SMART AGRICULTURAL ROBOT

A Project report submitted in partial fulfilment of the requirements for the award of degree of

BACHELOR OF TECHNOLOGY

IN

ELECTRONICS AND COMMUNICATION ENGINEERING

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AVANTHI INSTITUTE OF ENGINEERING &TECHNOLOGY

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TAMARAM (P.O), MAKAVARAPALEM (M.O), NARSIPATNAM (R.D)

VISAKHAPATNAM DISTRICT-531113,

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BONA FIDE CERTIFICATE

This is to certify that the project entitled "**SMART AGRICULTURAL ROBOT**" in partial fulfilment for the degree of Bachelor of Technology in ELECTRONICS AND COMMUNICATION ENGINEERING at AVANTHI INSTITUTE OF ENGINEERING AND TECHNOLOGY, MAKAVARAPALEM, VISAKHAPATNAM is a bona fide work carried out by **K.MANIKANTA**(17815A0407),**N.MAHESH**(16811A0445),**CH.MOUNIKA** (16811A0415),**N.HARI BHANU PRASAD**(17815A0412) under the guidance and supervision during 2016-2020.

PROJECT GUIDE
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EXTERNAL EXAMINER

ABSTRACT

The main objective of the project is to develop and manufacture the robot in agricultural applications. The main area of application of robots in agriculture is at harvesting stage, digging, ploughing and seeding. This robot is purposely designed to reduce human labour. The jobs involved in agriculture are not straight forward and many repetitive tasks are not required to do so, so the agricultural industry is behind other industries in using robots.

This project 'REMOTE CONTROLLED AGRICULTURAL ROBOT FOR PLOUGHING AND SEEDING' represents a robot capable of performing operations like automatic ploughing, seed dispensing and sprinkling water. It also provides manual control when required. The main component used here is Microcontroller that supervises the entire process. Initially the robot digs the entire field simultaneously dispensing seeds side by side. On the field the robot operates on automated mode. For manual control the robot uses the Remote-control device and helps in navigation of the robot on the field.

The controlling device we use in this project is wireless Bluetooth module which comes under communication module. Based on given instructions by controller operated by human being the agro-bot starts moving on the field along specified direction. For the purpose of controlling the DC motors i.e. wheels we use a typical motor driver known as L293D motor driver. Thus, performing multiple tasks like digging, seeding, watering the robot can be called as multi-tasking machine that can reduce the human effort.