Development of land target following system of hexacopter (Conference Paper)

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Abstract

This paper discussed the development of a land target following system for hexacopter using on-board camera. The camera will detect the specified land target during the flight of the hexacopter and communicate with the base station to produce the GPS location of the target for necessary actions. Besides, basic concepts and mechanism of the hexacopter was briefly discussed. A few experiments were conducted to get the performance of the methods focusing on color detection algorithms. The results of the experiments show that different approach angle and lighting of the hexacopter will result in different level of accuracy of the algorithm. The proposed object tracking system manage to successfully produce GPS coordinates of the target object with accuracy of about 85%. The future works include incorporating more complex image processing algorithms to get better target detection performance and more experiments on different real life situations. © 2015 IEEE.

Author keywords

Digital image processing; GPS; land target following system; Mobile Robot; Open CV

References (6)