SUMMARY

The master's dissertation consists of: pages - 121, drawings - 29, tables - 26, graphic part on 6 sheets A1.

The purpose of the work is to increase the efficiency of the Sorting Line of the finished product by developing an automatic control system.

The tasks of management and substantiation of necessity of their decision on the basis of ANALYSIS of existing ways of Improvement of energy efficiency of systems of lines on sorting of finished products are set in the work. The automation system for lines for sorting finished products is developed.

A program has been developed that provides system efficiency when working in automatic mode. Process visualization is developed.

Performed the selection of the conveyor, calculated its power and chosen the drive motor and frequency converter. The basic mathematical models of an induction motor are given. The submissions are a detailed description of the gradual creation of a sorting system for the application of machine vision in the application package Matlab Simulink, AVB Freelance DCS and Python OpenCV.

COMPURET VISION, CONVEYOR, SORTING, COLOR RECOGNITION, ABV FREELANCE DCS , PYTHON OPENCV .