IOT FORUM VIIT

Simul-IoT

Prerequisites :

1. Link to download proteus https://getintopc.com/softwares/electronics/proteus-8-6-professional-free-download/

2. How to Fix error "no libraries found" in proteus 8.6 : https://www.youtube.com/watch?v=lZkoC3BBFcE

3. VSPE : Download Free Virtual Serial Ports Emulator - free - latest version (softonic.com)

4. Proteus Library : https://drive.google.com/drive/folders/1ra_KY5g_fpdffKzzAiZ4FAVKh52gi_kw?usp=sharing

5. Arduino IDE: https://www.arduino.cc/en/donate/

STRUCTURE OF DAY1

Duration:-2 hours

- **Part 1** : 15-20 min
    1. Basic explanation
    2. Installation
    3. What is Proteus? Features of Proteus and how to start working on proteus.
    4. UI of proteus including introduction to Components

- **Part 2** : 20-25 min

1. Working of components
2. 3D visualizations
3. Schematic
4. Pcb layout

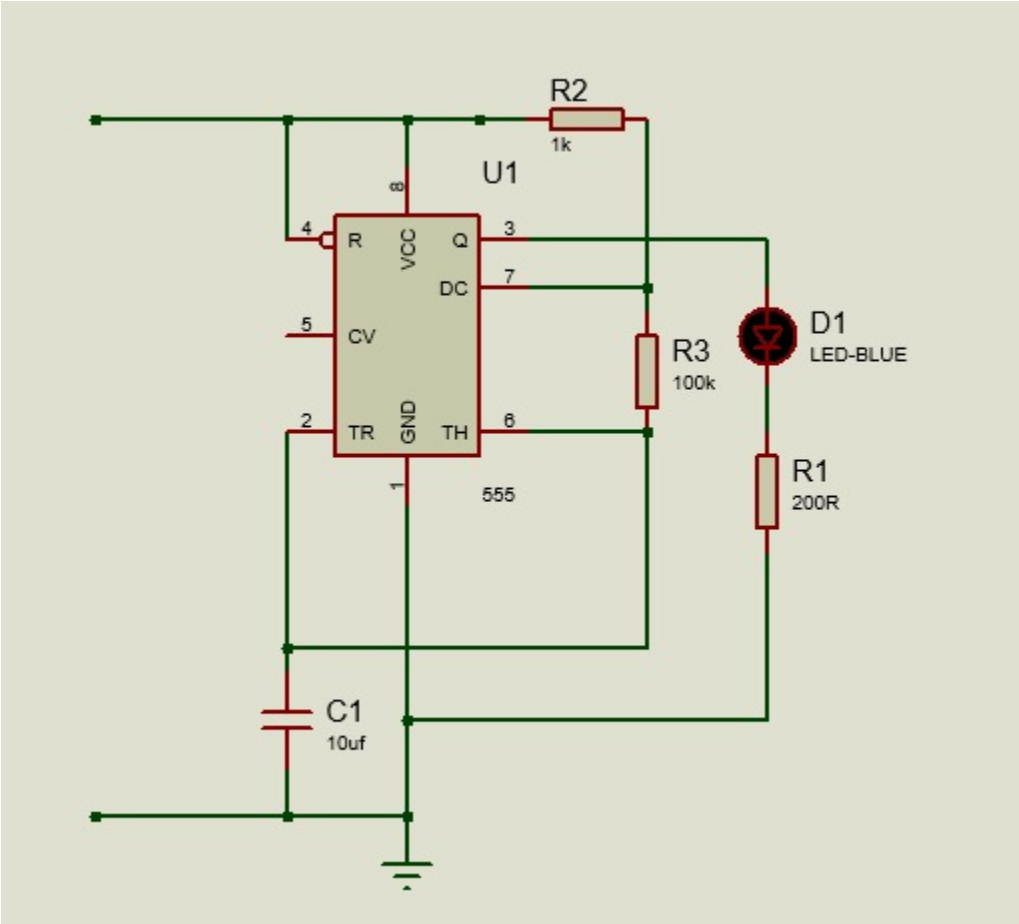
- **Part 3** : 20-25 min

1. Temperature Sensor and Pressure Sensor setup and code

- **Part 4** : 30-35 min

1. LED blinking circuit and code.
2. Connecting circuit to cloud services.
3. VSPE and Blynk Service setup(Arduino + Server) .
4. Blynk App setup.
5. Surprise Extension.

CIRCUIT DIAGRAM:



Part 2 :

Components Used:

1) 555 Timer IC
2) LED or any output device
3) 10uF Capacitor
4) Resistors:100K,
   1K,
   220R
5)5-12V Power Supply

Part 3 :

Components Used:

1) LM35 Temperature sensor
2) MPX4115A Pressure Sensor
3) Arduino UNO