

. . . , . . . , . . .

)

()

The paper deals with a mathematical statement and solution of the problem for searching a condition of an optimal trajectory of the vehicle when the wireless network sensors are located in the zone of emergency.

The conditions examined result in the determination of the optimal coordinates and time for branching a trajectory, as well as the optimal controls and trajectories of the airdropping cargo (mobile sensors) motion to predicted targets along individual trajectory branches after the separation from the vehicle.

The scientific novelty of the results presented lies in the fact that for the first time the research problem of the development of the optimal conditions of the motion trajectory of the aerial platform incorporated into the wireless sensor network with mobile sensors in the sensor network deployment is studied and resolved using the theory of an optimal control.

:

1. A Method of Control of Telecommunication Airsystems for the Wireless AD HOC Networks Optimization / *O. Lysenko, S. Valuiskiy, O. Tachinina, S. Danylyuk* // 3rd International Conference : Actual problems of unmanned aerial vehicles developments. – Kyiv, 2015. – .182 – 185.
2. The Scenario-Based Approach for Control of Multi-Object Dynamic System Motion / *O. Tachinina, A. Alekseeva, O. Lysenko, S. Chumachenko* // 3rd International Conference : Actual problems of unmanned aerial vehicles developments. – Kyiv, 2015. – .305 – 308.
3. Objective control functions of mobile ad-hoc networks using unmanned aerial vehicles / *O. Lysenko, S. Danylyuk, A. Romanyuk, V. Romanyuk* // 3rd International Conference : Actual problems of unmanned aerial vehicles developments. – Kyiv, 2015. – .243 – 246.
4. Optimization of Unmanned Aerial Vehicle Path for Wireless Sensor Network Data Gathering / *S. Kashub, V. Novikov, I. Alekseeva, O. Lysenko* // 3rd International Conference : Actual problems of unmanned aerial vehicles developments. – Kyiv, 2015. – .280 – 283.
- 5.

//

, 2015. – .10 (135). – .222 – 226.

21.07.2016,
29.09.2016

« »,

