

Path Planning of UAVs

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Nowadays many aircrafts are designed by different groups of engineers and scientists in whole world. The main requirements for modern machines are more effectively. Major characteristic of every vehicle is time of accomplishment the mission, such as irremovable resource. So the constellation of UAVs and its control is actual field of research. Group is able to fall to pieces and every UAV will explore its own territory. Therefore, the huge area will be processed in less time. But then the unsolved problem as coordinated cooperation of every UAV with every member of group is emerged. That's why selection of optimal flying curve is very important goal. By Highway or Railway Engineering there are some types of easements for different conditions. One of them is clothoid.

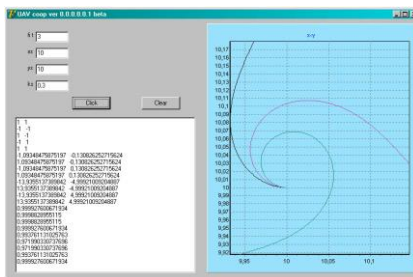


Figure 1 – Results of program calculations.

There was created the program for calculation the trajectory by input coordinates, curvature and angle of easement. This program would be use for further explanations of UAVs' path.

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1. Antonios Tsourdos, Brian White, Madhavan Shanmugavel, *Cooperative Path Planning of Unmanned Aerial Vehicles* (United Kingdom: Wiley: 2011).