SUMMARY

Diploma project contains pages - 120, drawings -68, applications - 4 and graphic part in 6 sheets.

Purpose: development of a methodology for designing a technological coordinator estimator for turbomechanisms based on artificial neural networks based on programmable logic integrated circuits (PLIs), practical implementation of such an appraiser and verification of its efficiency.

During the implementation of the dissertation, an analytical review of modern turbomechanism control systems and intelligent control of pumping plants was carried out, a method for evaluating technological parameters using neural networks was developed, a synthesis of the pressure regulator was carried out, experimental studies of the work of the observer of the technological parameters of turbomechanisms and a comparative simulation of the observer of technological parameters with experimental research were performed, performed modeling of the system of stabilization of pressure.

The graphic part includes the structural scheme of the system model, the structural scheme of the single pump installation, the structural scheme of the model system with the pressure regulator, transients in the systems of stabilization of pressure, experimental studies of the work of the evaluator, NTM training schedules, the functional scheme of the stand.

TURBOMECHANISM, OBSERVER, PUMP INSTALLATION, EFFICIENCY, PRODUCTIVITY, PRESSURE, METHODOLOGY, TECHNOLOGICAL PARAMETERS, NEURAL NETWORK, FPGA.

		Letter	№ of doc.	Sign.	Date				
						Methodology for evaluation of technological parameters of turbo mechanisms using neural networks *Summary*	L.	Sheet	Letters
Devel.	I. Gerashchenko								
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