VISVESVARAYA TECHNOLOGICAL UNIVERSITY

Belagavi – 590 010

PROJECT REPORT

ON

"SOLAR BASED PESTICIDE SPRAYER"

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

BACHELOR OF ENGINEERING

IN

ELECTRONICS & COMMUNICATION ENGINEERING

Submitted By

NAME	USN
SHETTY ANKITH KRISHNA	4AL12EC075
SHRUTHI V.	4AL12EC082
VIJETH JOYEN PINTO	4AL12EC089
PREETI AMBURAO DHONGADE	4AL13EC412

Under the Guidance of

Mr. SUDHAKARA H M.

Sr.Assistant professor

Department of E&C Engineering

DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING

ALVA'S INSTITUTE OF ENGINEERING & TECHNOLOGY

MOODBIDRI – 574 225.

2015-2016

ALVA'S INSTITUTE OF ENGINEERING & TECHNOLOGY

MOODBIDRI – 574 225

(Affiliated to VTU, BELAGAVI)

DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING

CERTIFICATE

Certified that the project work entitled "**SOLAR BASED PESTICIDE SPRAYER**" *is a bonafide work carried out by*

SHETTY ANKITH KRISHNA	**4AL12EC075**
SHRUTHI V.	**4AL12EC082**
VIJETH JOYEN PINTO	**4AL12EC089**
PREETI AMBURAO DHONGADE	**4AL13EC412**

in partial fulfillment for the award of BACHELOR OF ENGINEERING in **ELECTRONICS & COMMUNICATION ENGINEERING** of the **VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI** during the year 2015–2016. 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.

Signature of the Guide **Mr. Sudhakara H M.**	**Signature of the H.O.D** **Prof. Raghavendra Rao A** Dept. Of Electronics & Communication Alva's Institute of Engg. & Technology Mijar, MOODBIDRI - 574 225	**Signature of the Principal** **Dr. Peter Fernandes** Alva's Institute of Engg. & Technology Mijar, MOODBIDRI - 574 225, D.K.

EXTERNAL VIVA

Name of the Examiners — Signature with date

1. ....

2. ....

ABSTRACT

Agriculture is a profession of many tedious processes and practices, one of which is the spraying of pesticides in the fields. Worldwide there are about 250,000 species of plants. Farmers spray pesticides to mitigate crop damage caused by pests. A pest is any biological organism, including weeds, pathogens, and arthropods, that interferes with the production of crops affecting quality and yield. Insect pests can have large and irreversible effects on crops and yields, which can impact consumers through higher crop prices.The conventional methods are a person carrying a sprayer and manually actuating a lever to generate pressure and pump the pesticide through a tube or a mobile vehicle carrying an inbuilt compressor and sprayer unit which has to be manually driven by a human operator.Major drawback in human operated systems is that the operator is exposed to the harmful chemicals while spraying. Long term exposure, as in this case, can be extremely detrimental to the operator's health. This is a project which can be viewed as an alternate to these methods. In this project a remote controller is used to operate the pesticide sprayer. The vehicle is powered using an onboard solar powered battery which brings down the running cost. The control of the vehicle is achieved using an inbuilt microcontroller unit which is programmed to operate according to the receive instructions from the remote controller.