SENSOR BASED SOLAR USING ELECTRONIC CIRCUITS FOR MOISTURE DETECTIION AND AUTO IRRIGATION

A Project report submitted in partial fulfillment of the requirements

For the award of degree of

BACHELOR OF TECHNOLOGY
IN
"ELECTRONICS AND COMMUNICATION ENGINEERING"

Submitted by

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DEPARTMENT OF

ELECTRONICS AND COMMUNICATION ENGINEERING
AVANTHI INSTITUTE OF ENGINEERING & TECHNOLOGY
(NAAC Accredited, Accredited by NBA, Approved by A.I.C.T.E, Permanently Affiliated to J.N.T.U. KAKINADA)
TAMARAM (P.O), MAKAVARAPALEM (M.O), NARSIPATNAM (R.D)
VISAKHAPATNAM DISTRICT-531113

2017-2021

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BONAFIED CERTIFICATE

This is to certify that the project entitled "SENSOR BASED SOLAR USING ELECTRONIC CIRCUITS FOR MOISTURE DETECTION AND AUTO IRRIGATION" in partial fulfillment for the of degree of **Bachelor of Technology** In ELECTRNICS AND COMMUNICATION ENGINEERING AT Makavarapalem, VISAKHAPATNAM is an Bonafide work carried out by NEMANI NIHARIKA, LAKKOJU SRI JYOTHI, NADELLA AJAY KUMAR, SINGAM SAI, under the guidance and supervision during 2017-2021.

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EXTERNAL EXAMINER

ABSTRACT

With agriculture being the primary economic sector of India & other developing countries, it is the urge of the hour to automate it in order to increase efficiency Automation significantly moderates the amount of manual labor & makes farming easier & faster, resulting in more agricultural growth. This paper proposes the 3 major work in agriculture field: the dual axis sun tracking system for power generation to the optimum level & storing the energy in a battery which will power the Auto irrigation system. The pumps are analogized with DC motors & the whole system is controlled by controller.

In this study we propose a simple, efficient, low cost power efficient embedded system for solar based off – grid irrigation by orientation of the solar panel. Based on moisture sensor values, a water pump is connected to switch on and of automatically. When moisture level of the soil reaches to low, they soil moisture sensor is sending the s/g to micro controller to start the pump by using stored solar energy. In this project we have a two types of requirements these are hardware requirements and software requirements.