### SOIL pH CONTROLLED IRRIGATION SYSTEM

### ABSTRACT:

### In this processed system we are discussed about the ph control system using arduino. In this project we are used arduino board, LCD display, PH sensor, soil moisture sensor, power supply, relays and 3pumps. Also we are using ESP8266 module and it is required 3.3v supply. In this project we are taken 3 containers. So when ph is less than 7 then the solution is acidic. When the solution is normal then it is equal to 7 so it is ready for irrigation. And when the ph of solution is more than 7 then it is called alkaline solution.

### When the solution is acidic (<7) then the 1st relay gets ON for make the solution in normal condition. And when it gets normal then this normal solution is ready for irrigation when soil is dry and it will turn ON the 3rd relay and supplies normal water for irrigation purpose. When the solution is alkaline (>7) then the 2nd relay gets ON for make the solution in normal condition. And when it gets normal then this normal solution is ready for irrigation when soil is dry and it will turn ON the 3rd relay and supplies normal water for irrigation purpose. Each and every msg will be displayed on LCD.

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**BLOCK DIAGRAM:**

