A PROJECT REPORT ON

FABRICATION OF MULTI NOZZLE WHEEL SPRAYING IN AGRICULTURE

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In

MECHANICAL ENGINEERING

K.S.PRAVEEN KUMAR REDDY	**142R1A0307**
U.BHARATH KUMAR REDDY	142R1A0311
H.PRASANNA KUMAR	142R1A0306
M.SURESH	152R5A0307
S.UMA MAHESHWAR	144G1A0398
S.SIVA PRASAD	132R1A0329

Under the Guidance of
A.MAHABOOB BASHA **M.Tech.,**
Assistant Professor
Mechanical Engineering Department
Chiranjeevi Reddy Institute of Engineering and Technology

DEPARTMENT OF MECHANICAL ENGINEERING
CHIRANJEEVI REDDY INSTITUTE OF ENGINEERING AND TECHNOLOGY

(Affiliated to J.N.T. University ANANTAPUR, College Code: 2R)
ANANTAPUR – 515004

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DEPARTMENT OF MECHANICAL ENGINEERING

CHIRANJEEVI REDDY INSTITUTE OF ENGINEERING AND TECHNOLOGY

CERTIFICATE

This is to certify that the project report entitled

DESIGN AND IMPLIMENTATION OF SOLAR FERTILIZER BROADCASTER

Being submitted by

K.S.PRAVEEN KUMAR REDDY	**142R1A0307**
U.BHARATH KUMAR REDDY	142R1A0311
H.PRASANNA KUMAR	142R1A0306
M.SURESH	152R5A0307
S.UMA MAHESHWAR	144G1A0398
S.SIVA PRASAD	132R1A0329

In the Partial fulfilment of requirements for the award of BACHELOR OF TECHNOLOGY to JNTU, Anantapur. This record is a bonefide work carried out by them under my guidance and supervision. The result embodied in this project report has not been submitted to any other university or institute for the award of any degree

Project Guide

Mr. A.MAHA BOOB BASHA M.Tech
Asst. Professor
Department of Mechanical
CRIT, ANANTAPUR-515004

Head of the department

Mr. B. RAMA KRISHNA M Tech
Asst. Professor & HOD
Department of Mechanical
CRIT, ANANTAPUR-515004

Date:

Examiner 1:

Place:

Examiner 2:

DECLARATION

We declare that this written submission represents our own ideas and where other ideas or words have been included we have adequately sited and referenced and original sources. We also declare that we have adhered to all principles of academic honesty and integrity and have not misrepresented any ideas or fabricated any data in our submission we understand that any violation of the above will be cause for disciplinary action by the institute and also can evoke penal action from the sources which have thus not been properly cited or from whom proper permission has not been taken when needed.

K.S.PRAVEEN KUMAR REDDY	**Sign. with date**
U.BARATH KUMAR REDDY	Sign. with date
H.PRASSANA KUMAR	Sign. with date
M.SURESH	Sign. with date
S.UMA MAHESWAR	Sign. with date
S.SIVA PRASAD	Sign. with date

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Project Associates

K.S.PRAVEEN KUMAR REDDY	**142R1A0307**
U.BHARATH KUMAR REDDY	**142R1A0311**
H.PRASSANA KUMAR	**142R1A0306**
M.SURESH	**152R5A0307**
S.UMA MAHESHWAR	**144G1A0398**
S.SIVA PRASAD	**132R1A0329**

ABSTRACT

As India is agriculture based country and 70% people do farming and related work. Agriculture is required to be boomed to enhance the gross domestic product (GDP) of the country by improving the productivity.

The productivity of the crops can be increased with the help of pest control. Pesticide spraying is the necessary procedure in cultivation of the crops. The present idea deals with the designing and fabrication a pesticide sprayer which will be useful and affordable to the farmers which will assist to increase the productivity of crops.

Though this project an attempt has been done to improve the method of spraying the pesticide that will enhance the productivity and increase the formers income. So we have designed a pesticide spraying machine which will not improves productivity but also will reduce the effort of the farmers. The machine will save the time of the formers as well as efficiency in spraying. This model carrier's multi nozzle pesticides sprayer pump which will perform spraying at maximum rate in minimum time. Constant flow valves can be applied at nozzle to have uniform nozzle pressure.

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NOMENCLATURE

D_p	-	Pitch circle diameter
T_p	-	Teeth on pinion
T_g	-	Teeth on gear
L	-	Length of chain
D	-	Diameter of wheel
K	-	Number of chain
P	-	Pressure drop
N_p	-	Number of plants
Q	-	Pump discharge
k	-	Bending co-efficient
f	-	Friction factor
h_{fE}	-	Loss at entry
h_{ft}	-	Total losses
h_{fo}	-	Loss at out
D_o	-	Outer dia of pinion
D_i	-	Inner dia pinion
D_g	-	Diameter of gear