations on the development of educational programs" P029-03-02-02.1.01-2022.
- to analyze the sufficiency of the library fund of professional literature in the context of accredited educational programs in order to determine the availability of books for the contingent of students. Deadline: until 01.09.2023
- by September 2023, develop guidelines for conducting laboratory and practical classes in the disciplines "Heating", "Ventilation and air conditioning".

Conclusions of the EEC according to the criteria:
According to the standard "Educational resources and student support systems" according to EP 6B07306 "Engineering systems and networks", 13 criteria are disclosed, of which 1 have strong positions, 12 satisfactory positions, 0 - suggest improvement.
according to EP 7M07304 "Engineering systems and networks": 13 criteria are disclosed, of which 0 have strong positions, 13 satisfactory positions, 0 - suggest improvement.

according to 7M06301 " Comprehensive information security ": 13 criteria are disclosed, of which 3 have strong, 10 satisfactory positions, 0 - suggests improvement.

6.9 "Public information" standard
✓ *The EO must publish reliable, objective, up-to-date information about the educational program and its specifics, which should include:*

- expected learning outcomes of the implemented educational program;

- qualifications and (or) qualifications that will be awarded upon completion of the educational program;

- approaches to teaching, learning, as well as a system (procedures, methods and forms) of assessment;

- information about passing scores and learning opportunities provided to students;

- information about employment opportunities for graduates.

✓ *The management of the EP should provide for a variety of ways to disseminate information, including the media, information networks to inform the general public and interested parties.*

✓ *Informing the public should include support and explanation of the national development programs of the country and the system of higher and postgraduate education.*

✓ *EO must demonstrate the reflection on the web resource of information that characterizes it as a whole and in the context of educational programs.*

✓ *An important factor is the availability of adequate and objective information about the teaching staff of the EP.*

✓ *An important factor is informing the public about cooperation and interaction with partners within the framework of the EP.*

Evidence part

The University consistently implements a public information strategy through the University website, social networks, based on the principle of transparency about its activities, including ongoing programs, expected learning outcomes for the EP, qualifications awarded, teaching and learning methods, assessment procedures, passing scores and learning opportunities, provided to students, as well as information on employment opportunities for graduates. The official website of the university is presented in 3 languages and provides access to internal and external electronic resources.

Information about the activities of the university is presented on the "About the University" page. The "Quality Assurance Guarantees" page outlines the university's priority areas of activity, as well as its achievements in providing students with quality education and scientific work.

The media and electronic publications used by the university include: Republican newspaper "Kazakhstanskaya Pravda"; Forbes Kazakhstan; Yegemen Kazakhstan; ExpressK; Tengrinyus; Nur.kz; and other publications.

Satbayev University makes extensive use of social networks, in which it regularly publishes information about educational programs and opportunities offered by studying at the university.

Satbayev University maintains the following official social media accounts: Instagram https://www.instagram.com/satbayev_university/; Facebook https://www.facebook.com/satbayevuniversity; VK https://vk.com/satbayevuniversity; Telegram https://t.me/Satbayev_University_Official; LinkedIn https://www.linkedin.com/school/1048308/admin/; Twitter https://twitter.com/NITU_Satpayev; YouTube https://www.youtube.com/channel/UCzpfUbR-imEHBlhOX9tnKEg; TikTok https://www.tiktok.com/@satbayev_official?lang=en; Google Business https://business.google.com/u/2/posts/l/1394525445.

To ensure effective feedback, the rector's blog is placed on the main page of the site in the section about the university. Experts note its demand.

The site contains complete information about all teachers working at the university. Each teacher has a profile containing a photo of the teacher, information about his scientific achievements and interests, publications.

The University is actively involved in explaining the Messages of the President of the Republic of Kazakhstan and the programs of the Government of the Republic of Kazakhstan among the teaching staff, employees, and students. (Satbayev University discusses the president's message).

In accordance with the Law of the Republic of Kazakhstan dated February 28, 2007 N 234 "On Accounting and Financial Reporting", the university annually, no later than August 31 of the year following the reporting year, publishes audited financial statements on the depositary's web portal (electronic database). The audited financial statements of the university are posted on its own website on the page Home/Documents/Financial reporting and audit.

Analytical part

The official website of the university places information about the history of the university, the rector, the development strategy in accordance with which the university operates.

The EEC notes the availability of complete information about the teachers involved in the implementation of accredited EPs on the website of the university. The university and the management of the EP uses a variety of ways to disseminate information to inform the general public and interested parties. Information about the results of the university's activities is reflected in three languages on the official website of the university. The website of the university contains the following functional elements: "Admission", "About University", "Institutes", "Science", "For Students", "Contacts", etc.

Descriptions of educational programs by levels of training are available on the main page in the "Admission" tab. Each educational program has a description containing a description of employment opportunities after graduation, as well as training conditions. Experts note that the website of the university provides information on the rules for admission of applicants, educational programs, terms and form of training, contact information, but not all areas of the university's activities are covered. The following information was not found on the site: the contingent of students, taking into account the dynamics, information about the system for assessing the educational achievements of students, information about the creative activity of students and teaching staff. Also, the commission notes that on the website of the university on the page Home / Institutes / Institute of Architecture and Construction / Department of Engineering Systems / Educational Programs / there is no information about the uniqueness and individuality of OP 6B07306 "Engineering Systems and Networks", 7M07304 "Engineering Systems and Networks", information on the availability of academic mobility programs and international relations of the university in the context of the EP.

Questioning of students, conducted during the visit of the EEC IAAR, showed:

- Satisfaction with the usefulness of the website of educational organizations in general and faculties in particular was confirmed by 74.8% of students;

- 84.9% are satisfied with information about courses, educational programs, and academic degrees.

Strengths

According to EP 6B07306, 7M07304 "Engineering systems and networks", 7M06301 " Comprehensive information security": none.

EEC recommendations

for EP 6B07306, 7M07304 "Engineering systems and networks", 7M06301 "Comprehensive information security":

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- by the beginning of the 2023-2024 academic year, supplement the information on the university website on the student population, taking into account the dynamics; information about the system for assessing the educational achievements of students; information about the creative activity of students and teaching staff;

- the management of the EP to ensure that information about the uniqueness and individuality of the EP, about academic mobility programs, information about cooperation and interaction with partners within the OP is available to the public by posting information on the university website on the pages describing educational programs by the beginning of the 2023-2024 academic year

Conclusions of the EEC according to the criteria:

According to the standard "Informing the public" according to EP 6B07306, 7M07304 "Engineering systems and networks": 12 criteria are disclosed, of which 0 have strong, 11 satisfactory positions, 1 suggest improvement.

According to the standard "Informing the public" according to EP 7M06301 "Comprehensive information security": 12 criteria are disclosed, of which 0 have strong, 11 satisfactory positions, 1 suggest improvement.

(VII) OVERVIEW OF STRENGTHS/BEST PRACTICE FOR EACH STANDARD

Standard "Management of the educational program"
Strengths/best practice

According to EP 6B07306 "Engineering systems and networks", 7M07304 - "Engineering systems and networks", OP 7M06301 "Comprehensive information security":

- the university is actively developing a culture of quality assurance, this is confirmed by participation in external evaluation procedures, maintaining and developing the quality management system and its integration with ESG standards and principles, developing KPI for teaching staff and social GPI for students.

- the level of development of the quality management system of the university, the degree of documentation of processes ensures a clear definition of those responsible for business processes within the framework of the EP, the distribution of job responsibilities of personnel, and the delineation of functions of collegiate bodies;

according to EP 6B07306 "Engineering systems and networks":

- the management of the EP provides a high degree of openness of accessibility for students, teaching staff, employers, government agencies in their field.

Information Management and Reporting Standard
Strengths/best practice

According to EP 6B07306 "Engineering systems and networks", 7M07304 - "Engineering systems and networks", EP 7M06301 "Comprehensive information security":

- availability of effective communication mechanisms with students, employees and other stakeholders, including conflict resolution.

according to EP 6B07306 "Engineering systems and networks", EP 7M06301 "Comprehensive information security":

- the management of the EP trains specialists on the basis of scientific research, providing the necessary information to students in the relevant areas by introducing the results of research as the teaching staff of the department and foreign scientists into the student training program.

Standard "Development and approval of the educational program"
Strengths/best practice

According to EP 6B07306 "Engineering systems and networks", 7M07304 - "Engineering systems and networks", 7M06301 "Comprehensive information security":

- the management of the EP provides a high degree of openness and accessibility for students, teaching staff, employers in the development and quality assurance of the EP.

EP 6B07306 "Engineering systems and networks":

- the correspondence of the content of disciplines and learning outcomes to each other demonstrates a graduate who has not only fundamental knowledge, but also a specialist who meets the requirements of today.

According to EP 7M06301 "Comprehensive information security":

- The management of the EP provides professional certification to students based on Cisco and Huawei training centers, which are leading in the field of network technologies and security.

Standard "Continuous monitoring and periodic evaluation of educational programs"
Strengths/best practice

According to EP 6B07306 "Engineering systems and networks", 7M07304 - "Engineering systems and networks", 7M06301 "Comprehensive information security": none.

Student-Centered Learning, Teaching and Assessment Standard
Strengths/best practice

According to EP 6B07306 "Engineering systems and networks" and 7M07304 - "Engineering systems and networks", 7M06301 "Comprehensive information security":

- conflict resolution is built on the basis of effective mechanisms: the SU Solutions mobile application, meetings with the university administration and the EP, the well-organized work of advisers.

according to EP 6B07306 "Engineering systems and networks" and 7M07304 - "Engineering systems and networks":

-respect and attention to various groups of students and their needs, providing them with flexible trajectories is expressed in the individual approach of the head of the EP and teaching staff of the department for working students and undergraduates studying on a paid basis and for senior students working in their specialty, regarding the convenience of the schedule and application of Blended Learning technology, accompanied by professional consulting, supporting the desire of students for self-realization and self-assertion in the professional field, attracting gifted students to research.

Standard "Students"
Strengths/best practice

According to EP 6B07306 "Engineering systems and networks", EP 7M06301 "Comprehensive information security":

- the presence of bilateral agreements with practice bases, close interaction of graduating departments with practice bases, positive feedback from employers and representatives of practice bases.

according to EP 6B07306 "Engineering systems and networks":

- conducting a transparent policy of forming a contingent of students in the EP, from admission to graduation, demonstrates a stable increase in the number of students and maintaining a high percentage of graduates' employment;

- along with the work of all university services for the adaptation of first-year students and foreign students, there is a purposeful work of advisers and management of the EP to assist this category of students to a new educational and cultural environment, through joint activities related to culture, traditions and the existing generally accepted system norms and values.

According to 7M07304 "Engineering systems and networks": none

Standard "Teaching Staff"
Strengths/best practice
According to 6B07306 and 7M07304 "Engineering systems and networks": none.

According to EP 7M06301 "Comprehensive information security":

- the university management considers candidates for filling vacant positions of teaching staff on the basis of competitive commissions, where they check the compliance of teaching staff with qualification requirements, university strategy, and objectives of the EP.

Standard "Educational resources and student support systems"
Strengths/best practice

according to EP 6B07306 "Engineering systems and networks", 7M06301 "Comprehensive information security":

- the management of the EP demonstrates the availability of a sufficient number of laboratories for the study of special disciplines and their high level of equipment with modern equipment from leading world companies.

according to 7M06301 "Comprehensive information security":

- the university management provides modern educational resources, licensed software in sufficient quantities, which correspond to the goals of the accredited study program.

- the university management creates conditions for conducting scientific research, publishing the results of research work of teaching staff, providing research laboratories, collaborating with research institutes (RI) in the field of accredited EP to carry out research projects and programs, and also attract leading scientists from research institutes for conducting training sessions, managing practice and dissertations.

Public Information Standard
Strengths/best practice

According to EP 6B07306, 7M07304 "Engineering systems and networks", 7M06301 "Comprehensive information security": none.

(VIII) OVERVIEW OF RECOMMENDATIONS FOR IMPROVING QUALITY

Standard "Management of the educational program"
EEC recommendations

for EP 6B07306 "Engineering systems and networks", 7M07304 - "Engineering systems and networks", EP 7M06301 "Comprehensive information security:

- until December 2023, the university management should ensure the development of a common regulatory document for the formation, revision and monitoring of the EP development plan;

for EP 6B07306 "Engineering systems and networks", 7M07304 - "Engineering systems and networks":

- by the beginning of the 2023-2024 academic year, the management of the EP will update the development plans for the EP, providing for measures to ensure its individuality and uniqueness;

- leadership of the EP in the Program Development Plan to ensure the identification and management of risks within the university risk management system;

- the management of the EP in the Program Development Plan to include a comprehensive analysis of the implementation of the recommendations of the EEC based on the results of accreditation (2018 and 2023) and improvement measures;

- develop an innovation management system within the EP, which provides for planning, implementation algorithm, analysis and monitoring of results.

for EP 7M06301 "Comprehensive information security":

- the management of the EP to ensure transparency in the development of the EP development plan based on an analysis of its functioning and focus on meeting the needs of students, the state, employers and other stakeholders;

- by the end of 2024, the management of the educational program will be trained in education management programs to improve managerial competence.

Information Management and Reporting Standard
EEC recommendations
for EP 6B07306 "Engineering systems and networks", 7M07304 - "Engineering systems and networks", EP 7M06301 "Comprehensive information security":
ensure that faculty and staff are informed on an ongoing basis about the results of all surveys conducted at the university.

