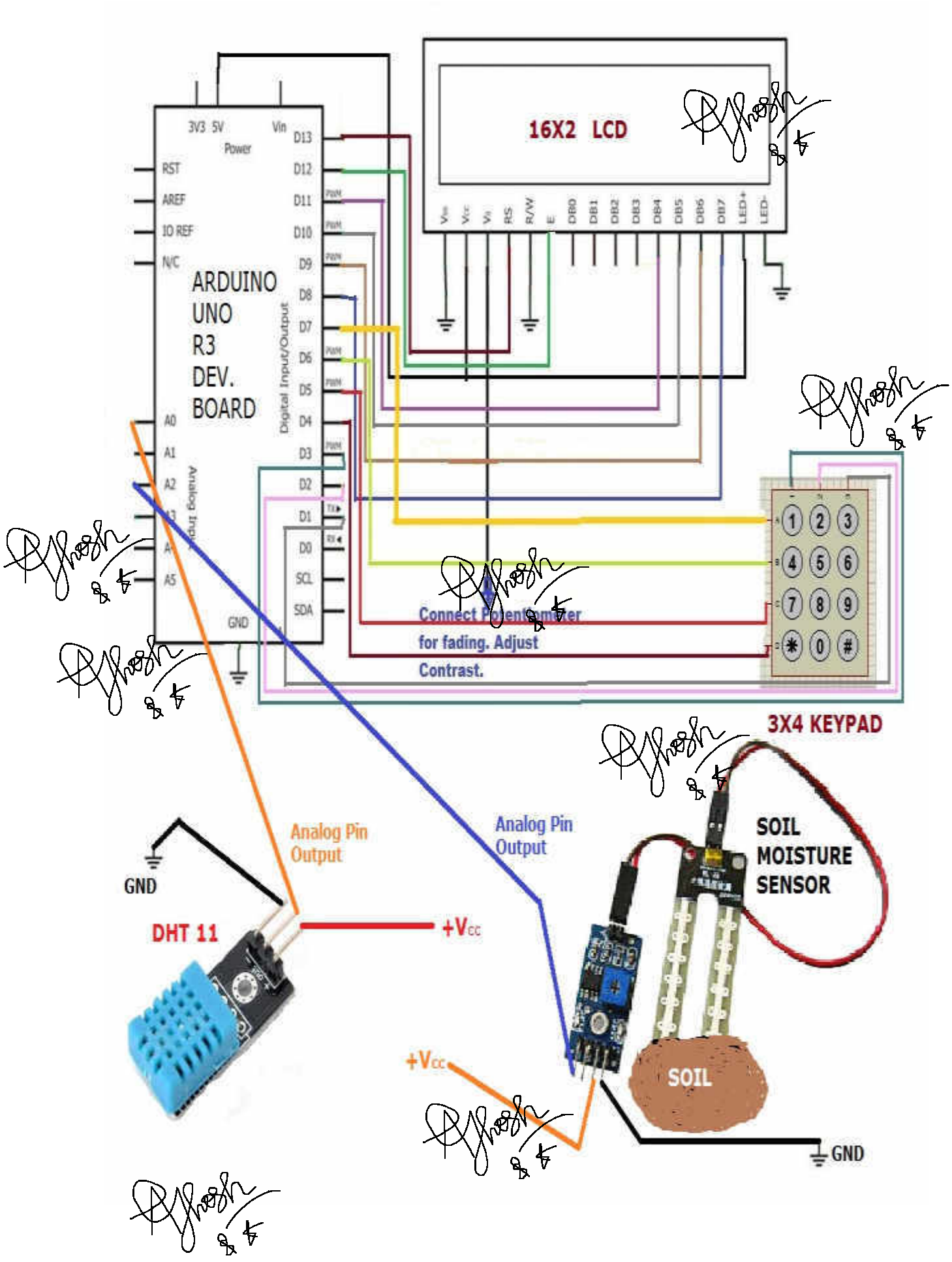
CIRCUIT:


16X2 LCD
ARDUINO
UNO
R3
DEV.
BOARD
Connect Potentiometer
for fading. Adjust
Contrast.
3X4 KEYPAD
SOIL
MOISTURE
SENSOR
SOIL
GND
DHT 11
+Vcc
Analog Pin
Output
Analog Pin
Output
+Vcc
GND

LOOKUP TABLE

LOOKUP TABLE
(STORED IN MICROCONTROLLER MEMORY)

