RESEARCH INTERNSHIP
IIIT HYDERABAD (Smart City)

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FINAL PROJECT :

AUTOMATIC IRRIGATION SYSTEM

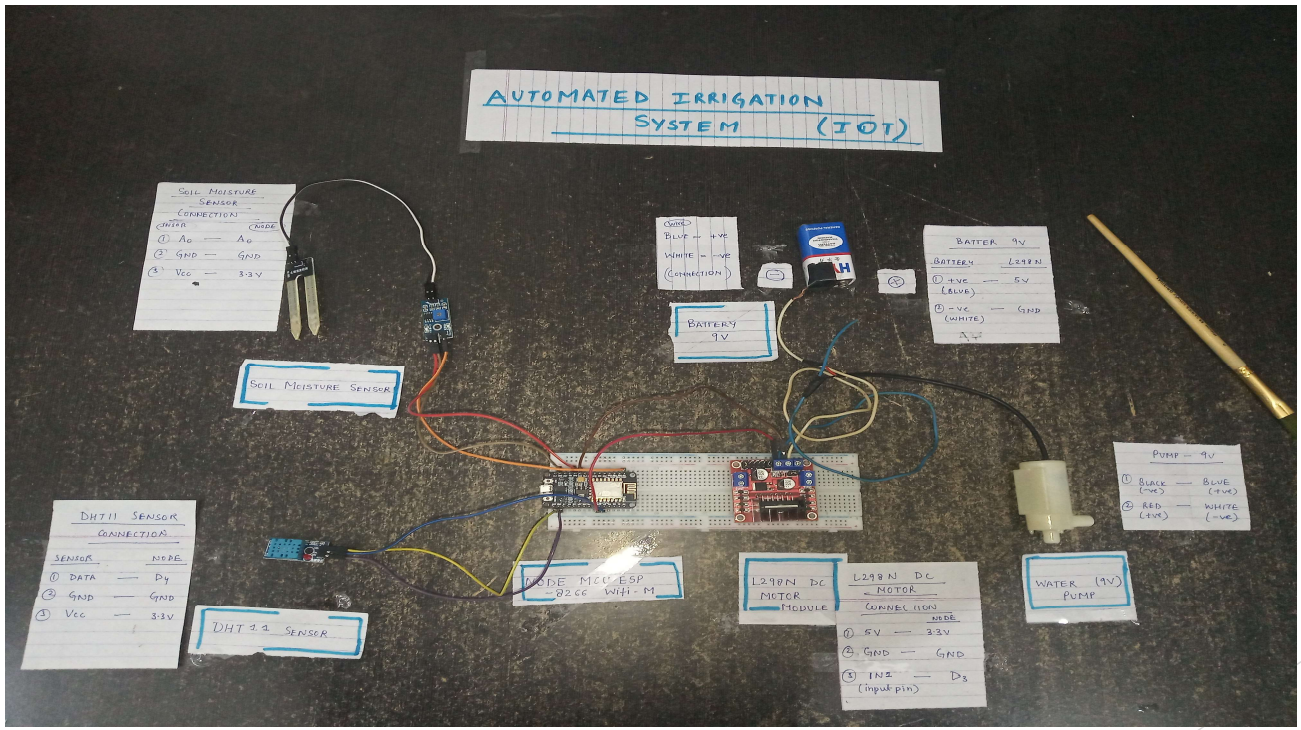
- **DOMAIN :** AGRICULTURAL BASED
- **TECHNOLOGY USED :** INTERNET OF THINGS (IOT)
- **DISCRIPTION :**

As the above project is entirely based upon the automatic irrigation system with the help of smart technology IOT, in various farmlands and methods of controlling each procedure through your smart mobile phones . This includes the detection of temperature , humidity rate and finding out the soil moisture content in the land through sensors and providing the water supply to the farms through water pump .