Standard "Development and approval of the educational program"
for EP 6B07306 "Engineering systems and networks", 7M07304 - "Engineering systems and networks" and 7M06301 "Comprehensive information security":
Until 2027, ensure the development and implementation of a joint (s) and / or two-degree EP with foreign universities.
Until September 2023, the leadership of the EP should ensure the revision and updating of the graduate model in connection with the introduction of new modules and disciplines into the curricula of educational programs.
for EP 6B07306 "Engineering systems and networks", 7M07304 - "Engineering systems and networks":
The management of the EP in 2024 to ensure the possibility of professional certification of students on an ongoing basis.
7M06301 "Comprehensive information security":
before the start of the 2023-2024 academic year, conduct a comparative analysis of the academic disciplines of the accredited EP at the entire level in order to eliminate duplication of the content of disciplines in syllabuses.

Standard "Continuous monitoring and periodic evaluation of educational programs"
for EP 6B07306 "Engineering systems and networks", 7M07304 - "Engineering systems and networks", EP 7M06301 "Comprehensive information security":
- by the beginning of 2024, the leadership of the university should ensure the development of a general procedure that regulates the frequency, forms and methods of assessing the EP;
- before September 1, 2023, update the description of educational programs on the official website of the university (supplement the description with links to the content of programs, curricula, characteristics of program changes, etc.);
- before the end of the 2022-2023 academic year and then on an ongoing basis, ensure the publication on the university website of information about changes in the study program.
Student-Centered Learning, Teaching and Assessment Standard
for EP 7M07304 - "Engineering systems and networks", EP 7M06301 "Comprehensive information security":
- on an ongoing basis to ensure the planning and conduct of the teaching staff's own research in the field of teaching methods of academic disciplines, including in the context of student-centered learning.

Standard "Students"
for EP 6B07306 and 7M07304 Engineering systems and networks, 7M06301 "Comprehensive information security":
- to strengthen the work on attracting graduates of accredited EPs in the work of the alumni association.
for EP 6B07306 and 7M07304 Engineering systems and networks:
- the leadership of the EP to strengthen internal and external academic mobility with leading Kazakh and foreign universities. Consider the possibility of supporting the academic

mobility of students of the EP in accordance with the concluded memorandums, agreements on international cooperation. Continue work on the academic mobility of undergraduates. Deadline: until September 1, 2024.

- the leadership of the EP to include in the Plans for the Development of Educational Programs the following items: "participation of students in the program" incoming and outgoing academic mobility "including online. Deadline: until September 1, 2023.

for EP 7M07304 "Engineering systems and networks":

- conclude bilateral agreements with enterprises on the basis of which it is possible to conduct experimental research undergraduates for research practice. Deadline: until December 1, 2024.

Standard "Teaching Staff"
EEC recommendations
for EP 6B07306 and 7M07304 "Engineering systems and networks":

- until 09/01/2024, to involve in teaching specialists from relevant industries with professional competencies (dual training) in order to improve the practical skills of students and undergraduates or organize branches of the department in production.

- annually attract foreign and domestic teachers to give lectures to students of the OP, ensure the participation of the teaching staff of the department in the programs of internal and external academic mobility both offline and online.

- the management of the University, together with the head of the EP, to consider the possibility of equipping all lecture halls of the MUK with technical teaching aids "smart boards", plasma panels, monitors, projectors for demonstrating presentations, individual videos, images, etc.

for EP 7M06301 "Comprehensive information security":

-until the end of the 2023-2024 academic year, provide internships for full-time teaching staff of the Department of Cybersecurity, Information Processing and Storage as part of the academic mobility program at universities in Kazakhstan and abroad for at least two weeks.

- by the end of the 2023-2024 academic year, conduct joint research with representatives of universities or research organizations in Kazakhstan or abroad.

Standard "Educational resources and student support systems"
for EP 6B07306, 7M07304 "Engineering systems and networks", 7M06301 "Comprehensive information security":

- ensure the functioning of a high-quality wi-fi network on its territory, including in hostels. Deadline: until 01.09.2023

for EP 6B07306, 7M07304 "Engineering systems and networks":

- by September 2023, educational programs must specify the need for resources in accordance with the current "Regulations on the development of educational programs" P029-03-02-02.1.01-2022.

- to analyze the sufficiency of the library fund of professional literature in the context of accredited educational programs in order to determine the availability of books for the contingent of students. Deadline: until 01.09.2023

- by September 2023, develop guidelines for conducting laboratory and practical classes in the disciplines "Heating", "Ventilation and air conditioning".

Public Information Standard
for EP 6b07306, 7M07304 "Engineering systems and networks", 7M06301 "Comprehensive information security":

- by the beginning of the 2023-2024 academic year, supplement the information on the university website on the student population, taking into account the dynamics; information about

the system for assessing the educational achievements of students; information about the creative activity of students and teaching staff;

- the management of the EP to ensure that information about the uniqueness and individuality of the EP, about academic mobility programs, information about cooperation and interaction with partners within the EP is available to the public by posting information on the university website on the pages describing educational programs by the beginning of the 2023-2024 academic year.

(IX) OVERVIEW OF THE RECOMMENDATION FOR THE DEVELOPMENT OF EDUCATIONAL ORGANIZATION

The leadership of the university to solve the problem of lack of places in student hostels for students.

(X) RECOMMENDATION TO THE ACCREDITATION BOARD

The external expert commission made a unanimous decision to recommend to the IAAR Accreditation Council the educational program 6B07306 "Engineering Systems and Networks" of the Non-Profit Joint Stock Company "Kazakh National Research Technical University named after K. Satpayev" to accredit for a period of 7 (seven) years, educational programs 7M07304 "Engineering Systems and Networks "And 7M06301 "Comprehensive information security" to be accredited for a period of 5 (five) years.

Annex 1. Evaluation table "PARAMETERS OF A SPECIALIZED PROFILE"

The conclusion of the external expert commission based on the results of the quality assessment
educational program 6B07306 "Engineering systems and networks"
Non-profit joint stock company "Kazakh National Research Technical University named after K.I. Satpayev"

n\n	n\n	Criteria for evaluation	strong	Satisfy body	Assumes improvement	Unsatisfactory body
Standard " Management of the educational program "						
1	1.	The university must demonstrate the development of the goal and development strategy of the EP based on the analysis of external and internal factors with the wide involvement of various stakeholders		+		
2	2.	The quality assurance policy should reflect the relationship between research, teaching and learning		+		
3	3.	The university demonstrates the development of a culture of quality assurance	+			
4	4.	Commitment to quality assurance should apply to any activity performed by contractors and partners (outsourcing), including the implementation of joint/double-degree education and academic mobility		+		
5	5.	The management of the EP ensures the transparency of the development plan for the development of the EP based on an analysis of its functioning, the real positioning of the university and the focus of its activities on meeting the needs of students, the state, employers and other stakeholders			+	
6	6.	The EP management demonstrates the functioning of the mechanisms for the formation and regular revision of the EP development plan and monitoring its implementation, assessing the achievement of learning goals, meeting the needs of students, employers and society, making decisions aimed at continuous improvement of the EP			+	
7	7.	The EP management should involve representatives of stakeholder groups, including employers, students and teaching staff in the formation of the EP development plan		+		
8	8.	The management of the EP must demonstrate the individuality and uniqueness of the EP development plan, its consistency with national development priorities and the development strategy of the educational organization		+		
9	9.	The university must demonstrate a clear definition of those responsible for business processes within the framework of the EP, the distribution of staff duties, and the delimitation of the functions of collegial bodies	+			

10	10.	The management of the EP ensures the coordination of the activities of all persons involved in the development and management of the EP, and its continuous implementation, and also involves all interested parties in this process		+		
eleven	11.	The EP management must ensure the transparency of the management system, the functioning of the internal quality assurance system, including its design, management and monitoring, and the adoption of appropriate decisions		+		
12	12.	The management of the EP should carry out risk management		+		
13	13.	The management of the EP should ensure the participation of representatives of interested parties (employers, teaching staff, students) in the collegiate management bodies of the educational program, as well as their representativeness in making decisions on the management of the educational program		+		
14	14.	The university must demonstrate innovation management within the EP, including the analysis and implementation of innovative proposals		+		
15	15.	The management of the EP must demonstrate its openness and accessibility for students, teaching staff, employers and other interested parties	+			
16	16.	The management of the EP confirms the completion of training in education management programs		+		
17	17.	The management of the EP should strive to ensure that the progress made since the last external quality assurance procedure is taken into account when preparing for the next procedure.		+		
		Total by standard	3	12	2	0
Information management and reporting standard						
18	1.	The university must ensure the functioning of the system for collecting, analyzing and managing information based on modern information and communication technologies and software		+		
19	2.	The EP guidance demonstrates the systematic use of processed, adequate information to improve the internal quality assurance system		+		
20	3.	The EP management demonstrates the presence of a reporting system that reflects the activities of all structural units and departments within the EP, including an assessment of their performance		+		
21	4.	The university must determine the frequency, forms and methods for assessing the management of the EP, the activities of collegial bodies and structural divisions, top management		+		
22	5.	The university must demonstrate a mechanism for ensuring the protection of information, including determining the persons responsible for the reliability and timeliness of the analysis of information and the provision of data		+		
23	6.	The university demonstrates the involvement of students, employees and teaching staff in the processes of collecting and analyzing information, as well as making decisions based on them		+		
24	7.	The EP management must demonstrate the existence of communication mechanisms with students, employees and other stakeholders, including conflict resolution	+			
25	8.	The university must ensure the measurement of the degree of satisfaction with the needs of students, teaching staff and staff within the framework of the EP and demonstrate evidence of the elimination of identified shortcomings		+		

26	9.	The university should evaluate the effectiveness and efficiency of activities in the context of the EP		+		
		The information collected and analyzed by the university within the framework of the EP should take into account:				
27	10.	key performance indicators		+		
28	11.	the dynamics of the contingent of students in the context of forms and types		+		
29	12.	academic performance, student achievement and dropout		+		
thirty	13.	satisfaction of students with the implementation of the EP and the quality of education at the university		+		
31	14.	availability of educational resources and support systems for students		+		
32	15.	employment and career growth of graduates		+		
33	16.	Students, teaching staff and staff must document their consent to the processing of personal data		+		
34	17.	The management of the EP should contribute to the provision of the necessary information in the relevant fields of science	+			
		Total by standard	2	15	0	0
Standard " Development and approval of the educational program "						
35	1.	The university must demonstrate the existence of a documented procedure for the development of the EP and its approval at the institutional level		+		
36	2.	The university must demonstrate the compliance of the developed EP with the established goals and planned learning outcomes		+		
37	3.	The EP management should determine the influence of disciplines and professional practices on the formation of learning outcomes		+		
38	4.	The university demonstrates the presence of a model of a graduate of the EP, which describes the learning outcomes and personal qualities		+		
39	5.	The qualification awarded upon completion of the EP must be clearly defined, explained and correspond to a certain level of NQF, QF - EHEA		+		
40	6.	The management of the EP must demonstrate the modular structure of the program based on ECTS, ensure that the structure of the content of the EP corresponds to the goals set, with a focus on achieving the planned learning outcomes for each graduate		+		
41	7.	The management of the EP should ensure that the content of academic disciplines and learning outcomes correspond to each other and the level of education (bachelor's, master's, doctoral studies)	+			
42	8.	The management of the EP must demonstrate the conduct of external reviews of the EP		+		
43	9.	The management of the EP must provide evidence of the participation of students, teaching staff and other stakeholders in the development and quality assurance of the EP		+		
44	10.	The management of the EP must demonstrate the uniqueness of the educational program, its positioning in the educational market (regional/national/international)		+		
45	11.	An important factor is the possibility of preparing students for professional certification		+		

46	12.	An important factor is the presence of a joint *(s)* and / or two-degree EP with foreign universities			+	
		Total by standard	1	10	1	0
Standard "Continuous monitoring and periodic evaluation of the educational program"						
47	1.	The university must ensure the revision of the structure and content of the EP, taking into account changes in the labor market, the requirements of employers and the social demand of society		+		
48	2.	The university must demonstrate the existence of a documented procedure for monitoring and periodic evaluation in order to achieve the goal of the EP and continuously improve the EP		+		
		Monitoring and periodic evaluation of the EP should consider:				
49	3.	the content of the program in the context of the latest achievements of science and technology in a particular discipline		+		
50	4.	changing needs of society and the professional environment		+		
51	5.	workload, performance and graduation of students		+		
52	6.	effectiveness of student assessment procedures		+		
53	7.	needs and satisfaction of students		+		
54	8.	compliance of the educational environment and the activities of support services with the goals of the EP		+		
55	9.	The management of the EP should publish information about changes to the EP, inform interested parties about any planned or undertaken actions within the EP			+	
56	10.	Support services should identify the needs of various groups of students and the degree of their satisfaction with the organization of training, teaching, assessment, mastering the EP in general		+		
		Total by standard	0	9	1	0
Standard "Student-centered learning, teaching and assessment"						
57	1.	The management of the EP should ensure respect and attention to the various groups of students and their needs, providing them with flexible learning paths	+			
58	2.	The management of the EP should ensure teaching on the basis of modern achievements of world science and practice in the field of training, the use of various modern methods of teaching and evaluating learning outcomes that ensure the achievement of the objectives of the EP, including competencies, skills to perform scientific work at the required level		+		
59	3.	The management of the EP should determine the mechanisms for distributing the teaching load of students between theory and practice within the framework of the EP, ensuring the development of the content and achievement of the objectives of the EP by each graduate		+		
60	4.	An important factor is the presence of own research in the field of teaching methods of EP disciplines		+		

