

SUBSTANTIATION OF ELECTROMECHANICAL PARAMETERS OF THE CONVEYOR BELT FOR MINING INDUSTRY

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Purpose. Development and study of the electric drive control system for reducing the impact of disturbing factors in the electromechanical system and improving the energy parameters.

Methodology. The research was carried out with the help of justifying the methods of controlling the electric drives of the conveyor, which included correcting devices, which minimizes the impact of negative factors in the electromechanical system.

Findings. In order to ensure high quality of the conveyor belt speed regulation, it is necessary to be able to directly control the speed and torque of the motor. One way is vector control of an AC drive with an asynchronous motor. Such control is used in the electric drive which includes autonomous voltage inverters with pulse-width modulation, which allows the use of multi-stage switching of AC motors. Economic indicators were definite according the concrete conditions of equipment exploitation.

Key words: AC drive, pulse-width modulation, vector control

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SOME ASPECTS OF GEORADIO LOCATION IN MINERAL RESOURCES SURVEYING ENERGY

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Purpose. Study the possibility of developing the technical and technological justification of georadio location of minerals according the quantity and quality characteristics of the concrete deposits.

Methodology. The studies were carried out through the use special equipment for justification the geometrical parameters and the previous defining of reserves of mineral deposits according the change of the thermal and radio properties of them.

Findings. The technical and technical efficiency of using the georadar in the exploration of mineral resources and their further development is considered.