

ABSTRACT

The diploma project is made on 68 pages and contains 20 figures, 3 tables, 3 additions and 3 sheets of graphic material.

The purpose of diploma project is to modernize the palletizer based on the asynchronous electric drive with field-oriented control, the development and investigation of an automated electromechanical system. Modernization of the lifting mechanism 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.

To achieve purpose, the following main tasks were solved: the analytical review of the mechanisms and palletizers design features were carried out, the power calculation and the choice of the electric motor and frequency converter were done, the field-oriented control system of the electric drive was designed and investigated, the process of the palletizer was synthesized and automated.

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

PALLETIZER, ELECTRIC DRIVE, ASYNCHRONOUS, FREQUENCY
CONVERTER, FIELD-ORIENTED CONTROL, SYNTHESIS, MODELING,
AUTOMATI

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N. Contr.	B.Priymak					<i>NTUU «Igor Sikorsky Kyiv Polytechnic Institute», FEA</i>		
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