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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 89%. 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

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