

## **Summary**

In this diploma project deals with the creation of current mites, based on the Hall effect. Various current measurement methods are described, a review of various industrial and Hall sensors has been conducted.

Studies have been conducted related to the theoretical knowledge of the Hall effect. Analyzed the physical properties and sensor technology. A flowchart and algorithm for creating current tongs were also developed.

After the tasks, the necessary components of the diploma project were selected, the program code was written and current tongs were built. Tests were also carried out with current measurement in the network.

In the course of the diploma project, the most comfortable conditions for the production of current sensors were described and the economic effect of the graduation project was calculated.