

## **Annotation**

In the diploma work, the creation of a structural diagram of a two-motor electric drive with the «thyristor voltage converter - asynchronous motor» system. The synthesis of the control system for the two motor electric drive of the belt conveyor is performed using the closed-loop system «thyristor voltage converter - asynchronous motor» with speed feedback.

The life safety section takes into account electrical safety and harmful production factors, analyzes working conditions in a coal mine, calculates workplace lighting and artificial lighting.

In the economic section, the economic efficiency was assessed through a comparative analysis of the technical and economic indicators of two alternative systems for the electric drive of the mine conveyor. As a result, an economical option was chosen.