Approved by the Academic Council

Protocol No. « 4 » « 21 November » 2017

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Approved by the Board of Directors
Protocol No / 85-24 » «29 December » 2017
Chairman of the Board of Directors

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## INT-STOCK COMPANY «ALMATY UNIVERSITY OF POWER ENGINEERING & TELECOMMUNICAATIONS»

## TRANSFORMATION STRATEGY

knowledge based national economy and the most advanced technologies for industrial and innovative development of the country, adapted to the conditions of world integration and globalization.

VISION: Almaty University of Power Engineering & Telecommunications is a leading research university in Central Asia in the fields of energy, telecommunications, information and aerospace technologies.

## **ACHIEVEMENTS**

By 2017 Almaty University of Power AUPET has a brand of the best university in the fields of energy, informatics and telecommunications with almost 100% employment of graduates and is in the top 10 in the National Rating of the Best Technical Universities of Kazakhstan, taking the leading positions in the following specialties: Heat power engineering - 1<sup>st</sup> place; Electrical

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power engineering –  $1^{st}$  place; Radio engineering, electronics and telecommunications -  $1^{st}$  place; Instrumentation -  $1^{st}$  place; Information security systems –  $2^{nd}$  place; Space engineering and technology -  $2^{nd}$  place.

AUPET is the basic Education and Methodics Association of the Republican educational and methodological council for the 4 specialties Electrical Power engineering, Heat power engineering, Radio engineering, electronics and telecommunications, Space engineering and technology.

The main values of the University are high quality of education and zero tolerance for corruption. All activities of the university are dedicated to prepare highly professional, demanded specialists with high rate of employment and high starting salary.

#### WEAKNESSES

- Obsolete study and research infrastructure;
- Lack of young teachers and researchers and, as a consequence, the lack of the staff reserve;
- Aging of the staff, acute at all levels;
- > Ineffective university management; weak use of IT opportunities in all levels of management;
- Lack of financial responsibility of institutes, weak motivation of the academic staff, weak orientation of employees towards results of activities;

- Insufficient connection "science education industry";
- Weak commercialization of the results of scientific activity.

#### **THREATS**

- Decrease in the quality of education and rating and, as a consequence, the decrease of number of students recruited due to outdated laboratory facilities, weak compliance of study programmes with international standards and the requirements of labour market;
- Loss of the right to prepare basic specialties in connection with the high average age of the teaching staff with doctoral degree and the lack of their replacement by young doctors;
- Decrease of the number of students due to both, high competition from the side of local and foreign universities and development of online education;
- Loss of the university staff in connection with the low level of salary in comparison with other universities due to ineffective management system, forecasting and outstripping actions of university management.

## TRANSFORMATION STRATEGY

For the period 2018-2025 the university should be transformed into an advanced research university with young, enterprising, creative academic staff, teaching basic disciplines in accordance with modern teaching methods and technologies.

## **GOALS**

**STRATEGIC OBJECTIVE 1:** Transition from the "teacher-researcher" system to the "researcher-teacher" system. High income from research activities and extensive involvement of teaching staff and students in research.

**STRATEGIC OBJECTIVE 2:** Improvement of the quality of education and reaching the goal of 6000 students by 2025, including online training, with the proportion: bachelor students - 70%, master and doctoral students - 30%.

**STRATEGIC OBJECTIVE 3:** Attracting talented and progressive entrants, as well as faculty and staff from around the world and creating comfortable learning and research conditions for them.

# **PRIORITIES OF TRANSFORMATION**

#### PRIORITY Nº1.

High quality of research and development with maximum commercialization.

#### PRIORITY №2.

Modernization of educational activities.

#### PRIORITY Nº3.

Effective structure and management system of the university with a high degree of digitization of all management processes and activities.