61	5.	The university must ensure that the procedures for evaluating learning outcomes correspond to the planned results and goals of the EP		+		
62	6.	The university must ensure the consistency, transparency and objectivity of the mechanism for assessing the learning outcomes of the EP, the publication of criteria and methods for assessing learning outcomes in advance		+		
63	7.	Assessors must be familiar with modern methods for assessing learning outcomes and regularly improve their skills in this area.		+		
64	8.	The management of the EP must demonstrate the existence of a feedback system on the use of various teaching methods and the assessment of learning outcomes		+		
65	9.	The management of the EP must demonstrate support for the autonomy of learners, while providing guidance and assistance from the teacher.		+		
66	10.	The management of the EP must demonstrate the existence of a procedure for responding to complaints from students	+			
		Total by standard	2	8	0	0
Standard " Students "						
67	1.	The university must demonstrate the policy of forming a contingent of students and ensure transparency, publicity of the procedures governing the life cycle of students (from admission to completion)	+			
68	2.	The management of the EP should provide for special adaptation and support programs for newly enrolled and foreign students	+			
69	3.	The university must demonstrate the compliance of its actions with the Lisbon Recognition Convention, including the existence and application of a mechanism for recognizing the results of academic mobility of students, as well as the results of additional, formal and non-formal education		+		
70	4.	The university should provide an opportunity for external and internal academic mobility of students, as well as assist them in obtaining external grants for study		+		
71	5.	The university should encourage students to self-education and development outside the main program (extracurricular activities)		+		
72	6.	An important factor is the existence of a mechanism to support gifted students.		+		
73	7.	The university must demonstrate cooperation with other educational organizations and national centers of the "European Network of National Information Centers for Academic Recognition and Mobility / National Academic Recognition Information Centers" ENIC / NARIC in order to ensure comparable recognition of qualifications		+		
74	8.	The university must provide students with internship places, demonstrate the procedure for facilitating the employment of graduates, maintaining contact with them	+			
75	9.	The university must demonstrate the procedure for issuing documents to graduates confirming the qualifications received, including the achieved learning outcomes		+		
76	10.	The management of the EP must demonstrate that program graduates have skills that are in demand in the labor market and that these skills are really relevant		+		
77	11.	The management of the EP must demonstrate the existence of a mechanism for monitoring the employment and professional activities of graduates		+		

78	12.	An important factor is the existence of an active alumni association/union		+		
		Total by standard	3	9	0	0
Standard " Teaching staff "						
7 9	1.	The university must have an objective and transparent personnel policy in the context of the EP, including recruitment (including invited teaching staff), professional growth and development of staff, ensuring the professional competence of the entire staff		+		
8 0	2.	The university must demonstrate the compliance of the qualitative composition of the teaching staff with the established qualification requirements, the strategy of the university, and the goals of the EP		+		
81	3.	The management of the EP should demonstrate the change in the role of the teacher in connection with the transition to student-centered learning and teaching		+		
8 2	4.	The university should provide opportunities for career growth and professional development of teaching staff, including young teachers		+		
8 3	5.	The university should involve in the teaching of specialists from relevant industries with professional competencies that meet the requirements of the EP		+		
8 4	6.	The university must demonstrate the presence of a motivation mechanism for the professional and personal development of teaching staff		+		
85	7.	The university must demonstrate the widespread use of teaching and communication technologies and software in the educational process (for example, on-line training, e-portfolio, MEPs, etc.)		+		
86	8.	The university must demonstrate the focus on the development of academic mobility, attracting the best foreign and domestic teachers		+		
87	9.	The university must demonstrate the involvement of each teacher in promoting a culture of quality and academic integrity at the university, determine the contribution of teaching staff, including those invited, to achieving the goals of the EP		+		
8 8	10.	An important factor is the involvement of teaching staff in the development of the economy, education, science and culture of the region and the country		+		
		Total by standard	0	10	0	0
Standard "Educational resources and student support systems"						
89	1.	The university must guarantee the compliance of the infrastructure, educational resources, including material and technical, with the goals of the educational program		+		
90	2.	The management of the EP must demonstrate the sufficiency of classrooms, laboratories and other facilities equipped with modern equipment to ensure the achievement of the objectives of the EP	+			
		The university must demonstrate the compliance of information resources with the needs of the university and the EPs being implemented, including in the following areas:				
91	3.	technological support for students and teaching staff in accordance with educational programs (for example, online learning, modeling, databases, data analysis programs)		+		
9 2	4.	library resources, including a fund of educational, methodical and scientific literature on general education, basic and major		+		

		disciplines on paper and electronic media, periodicals, access to scientific databases				
93	5.	examination of the results of research, final works, dissertations for plagiarism		+		
94	6.	access to educational Internet resources		+		
95	7.	functioning of W i -F i on its territory		+		
96	8.	The university must demonstrate that it creates conditions for conducting scientific research, integrating science and education, publishing the results of research work of teaching staff, staff and students		+		
9 7	9.	The university should strive to ensure that the educational equipment and software used for the development of educational programs are similar to those used in the relevant sectors of the economy		+		
9 8	10.	The management of the EP must demonstrate the existence of procedures for supporting various groups of students, including information and counseling		+		
9 9	eleven.	The management of the EP should show the existence of conditions for the advancement of the student along an individual educational trajectory		+		
10	12.	The university must take into account the needs of different groups of students (adults, working, foreign students, as well as students with special educational needs)		+		
101	13	The university must ensure that the infrastructure meets the safety requirements		+		
Total by standard			1	12	0	0
Public Information Standard						
10 2	1.	The university guarantees that the published information is accurate, objective, up-to-date and reflects all areas of the university's activities within the framework of the educational program			+	
103	2.	Informing the public should include support and explanation of the national development programs of the country and the system of higher and postgraduate education		+		
104	3.	The university management should use a variety of ways to disseminate information (including the media, web resources, information networks, etc.) to inform the general public and interested parties		+		
		Information about the educational program is objective, up-to-date and should include:				
105	4.	the purpose and planned results of the EP, the qualification to be awarded		+		
106	5.	information and the system for assessing the educational achievements of students		+		
107	6.	information about academic mobility programs and other forms of cooperation with partner universities, employers		+		
108	7.	information about the opportunities for the development of personal and professional competencies of students and employment		+		
109	8.	data reflecting the positioning of the EP in the market of educational services (at the regional, national, international levels)		+		
110	9.	An important factor is publication on open resources of reliable information about teaching staff, in the context of personalities		+		

1 11	1 0 .	The university must publish audited financial statements for the EP on its own web resource		+		
1 13	1 1 .	The university must post information and links to external resources based on the results of external evaluation procedures		+		
1 13	1 2 .	An important factor is the placement of information about cooperation and interaction with partners, including scientific / consulting organizations, business partners, social partners and educational organizations		+		
		Total by standard	0	eleven	1	0
		TOTAL	**12**	**96**	**5**	**0**

12 (10.6%) the parameter has the position *"strong"*
96 (85.0%) parameters have the position *"satisfactory"*
5 (4.4%)   parameters have the position *"suggests improvement"*
0 (0%) parameters have a position of *"unsatisfactory"*

Annex 1. Evaluation table "PARAMETERS OF A SPECIALIZED PROFILE"

The conclusion of the external expert commission based on the results of the quality assessment
educational program 7M07304 "Engineering systems and networks"

Non-profit joint stock company "Kazakh National Research Technical University named after K.I. Satpayev"

n\n	n\n	Criteria for evaluation	Position of the educational organization			
			strong	Satisfy body	Assumes improvement	Unsatisfactory body
Standard " Management of the educational program "						
1	1.	The university must demonstrate the development of the goal and development strategy of the EP based on the analysis of external and internal factors with the wide involvement of various stakeholders		+		
2	2.	The quality assurance policy should reflect the relationship between research, teaching and learning		+		
3	3.	The university demonstrates the development of a culture of quality assurance	+			
4	4.	Commitment to quality assurance should apply to any activity performed by contractors and partners (outsourcing), including the implementation of joint/double-degree education and academic mobility		+		
5	5.	The management of the EP ensures the transparency of the development plan for the development of the EP based on an analysis of its functioning, the real positioning of the university and the focus of its activities on meeting the needs of students, the state, employers and other stakeholders			+	
6	6.	The EP management demonstrates the functioning of the mechanisms for the formation and regular revision of the EP development plan and monitoring its implementation, assessing the achievement of learning goals, meeting the needs of students, employers and society, making decisions aimed at continuous improvement of the EP			+	
7	7.	The EP management should involve representatives of stakeholder groups, including employers, students and teaching staff in the formation of the EP development plan		+		
8	8.	The management of the EP must demonstrate the individuality and uniqueness of the EP development plan , its consistency with national development priorities and the development strategy of the educational organization		+		

			+	+		
9	9.	The university must demonstrate a clear definition of those responsible for business processes within the framework of the EP, the distribution of staff duties, and the delimitation of the functions of collegial bodies	+			
10	10.	The management of the EP ensures the coordination of the activities of all persons involved in the development and management of the EP, and its continuous implementation, and also involves all interested parties in this process		+		
eleven	11.	The EP management must ensure the transparency of the management system, the functioning of the internal quality assurance system, including its design, management and monitoring, and the adoption of appropriate decisions		+		
12	12.	The management of the EP should carry out risk management		+		
13	13.	The management of the EP should ensure the participation of representatives of interested parties (employers, teaching staff, students) in the collegiate management bodies of the educational program, as well as their representativeness in making decisions on the management of the educational program		+		
14	14.	The university must demonstrate innovation management within the EP, including the analysis and implementation of innovative proposals		+		
15	15.	The management of the EP must demonstrate its openness and accessibility for students, teaching staff, employers and other interested parties		+		
16	16.	The management of the EP confirms the completion of training in education management programs		+		
17	17.	The management of the EP should strive to ensure that the progress made since the last external quality assurance procedure is taken into account when preparing for the next procedure.		+		
		Total by standard	2	13	2	0
Information management and reporting standard						
18	1.	The university must ensure the functioning of the system for collecting, analyzing and managing information based on modern information and communication technologies and software		+		
19	2.	The EP guidance demonstrates the systematic use of processed, adequate information to improve the internal quality assurance system		+		
20	3.	The EP management demonstrates the presence of a reporting system that reflects the activities of all structural units and departments within the EP, including an assessment of their performance		+		
21	4.	The university must determine the frequency, forms and methods for assessing the management of the EP, the activities of collegial bodies and structural divisions, top management		+		
22	5.	The university must demonstrate a mechanism for ensuring the protection of information, including determining the persons responsible for the reliability and timeliness of the analysis of information and the provision of data		+		
23	6.	The university demonstrates the involvement of students, employees and teaching staff in the processes of collecting and analyzing information, as well as making decisions based on them		+		
24	7.	The EP management must demonstrate the existence of communication mechanisms with students, employees and other stakeholders, including conflict resolution	+			

25	8.	The university must ensure the measurement of the degree of satisfaction with the needs of students, teaching staff and staff within the framework of the EP and demonstrate evidence of the elimination of identified shortcomings		+		
26	9.	The university should evaluate the effectiveness and efficiency of activities in the context of the EP		+		
		The information collected and analyzed by the university within the framework of the EP should take into account:				
27	10.	key performance indicators		+		
28	eleven.	the dynamics of the contingent of students in the context of forms and types		+		
29	12.	academic performance, student achievement and dropout		+		
thirty	13.	satisfaction of students with the implementation of the EP and the quality of education at the university		+		
31	14.	availability of educational resources and support systems for students		+		
32	15.	employment and career growth of graduates		+		
33	16.	Students, teaching staff and staff must document their consent to the processing of personal data		+		
34	17.	The management of the EP should contribute to the provision of the necessary information in the relevant fields of science		+		
		Total by standard	1	16	0	0
Standard " Development and approval of the educational program "						
35	1.	The university must demonstrate the existence of a documented procedure for the development of the EP and its approval at the institutional level		+		
36	2.	The university must demonstrate the compliance of the developed EP with the established goals and planned learning outcomes		+		
37	3.	The EP management should determine the influence of disciplines and professional practices on the formation of learning outcomes		+		
38	4.	The university demonstrates the presence of a model of a graduate of the EP, which describes the learning outcomes and personal qualities		+		
39	5.	The qualification awarded upon completion of the EP must be clearly defined, explained and correspond to a certain level of NQF, QF - EHEA		+		
40	6.	The management of the EP must demonstrate the modular structure of the program based on ECTS , ensure that the structure of the content of the EP corresponds to the goals set, with a focus on achieving the planned learning outcomes for each graduate		+		
41	7.	The management of the EP should ensure that the content of academic disciplines and learning outcomes correspond to each other and the level of education (bachelor's, master's, doctoral studies)		+		
42	8.	The management of the EP must demonstrate the conduct of external reviews of the EP		+		
43	9.	The management of the EP must provide evidence of the participation of students, teaching staff and other stakeholders in the development and quality assurance of the EP		+		

