ABSTRACT

Thesis project contains 77 pages, 18 figures, 14 tables, 3 sheets of graphics.

The purpose of this project is to develop an electromechanical system for pyrolysis boiler automation. The developed system is designed according to the requirements of the project.

During the work, a number of equipment was calculated and selected: a centrifugal pump, a smoke pump, a fuel level sensor in the hopper, a temperature sensor, a blower fan and a motor for it. A number of studies have been conducted for the fan motor, namely the choice of control based on the most efficient use of energy.

The designed system can be used in a real system to increase the efficiency of the heating system, as shown in the research results.

The graphic part includes: technological scheme, electrical scheme of the basic system, research results

PYROLYSIS BOILER, EFFICIENCY, FREQUENCY CONVERTER, INJECTOR FAN, SMOKE PUMP, HEAT EXCHANGER, CIRCULATION PUMP, REGULATOR.