# AUTOMATIC IRRIGATION SYSTEM


## Abstract:

The project is designed to develop an automatic irrigation system which switches the pump motor ON/OFF on sensing the moisture content of the soil.

In present days, in the field of agriculture farmers are facing major problems in watering their crops it's because they don't have proper idea about the availability of the power .Even if it is available ,they need to pump water and wait until the field is properly watered , which compels them to stop doing other activities-which are also important for them , and thus they loss there precious time and effort. But there is a solution-an automatic plant irrigation system not only helps farmers but also other for watering their gardens as well.

This project uses an 8051-series microcontroller which is programmed to receive the input signal of varying moisture condition of the soil through the sensing arrangement. This is achieved by using an op-amp as comparator which acts as interface between the sensing arrangement and micro controller. Once the controller receives this signal, it generates an output that drives a relay for operating the water pump. An LCD display is also interfaced to the micro controller to display status of the soil and water pump. The sensing arrangement is made by using two stiff metallic rods inserted into the field at a distance. Connections from the metallic rods are interfaced to the controlled unit.



**Submitted by:**

B.Bhavya Harshika

P.Sindhu

G.Sai Vennela