

## ABSTRACT

The diploma project is made on 63 pages and contains 20 figures, 3 tables and 3 sheets of graphic material.

The purpose of diploma project is to modernize dough machine the based on the asynchronous electric drive with field-oriented control, the development and investigation of an automated electromechanical system. Modernization of the dough machine knot is the vector-regulated electric drive, instead of the previously used unregulated. To increase the regulation range, to provide a reference torque at zero speed, accuracy of working out the trajectory of motion, smooth acceleration and electric motor inhibition this will allowed.

In order to achieve this goal, the following main tasks were solved: an analytical review of the mechanisms and design features of dough machines was performed, the calculation of power and the choice of the electric motor, as well as the frequency converter was made, the system of indirect vector control of the electric drive was designed and researched.

The calculation and implementation of diploma project were provided using the following software packages: MATLAB, Microsoft Office Word, Microsoft Office Visio.

DOUGH MACHINE, ELECTRIC DRIVE, ASYNCHRONOUS,  
FREQUENCY CONVERTER, FIELD-ORIENTED CONTROL, SYNTHESIS,  
MODELING, AUTOMATION

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<i>Electric drive and automation of dough machine</i>								
<i>SUMMARY</i>								