VISVESVARAYA TECHNOLOGICAL UNIVERSITY

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A Project Report

On

"REMOTE CONTROLLED HEXACOPTER BASED PESTICIDE SPRAYER"

(KSCST SPONSORED)

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In

MECHANICAL ENGINEERING

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ABSTRACT

The application of pesticides and fertilizers in agricultural areas is of prime importance for crop yields. The process of spraying the pesticides using UAVs is controlled by means of a remote. The information is fed through remote which controls the functioning of valve to prevent the loss of pesticides.

The body is mainly made of aluminium with a pesticide tank underneath with a capacity of 1litre and a sprayer for spraying the pesticides effectively on an agricultural field. The UAV gets information from the remote. The sprayer is actuated by the valve which in turn is controlled by the remote. The sensor present in UAV sends information about the amount of pesticide remaining in the tank.

The hex copter frame is a high quality aluminium frame designed large enough for the use of propellers. The design and layout of the circuitry is placed on a PCB (Printed Circuit Board). It is then mounted onto a hexagonal body with a brushless motor at the end of each arm which carries propeller made of composites of nylon and other additives. The whole thing is controlled by a remote which works on a battery.