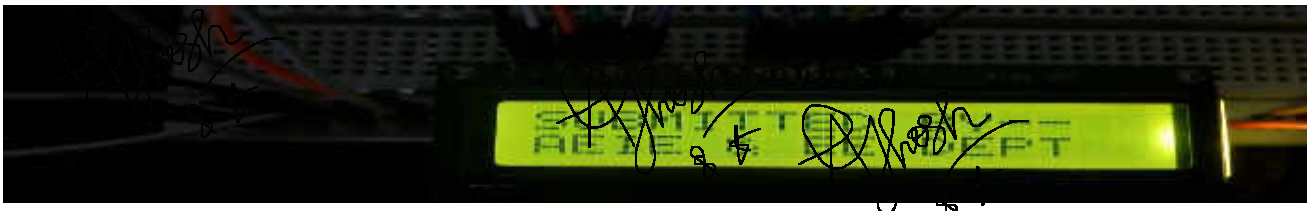
SOIL TYPES	CROPS	TEMPERATURE RANGE (°C)	HUMIDITY RANGE (%)	SOIL MOISTURE VALUES
ALLUVIAL	RICE	25-35	75-90	30
	JUTE	27-30	65-90	18-20
	PULSES	24-35	60-85	10-20
LOAMY	WHEAT	24-35	60-80	30
	SILK	24-35	60-85	30
	VEGETABLES	19-35	60-85	12-24
BLACK	SUGARCANE	21-27	70-90	18-30
LATERICTIC	TEA	12-20	60-70	28-30

EXECUTION:

BY EXECUTING THE CODE WE CAN SEE THAT:

1. WELCOME TO THE SYSTEM...

2. THIS PROJECT IS DONE BY AEIE & EE DEPT. STUDENTS



3. THIS PROJECT IS GUIDED BY

4. THEN GO TO THE MAIN FEATURE; THE NAMES OF FOUR SOILS ARE CHOSEN FROM KEYPAD

5. THEN THE SOIL MENU IS LOADING

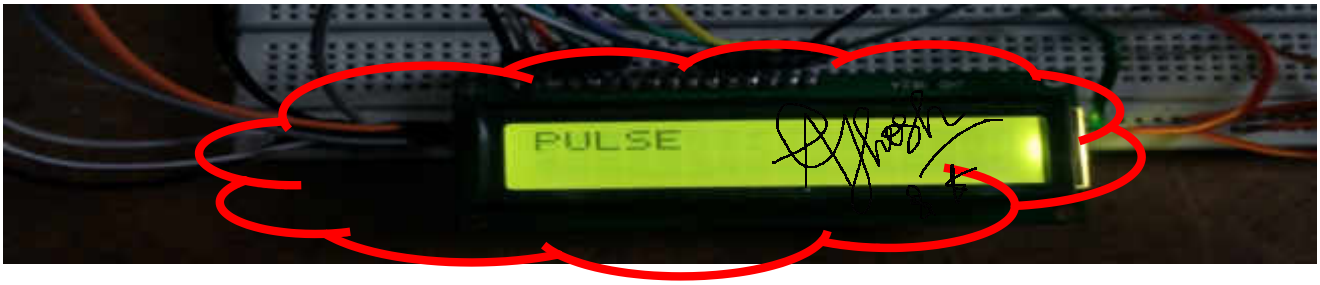
6. ACCORDING TO THE LOCATION OF OUR COLLEGE, THE SOIL TYPE IS ALLUVIAL

7. SO FROM THE MENU, WE CLICK ON BUTTON ‘1’ OF THE ALPHANUMATIC KEYPAD

8. THEN SHOWS THE CROPS WHICH ARE GENERALLY IRRIGATE IN THAT ALLUVIAL SOIL; THOSE ARE RICE JUTE AND VARIOUS PULSES

9. THEREAFTER THE CONNECTED SENSORS OF THE SYSTEM SENSED AND SHOWS THE CURRENT CLIMATE CONDITION IN THE DISPLAY

10. WE LOAD A LOOKUP TABLE FOR THE VARIOUS CROPS FOR MENTIONED 4 TYPES OF SOILS. SO NOW WAIT FOR DESIRED OUTPUT TO COMPARE WITH THE CURRENT CLIMATE CONDITION VALUES WITH THE LOOKUP TABLES VALUE TO GET THE SUITABLE CROP TO IRRIGATE… AND GOT THE FINAL OUTPUT IN TERMS OF THE SUITABLE CROP IS



IF IT IS USED IN A SMALL NURSERY THEN BY WAITING OF 10SEC WE CAN CHECK ANOTHER SUITABLE CROP FOR ANOTHER SOIL WITHOUT SWITCHING OFF THE PROTOTYPE DEVICE BY PRESSING THE * KEY OF THE KEYBOARD

THIS IS DESIRED OUTPUT

THANK YOU