

## **Annotation**

This graduation project is consider about the regulated electric forced-draft mechanisms from boiler room of TPP .

The purpose of the project is to replace the unregulated electric forced draft mechanisms on the regulated electric. Benefits of regulated electric were detected in the analysis ways of controlling FDM. Afterwards the analyze was detected most efficient control system for electric drive. (Revealed the most efficient control system for electric drive). Mathematical description the elements of electric power system with a virtual model of the system were shown and built in Matlab. And dynamical characteristics of the system's model were considered as well. The system's model was assembled by Matlab program. With these program the curves of the transient characteristics by subsequent pounce and reset modes for a smooth start of the motor were received. The analyse of working conditions was presented in a section of the life safety.

The economic part include the calculation of investment required for to replace the targeted electric drive. The economic effect has been calculated by the replacement of unregulated electric drive on adjustable. The period of object payback has been calculated.