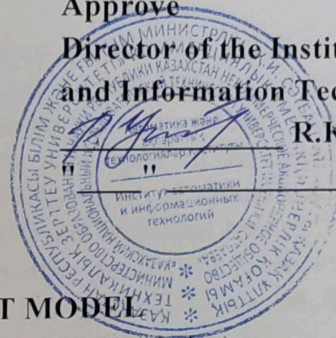


Approve

Director of the Institute of Automation
and Information Technologies

R.K. Uskenbayeva

2021



SPECIALIST MODEL

Robotics and Mechatronics (Bachelor)

1. Goals of the educational program

1. Management - improving the efficiency of department management based on a clear distribution of functions and powers between members of the department.
2. Educational - improving the quality of educational services based on the introduction of modern educational technologies.
3. Educational - improving the quality of patriotic, international, general political, legal, aesthetic education, the formation of a healthy lifestyle on the basis of educational work (adviser hours, educational conversations, events, etc.).
4. Economic - development of the material and technical base.

2. Objectives of the educational program

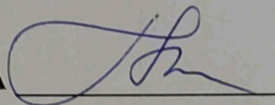
1. Creation of the necessary conditions for obtaining a quality education in the chosen specialty, aimed at the formation, development and professional development of the individual based on national and universal values, achievements of science and practice.
2. Ensuring the unity of goals and directions for the development of the QMS of educational services. Increasing the responsibility of the department's employees at all levels of activity in managing the quality of the educational process. Creation of a favorable internal environment and a motivation system that stimulates the achievement of specific results by all participants in the educational process.
3. Implementation and effective use of new technologies in education that contribute to the rapid adaptation of vocational education to the changing needs of the labor market and help each student to maximize their personal potential.
4. Development of students' creative and spiritual abilities, formation of solid foundations of morality and a healthy lifestyle, enrichment of the intellect by creating conditions for the development of individuality.
5. Education of a person with an active humanitarian position, the formation of the need to participate in the socio-political, economic and cultural life of the republic, a conscious attitude of the individual to his rights and obligations
6. Integration into the global educational space.
7. Integration of education, science and production.
8. Creation of conditions for advanced training of teaching staff and educational support personnel.
9. Strengthening the image of the department, faculty and university.

3. Goals of the educational program "Robotics and Mechatronics"

1. Preparation of a graduate for organizational activities, the development of spiritual values, moral and ethical standards of the individual as a member of society, the implementation of the legal and legislative system of the Republic of Kazakhstan with a high level of professional culture, citizenship

	<p>networks, current trends in the development of telecommunication and radio systems. Ability to understand the various guiding means of telecommunications and their features; study of the theory, designs, and characteristics of guiding media to apply their optimal designs on various communication networks based on the determination of their bandwidth. Ability to understand the fundamentals of the theory of electromagnetic processes occurring in various media, in electromagnetic energy transmission lines and linear devices in the microwave and optical range.</p> <p>Ability to understand the principles of building basic radio systems and electronic devices.</p>
<p>Requirements for readiness to change social, economic, professional roles, geographic and social mobility in the face of increasing dynamism of change and uncertainty:</p>	<p>The ability to foreign language professional intercultural communication, providing the ability to generate, interpret information in a foreign language and operate with it; knowledge and ability to competently use professional vocabulary in their work.</p> <p>Be flexible and mobile in various conditions and situations related to professional activities.</p> <p>Possess the skills of making decisions of an economic and organizational nature in conditions of uncertainty and risk.</p>

Head of the Department of RaTToA



K.A.Ozhikenov

**Discussed at a meeting of the Scientific and Methodological Council of the Institute.
Minutes No. 2 dated September 16, 2021**