

## **7 SUMMARY**

The thesis presents the hardware and software layout design of WSN based beehives. In the thesis, the author describes the development of embedded HW and SW of the prototype of the device and architecture of the unit. All the information and data are based on the researches given in the list of preferences. The objective of the project was to create a device that could gather data from sensors and send it by SMS to the cloud from where it is distributed to the analytic website and mobile application for the end users. Therefore, creating and building the device capable of operating in a proper manner, required a basic understanding of electrical engineering, embedded software engineering, mechanical engineering and a mite knowledge and interest in beekeeping. Based on the knowledge and understanding of the author, the layout design that the device has is the easiest and the simplest way to achieve the same goal. Carefully chosen components carefully made design, and carefully written code gives a significant advantage over using old-fashioned ways.

All in all, built and created control system, design and code are simple, novel and easily understandable for engineers and for beekeepers it is easy to install on the hive.