ABSTRACT

The theme is controlling module of an automated object pursuit system based on unmanned aerial vehicle.

Thesis: 101p., 7 tabl., 15 fig., 2 appendices., 15 sources.

Object is a system persecuting targets based on unmanned aerial vehicles.

The subject of research is the control systems of unmanned aerial vehicles.

Purpose is to examine existing unmanned aircraft control systems; offer and describe the algorithm to control the quadrocopter; design the scheme of the control system; develop the code that controls the actual aerial vehicle.

Explanatory note consists of four sections. The first chapter examines the relevance of the quadrocopter control task. Also the first chapter examines the existing approaches that solves the problem. The second section offers and describes the algorithm, that controls quadrocopter. The third section analyzes developed program product; analyses used technologies, devices and software, argues their use. The fourth section is the economic part, which works out functional-cost analysis.

DRONES, QUADROCOPTER, CONTROLLING ALGORITHM, CONTROL MODULES, STREAMING, ACTOR SYSTEM, VIRTUAL ENVIRONMENTS