### VISVESVARAYA TECHNOLOGICAL UNIVERSITY

"Jnana Sangama" Belagavi – 590018



#### Mini Project Report on

# "DESIGN AND DEVELOPMENT OF SOLAR OPERATED CONO WEEDER"

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

## BACHELOR OF ENGINEERING IN AGRICULTURE ENGINEERING Submitted By

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

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DEPARTMENT OF AGRICULTURE ENGINEERING

### **CERTIFICATE**

.This is to certify that the following students,

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has submitted Project synopsis on "DESIGN AND DEVELOPMENT OF SOLAR OPERATED CONO WEEDER" for VI Semester B.E. in Agriculture Engineering during the academic year 2023-24. The mini 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**

Over half of the world's population relies on rice as a staple food, making it an essential component of global food security. On the other hand, weed competition is a major obstacle to rice farming, impacting both yield and quality. This review paper explores A solar operated cono-weeder was developed for weeding in wetland paddy crop. The main parts of it are the cono-weeder, power transmission system, and power source. A DC motor, solar panel, and power storage unit with motor controller and maximum power point tracker made up the power source. Power was supplied to the DC motor by a solar panel/power storage unit via a motor controller, and then it was transferred to the weeding wheel shaft via a dog clutch. Weeding and field weeder movement were accomplished by means of a wheel fitted with plane and jaw blades around the wheel circumference. In order to maintain stability while operating the weeder in soft soil, a float was employed.