

# SMART ELECTRIC VEHICLES MINOR

## Experiment 8

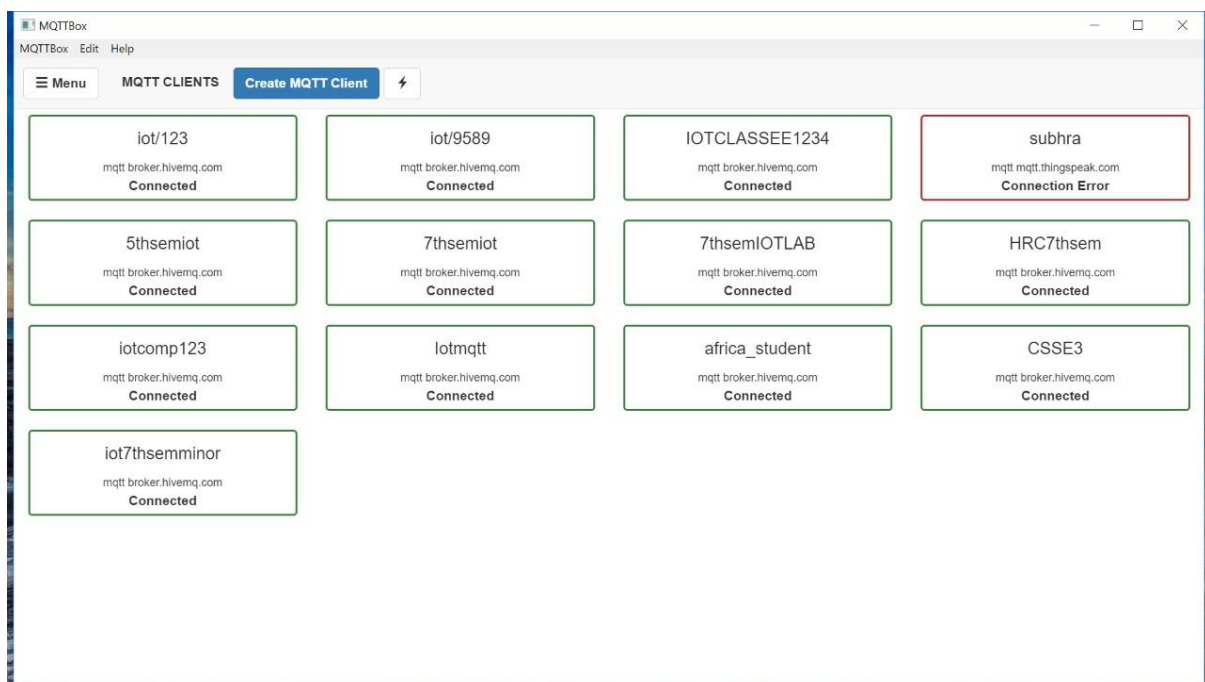
**AIM:** Write a program on ESP32/Raspberry Pi to publish DHT11 data through MQTT protocol.

**OBJECTIVE:** To write a code to publish DHT11 data through MQTT protocol.

### THEORY:

MQTT is a lightweight, publish-subscribe, machine to machine network protocol for Message queue/Message queuing service. It is designed for connections with remote locations that have devices with resource constraints or limited network bandwidth.

### RESULT:



MQTT8Box Edit Help

Menu ← MQTT CLIENT SETTINGS Client Settings Help

MQTT Client Name: CSSE3

MQTT Client Id: 69cec16b-e9a7-440a-89e9-39996

Protocol: mqtt / tcp

Host: broker.hivemq.com

Username: Username

Password: Password

Reconnect Period (milliseconds): 1000

Connect Timeout (milliseconds): 30000

Append timestamp to MQTT client id? ☒ Yes

Clean Session? ☒ Yes

Reschedule Pings? ☒ Yes

KeepAlive (seconds): 10

Broker is MQTT v3.1.1 compliant? ☒ Yes

Auto connect on app launch? ☒ Yes

Queue outgoing QoS zero messages? ☒ Yes

Will - Topic: Will - Topic

Will - QoS: 0 - Almost Once

Will - Retain: ☐ No

Will - Payload:

Save Delete

MQTT8Box Edit Help

Menu ← Connected Add publisher Add subscriber Settings

Topic to publish: IoT123

QoS: 0 - Almost Once

Retain: ☐

Payload Type: Strings / JSON / XML / Characters

e.g.: {hello: world}

Payload: today temperature 25 Degree

Publish

Topic to subscribe: IoT123

QoS: 0 - Almost Once

Subscribe

**CONCLUSION:** After performing this experiment we were able to publish DHT11 data through MQTT protocol.

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