

ABSTRACT

In this irrigation system, we are going to reduce the evaporation of excess water for that the field is covered with non-toxic plastic sheets. In this system we are going to control the flow of water at regular time intervals with the help of moisture detecting sensors. Sensor is actually used to sense the moisture of the soil. On dry condition, plant is left dry without water for some time (i.e., maximum time at which the plant can sustain without water). The amount of water is calculated for each plant and fed on Raspberry Pi using python programming language to supply water on time. The entire field, which is covered with plastic sheets will resist the evaporation during the day time. The motor pump and sensor are controlled by the Raspberry Pi board. The run time of the motor is calculated and included to the program to supply the input power. By using this micro irrigation system, water can be saved more efficiently compared to the other irrigation systems. The use of man is also reduced by the automated irrigation process.