44	10.	The management of the EP must demonstrate the uniqueness of the educational program, its positioning in the educational market (regional/national/international)		+		
45	11.	An important factor is the possibility of preparing students for professional certification			+	
46	12.	An important factor is the presence of a joint *(s)* and / or two-degree EP with foreign universities			+	
		Total by standard	0	10	2	0
Standard " Continuous monitoring and periodic evaluation of the educational program "						
47	1.	The university must ensure the revision of the structure and content of the EP, taking into account changes in the labor market, the requirements of employers and the social demand of society		+		
48	2.	The university must demonstrate the existence of a documented procedure for monitoring and periodic evaluation in order to achieve the goal of the EP and continuously improve the EP		+		
		Monitoring and periodic evaluation of the EP should consider:				
49	3.	the content of the program in the context of the latest achievements of science and technology in a particular discipline		+		
50	4.	changing needs of society and the professional environment		+		
51	5.	workload, performance and graduation of students		+		
52	6.	effectiveness of student assessment procedures		+		
53	7.	needs and satisfaction of students		+		
54	8.	compliance of the educational environment and the activities of support services with the goals of the EP		+		
55	9.	The management of the EP should publish information about changes to the EP, inform interested parties about any planned or undertaken actions within the EP			+	
56	10.	Support services should identify the needs of various groups of students and the degree of their satisfaction with the organization of training, teaching, assessment, mastering the EP in general		+		
		Total by standard	0	9	1	0
Standard " Student-centered learning, teaching and assessment "						
57	1.	The management of the EP should ensure respect and attention to the various groups of students and their needs, providing them with flexible learning paths	+			
58	2.	The management of the EP should ensure teaching on the basis of modern achievements of world science and practice in the field of training, the use of various modern methods of teaching and evaluating learning outcomes that ensure the achievement of the objectives of the EP, including competencies, skills to perform scientific work at the required level		+		
59	3.	The management of the EP should determine the mechanisms for distributing the teaching load of students between theory and practice within the framework of the EP, ensuring the development		+		

		of the content and achievement of the objectives of the EP by each graduate				
60	4.	An important factor is the presence of own research in the field of teaching methods of EP disciplines			+	
61	5.	The university must ensure that the procedures for evaluating learning outcomes correspond to the planned results and goals of the EP		+		
62	6.	The university must ensure the consistency, transparency and objectivity of the mechanism for assessing the learning outcomes of the EP, the publication of criteria and methods for assessing learning outcomes in advance		+		
63	7.	Assessors must be familiar with modern methods for assessing learning outcomes and regularly improve their skills in this area.		+		
64	8.	The management of the EP must demonstrate the existence of a feedback system on the use of various teaching methods and the assessment of learning outcomes		+		
65	9.	The management of the EP must demonstrate support for the autonomy of learners, while providing guidance and assistance from the teacher.		+		
66	10.	The management of the EP must demonstrate the existence of a procedure for responding to complaints from students	+			
		Total by standard	2	7	1	0
Standard " Students "						
67	1.	The university must demonstrate the policy of forming a contingent of students and ensure transparency, publicity of the procedures governing the life cycle of students (from admission to completion)		+		
68	2.	The management of the EP should provide for special adaptation and support programs for newly enrolled and foreign students		+		
69	3.	The university must demonstrate the compliance of its actions with the Lisbon Recognition Convention, including the existence and application of a mechanism for recognizing the results of academic mobility of students, as well as the results of additional, formal and non-formal education		+		
70	4.	The university should provide an opportunity for external and internal academic mobility of students, as well as assist them in obtaining external grants for study		+		
71	5.	The university should encourage students to self-education and development outside the main program (extracurricular activities)		+		
72	6.	An important factor is the existence of a mechanism to support gifted students.		+		
73	7.	The university must demonstrate cooperation with other educational organizations and national centers of the "European Network of National Information Centers for Academic Recognition and Mobility / National Academic Recognition Information Centers" ENIC / NARIC in order to ensure comparable recognition of qualifications		+		
74	8.	The university must provide students with internship places, demonstrate the procedure for facilitating the employment of graduates, maintaining contact with them			+	
75	9.	The university must demonstrate the procedure for issuing documents to graduates confirming the qualifications received, including the achieved learning outcomes		+		

76	10.	The management of the EP must demonstrate that program graduates have skills that are in demand in the labor market and that these skills are really relevant		+		
77	11.	The management of the EP must demonstrate the existence of a mechanism for monitoring the employment and professional activities of graduates		+		
78	12.	An important factor is the existence of an active alumni association/union		+		
		Total by standard	0	eleven	1	0
Standard " Teaching staff "						
7 9	1.	The university must have an objective and transparent personnel policy in the context of the EP, including recruitment (including invited teaching staff), professional growth and development of staff, ensuring the professional competence of the entire staff		+		
8 0	2.	The university must demonstrate the compliance of the qualitative composition of the teaching staff with the established qualification requirements, the strategy of the university, and the goals of the EP		+		
81	3.	The management of the EP should demonstrate the change in the role of the teacher in connection with the transition to student-centered learning and teaching		+		
8 2	4.	The university should provide opportunities for career growth and professional development of teaching staff, including young teachers		+		
8 3	5.	The university should involve in the teaching of specialists from relevant industries with professional competencies that meet the requirements of the EP		+		
8 4	6.	The university must demonstrate the presence of a motivation mechanism for the professional and personal development of teaching staff		+		
85	7.	The university must demonstrate the widespread use of teaching and communication technologies and software in the educational process (for example, on-line training, e-portfolio, MEPs, etc.)		+		
86	8.	The university must demonstrate the focus on the development of academic mobility, attracting the best foreign and domestic teachers		+		
87	9.	The university must demonstrate the involvement of each teacher in promoting a culture of quality and academic integrity at the university, determine the contribution of teaching staff, including those invited, to achieving the goals of the EP		+		
8 8	10.	An important factor is the involvement of teaching staff in the development of the economy, education, science and culture of the region and the country		+		
		Total by standard	0	10	0	0
Standard "Educational resources and student support systems"						
89	1.	The university must guarantee the compliance of the infrastructure, educational resources, including material and technical, with the goals of the educational program		+		
90	2.	The management of the EP must demonstrate the sufficiency of classrooms, laboratories and other facilities equipped with modern equipment to ensure the achievement of the objectives of the EP		+		

		The university must demonstrate the compliance of information resources with the needs of the university and the EPs being implemented, including in the following areas:				
91	3.	technological support for students and teaching staff in accordance with educational programs (for example, online learning, modeling, databases, data analysis programs)		+		
9 2	4.	library resources, including a fund of educational, methodical and scientific literature on general education, basic and major disciplines on paper and electronic media, periodicals, access to scientific databases		+		
93	5.	examination of the results of research, final works, dissertations for plagiarism		+		
94	6.	access to educational Internet resources		+		
95	7.	functioning of W i -F i on its territory		+		
96	8.	The university must demonstrate that it creates conditions for conducting scientific research, integrating science and education, publishing the results of research work of teaching staff, staff and students		+		
9 7	9.	The university should strive to ensure that the educational equipment and software used for the development of educational programs are similar to those used in the relevant sectors of the economy		+		
9 8	10.	The management of the EP must demonstrate the existence of procedures for supporting various groups of students, including information and counseling		+		
9 9	ele ven .	The management of the EP should show the existence of conditions for the advancement of the student along an individual educational trajectory		+		
10	12.	The university must take into account the needs of different groups of students (adults, working, foreign students, as well as students with special educational needs)		+		
101	13	The university must ensure that the infrastructure meets the safety requirements		+		
		Total by standard	0	13	0	0
Public Information Standard						
10 2	1.	The university guarantees that the published information is accurate, objective, up-to-date and reflects all areas of the university's activities within the framework of the educational program			+	
103	2.	Informing the public should include support and explanation of the national development programs of the country and the system of higher and postgraduate education		+		
104	3.	The university management should use a variety of ways to disseminate information (including the media, web resources, information networks, etc.) to inform the general public and interested parties		+		
		Information about the educational program is objective, up-to-date and should include:				
105	4.	the purpose and planned results of the EP, the qualification to be awarded		+		
106	5.	information and the system for assessing the educational achievements of students		+		
107	6.	information about academic mobility programs and other forms of cooperation with partner universities, employers		+		

108	7.	information about the opportunities for the development of personal and professional competencies of students and employment		+		
109	8.	data reflecting the positioning of the EP in the market of educational services (at the regional, national, international levels)		+		
110	9.	An important factor is publication on open resources of reliable information about teaching staff, in the context of personalities		+		
1 11	1 0 .	The university must publish audited financial statements for the EP on its own web resource		+		
1 13	1 1 .	The university must post information and links to external resources based on the results of external evaluation procedures		+		
1 13	1 2	An important factor is the placement of information about cooperation and interaction with partners, including scientific / consulting organizations, business partners, social partners and educational organizations		+		
Total by standard			0	eleven	1	0
TOTAL			**5**	**100**	**8**	**0**

5 (4.4%) the parameter has the position *"strong"*
100 (88.5%) parameters have the position *"satisfactory"*
8 (7.1%) parameters have the position *"suggests improvement"*
0 (0%) parameters have the position *"suggests improvement"*

Annex 1. Evaluation table "PARAMETERS OF A SPECIALIZED PROFILE"

The conclusion of the external expert commission based on the results of the quality assessment
educational program 7M06301 - Comprehensive information security"

Non-profit joint stock company "Kazakh National Research Technical University named after K.I. Satpayev"

n\n	n\n	Criteria for evaluation	Position of the educational organization			
			strong	Satisfy body	Assumes improvement	Unsatisfactory body
Standard " Management of the educational program "						
1	1.	The university must demonstrate the development of the goal and development strategy of the EP based on the analysis of external and internal factors with the wide involvement of various stakeholders		+		
2	2.	The quality assurance policy should reflect the relationship between research, teaching and learning		+		
3	3.	The university demonstrates the development of a culture of quality assurance	+			
4	4.	Commitment to quality assurance should apply to any activity performed by contractors and partners (outsourcing), including the implementation of joint/double-degree education and academic mobility		+		
5	5.	The management of the EP ensures the transparency of the development plan for the development of the EP based on an analysis of its functioning, the real positioning of the university and the focus of its activities on meeting the needs of students, the state, employers and other stakeholders			+	
6	6.	The EP management demonstrates the functioning of the mechanisms for the formation and regular revision of the EP development plan and monitoring its implementation, assessing the achievement of learning goals, meeting the needs of students, employers and society, making decisions aimed at continuous improvement of the EP			+	
7	7.	The EP management should involve representatives of stakeholder groups, including employers, students and teaching staff in the formation of the EP development plan		+		
8	8.	The management of the EP must demonstrate the individuality and uniqueness of the EP development plan , its consistency with national development priorities and the development strategy of the educational organization		+		

			2	1 2	3	0
9	9.	The university must demonstrate a clear definition of those responsible for business processes within the framework of the EP, the distribution of staff duties, and the delimitation of the functions of collegial bodies	+			
10	10.	The management of the EP ensures the coordination of the activities of all persons involved in the development and management of the EP, and its continuous implementation, and also involves all interested parties in this process		+		
eleven	11.	The EP management must ensure the transparency of the management system, the functioning of the internal quality assurance system, including its design, management and monitoring, and the adoption of appropriate decisions		+		
12	12.	The management of the EP should carry out risk management		+		
13	13.	The management of the EP should ensure the participation of representatives of interested parties (employers, teaching staff, students) in the collegiate management bodies of the educational program, as well as their representativeness in making decisions on the management of the educational program		+		
14	14.	The university must demonstrate innovation management within the EP, including the analysis and implementation of innovative proposals		+		
15	15.	The management of the EP must demonstrate its openness and accessibility for students, teaching staff, employers and other interested parties		+		
16	16.	The management of the EP confirms the completion of training in education management programs			+	
17	17.	The management of the EP should strive to ensure that the progress made since the last external quality assurance procedure is taken into account when preparing for the next procedure.		+		
		Total by standard	2	1 2	3	0
Information management and reporting standard						
18	1.	The university must ensure the functioning of the system for collecting, analyzing and managing information based on modern information and communication technologies and software		+		
19	2.	The EP guidance demonstrates the systematic use of processed, adequate information to improve the internal quality assurance system		+		
20	3.	The EP management demonstrates the presence of a reporting system that reflects the activities of all structural units and departments within the EP, including an assessment of their performance		+		
21	4.	The university must determine the frequency, forms and methods for assessing the management of the EP, the activities of collegial bodies and structural divisions, top management		+		
22	5.	The university must demonstrate a mechanism for ensuring the protection of information, including determining the persons responsible for the reliability and timeliness of the analysis of information and the provision of data		+		
23	6.	The university demonstrates the involvement of students, employees and teaching staff in the processes of collecting and analyzing information, as well as making decisions based on them		+		
24	7.	The EP management must demonstrate the existence of communication mechanisms with students, employees and other stakeholders, including conflict resolution	+			

25	8.	The university must ensure the measurement of the degree of satisfaction with the needs of students, teaching staff and staff within the framework of the EP and demonstrate evidence of the elimination of identified shortcomings		+		
26	9.	The university should evaluate the effectiveness and efficiency of activities in the context of the EP		+		
		The information collected and analyzed by the university within the framework of the EP should take into account:				
27	10.	key performance indicators		+		
28	eleven.	the dynamics of the contingent of students in the context of forms and types		+		
29	12.	academic performance, student achievement and dropout		+		
thirty	13.	satisfaction of students with the implementation of the EP and the quality of education at the university		+		
31	14.	availability of educational resources and support systems for students		+		
32	15.	employment and career growth of graduates		+		
33	16.	Students, teaching staff and staff must document their consent to the processing of personal data		+		
34	17.	The management of the EP should contribute to the provision of the necessary information in the relevant fields of science	+			
		Total by standard	**2**	**1 5**	**0**	**0**
Standard " Development and approval of the educational program "						
35	13.	The university must demonstrate the existence of a documented procedure for the development of the EP and its approval at the institutional level		+		
36	14.	The university must demonstrate the compliance of the developed EP with the established goals and planned learning outcomes		+		
37	15.	The management of the EP should determine the influence of disciplines and professional practices on the formation of learning outcomes		+		
38	16.	The university demonstrates the presence of a model of a graduate of the EP, which describes the learning outcomes and personal qualities		+		
39	17.	The qualification awarded upon completion of the EP must be clearly defined, explained and correspond to a certain level of NQF, QF - EHEA		+		
40	18.	The management of the EP must demonstrate the modular structure of the program based on ECTS , ensure that the structure of the content of the EP corresponds to the goals set, with a focus on achieving the planned learning outcomes for each graduate		+		
41	19.	The management of the EP should ensure that the content of academic disciplines and learning outcomes correspond to each other and the level of education (bachelor's, master's, doctoral studies)			+	
42	20.	The management of the EP must demonstrate the conduct of external reviews of the EP		+		
43	21.	The management of the EP must provide evidence of the participation of students, teaching staff and other stakeholders in the development and quality assurance of the EP	+			

