

## **Annotation**

This diploma work consists of 51 pages, 40 illustrations, 12 formulas and 3 literary sources.

Key words: capacitive sensing, capacitive sensor, capacity-code converter.

In this diploma work inspection of work was done, functional scheme of device was developed and work of separate module, capacity-code converter, was researched, and with help of this converter experimental measurements of nonelectric materials' properties were done. Besides this a software for saving data to database was created.

As a result, conclusions about method relevance during non-electric materials testing were obtained and also conclusions about specific features of flaw detector, which is based on similar converter, work and application. Also possibility of using such chip inside of flaw detector was approved.

Among additional requirements – decision simplicity and availability.

Scientific novelty – modern capacitive flaw detector construction method.