SUMMARY

The diploma project comprises: 73 pages, 47 figures, 5 tables.

The purpose of the work is development and further monitoring of the system of the control pumping unit with the unknown parameters of the hydromechanism.

In this work has been made analytical analysis and selection of theoretical material of the centrifugal pump, their essence and areas of use. Presented the theoretical characteristics of the control system with centrifugal pump installations and requirements for use to the electric drive. For the accurate selection of a sucker pump and a drive motor has been used the Spaix 2 Pump Selector program a Vogel software, and a detailed installation program in a given software environment. Motors parameters were calculated and work out the mathematical model of a pump and installation in the Matlab software.

A check was made PI-regulator its training and checking of efficiency at the variation of parameters of the hydraulic resistance in the conditions of stabilization of pressure is carried out. In this work has been made energy efficiency stabilized systems.

PI-REGULATOR, PUMPING INSTALLATION, PROGRAMMED PLANE, TURBOMECHANISM, PUMP INSTALLATION, PRODUCTIVITY, PRESSURE, METHODOLOGY, TECHNOLOGICAL PARAMETERS, HYDRAULIC RESISTANCE.