N.S.N. COLLEGE OF ENGINEERING AND TECHNOLOGY

N.S.N. Kalvi Nagar, NH-7, Manalmedu, Karur - 639 003, TN, India.
(Approved by AICTE New Delhi, Affiliated to Anna University, Chennai)
(An ISO 9001:2008 Certified Institution)

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

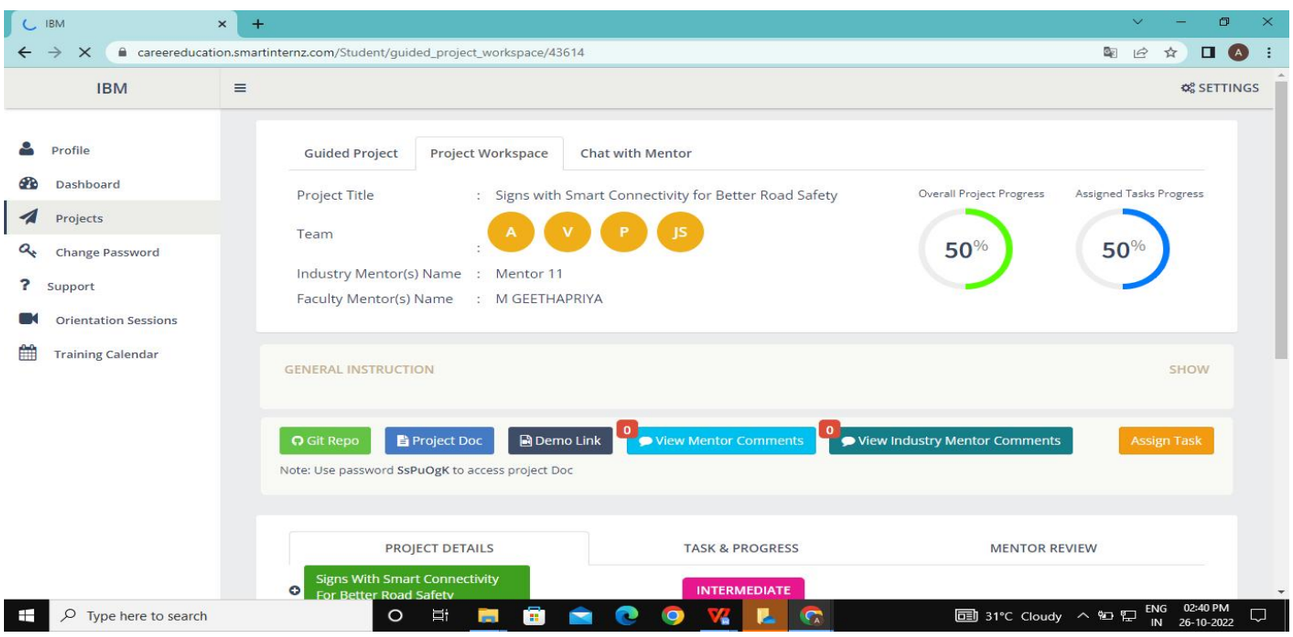
IV YEAR / VII SEMESTER (ODD)

BATCH: 2019-2023

ACADEMIC YEAR 2022-2023

ASSIGNMENT - II

TEAM ID	: PNT2022TMID48721
TITLE OF THE PROJECT	: SIGNS WITH SMART CONNECTIVITY FOR BETTER ROAD SAFETY
DOMIN	: INTERNET OF THINGS (IOT)
TEAM LEAD	: AYYAPPAN S
TEAM MEMBER	: VIGNESH K
TEAM MEMBER	: PARTHIBAN M
TEAM MEMBER	: JABAR SATHIK S
INDUSTRY MENTOR	: MENTOR 11
FACULTY MENTOR(S) NAME	: M GEETHAPRIYA



ASSIGNMENT -II

PYTHON CODE FOR DETECTING TEMPERATURE

Code:

```
import tkinter as tk
import random
import datetime
import numpy as np
import time

import threading
import Adafruit_DHT

pin = 4
sensor = Adafruit_DHT.DHT22

def tick():

   time2=time.strftime('%H:%M:%S')
clock.config(text=time2)
clock.after(200,tick)


defget_data():

threading.Timer(5, get_data).start()

   humidity, temperature = Adafruit_DHT.read_retry(sensor, pin)

   if humidity is not None and temperature is not None:
      print('Temp={0:0.1f}*C  Humidity={1:0.1f}%'.format(temperature, humidity))
l_display.config(text = temperature)
   else:
      print('Failed')


   return temperature



mainwindow = tk.Tk()
mainwindow.geometry('640x340')
mainwindow.title("Sensor Data Live Feed ")

clock=tk.Label(mainwindow,font=("Arial",30), bg='green',fg="white")
clock.grid(row=0, column=0, padx=10, pady=10, sticky="nsew")

l_m=tk.Label(mainwindow,text="Sensor Data ",font=("Arial",30),fg="Black")
l_m.grid(row=0,column=1, padx=10, pady=10, sticky="nsew")

l_t=tk.Label(mainwindow, text="Temperature C",font=("Arial",25))
```

```
l_t.grid(row=1,column=0, padx=10, pady=10, sticky="nsew")

l_display=tk.Label(mainwindow,font=("Arial",25),fg="red")
l_display.grid(row=1,column=1, padx=10, pady=10, sticky="nsew")


tick()
get_data()

mainwindow.mainloop()
```