## DESIGN AND FABRICATION OF WIRELESS MOTORIZED SCREW JACK

#### A PROJECT REPORT

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

### BACHELOR OF TECHNOLOGY

IN

### MECHANICAL ENGINEERING

By

A.TEJESHKUMAR K.AJAY K.AKSHAY G.BHARAT (15811A0304) (15811A0360) (15811A0358) (15811A0343)

Under the guidance of

Sri.CH.PHANINDER, M. Tech

Assistant Professor



DEPARTMENT OF MECHANICAL ENGINEERING AVANTHI INSTITUTE OF ENGINEERING & TECHNOLOGY (Affiliated to Jawaharlal Nehru Technological University Kakinada) Tamaram, Makavarapalem, Narsipatnam, Visakhapatnam.

(2015-2019)

# **AVANTHI INSTITUTE OF ENGINEERING & TECHNOLOGY**

# (AFFILIATED TO JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY,

#### KAKINADA)

Tamaram, Makavarapalem, Narsipatnam (RD), Visakhapatnam-531113



# DEPARTMENT OF MECHANICAL ENGINEERING

# CERTIFICATE

This is to certify that this project entitled "design and fabrication of wireless motorized screw jack" is a bonafide work carried out by A. Tejeshkumar (15811A0304), K.Ajay (15811A0360), K.Akshay (15811A0358) and G.Bharat (15811A0343) during the period 2018-2019 in partial fulfillment of the requirements for the award of degree of "Bachelor of technology in Mechanical Engineering" from Avanthi Institute of Engineering and Technology, affiliated to Jawaharlal Nehru Technological University, Kakinada (JNTUK) under our guidance and supervision.

ch. phanin der

Sri.CH.PHANINDER PROJECT GUIDE

Sri. V. HARI KIRAN HEAD OF THE DEPARTMENT(HOD)

H. Alegulis EXTERNAL EXAMINER

### ABSTRACT

This Project, "Wireless Motorized Screw Jack", is a portable type of jack that is operated by turning a lead screw. In the form of a screw jack, it is commonly used to lift moderately heavy weights.

This model is used to lift the objects by applying less effort than the weight of object. It is a prototype model to represent the idea which we can implement in industrial application, for example Material Lifting in assembly Line, In Automobile industries, Maintenance of heavy objects etc.

We have used an RF module to make the product wireless and increase the operating range of the system. An RF means Radio frequency, which is used to communicate through signals wirelessly. This wireless communication is used transfer signals to raise or lower the screw jack with help of DC motor.