#### **OBJECTIVES:**

- 1. Forced use of research resources in the educational process. Modernization of laboratory equipment and computer park for studies and research.
- 2. Wide involvement of students in research projects and educational programs; Young Researchers' Track after the first semester of the second year (based on GPA, English, motivation letter, interview) for the top 5-10% of students, a trajectory of a young researcher: research credits + participation in scientific projects + access to laboratories + formation of own research topic + master's degree disciplines → external master's studies (1 year) → doctoral studies. More widespread preparation of students in all levels using the Bolashak program for university needs.
- 3. Attraction of foreign teachers and scientists from the leading world universities and leading scientific centres for joint development of priority research directions in the field of renewable energy, energy saving and IT technologies and robotics.
- 4. Participation in international scientific and educational projects and development programs (UNDP, UNESCO, ERASMUS, the University of SCO, EBRD, ADB, etc.).
- 5. Conducting joint research projects with the industry and corporate sectors and creating service-oriented designs and production with the most modern technologies.
- 6. Development of the commercialization system of scientific developments (new business, joint ventures, sale of licenses design, examination, education, training) and modern ways of forming "Venture" funds to stimulate scientific, innovative projects and Start-ups.

#### **OBJECTIVES:**

- 1. Carrying out recruitment of the best entrants for bachelor, master and doctoral studies, providing them with the opportunity to study in the framework of academic mobility and internships at foreign partner universities.
- 2. Forming the best academic staff with a PhD degree that is scientific active, with international experience, innovative, creative thinking, which are periodically trained in foreign partner universities;
- 3. Creation of effective advanced study programmes for Kazakh, Russian and English languages with the delivery of appropriate language tests with the establishment of an appropriate threshold level and transfer of the study process to a three-language system.
- 4. Introduction and development of innovative teaching methods (online education, MOOC, IT technologies, project based learning, learning by doing, project hatchery).
- 5. Updating the existing and creating new study programmes, focused on the digital economy (artificial intelligence, robotics, ICT).
- 6. Development of double-degree and joint study programmes with a wide network of leading foreign universities and an expansion of the range of master's and doctoral programmes.
- 7. Transfer of general, basic and introductory study disciplines to the e-study format and transition to modular program systems.
- 8. Development of the autonomy of the university with the right to develop its own study programmes, the right to award diplomas and academic degrees.

#### **OBJECTIVES:**

- 1. Providing the university with qualified personnel that will help achieve the main business objectives.
- 2. The selection and recruitment of young trilingual staff, preferably with international experience. Training and development of university staff.
- 3. Establishment of a system for increasing the financial responsibility of institutes, motivating academic staff and employees using performance indicators through the implementation of the Responsibility Center Management (RCM), that has been widely used for more than 20 years in universities around the world and showed its effectiveness. RCM model optimizes unprofitable specialties, develops educational and research entrepreneurship and determines the responsibility of each participant in the process. Development of an effective system for assessing the personnel performance based on the MBO and KPI. Regular monitoring of personnel activities. Implementing Feedback in management. Development of a compensation system: a flexible reward system for the results of activities identified during the evaluation (KPI results).
- 4. Transition to electronic management system and automation of the main activity processes. Activation of the PR- campaign.
- 5. Development of a design project for the university campus (by attracting the foreign designers from among universities), corresponding to the modern requirements of education and research, taking into account the demands of new study and research fields. For example, a digital laboratory, a computer bar, an open space. Creating comfortable multifunctional places (for training, collective and individual work) with the possibility of transforming the room and furniture. Replacing monotone tones in favour of a variety of colours and shapes in the interior.

## STRATEGIC OBJECTIVE 1.

Transition from the "teacher-researcher" system to the "research-teacher" system. High income from research activities and extensive involvement of teaching staff and students in research.

#### STRATEGIC OBJECTIVE 2.

Improvement of the quality of education and reaching the goal of 6000 students by 2025, including online training, with the proportion: bachelor students - 70%, master and doctoral students - 30%.

#### STRATEGIC OBJECTIVE 3.

Attracting talented and progressive entrants, faculty and staff from around the world and creating comfortable learning and research conditions for them.