

A
PROJECT REPORT
on
“SOLAR BASED AUTOMATIC WATER IRRIGATION SYSTEM USING ARDUINO”

Submitted to the Savitribai Phule University, Pune
In partial fulfilment of the requirements for the award of the

THIRD YEAR ENGINEERING (ELECTRONICS)

Submitted by

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CERTIFICATE

This is to certify that project report entitled

“SOLAR BASED AUTOMATIC WATER IRRIGATION SYSTEM USING ARDUINO”

Is submitted as partial fulfilment of curriculum of the T.E. of Electronics Engineering

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Students of T.E. Electronics Engineering was examined in project report entitled

On

.../.../2019

At

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(Internal Examiner)

(External Examiner)

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Before We get into the thick of things, we present our wholehearted compliments, with higher regards and warm thanks to one and all, which were the bone behind the sinews of this project.

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ABSTRACT

India's population is reached beyond 1.32 billion and the population rate is increasing day by day then after 25-30 years there will be serious problem of food and energy resources so the development of agriculture and use of renewable energy resources are necessary. India currently has the second-largest population in the world. Insufficiency of water usage often cited as one fundamentally problems of poor harvest or crops. Therefore, management of water and sources of water becomes very important aspect for countries that depend on its agriculture. In order to solve this problem there have been so many exciting innovations introduced in many parts around the world. Among them is a new and smart irrigation system developed to advance agriculture practice, made accessible to anyone who wants to farm.

This project presents the automatic irrigation system designed to use energy collected by photovoltaic and a combination of devices for control such as Arduino Uno with a moisture sensor and other components. The system is considered as sustainable, efficient and reliable as well as it is easy to access. Today, the farmers are suffering from the lack of rains and scarcity of water. The main objective of this project is to provide an automatic irrigation system thereby saving time, money & power of the farmer. The traditional farm-land irrigation techniques require manual intervention. With the automated technology of irrigation the human intervention can be minimized. Whenever there is a change in temperature and moisture of the surroundings these sensors senses that changes and gives an interrupt signal to the Arduino.