PROBLEM STATEMENT :

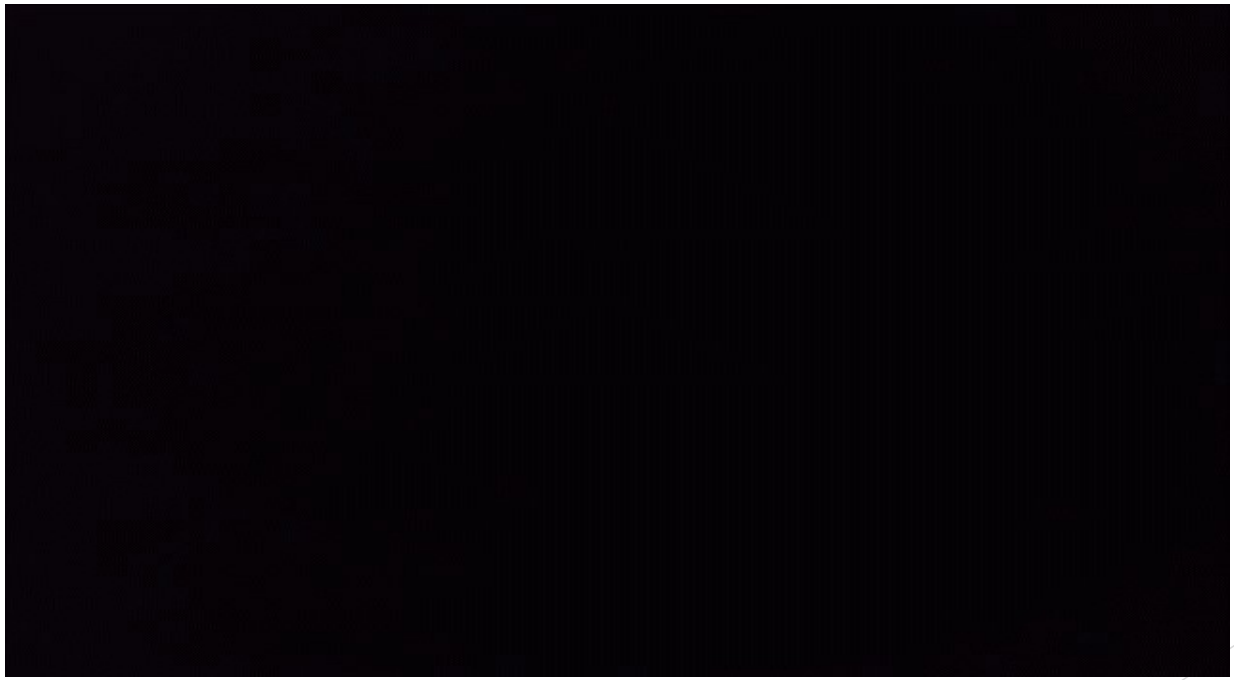
- The economy of many countries depends on agriculture. To achieve the best quality from this research, it is important to focus on some vital characteristics such as the appropriate amount of electricity as well as water supply and a suitable schedule for irrigation of crops. Farmers are facing problems in meeting these standards, especially those living in poverty. This project looks into developing an automated irrigation system that could be controlled through mobile application. This system will work to minimize the number of workers in a crop field, control and save water and electricity, Increase agricultural production using small quantities of water, minimize manual intervention in watering operations with increasing watering speed and preserving plants from fungi. All these features make these research sustainable option to be considered to improve the agriculture and irrigation efficiency.

HARDWARE ARCHITECTURE / DIAGRAME



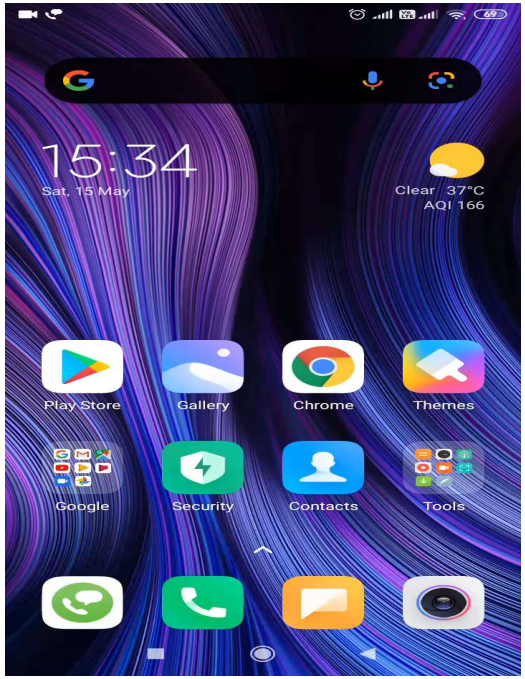
HARDWARE CONNECTION VEDIO (Description)

Q) How I have made my connection ?