44	22.	The management of the EP must demonstrate the uniqueness of the educational program, its positioning in the educational market (regional/national/international)		+		
45	23.	An important factor is the possibility of preparing students for professional certification	+			
46	24.	An important factor is the presence of a joint *(s)* and / or two-degree EP with foreign universities			+	
		Total by standard	**2**	**8**	**2**	**0**
Standard " Continuous monitoring and periodic evaluation of the educational program "						
47	11.	The university must ensure the revision of the structure and content of the EP, taking into account changes in the labor market, the requirements of employers and the social demand of society		+		
48	12.	The university must demonstrate the existence of a documented procedure for monitoring and periodic evaluation in order to achieve the goal of the EP and continuously improve the EP		+		
		Monitoring and periodic evaluation of the EP should consider:				
49	13.	the content of the program in the context of the latest achievements of science and technology in a particular discipline		+		
50	14.	changing needs of society and the professional environment		+		
51	15.	workload, performance and graduation of students		+		
52	16.	effectiveness of student assessment procedures		+		
53	17.	needs and satisfaction of students		+		
54	18.	compliance of the educational environment and the activities of support services with the goals of the EP		+		
55	19.	The management of the EP should publish information about changes to the EP, inform interested parties about any planned or undertaken actions within the EP			+	
56	20.	Support services should identify the needs of various groups of students and the degree of their satisfaction with the organization of training, teaching, assessment, mastering the EP in general		+		
		Total by standard	**0**	**9**	**1**	**0**
Standard " Student-centered learning, teaching and assessment "						
57	11.	The management of the EP should ensure respect and attention to the various groups of students and their needs, providing them with flexible learning paths		+		
58	12.	The management of the EP should ensure teaching on the basis of modern achievements of world science and practice in the field of training, the use of various modern methods of teaching and evaluating learning outcomes that ensure the achievement of the objectives of the EP, including competencies, skills to perform scientific work at the required level		+		
59	13.	The management of the EP should determine the mechanisms for distributing the teaching load of students between theory and practice within the framework of the EP, ensuring the development		+		

		of the content and achievement of the objectives of the EP by each graduate				
60	14.	An important factor is the presence of own research in the field of teaching methods of EP disciplines			+	
61	15.	The university must ensure that the procedures for evaluating learning outcomes correspond to the planned results and goals of the EP		+		
62	16.	The university must ensure the consistency, transparency and objectivity of the mechanism for assessing the learning outcomes of the EP, the publication of criteria and methods for assessing learning outcomes in advance		+		
63	17.	Assessors must be familiar with modern methods for assessing learning outcomes and regularly improve their skills in this area.		+		
64	18.	The management of the EP must demonstrate the existence of a feedback system on the use of various teaching methods and the assessment of learning outcomes		+		
65	19.	The management of the EP must demonstrate support for the autonomy of learners while providing guidance and assistance from the teacher.				
66	20.	The management of the EP must demonstrate the existence of a procedure for responding to complaints from students	+			
		Total by standard	**1**	**8**	**1**	**0**
Standard " Students "						
67	13.	The university must demonstrate the policy of forming a contingent of students and ensure transparency, publicity of the procedures governing the life cycle of students (from admission to completion)		+		
68	14.	The management of the EP should provide for special adaptation and support programs for newly enrolled and foreign students		+		
69	15.	The university must demonstrate the compliance of its actions with the Lisbon Recognition Convention, including the existence and application of a mechanism for recognizing the results of academic mobility of students, as well as the results of additional, formal and non-formal education		+		
70	16.	The university should provide an opportunity for external and internal academic mobility of students, as well as assist them in obtaining external grants for study		+		
71	17.	The university should encourage students to self-education and development outside the main program (extracurricular activities)		+		
72	18.	An important factor is the existence of a mechanism to support gifted students.		+		
73	19.	The university must demonstrate cooperation with other educational organizations and national centers of the "European Network of National Information Centers for Academic Recognition and Mobility / National Academic Recognition Information Centers" ENIC / NARIC in order to ensure comparable recognition of qualifications		+		
74	20.	The university must provide students with internship places, demonstrate the procedure for facilitating the employment of graduates, maintaining contact with them	+			
75	21.	The university must demonstrate the procedure for issuing documents to graduates confirming the qualifications received, including the achieved learning outcomes		+		

76	22.	The management of the EP must demonstrate that program graduates have skills that are in demand in the labor market and that these skills are really relevant		+		
77	23.	The management of the EP must demonstrate the existence of a mechanism for monitoring the employment and professional activities of graduates		+		
78	24.	An important factor is the existence of an active alumni association/union			+	
		Total by standard	**1**	**10**	**1**	**0**
Standard " Teaching staff "						
7 9	11.	The university must have an objective and transparent personnel policy in the context of the EP, including recruitment (including invited teaching staff), professional growth and development of staff, ensuring the professional competence of the entire staff		+		
8 0	12.	The university must demonstrate the compliance of the qualitative composition of the teaching staff with the established qualification requirements, the strategy of the university, and the goals of the EP	+			
81	13.	The management of the EP should demonstrate the change in the role of the teacher in connection with the transition to student-centered learning and teaching		+		
8 2	14.	The university should provide opportunities for career growth and professional development of teaching staff, including young teachers		+		
8 3	15.	The university should involve in the teaching of specialists from relevant industries with professional competencies that meet the requirements of the EP		+		
8 4	16.	The university must demonstrate the presence of a motivation mechanism for the professional and personal development of teaching staff		+		
85	17.	The university must demonstrate the widespread use of teaching and communication technologies and software in the educational process (for example, on-line training, e-portfolio, MEPs, etc.)		+		
86	18.	The university must demonstrate the focus on the development of academic mobility, attracting the best foreign and domestic teachers			+	
87	19.	The university must demonstrate the involvement of each teacher in promoting a culture of quality and academic integrity at the university, determine the contribution of teaching staff, including those invited, to achieving the goals of the EP		+		
8 8	20.	An important factor is the involvement of teaching staff in the development of the economy, education, science and culture of the region and the country		+		
		Total by standard	**1**	**8**	**1**	**0**
Standard "Educational resources and student support systems"						
89	1.	The university must guarantee the compliance of the infrastructure, educational resources, including material and technical, with the goals of the educational program	+			
90	2.	The management of the EP must demonstrate the sufficiency of classrooms, laboratories and other facilities equipped with modern equipment to ensure the achievement of the objectives of the EP	+			

		The university must demonstrate the compliance of information resources with the needs of the university and the EPs being implemented, including in the following areas:		+		
91	3.	technological support for students and teaching staff in accordance with educational programs (for example, online learning, modeling, databases, data analysis programs)		+		
9 2	4.	library resources, including a fund of educational, methodical and scientific literature on general education, basic and major disciplines on paper and electronic media, periodicals, access to scientific databases		+		
93	5.	examination of the results of research, final works, dissertations for plagiarism		+		
94	6.	access to educational Internet resources		+		
95	7.	functioning of W i -F i on its territory		+		
96	8.	The university must demonstrate that it creates conditions for conducting scientific research, integrating science and education, publishing the results of research work of teaching staff, staff and students	+			
9 7	9.	The university should strive to ensure that the educational equipment and software used for the development of educational programs are similar to those used in the relevant sectors of the economy		+		
9 8	10.	The management of the EP must demonstrate the existence of procedures for supporting various groups of students, including information and counseling		+		
9 9	eleven.	The management of the EP should show the existence of conditions for the advancement of the student along an individual educational trajectory		+		
10	12.	The university must take into account the needs of different groups of students (adults, working, foreign students, as well as students with special educational needs)		+		
101	13	The university must ensure that the infrastructure meets the safety requirements		+		
		Total by standard	**3**	**1 0**	**0**	**0**
Public Information Standard						
10 2	1.	The university guarantees that the published information is accurate, objective, up-to-date and reflects all areas of the university's activities within the framework of the educational program			+	
103	2.	Informing the public should include support and explanation of the national development programs of the country and the system of higher and postgraduate education		+		
104	3.	The university management should use a variety of ways to disseminate information (including the media, web resources, information networks, etc.) to inform the general public and interested parties		+		
		Information about the educational program is objective, up-to-date and should include:				
105	4.	the purpose and planned results of the EP, the qualification to be awarded		+		
106	5.	information and the system for assessing the educational achievements of students		+		
107	6.	information about academic mobility programs and other forms of cooperation with partner universities, employers		+		

108	7.	information about the opportunities for the development of personal and professional competencies of students and employment		+		
109	8.	data reflecting the positioning of the EP in the market of educational services (at the regional, national, international levels)		+		
110	9.	An important factor is publication on open resources of reliable information about teaching staff, in the context of personalities		+		
1 11	1 0 .	The university must publish audited financial statements for the EP on its own web resource		+		
1 13	1 1 .	The university must post information and links to external resources based on the results of external evaluation procedures		+		
1 13	1 2 .	An important factor is the placement of information about cooperation and interaction with partners, including scientific / consulting organizations, business partners, social partners and educational organizations		+		
Total by standard			**0**	**eleven**	**1**	**0**
TOTAL			**12**	**91**	**10**	**0**

12 (11%) the parameter has the position *"strong"*
91 (80%) parameters have the position *"satisfactory"*
10 (9%) parameters have the position *"suggests improvement"*
0 (0%) parameters have the position *"suggests improvement"*

Annex 2. PROGRAM OF THE VISIT TO THE EDUCATIONAL INSTITUTION

SATBAYEV UNIVERSITY

IAAR
АККРЕДИТТЕУ ЖӘНЕ РЕЙТИНГТІ
ТӘУЕЛСІЗ АГЕНТТІГІ
НЕЗАВИСИМОЕ АГЕНТСТВО
АККРЕДИТАЦИИ И РЕЙТИНГА
INDEPENDENT AGENCY FOR
ACCREDITATION AND RATING

СОГЛАСОВАНА
Член Правления -
Проректор по академическим
вопросам

_____ Жаутиков Б.А.
_____ 2023 года

УТВЕРЖДЕНА
Генеральный директор НУ «Независимое Агентство
аккредитации и рейтинга»

_____ А. Жумагулова
«05» апреля 2023 года

ПРОГРАММА
ВИЗИТА ВНЕШНЕЙ ЭКСПЕРТНОЙ КОМИССИИ IAAR
В Казахском национальном исследовательском техническом университете имени К.И.Сатпаева
(СПЕЦИАЛИЗИРОВАННАЯ И ПЕРВИЧНАЯ СПЕЦИАЛИЗИРОВАННАЯ АККРЕДИТАЦИЯ)

Дата проведения визита: 19 – 21апреля 2023 года
Программа разработана с учетом времени г. Алматы

Кластер	Образовательные программы
Кластер 1. Специализированная аккредитация	1) 6B07306 Инженерные системы и связи 2) 7M07304 Инженерные системы и связи 3) 7M06301 Комплексное обеспечение информационной безопасности
Кластер 2. Специализированная аккредитация	4) 6B04102 Математическая экономика и анализ данных 5) 6B07304 Геопространственная цифровая инженерия
Кластер 3. Первичная специализированная аккредитация	6) 6B11201 Гигиена и охрана труда на производстве 7) 6B07502 Стандартизация, сертификация и метрология (по отраслям)
Кластер 4. Первичная специализированная аккредитация	8) 6B11310 Цифровая логистика 9) 6B04103 Бизнес инжиниринг 10) 6B04104 Startup бакалавриат

Date and time	EEC work with target groups	Position and Last name, first name, patronymic of target group participants	Location of the procedure / Form of contact
		April 17 2023	
1 1.00-1 2.00 _ _ (Almaty time)	**Preliminary meeting of the EEC**	*External IAAR experts*	Join a Zoom meeting https://us02web.zoom.us/j/4941240662 Conference ID: 494 124 0662 (only for VEC)
		Day 1: April 19, 2023	
10.00-10.20	**Distribution of responsibility of experts, solution of organizational issues**	*External IAAR experts*	**cab. 252 MMC** Join a Zoom meeting https://us02web.zoom.us/j/4941240662 Conference ID: 494 124 0662 (only for VEC)
10.20-11.00	**Interview with the rector***	*Chairman of the Board - Rector - Begentaev Meiram Mukhametrahimovich, Doctor of Economics*	**cab. 252 MMC** Join a Zoom meeting https://us02web.zoom.us/j/4941240662 Conference ID: 494 124 0662
11.00-11.15	**Technical break**		
11.15-12.00	**Interviews with vice-rectors**	Member of the Board - Vice-Rector for Academic Affairs – *Zhautikov Bakhyt Akhatovich, Doctor of Technical Sciences, Professor* Member of the Management Board - Vice-Rector for Corporate Development and Strategic Planning - *Kuldeev Yerzhan Itemenovich, Candidate of Technical Sciences, Associate Professor* Member of the Board - Vice-Rector for Science and International Cooperation – *Shokparov Alibek Zhumabekovich, Ph.D.* Member of the Board - Vice-Rector for Social and Cultural Development – *Alimkhanov Mansur Sansyzba yuly* Chief of Staff of the Management Board - *Shalabaev Sapar Kataevich*	**cab. 252 MMC** Join a Zoom meeting https :// us 02 web . zoom . us / /4941240662 Conference ID: 494 124 0662

