

## **Annotation**

The degree project is based on the development of an induction motor control system with frequency control for an electric vehicle. In the project all the technological, structural and operational issues were discussed. It is payment capacity of the power plant, and selected the appropriate motor brand Siemens 1PV5135-4WS14 and converter MICROMASTER 440. Frequency Series A mathematical model of the electric system in Matlab software environment.

Life safety item describes the development of an electric brake and the braking distance of the path.

The technical-economic section compares the two different systems of control "frequency converters – the asynchronous motor" and "thyristor Preobrazovatel - DC motors" by low marginal costs. The same method compared the internal combustion engine and an electric power plant in this project. analysis and the substantiation of the economic efficiency of the drive was performed.