**HOME AUTOMATION USING IoT AND RASPBERRY PI**

import Adafruit\_DHT

import RPi.GPIO as GPIO

import time

# Set GPIO mode

GPIO.setmode(GPIO.BCM)

# Set sensor type and GPIO pin

sensor = Adafruit\_DHT.DHT11

pin = 4

# Set GPIO pin for relay

relay\_pin = 18

GPIO.setup(relay\_pin, GPIO.OUT)

while True:

# Read sensor data

humidity, temperature = Adafruit\_DHT.read\_retry(sensor, pin)

if humidity is not None and temperature is not None:

print(f'Temp: {temperature:.1f} C Humidity: {humidity:.1f} %')

# Example condition to activate relay

if temperature > 25:

GPIO.output(relay\_pin, GPIO.HIGH)

else:

GPIO.output(relay\_pin, GPIO.LOW)

else:

print('Failed to get reading. Try again!')

time.sleep(2)