Date and time	EEC work with target groups	Position and Last name, first name, patronymic of target group participants	Location of the procedure / Form of contact
12.00-12.15	**Technical break**		
12.15-13.00	**Interviews with heads of structural divisions**	Director Department of Finance and Accounting - Chief Accountant – *Togzhigitova Gulnara Beisengazievna* *Director* of Infrastructure Management - *Tynybekov Rishat Imelovich* Director public relations center *Balgabaeva Madina Kadyrovna, MBA* *Director of the Department of Science - Baқtygali Zhanibek Kadyrzhanuly* Director of Corporate Development Department - *Yensebayeva Marzhan Zaitovna, Ph.D.* Registrar Office Director – *Kyzylbaev Nurlan Kuttybaevich* Institute of Digital Technologies and Professional Development – *Simonov Andrey Gennadievich* Director of HR Service – *Beisova Azhar Kayrollovna* Director of the Scientific Library – *Uzbayeva Bagdat Zhumashevna* Director Rating Center – *Alipbaev Daniyar Dauletovich* Director of the International Relations Office - *Abdykal and kov Hell bek _ _ _ Asanovich* Director of the Department of Youth and Sports – *Tolepbergen Adilkhan Temirkhanuly* Responsible secretary of the admission committee - *Narbaev Mars Tursynbekovich* Chairman of the trade union committee - *Omirzakova Sholpan Medetbekovna*	**cab. 252 MMC** Join a Zoom meeting https://us02web.zoom.us/j/49412406 2 Conference ID: 494 124 0662
13.00-13.30	**EEC work**	*External IAAR experts*	**cab. 252 MMC** Join a Zoom meeting https://us02web.zoom.us/j/49412406 2 Conference ID: 494 124 0662 (VEC only)
13.30-14.30	**Dinner**	*External IAAR experts*	**cab. 243 MMC**

Date and time	EEC work with target groups	Position and Last name, first name, patronymic of target group participants	Location of the procedure / Form of contact
14.30-15.10	**Interviews with directors of institutes**	Director of the Institute of Architecture and Construction - *Bolat Uraykhanovich Kuspangaliyev, Professor* Director of the Institute of Automation and Information Technologies – *Uskenbayeva Raisa Kabievna, Doctor of Technical Sciences, Professor* Director of the Institute of Energy and Mechanical Engineering - *Yelemesov Kasym Koptleuovich, Ph.D., Assoc. Professor* Director of the Mining and Metallurgical Institute - *Rysbekov Kanai Bakhytovich, Ph.D., Assoc. Professor* Director of the Project Management Institute - *Amralinova Bakytzhan Bazarbekovna, PhD*	**cab. 252 MMC** Join a Zoom meeting https://us02web.zoom.us/j/4941240660 2 Conference ID: 494 124 0662
15.10-15.25	**Technical break**		
15.25-16.10	**Interviews with heads of departments, heads of educational programs (Parallel)**	Head of the department *"Engineering systems and networks"* - *Alimova Kulyash Kabpasovna, Ph.D., Associate Professor* Head of the Department *"Cybersecurity, processing and storage of information"* - *Satybaldiyeva Ryskhan Zhakanovna, Ph.D., assoc. Professor* Head of the department *"Standardization, certification and metrology"* - *Karazhanova Dariga Dyusenovna, Ph.D.* Head of the Department of *"Mine Surveying and Geodesy"* - *Orynbasarova Elmira Orynbasarovna, Doctor Ph.D., assoc. Professor* Head of the department *"Logistics"* - *Mukhanova Gulmira Samudinovna, candidate of technical sciences, associate professor* Head of the Department *"Management and Mathematical Economics"* - *Turegeldinova Aliya Zhumabekovna, Ph.D., Ph.D.*	**cab. 252 MMC** Join a Zoom meeting https://us02web.zoom.us/j/4941240660 2 Conference ID: 494 124 0662
16.10-16.25	**Technical break**		
16.25-17.10	**Interview with EP teachers**	**Clusters Clusters 1, 3 – cab. 252 MMC** *(Appendix No. 1 List of teaching staff of the OP for an interview)*	**cab. 252 MMC** Join a Zoom meeting https://us02web.zoom.us/j/4941240660 2 Conference ID: 494 124 0662

Date and time	EEC work with target groups	Position and Last name, first name, patronymic of target group participants	Location of the procedure / Form of contact
		Clusters Clusters 2, 4 – *(Appendix No. 1 List of teaching staff for interviews)*	**cab. 244 MMC** Join a Zoom meeting https://us02web.zoom.us/j/717239583 7 Conference ID: 717 239 5837
17.10-17.25	**Technical break**		
17.10-18.40	**Questioning of teaching staff (parallel)**	*All teachers of assessed EPs* *(Appendix No. 1.1 List of teaching staff for questioning)*	*A link to participate in the surve will be sent to the teache personally*
17.25-18.00	**Results of the first day of the EEC**	*External IAAR experts*	**cab. 252 MMC** Join a Zoom meeting https://us02web.zoom.us/j/494124066 2 Conference ID: 494 124 0662 (VEC only)
19.00-20.30	**Dinner**	*External IAAR experts*	
Day 2: April 20, 2023			
10.00-10.30	**EEC work**	*External IAAR experts*	**cab. 252 MMC** Join a Zoom meeting https://us02web.zoom.us/j/494124066 2 Conference ID: 494 124 0662 (VEC only)
10.30-11.10	**Interviews with students**	**Clusters Clusters 1, 3** *Annex No. 2 List of students*	**cab. 252 MMC** Join a Zoom meeting https://us02web.zoom.us/j/494124066 2 Conference ID: 494 124 0662

Date and time	EEC work with target groups	Position and Last name, first name, patronymic of target group participants	Location of the procedure / Form of contact
		Clusters Clusters 2, 4 *Annex No. 2 List of EP students for an interview*	**cab. 244 MMC** Join a Zoom meeting https://us02web.zoom.us/j/717239583 7 Conference ID: 717 239 5837
11.10-11.25	**Technical break**		
11.10-13.30	**Questioning students of the OP (parallel)**	*All students of the assessed EP* *(Appendix No. 2.1 List of EP students for questioning)*	*A link to participate in the survey will be sent to the student personally*
11.25-13.00	**Working with department documents** *(documents are uploaded to cloud folders)* **and attendance of teaching staff classes according to the schedule** *Appendix* 1.A " *Extract from the schedule of classes of OP clusters"* *with links to ZOOM*	**Cluster 1** Cloud Link : Cluster 1 **Cluster 2** Cloud link: Cluster 2 **Cluster 3** Cloud Link : Cluster 3 **Cluster 4** Cloud link: Cluster 4 *Appendix No. 1A*	**cab. 252 MMC** Join a Zoom meeting https://us02web.zoom.us/j/494124060 2 Conference ID: 494 124 0662
13.00-14.00	**Dinner**	*External IAAR experts*	**cab. 243 MMC**
14.00-15.00	**Visual inspection of the TOE**	**Route number 1** *Video clip (10-15 minute video about infrastructure: classrooms, halls, laboratories, sports, etc. halls ...)*	Join a Zoom meeting https://us02web.zoom.us/j/494124060 2 Conference ID: 494 124 0662

| Date and time	EEC work with target groups	Position and Last name, first name, patronymic of target group participants	Location of the procedure / Form of contact
		Route number 1 *Video clip (10-15 minute video about the EP infrastructure: auditoriums, halls, laboratories, sports, etc. halls…)*	Join a Zoom meeting https://us02web.zoom.us/j/717239583 7 Conference ID: 717 239 5837
15.00-15.15	**Technical break**		
15.15-16.30	**Visiting the practice bases of the EP (parallel)**	**Clusters 1, 3** *(Appendix 4.1 List of Practice Bases* *Link to video*	**Clusters 1, 3 - cab. 252 MMC** Join a Zoom meeting https://us02web.zoom.us/j/4941240660 2 Conference ID: 494 124 0662
		Clusters 2, 4 *(Appendix 4.1 List of Practice Bases)* *Link to video*	
15.15-16.30	**Working with department documents** *(documents are uploaded to cloud folders)* **and attending teaching staff classes according to the schedule** *Appendix 1.A "Extract from the class schedule" with links to ZOOM*	**Cluster 1** Cloud Link: <u>Cluster 1</u>	**cab. 252 MMC** Join a Zoom meeting https://us02web.zoom.us/j/4941240660 2 Conference ID: 494 124 0662
		Cluster 3 Cloud link: <u>Cluster 3</u>	
		Cluster 2 Cloud link: <u>Cluster 2</u>	
		Cluster 4 Cloud link: <u>Cluster 4</u>	
		Appendix No. 1A	
16.30-16.45	**Technical break**		
16.45-17.25	**Interviews with EP graduates and individual work of EEC experts**	*Graduates* of EP **Clusters 1 and 2** *(Appendix No. 3 List of EP graduates*	**cab. 244 MMC** Join a Zoom meeting https://us02web.zoom.us/j/4941240660 2 Conference ID: 494 124 0662

Date and time	EEC work with target groups	Position and Last name, first name, patronymic of target group participants	Location of the procedure / Form of contact
		Clusters 3 and 4 *Continue working with documents*	**Clusters 3, 4 – 252 MMC** Join a Zoom meeting https://us02web.zoom.us/j/717239583 7 Conference ID: 717 239 5837
17.25-17.40	**Technical break**		
17.40-18.20	**Interviews with employers of the OP (in parallel) and individual work of EEC experts**	*Employers* OP **Clusters 1 and 2** *(Appendix No. 4 List of employers of the EP)*	**Clusters 1, 2 – 244 MMC** Join a Zoom meeting https://us02web.zoom.us/j/494124060 2 Conference ID: 494 124 0662
		Clusters 3 and 4 *Continue to work with documents, leaders of the OP*	**Clusters 3, 4 -Cab. 252 MMC** Join a Zoom meeting https://us02web.zoom.us/j/717239583 7 Conference ID: 717 239 5837
18.20-19.00	**EEC work: summing up the results of the second day**	*External IAAR experts*	**Clusters 1, 3 - cab. 252 MMC** Join a Zoom meeting https://us02web.zoom.us/j/494124060 2 Conference ID: 494 124 0662 (VEC only)
19.00-20.30	**Dinner**	*External IAAR experts*	
Day 3: April 21, 2023			
10.00-11.30	**EEC work: discussion of parameters** *(recording is ongoing)*	*External IAAR experts*	**cab. 252 MMC** Join a Zoom meeting https://us02web.zoom.us/j/494124060 2 Conference ID:

Date and time	EEC work with target groups	Position and Last name, first name, patronymic of target group participants	Location of the procedure / Form of contact
			494 124 0662 (only for VEC)
11.30-11.45	Technical break		
11.45-13.00	**Work of the EEC: development and discussion of recommendations** *(recorded)*	*External IAAR experts*	**cab. 252 MMC** Join a Zoom meeting https://us02web.zoom.us/j/4941240662 Conference ID: 494 124 0662 (only for VEC)
13.00-14.00	**Dinner**		Canteen of the University
14.00-14.15	Technical break		
14.15-15.30	**EEC work: decision-making by voting** *(recorded)*	*External IAAR experts*	**cab. 252 MMC** Join a Zoom meeting https://us02web.zoom.us/j/4941240662 Conference ID: 494 124 0662 (only for VEC)
15.30-15.45	Technical break		
15.45-16.20	**Final meeting of the EEC with the leadership of the university**	*University management, EP leaders, IAAR external experts*	**cab. 252 MMC** Join a Zoom meeting https://us02web.zoom.us/j/4941240662 Conference ID: 494 124 0662
16.20-17.00	**Summing up the work of the EEC**	*External IAAR experts*	**cab. 252 MMC** Join a Zoom meeting https://us02web.zoom.us/j/4941240662 Conference ID: 494 124 0662 (only for VEC)
18.00-19.30	**Dinner**		
April 22, 2023			

Date and time	EEC work with target groups	Position and Last name, first name, patronymic of target group participants	Location of the procedure / Form of contact
	Departure off-line - experts		
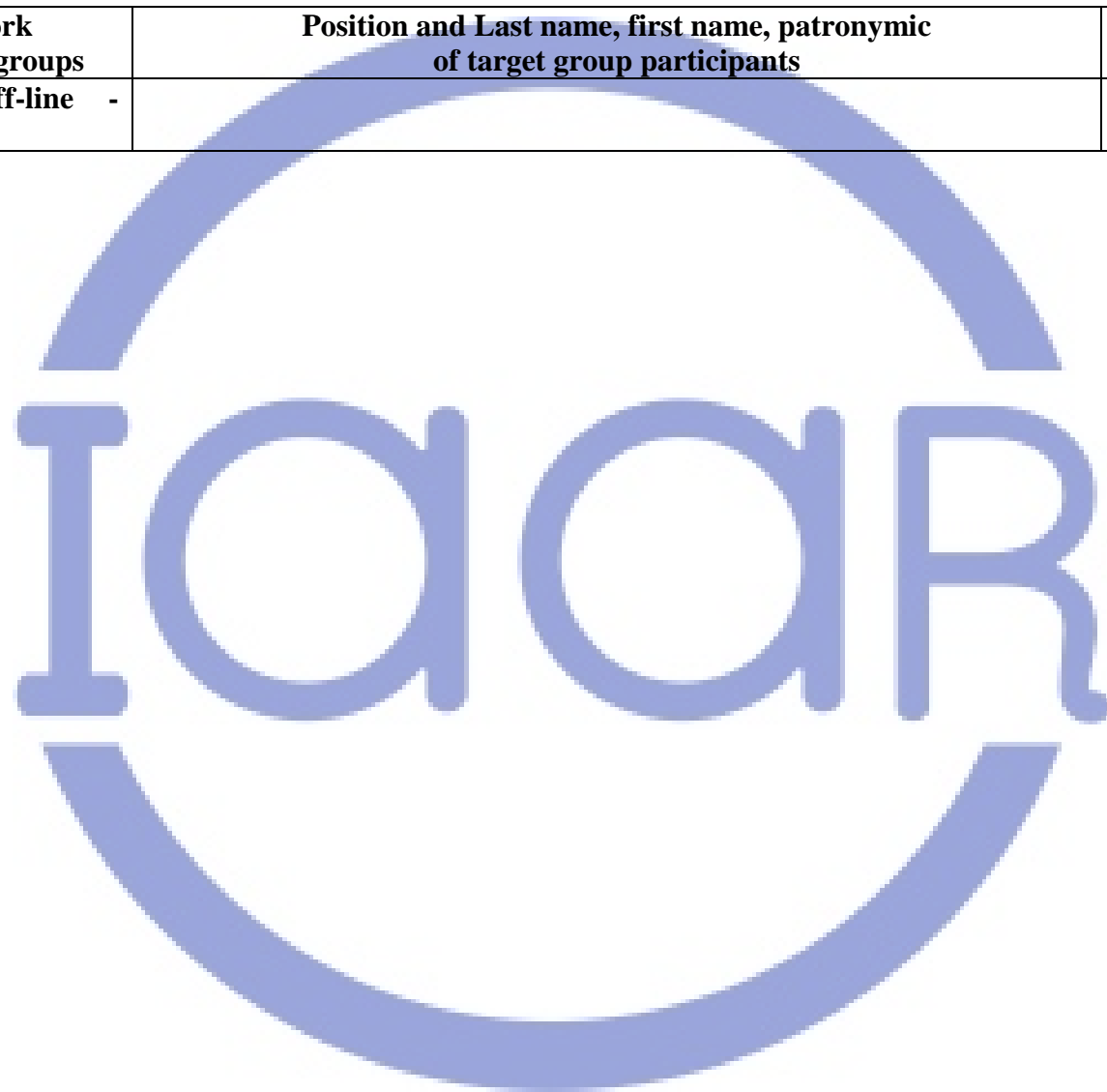
Annex 3. RESULTS OF THE TEACHING STAFF QUESTIONNAIRE

