THE SUMMARY

The final qualifying paper of the bachelor's degree contains 69 pages, 18 figures, 5 tables, 20 sources of information, 3 sheets of graphic part.

The object of the study is the electric grab crane with a carrying capacity of 16 tons.

The purpose of the work is to design an asynchronous vector controlled electric drive mechanism for moving the bridge magnetic graphene crane in accordance with the requirements of the technical task and study of its work MATLAB simulation method.

In the course of work was developed electric drive, which meets the conditions technical task.

The thesis is executed in the text editor Microsoft Word 2013 on white paper of A4 format, using MathCAD 14 programs, MATLAB 7.9 Simulink 6.3, Splan, Microsoft Visio 2013.

Keywords: bridge crane, displacement mechanism, asynchronous motor, frequency converter, asynchronous vector controlled electric drive, frequency converter, automatic control system, static and dynamic characteristics.