

## **Annotation**

This diploma work provides basic information about the design of the escalator and its features. The scheme of the escalator electric drive reduction gear is given, statics and dynamics are described. There are also principles of ACS control, and the developed ACS of the electric drive is presented, which provides stabilization of the speed of the induction motor, programs for determining the stability of the electric drive motion and determining self-oscillations in the control system are given, as well as a program for synthesizing parameters. To study transition processes, a virtual scheme of an asynchronous electric drive with a control system is presented.