Non-profit joint stock company "Kazakh national research technical university named after K.I. Satpayev"

(SPECIALIZED ACCREDITATION (EX - ANTE))

1 General quantity profiles: 41

2 Age:

18-25	0 people	0%
26-35	3 people	13 %
36-45	7 people	30.4%
46-55	10 people	43.5%
higher 56	3 people	13 %

3. Select department:

Management And mathematical economy	7 people	17.1%
mine surveyor affairs And geodesy	16 people	39%
Engineering systems And networks	8 people	19.5%
cybersecurity, processing And storage information	4 people	9.8%
Standardization, certification And metrology	3 people	7.3%
Logistics	2 people	4.9%
Digital logistics	1 people	2.4%

4 Job title

Professor	5 people	2.5%
Assistant professor	20 people	9.8%
Senior teacher	73 people	35.8%
Teacher	89 people	43.6%
Assistant	13 people	6.4%
Master teacher	3 people	1.5%
Performing responsibilities professors	1 people	0.5%

5 Floor: Husband. - -people (%) / Female - - pers. (%)

6 scientific degree, scientist rank

Doctor Sciences	6 people	2.9%
Candidate Sciences	35 people	17.2%
Master	82 people	40.2%
PhD	26 people	12.7%
Professor	4 people	2%
Assistant professor	9 people	4.4%
No	45 people	22.1%
Honored Worker of the Republic of Kazakhstan	0 people	0%
Teacher	3 people	1.5%

Graduated PhD , getting ready To protection	1 people	1%
Senior teacher	1 people	1%
Main teacher Turkish language and literature codegree bachelor	1 people	1%
Deserved doer culture RK	1 people	1%

7 Work experience at the university

Less 1 of the year	4 people	2%
1 year - 5 years	33 people	16.2%
Over 5 years	167 people	81.9%

%	Questions	Very good	Good	Relatively _ Badly	Badly	Very Badly	Not answered
	How is it reflected mission and strategy university						
8	• How satisfying content of educational programs Your needs?	thirty people (73.2%)	eleven people (26.8%)				-
9	How You evaluate possibilities, provided by the university For professional development PTS?	27 people (65.9%)	14 people (34.1%)				-
10	How You evaluate possibilities, provided university, For career growth teaching staff	24 people (58.5%)	17 people (41.5%)				-
eleven	How You evaluate degree academic freedom teaching staff	18 people (43.9%)	23 people (56.1%)				-
12	*How much teachersmay use own*						
	Strategies	27 people (65.9%)	14 people (34.1%)				-
	Methods	32 people (78%)	9 people (22%)				-
12	• Innovation V process learning	29 people (70.7%)	eleven people (26.8%)	1 people (2.4%)			-
13	• How do they work at the university relevant medicalpoints And offices?	16 people (39%)	23 people (56.1%)	2 people (4.9%)			-
14	• How given attention training manual establishments content educational programs?	24 people (58.5%)	16 people (39%)	1 person (2.4%)			-
15	How You evaluate Availabilitynecessary scientific and educational literature in library For teachers?	20 people (48.8%)	21 people (51.2%)				-
16	Assess the level of developmentconditions for students with different physical abilities?	21 people (51.2%)	19 people (46.3%)	1 people (2.4%)			-
17	*Rate availability guides*						
	Students	30 people (73.2 %)	11 people (26.8%)				-

	Teachers	26 people (63.4%)	15 people (36.6%)				-
18	• Assess the involvement of teaching staffinto the adoption process managerial andstrategic decisions	20 people (48.8%)	18 people (43.9%)	3 people (7.3%)			-
19	• As encouraged innovative activityPTS?	24 people (58.5%)	15 people (36.6%)	2 people (4.9%)			-
20	Assess the level of feedback connections teaching staff With leadership	24 people (58.5%)	16 people (39%)	1 person (2.4%)			-
21	What is the level of incentiveand attracting young specialists to educational process?	22 people (53.7%)	16 people (39%)	3 people (7.3%)			-
22	Rate created possibilities For professional And personal growth For everyone teacher And employee	20 people (48.8%)	19 people (46.3%)	2 people (4.9%)			-
23	Assess the adequacy recognition capacity And abilities teachers	19 people (46.3%)	18 people (43.9%)	4 people (9.8%)			-
24	How way stagedJob						-
	By academic mobility	17 people (41.5%)	20 people (48.8%)	4 people (9.8%)			-
	On advanced trainingteaching staff	17 people (41.5%)	21 people (51.2%)	3 people (7.3%)			-
25	• *Rate support university And his guides*						-
26	• Researchundertakings of teaching staff	22 people (53.7%)	19 people (46.3%)				-
27	Development of new educational programs	26 people (63.4%)	15 people (36.6%)				-
28	• *Rate level opportunities for teaching staff combine teaching*						-
29	• WITH scientific research	16 people (39%)	20 people (48.8%)	5 people (12.2%)			-
thirty	WITH practical activities	15 people (36.6%)	25 people (61%)	1 person (2.4%)			-

31	• Assess how much correspond knowledge students received in this university, realities requirements contemporary market labor	20 people (48.8%)	21 people (51.2%)					-
32	• How does he perceive management And administrationuniversity criticism to your address?	15 people (36.6%)	25 people (61%)	1 people (2.4%)				-
33	Assess how Youreducational load corresponds your expectations And opportunities?	15 people (36.6%)	21 people (51.2%)	5 people (12.2%)				-
34	Rate orientation educational programs/training programson formation at students skills And skills analyze situation And build forecasts?	22 people (53.7%)	19 people (46.3%)					-
35	Assess how educational program Bycontent And quality implementation corresponds expectations market labor And employers	25 people (61%)	16 people (39%)					-

36 Why are you working exactly in this university?

1. I graduate this university.
2. To me like teaching activity, suit conditions labor

37 How often do you have workshops and lectures with practitioners in your course?

Very often	12 people	29.3%
Often	19 people	46.3%
Sometimes	10 people	24.4%

38 How often do additionally invited teachers participate in the learning process?

| Very often	6 people	14.6%
Often	23 people	56.1%
Sometimes	eleven people	26.8%
Very rarely	1 people	2.4%

39 How often do you encounter the following problems in your work: (please give an answer on each line)

		Often	Sometimes	Never
1.	Flaw training audiences	2 people (4.9%)	11 people (26.8%)	28 people (68.3%)
2.	Imbalance educational loads Bysemesters	3 people (7.3%)	13 people (31.7%)	25 people (61%)
3.	Inaccessibility necessary books V library	2 people (4.9%)	14 people (34.1%)	25 people (61%)
4.	Overcrowding training groups (too mucha large number of students in a group)	7 people (17.1%)	14 people (34.1%)	20 people (48.8%)
5.	Uncomfortable schedule	2 people (4.9%)	20 people (48.8%)	19 people (46.3%)
6.	Bad conditions For classes in classrooms	3 people (7.3%)	18 people (43.9%)	20 people (48.8%)
7.	Absence access to the Internet	2 people (4.9%)	20pax (48.8%)	19 people (46.3%)
8.	Low discipline students	-	22 people (53.7%)	19 people (46.3%)
9.	Untimely receiving informationO events	-	13 people (31.7%)	28 people (68.3%)
10.	Absence technical funds Vclassrooms	3 people (7.3%)	21 people (51.2 %)	17 people (41.5%)
11.	Other Problems. Specify Please,which:	No (28 people) special problems No, If arise, then Allare solved through official notes Upgrading computers in lecture rooms (not all rooms have interactive whiteboards) No or few outlets Low salary (full-time master's 183 thousand) Resistance of colleagues to new changes.		

40 In the life of a university there are many different sides and aspects that in one way or another affect every teacher and employee. Rate how satisfied you are:

	Completely Yu satisfiesren (1)	Partially satisfiesren (2)	Not satisfied oren (3)	Difficulty yus answer(4)
Relationships With direct leadership	34 people (82.9%)	7 people (17.1%)		
Relationships With colleagues on department	38 people (92.7%)	3 people (7.3%)		
participation V acceptance managerial decisions	32 people (78%)	9 people (22%)		
Relationships co students	38 people (92.7%)	2 people (4.9%)	1person (2.4%)	
recognition your success And achievements co sides administration	32 people (78%)	8 people (19.5%)	1 person (2.4%)	
support your proposals And comments	30 people (75%)	9 people (22.5%)	1 person (2.5%)	

activities administration university	32 people (78%)	8 people (19.5%)	1 person (2.4%)	
conditions payment labor	18 people (43.9%)	20 people (48.8%)	3 people (7.3%)	
Convenience work, services, available V university	26 people (63.4%)	13 people (31.7%)	2 people (4.9%)	
Security labor And his security	34 people (82.9%)	5 people (12.2%)	2 people (4.9%)	
management changes V activitiesuniversity	35 people (85.4%)	4 people (9.8%)	2 people (4.9%)	
By providing benefits: recreation, sanatorium treatment And others	27 people (65.9%)	11 people (26.8%)	2 people (4.9%)	1 person (2.4%)
system food, medical And others service	31 people (75.6%)	7 people (17.1%)	2 people (4.9%)	1 person (2.4%)
organization And quality nutrition V university	26 people (63.4%)	12 people (29.3%)	3 people (7.3%)	
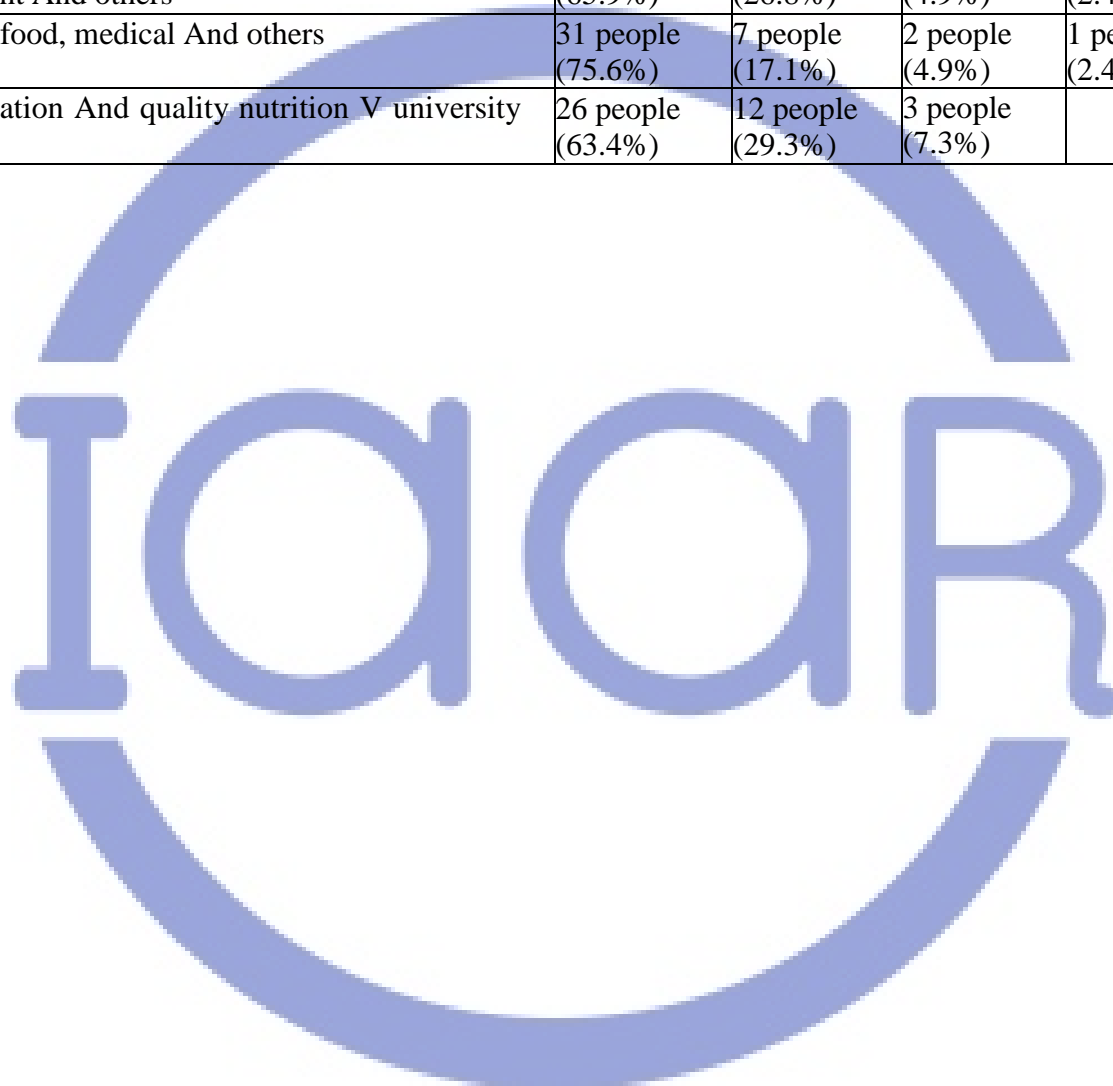
Annex 4. RESULTS OF STUDENT QUESTIONNAIRE