Installing the BLYNK APPLICATION (Description)

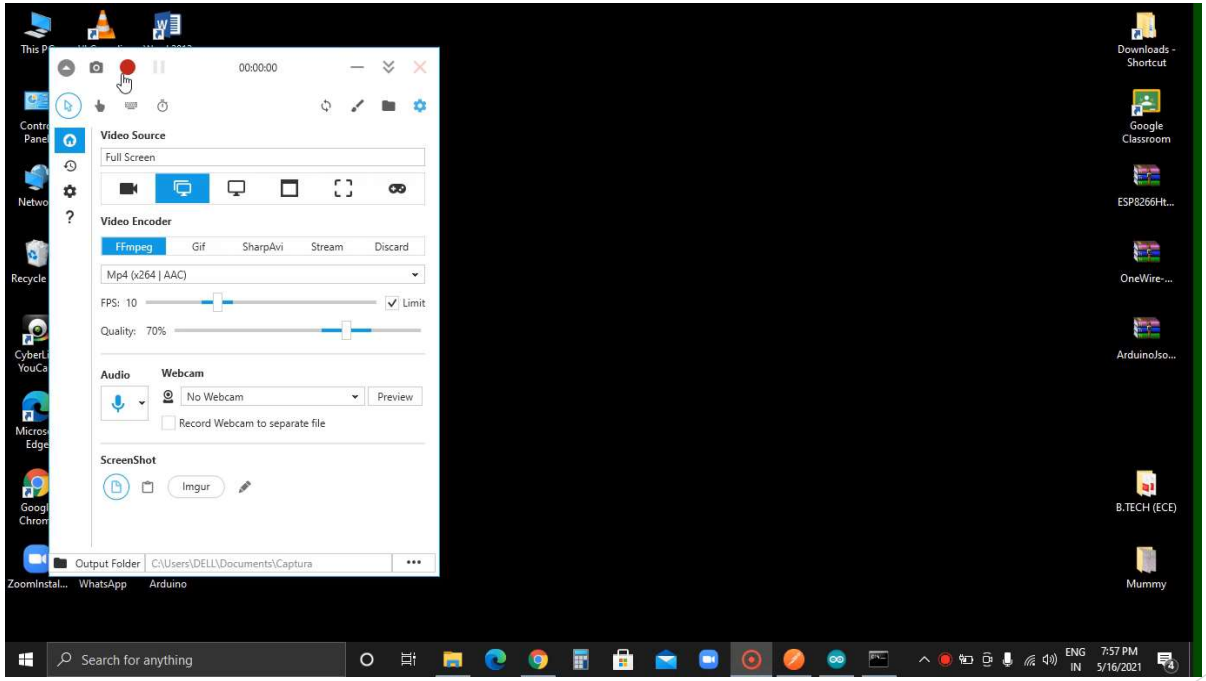
Q) How I have install my BLYNK app in my android phone ?



SOFTWARE PART :

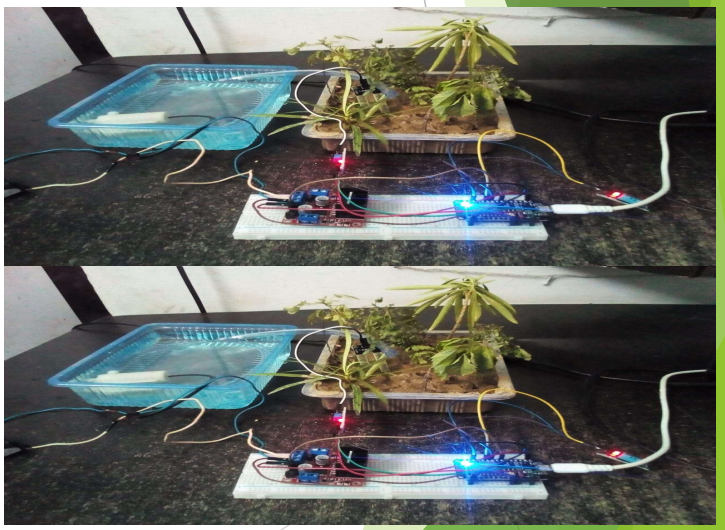
Source Code uploading ARDUNIO IDE, OM2M server, Resource Tree ,POSTMAN request

