FINAL YEAR PROJECT REPORT

AUTOMATION OF DRIP IRRIGATION

Submitted by

Subiyyal Sabir	***101519022***
Iqra Maqsood	***101519035***
Ateeq ur Rehman	***101519069***
Abdullah Bilal	***101519071***

DEPARTMENT OF ELECTRICAL ENGINEERING

SCHOOL OF ENGINEERING

UNIVERSITY OF MANAGEMENT AND TECHNOLOGY

September 2014

ACKNOWLWDGEMENT

We whole heartedly express gratitude to Allah (S.W.T) who showed us the right path so that we were able to accomplish this project. Sir Salman Khalid has been a source of immense help; we thank him for supporting us in every step of our project and to encourage us and to build confidence in us do a difficult task.

We acknowledge all our faculty members, batch fellows, seniors and specially our families for providing great support and showing great confidence in ourselves.

TABLE OF CONTENTS

ABSTRACT

In this project, the Design of Embedded system for the Automation of Drip irrigation is presented. Water is very precious to all the humans and as well as to the plants, trees. The major amount of fresh water is utilized by the agricultural industry for irrigation.Rural areas of Pakistan are plagued by frequent power cuts and abnormal voltage conditions. In this project the design of a Microcontroller based drip irrigation mechanism is proposed, which is control system for monitoring and controlling all the activities of drip irrigation system more efficiently.In this technology, the humidity and temperature of plants are precisely monitored and controlled.By using drip irrigation the water will be maintained at the constant level i.e. the water will reach the roots by going drop by drop. This is very important because this can only ensure the survival of the plants. Water can be applied at a single point on the land surface through devices called emitters or as a line source from either closely spaced emitters or tubes with continuous or equally spaced openings that discharge water a drop at a time. If the field is irrigated heavily with water, there are chances that the plant may die because of excessive irrigation. The water could also wash them away during irrigation if very strong force of water is released at the same time. On the other hand, if there is insufficient water, then also there are chances that the plants may die due to lack of water. So, it is very important for the farmer to maintain the content on the field. In this paper the design of a Microcontroller based drip irrigation mechanism is proposed.