Non-profit joint stock company "Kazakh nationalresearch technical university named after K.I. Satpayev"
(SPECIALIZED ACCREDITATION (EX - ANTE))

Level of the educational program :

Undergraduate	331 people	(94.8 %)
Master's degree	18 people	(5.2 %)
PhD	-	-

Floor:

Male	118 people	33.7%
Female	232 people	66.3%

Rate how satisfied you are:

Questions	Completely satisfied	Partially satisfied	Partially dissatisfied	Not satisfied	I'm at a loss answer
1. Relations with the dean's office	204 people (58.3 %)	112 people (32 %)	19 people (5.4 %)	9 people (2.6 %)	6 people (1.7 %)
2. The level of accessibility of the dean's office	201 people (57.4 %)	118 people (33.7 %)	19 people (5.4 %)	7 people (2 %)	5 people (1.4 %)
3. The level of accessibility and responsiveness of the university management	202 people (57.7 %)	115 people (32.9 %)	19 people (5.4 %)	8 people (2.3 %)	6 people (1.7 %)
4. Availability of academic counseling	193 people (55.1 %)	108 people (30.9 %)	27 people (7.7 %)	9 people (2.6 %)	13 people (3.7 %)
5. Support with educational materials in the learning process	202 people (57.7 %)	101 people (28.9 %)	24 people (6.9 %)	15 people (4.3 %)	8 people (2.3 %)
6. Availability of personal counseling	178 people (50.9 %)	106 people (30.3 %)	2 9 people (8.3 %)	16 people (4.6 %)	21 people (6 %)
7. Relationship between student and teacher	2 11 people (60.3 %)	9 5 people (27.1 %)	2 5 people (7.1 %)	15 people (4.3 %)	4 people (1.1 %)

8. Financial and administrative services of the educational institution	204 people (58.3 %)	98 people (28 %)	2 1 people (6 %)	12 people (3.4 %)	1 5 people (4.3 %)
9. Availability of health services for students	217 people (62 %)	91 people (26 %)	13 people (3.7 %)	10 people (2.9 %)	19 people (5.4 %)
10. The quality of the student health service	207 people (59.1 %)	8 9 pers. (25.4 %)	20 people (5.7 %)	11 people (3.1 %)	23 people (6.6 %)
11. The level of availability of library resources	240 people (6 8.6 %)	75 people (21.4 %)	1 8 people (5.1 %)	5 people (1.4 %)	12 people (3.4 %)
12. The quality of services provided in libraries and reading rooms	236 people (67.4 %)	85 people (24.3 %)	9 people (2.6 %)	7 people (2 %)	13 people (3.7 %)
13. Satisfaction with the existing educational resources of the university	221 people (63.1 %)	88 people (25.1 %)	19 people (5.4 %)	1 0 people (2.9 %)	12 people (3.4 %)
14. Availability of Internet resources	209 people (59.7 %)	88 people (25.1 %)	2 1 people (6 %)	18 people (5.1 %)	14 people (4 %)
15. The usefulness of the website of educational organizations in general and faculties in particular	173 people (49.4 %)	89 people (25.4 %)	34 people (9.7 %)	45 people (1 2 .9 %)	9 people (2.6 %)
16. Study rooms, auditoriums for large groups	202 people (57.7 %)	93 people (26.6 %)	27 people (7.7 %)	20 people (5.7 %)	8 people (2.3 %)
17. Lounges for students (if available)	1 79 people (51.1 %)	98 people (28 %)	38 people (10.9 %)	27 people (7.7 %)	8 people (2.3 %)
18. Clarity of procedure for taking disciplinary action	193 people (55.1 %)	86 people (24.6 %)	2 9 people (8.3 %)	28 people (8 %)	14 people (4 %)
19. The quality of the educational program as a whole	202 people (57.7 %)	105 people (30 %)	11 people (3.1 %)	14 people (4 %)	18 people (5.1 %)
20. The overall quality of study programs	2 1 3 people (60.9 %)	97 people (27.7 %)	20 people (5.7 %)	14 people (4 %)	6 people (1.7 %)
21. Teaching methods in general	207 people (59.1 %)	102 people (29.1 %)	16 people (4.6 %)	12 people (3.4 %)	13 people (3.7 %)
22. Quick response to feedback from teachers regarding the educational process	196 people (56 %)	116 people (33.1 %)	20 people (5.7 %)	11 people (3.1 %)	7 people (2 %)
23. The quality of teaching	206 people (58.9 %)	108 people (30.9 %)	1 6 people (4.6 %)	13 people (3.7 %)	7 people (2 %)

Statement	Full consent	Agree	Partially agree	Don't agree	Complete disagreement
24. Academic load / requirements for the student	208 people (59.4 %)	110 people (31.4 %)	15 people (4.3 %)	10 people (2.9 %)	7 people (2 %)
25. The requirements of the teaching staff for the student	178 people (5 0.9 %)	112 people (3 2 %)	2 6 pers. (7.4 %) _	26 people (7.4 %) _	8 people (2.3 %)
26. Information support and clarification before entering the university of the rules for admission and the strategy of the educational program (specialty)	1 96 people (5 6 %)	99 people (2 8 , 3 %)	1 8 people (5.1 %) _	11 people (3.1 %) _	2 6 pers. (7.4 %) _
27. Informing the requirements in order to successfully complete this educational program (specialty)	210 people (60 %)	95 people (27.1 %) _	13 people (3.7 %) _	14 people (4 %)	18 people (5.1 %) _
28. The quality of examination materials (tests and examination questions, etc.)	203 people (58 %)	111 people (3 1 , 7 %)	14 people (4 %)	13 people (3.7 %)	9 people (2.6 %) _
29. Objective assessment of knowledge, skills and other educational achievements	1 98 people (5 6 . 6 %)	108 people (30.9 %) _	1 8 people (5.1 %) _	18 people (5.1 %) _	8 people (2.3 %)
30. Available computer classes	1 98 people (5 6 .6 %)	108 people (30.9 %)	1 5 people (4.3 %) _	2 1 people (6 %)	8 people (2.3 %)
31. Available scientific laboratories	198 people (5 6 . 6 %)	94 people (26.9 %) _ _	24 people (6.9 %)	1 4 people (4 %)	2 0 people (5.7 %) _
32. Objectivity and fairness of teachers	1 96 people (5 6 %)	99 people (28.3 %) _	1 8 people (5.1 %) _	16 people (4.6 %)	21 people (6 %)
33. Informing students about courses, educational programs and academic degrees received	1 99 people (56.9 %) _	98 people (28 %)	26 people (7.4 %) _	20 people (5.7 %) _	7 people (2 %)
34. Providing students with a hostel	206 people (5 8.9 %)	10 3 people (29.4 %) _ _	14 people (4 %)	1 7 people (4.9 %) _	1 0 people (2.9 %) _

How much do you agree with:

Statement	Full consent	Agree	Partially agree	Don't agree	Complete disagreement	Didn't answer
35. The course program was clearly presented	1 76 people	84 people	21 people	3 6 pers.	33 people	-

	(50.3 %) _ _	(24 %)	(6 %)	(10.3 %) _	(9.4 %)	
36. Course content is well structured	177 people (50.6 %)	95 people (27.1 %) _	6 7 pers. (1 9 .1 %)	9 people (2.1 %) _	2 people (0.6 %)	-
37. Key terms adequately explained	171 people (48.9 %) _	105 people (28.6 %)	5 7 pers. (1 6 , 3 %)	13 people (3.7 %) _	4 people (1 , 1 %)	-
38. The material taught is up to date.	1 76 people (50.3 %) _ _	93 people (26.6 %)	61 people (1 7 , 4 %)	18 people (5.1 %) _	2 people (0.6 %)	-
39. The teacher uses effective teaching methods	153 people (43.7 %) _	106 people (30.3 %) _	67 people (1 9 .1 %)	23 people (6.6 %) _	1 person (0.3 %) _	-
40. The teacher owns the material being taught	182 people (5 2 %)	9 8 people (28 %)	5 8 people (1 6 , 6 %)	12 people (3.4 %) _	0 people (0 %)	-
41. The lecturer's presentation is clear	174 people (49.7 %) _	94 people (26.9 %) _ _	67 people (1 9 .1 %)	1 4 people (4 %)	0 people (0 %)	-
42. The teacher presents the material in an interesting way	159 people (45.4 %) _	79 people (2 2.6 %)	74 people (2 1, 1 %)	36 people (1 0 , 3 %)	2 people (0.6 %)	-
43. Objectivity in assessing knowledge, skills and other educational achievements	175 people (50.3 %) _	97 people (2 7 . 9 %)	61 people (1 7.5 %)	14 people (4 %)	1 person (0.3 %)	-
44. The timeliness of assessing the educational achievements of students	177 people (50.9 %) _ _	96 people (2 7 . 6 %)	59 people (1 7 %)	15 people (4.3 %) _	1 person (0.3 %)	-
45. The teacher satisfies my requirements for personal development and professional development	174 people (49.7 %)	9 5 people (2 7 , 1 %)	58 people (1 6 , 6 %)	21 people (6 %)	2 people (0.6 %) _	-
46. The teacher stimulates the activity of students	171 people (47.4 %) _	96 people (27.4 %) _ _	57 people (16.3 %) _	26 people (7.4 %)	0 people (0 %)	-
47. The teacher stimulates the creative thinking of students	166 people (47.4 %) _	8 7 pers. (24.9 %)	67 people (19.1 %)	28 people (8%)	2 people (0.6 %)	-
48. Appearance and manners of the teacher are adequate	197 people	86 people	54 people	12 people	0 people (0 %)	-

	(56.3 %) _	(24.6 %)	(1 5 , 4 %)	(3.4 %) _		
49. The teacher has a positive attitude towards students	1 81 people (5 1 , 7 %)	97 people (27.7 %) _	54 people (15.4 %) _	1 6 people (4.6 %) _	2 people (0.6 %)	-
50. Continuous assessment (seminars, tests, questionnaires, etc.) reflects the content of the course	179 people (5 1 , 1 %)	100 people (28.6 %) _	54 people (1 5 , 4 %)	1 3 people (3.7 %) _	4 people (1.1 %)	-
51. Evaluation criteria used by the instructor are clear	173 people (49.4 %) _	100 people (28.6 %)	60 people (1 7 , 1 %)	1 3 people (3.7 %) _	4 people (1.1 %)	-
52. The teacher objectively evaluates the achievements of students	174 people (49.7 %) _	96 people (27.4 %)	59 people (1 6 . 9 %)	18 people (5.1 %) _	3 people (0.9 %)	-
53. The teacher speaks a professional language	183 people (5 2 , 3 %)	1 0 4 people (29.7 %) _	46 people (1 3 .1 %)	14 people (4 %)	3 people (0.9 %) _	-
54. The organization of education provides sufficient opportunities for sports and other leisure activities.	1 8 3 people (52.3 %) _	90 people (25.7 %)	56 people (1 6 %)	17 people (4.9 %)	4 people (1 , 1 %)	-
55. Facilities and equipment for students are safe, comfortable and modern	169 people (4 8 , 3 %)	100 people (28.6 %)	64 people (1 8 , 3 %)	14 people (4 %)	3 people (0.9 %) _	-
56. The library is well stocked and has a fairly good collection of books.	1 80 people (5 1 , 4 %)	92 people (26.3 %) _ _	60 people (1 7 , 1 %)	1 5 people (4.3 %) _	3 people (0.9 %)	-
57. Equal opportunities are provided to all students	176 people (50.3 %) _ _	98 people (28 %)	61 people (1 7 , 4 %)	12 people (3.4 %) _	3 people (0.9 %) _	-

58. Other concerns regarding the quality of teaching :
1. .
2. -
3. No
4. none
5. everything suits me
6. Everything is great ✌ ▨
7. Still better
8. Everything is fine
9. Everything is fine
10. 10/10
11. ☝
12. EVERYTHING IS PERFECT
13. If students were not divided

14. Nothing
15. Practice
16. 927 and 929 lecture room oryndyktaryn auystyryndarshi
17. The teachers are so good.
18. no questions, everything suits me
19. not a bit not beautiful
20. ….
21. Barlygy zhaksy tek ulken zeynet zhasyndagy kisiler sabak bermese eken. Biz ol kisini ol bizdi tүsinbeidi. Karym katynas mulde zhok men oz basym not ozgertu kerek dese ote ulken kisilerdin sabaҡ beruine zhol bermes edim. Lecture oҡys zharaidy birak praktikadan ol kisiler bere almaydy dep sanaimyn
22. Kashan Tusedi Scholarship
23. Thank you
24. Better finish renovation
25. Satisfied
26. more foreign teachers
27. No questions
28. No
29. Learning Improvements
30. everything suits me
31. Do not exaggerate or overestimate the teacher's expectations of a student with a specific level of language proficiency and demand that the student was not clear or not capable enough based on his level. Individual schedule for students with work or other leisure activities.
32. We demand not to separate students, mostly young teachers)))
33. No
34. Bari keremet
35. Everything is better
36. E
37. no questions
38. ☺
39. Everything is good