

Bachelor thesis: 84 p., 42 fig., 11 tabl., 2 appendixes, 12 sources.

Object of research is represented by study of approaches for hand tracking on real-time video from smartphone camera.

The subject of the study is hand-tracking system for real-time video from smartphone camera.

The purpose is to investigate approaches for hand tracking, determine their main advantages and disadvantages develop a software product that implements own modified algorithm.

The method of research is to use different algorithm for image processing.

Explanatory note consists of four sections. The first section discusses the relevance of the problem and peculiarities of the subject area. The second section of the investigation is devoted to research, analysis and implementation of an algorithm the based on histogram oriented gradients. The third section examined, analyzed and implemented an algorithm on the basis of the Viola-Jones method. The fourth section sheds light on the economic aspects of the project estimating the costs for software product development.

HAND TRACKING ON REAL-TIME VIDEO, COMPUTER VISION,  
HISTOGRAM OF ORIENTED GRADIENTS, VIOLA-JOHNES OBJECT  
DETECTION FRAMEWORK