

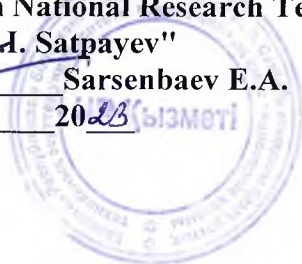
AGREED

Head of the Department of Energy,
NJSC "Kazakh National Research Technical University
named after K.I. Satpayev"

Sarsenbaev E.A.

«17» 03

2023



I APPROVE

Director of the Institute

«Automation and telecommunications»

Toygozhinova A.Zh.

«17» 03 2023

CATALOG OF ELECTIVE DISCIPLINES

EDUCATIONAL PROGRAMS

8D07160 – Electrical power engineering

Education level: doctoral studies

Duration of study: 3 years

Year of admission: 2023 y.

Module	Cycle	Component	Name of the discipline	Overall labor intensity		Semester	Learning outcome	Brief description of the discipline	Prerequisites	Postrequisites
				in academic hours	in academic loans					
1	2	3	4	5	6	7	8	9	10	11
Module 2 – Profile competencies	BD	EC	Control and measuring means of electrical complexes and systems	150	5	1	LO 3	The discipline studies the rules of approximate calculations and evaluation of rounding errors, methods for eliminating gross errors, detecting and eliminating systematic errors according to data obtained by means of control and measuring equipment of electrical complexes and systems.	All disciplines provided for the preparation of master's students in the EP Electrical Power Engineering	Final certification
			Complete controlled electric drives				LO 4	The discipline studies digital technologies for controlling modern technological processes, the use of high-performance microprocessors and their software, which allow not only to control the electric drives of production mechanisms, but also to control parameters, protect against emergencies, and diagnose elements.		

Module 2 – Profile competencies	PD	EC	Methods and means of improving the reliability of electrical systems and systems	150	5	1	LO 6	The discipline studies modeling the reliability of complex systems, reliability analysis using the probability theory of random events, logical-probabilistic methods for analyzing the reliability of structurally complex systems, dynamic models of the reliability of electrical systems.	All disciplines provided for the preparation of master's students in the EP Electrical Power Engineering	Final certification
			Methods and means of safe and effective operation of electrical complexes and systems					The discipline studies methods, algorithms and software for processing expert information on the safe and efficient operation of electrical systems, methods of information analysis based on computer methods of information processing and diagnostics of electrical systems.	All disciplines provided for the preparation of master's students in the EP Electrical Power Engineering	Final certification
TOTAL				300	10					

Head of the Department «Energy»

Egzekova A.T.