

ABSTRACT

The thesis is presented in 54 pages. It contains 2 appendixes and bibliography of 14 references. 18 figures and 4 tables are given in the thesis.

This diploma thesis is dedicated to the study of existing algorithms and the development of a system for monitoring the quality of grain storage in grain storage facilities.

In this work a qualitative analysis of existing Internet platforms is carried out. To accomplish the task the open source "ThingsBoard" platform was selected.

The mathematical methods of analytical data processing of the basic indicators of grain storage are considered. Software has been developed that automatically collects information from temperature and humidity sensors located in granaries and externally. The decision support systems for automatic control of the aeration system in the granary are proposed.

On the basis of diploma thesis were written and published thesis paper at the tenth scientific conference of masters and postgraduate students "Applied Mathematics and computing" (AMK – 2018).

Keywords: grain storage, internet platform, grain humidity sensors, grain temperature sensors, aeration system.