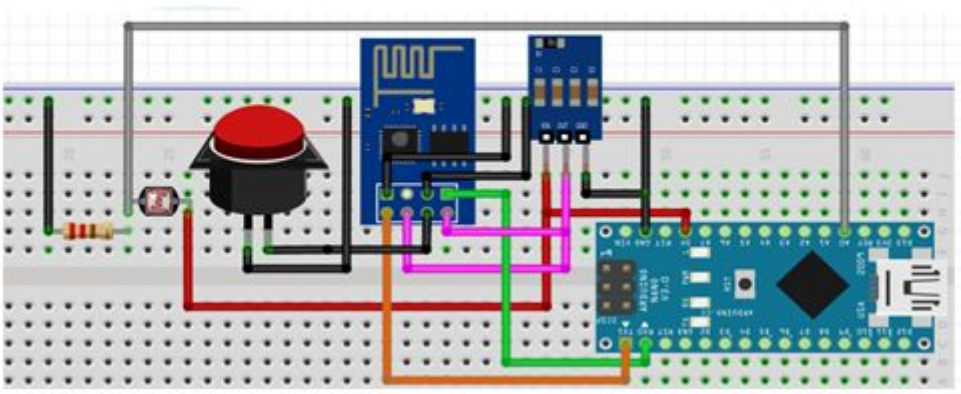
Connections & Circuit Diagram

Arduino Nano	ESP 8266	AMS 1117	LDR	Push button	Resister
Tx	Tx	-	-	-	
Rx	Rx	-	-	-	
5 v	-	Vin	Leg 1	-	
RST1,RST2,GND	GND, GPIO 0	GND	-	Leg 2	Leg 2
-	Vcc, CHPD	Vout	-	-	
-	RST	-	-	Leg 1	
-	GPIO 2	-	-	-	
-	-	-	-	-	
A0	-	-	Leg 2	-	Leg 1



Steps to Follow:

1. Make the Circuit-Connections as shown above and turn on hot spot of smart phone/Laptop.
2. Open Arduino ide.
3. Paste the Code written in the Arduino nano Code-Section.
4. Chose board Arduino nano and select the ATmega328P(old bootloader).
5. Remove the pin Tx, Rx and RST1 and RST2 pin from the Arduino nano.
6. Then upload the code on the Arduino nano board.
7. Now connect all the connection as it is.
8. Open new Arduino ide.
9. Chose board Generic ESP8266 and open serial monitor. (if blue led blinks on ESP,it is reset and you will get something on serial monitor as well)
10. Now press the push button for reset.
11. Write the code for ESP8266 to connect with hotspot and LDR data receiving(serial communication) from arduino nano to ESP and sending this data on web browser using html code.
12. If code in not uploaded than press the push button.
13. After uploading code, remove the RST1 and RST2 pins from Arduino nano.
14. Now connect the Tx pin of ESP8266 to Rx pin of the Arduino nano and Rx to Tx.
15. Open web browser using IP address of ESP8266 on smart phone/ Laptop.

Arduino nano Code:

```
// code for LDR
#include <SoftwareSerial.h>
#define LDRpin A0 // pin where we connected the LDR and the resistor

int LDRValue = 0;    // result of reading the analog pin

void setup() {
  Serial.begin(115200); // sets serial port for communication

}

void loop() {
  LDRValue = analogRead(LDRpin); // read the value from the LDR
  Serial.println(LDRValue);      // print the value to the serial port
  delay(1000);                   // wait a for few minutes
}
```

Hint – part of ESP8266 code:

```
 server.begin();
 Serial.println("Web server started!");
}
 String rx_byte = "";
String inString = "";

 void loop(){

   while (Serial.available() > 0) {
    int inChar = Serial.read();
    if (isDigit(inChar)) {

      inString += (char)inChar;
    }

    if (inChar == '\n') {

      data=inString.toInt();

      server.handleClient();
    Serial.println(data);
      delay(200);

      inString = "";
    }
  }


}
```

OutPut: