A Project Report on

"DESIGN AND FABRICATION OF COCONUT TREE CLIMBING ROBOT"

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

BACHELOR OF TECHNOLOGY

IN

MECHANICAL ENGINEERING

SUBMITTED BY

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DEPARTMENT OF MECHANICAL ENGINEERING

ADITYA COLLEGE OF ENGINEERING

(Affiliated to JNTU, Kakinada, Approved by AICTE, Accredited by NAAC)

Surampalem-533 437

2021-2022

DEPARTMENT OF MECHANICAL ENGINEERING

ENLIGHTENS THE NESCIENCE

CERTIFICATE

This is to certify that the Design & Fabrication work entitled "DESIGN AND FABRICATION OF COCONUT TREE CLIMBING ROBOT", is being submitted by

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In partial fulfillment of the requirements for the award of Bachelor of Technology in Mechanical Engineering from **Jawaharlal Nehru Technological University, Kakinada** during the academic year 2021-2022 is a record of bonafide work carried out by them at Aditya college of Engineering.

The results embodied in this Project report have not been submitted to any other institute or university for the award of any degree or diploma.

Dr. N KRISHNAN VADIVEL, Ph.D
PROJECT GUIDE

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ABSTRACT

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Primary goal of the study is to design a coconut tree climbing device for farmers and residents. It is very difficult to climb on coconut tree manually due to the constant cylindrical structure and single stem. A professional climber with proper training only could be able to climb coconut trees. Due to the risk involved nowadays very less people are coming forward to climb on coconut trees. Considering this scenario, a device which will help the user to climb coconut tree easily will be useful for the people who is having large coconut cultivation as well as residents who is having less coconut trees. This kind of devices will encourage more people to come forward to agricultural sector. The robot is designed and fabricated with optimum weight to strength ratio. The mild steel used as material for robotand having weight of 14 kg without battery. The robot is capable to climb 20 feet height coconut trees. This is a remote operated device with user friendly operation.

CHAPTER-8

CONCLUSION

This project work has provided us an excellent opportunity and experience, to use our limited knowledge. We gained a lot of practical knowledge regarding, planning, purchasing, assembling and machining while doing this project work. We feel that the project work is a good solution to bridge the gates between the institution and the industries.

We are proud that we have completed the work with the limited time successfully. The **DESIGN AND FABRICATION OF COCONUT TREE CLIMBING ROBOT** is working with satisfactory conditions. We can able to understand the difficulties in maintaining the tolerances and also the quality. We have done to our ability and skill making maximum use of available facilities.

In conclusion remarks of our project work, let us add a few more lines about our impression project work. Thus we have developed a **"COCONUT TREE CLIMBING ROBOT"** which helps to climb the coconut trees automatically with simple mechanisms and at a low cost. By using more techniques, they can be modified and developed according to the applications.