Q) How I have created my resource tree ?

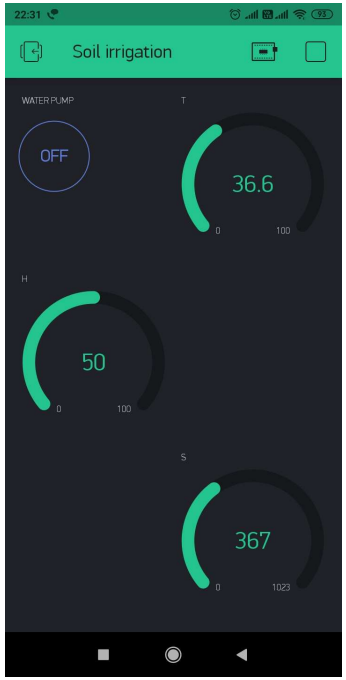


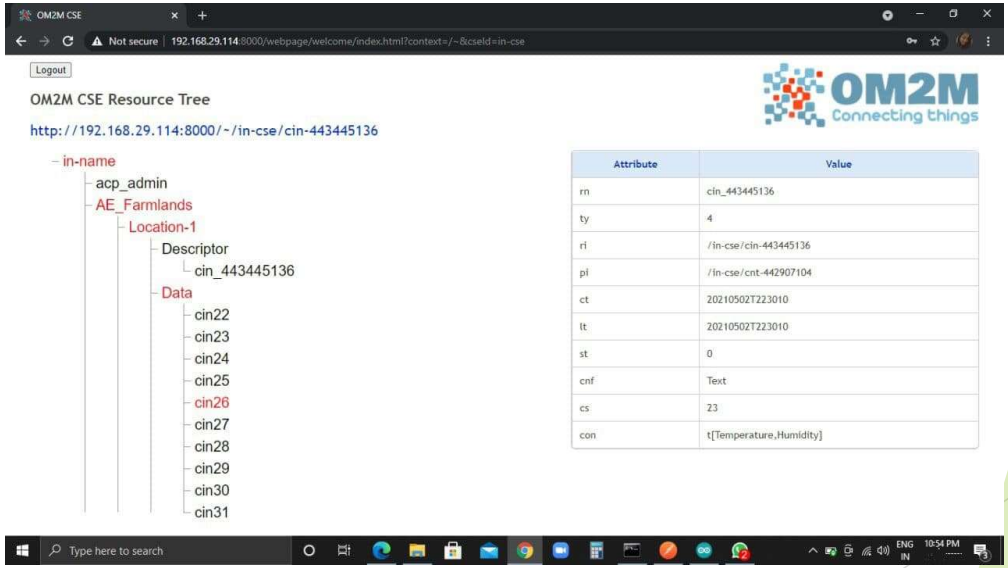
WORKING/(DEMO) OF PROJECT

NOTE : 1) here the working of my project is being recorded from anther device(another mobile application) so pixel is week
2)in the picture given along side you can also remove the USB cable once after uploading the code into your microcontroller (NODEMCU)



RESULTS (SCREENSHOTS) :





FUTURE SCOPE IN THIS FIELD :

SOME DISADVANTAGES :

- the costs a lot of money to make or buy robots.
- They need maintenance to keep them running.
- The farmers can lose their jobs.
- The robots can change the culture / the emotional appeal of agriculture.
- Energy cost and maintenance.
- The high cost of research and development.

THANK YOU