

VISVESVARAYA TECHNOLOGICAL UNIVERSITY

“Jnana Sangama” Belagavi – 590 010



PROJECT REPORT ON

“HUMAN DETECTION USING QUADCOPTER”

Submitted in partial fulfillment of the requirements for the award of degree

BACHELOR OF ENGINEERING IN ELECTRONICS & COMMUNICATION ENGINEERING

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ALVA'S INSTITUTE OF ENGINEERING & TECHNOLOGY
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ALVA'S INSTITUTE OF ENGINEERING & TECHNOLOGY

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DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING

CERTIFICATE

Certified that the project work entitled “HUMAN DETECTION USING QUADCOPTER” is a bonafide work carried out by

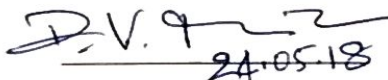
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In partial fulfillment for the award of BACHELOR of ENGINEERING in ELECTRONICS & COMMUNICATION ENGINEERING of the VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI during the year 2017-2018. It is certified that all corrections/suggestions indicated for internal assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the Bachelor of Engineering degree.



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ABSTRACT

Quadcopters are the unmanned air vehicles and these are playing an important role in different areas like surveillance, military operations, fire sensing and some important areas having many complexities. The similarities between the quadcopter and helicopter model is the vertical take-off and landing. The control of quadcopter is easier than the helicopter model of vehicles but it is entirely different whereas the lift force is produced by the four motors. This project mainly helpful for detecting human beings. Detection of moving objects is the first step of detection process. The main aim is for rescue purpose to determine the moving objects such as human beings since quadcopter can be moved freely in the air. Human detection in a smart surveillance system aims at making distinctions among moving objects in a video surveillance.

In the proposed system the input video is converted into multiple frames in order to ease the process. The key frames are selected and converted into grayscale images where pre-processing is done in order to detect all the boundaries in the image. To detect human beings in an image, objects need to undergo some operation such as background subtraction, contour detection. Then the human beings are classified using texture based method.