

SUMMARY

Nowadays implementation of Industry 4.0 and Internet of Things for productions is rapidly increasing. A great part of Industry 4.0 is focused on using mobile devices. Smartphones and tablets are widely used in everyday lives of average people. Thus, using mobile devices is very profitable, compared to the devices designed specifically for selected functionality.

The development process was divided into several stages: creating top view mode and switching cameras logic, creating interfaces for monitoring and controlling devices, and building and testing for modification. The main difficulty for me was that "Digitalization Project" is complex solution developed by many people, so I had to analyze the work done by others. Also, complexity means higher probability of the errors, which I solved during building application process.

Despite any difficulties, I am proud that the project was fully done in accordance with the plan, and all tasks were completed successfully. The application has all required functionality such as top view of the lab (map), modes to monitor each device parameters and characteristics and control mode for Yaskawa Motoman GP8 robot. In my opinion, development process has resulted into Android application that is intuitive and user-friendly.

It is also important that my thesis can be taken as a base for further researches. There are a lot of possible modifications, for example, display real-time parameters for ABB IRB 1600, same as adding control mode for ABB robot. I believe, that my work will be useful, and it will not be waiting much for future improvements.