SURVEILLANCE QUADROTOR UAV

A PROJECT REPORT

Submitted by

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Dedication

I dedicate this thesis work to my Grandfather Flight lieutenant Yunus Hussain (Shaheed) who has been my inspiration for this project. To my family; especially my loving parents whose words of encouragement and push for tenacity ring in my ears. Without their support and indefatigable faith in me, none of my achievements would have been possible

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Abstract

Quad rotor vehicles are gaining prominence as a platform for Unmanned Aerial Vehicles (UAVs) owing to their simplicity in construction, ease of maintenance, ability to hover and their vertical takeoff and landing capabilities (VTOL). As a result, they are being widely developed for applications relating to reconnaissance, security, mapping of terrains and buildings, etc.

A prototype of a quad rotor UAV has been constructed with this project. A complete control mechanism is implemented using the Arduino development board, sensors and stabilization feedback systems. Due to Arduino's simplicity of use and robustness, sensor interfacing and control system is observed and implemented on a whole new level. The resulting hardware supplies live video feedback via an onboard camera and it is intended to serve for surveillance.

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