Ex.No:	**MOISTURE SENSOR**
Date :	

AIM:

Todesignandsimulatemoisture sensorusingwifi boardusingproteus8andArduino IDE.

COMPONENTSREQUIRED:

COMPONENTS	NOS
ESP8266 NodeMcu	1
MOISTURE SENSOR	1
USB CABLE	1

PROCEDURE:

Step1:Open proteus8 IDE,file->new project.

Step2: Select the ESP8266 nodemcu board and soil moisture sensor from the device list.

Step3:Place theESP8266board andall the componentsin thework space.

Step4: Connect the nodemcu with the soil moisture sensor.

Step5: Connect the moisture sensor out pin to the A0 pin.

Step6: connect the vcc to the 3v3 pin.

Step7: connect the gnd to the ground pin.

Step8: Open the Arduino IDE.

Step9:Initialize the program in a setup, and type the program in a loop.

Step10: Compile the program and copy the .hex file location in the nodemcu terminal after compilation.

Step11: Double-click on it .In the properties window, paste the .hex file path in the "Program File" field. Click OK to close the window.

Step12:Run the simulation by clicking on the play button.You should see the output according to the sketch.

SCHEMATICDIAGRAM:

PROGRAM:

```
#define soil_moisture_pin A0

 void setup() {
 Serial.begin(9600);
 }

 void loop() {
 Serial.println(analogRead(soil_moisture_pin));
 delay(500);
 }
```

OUTPUT:

RESULT:

Thustheaboveprogramto simulate moisture sensor usingwifi boardand Proteus8was executed and the output verified Successfully.