Wi-Fi

ESP32 Open IoT and IIoT Gateways (P01 & P02)

Link to repositories:

- C
- MicroPython

Description

This example shows how to create a Wi-Fi station or access point with CGE2. Access point is a device that hosts WI-FI network. Station is a device that can be connected to an existing Wi-Fi network. User can add their own network names, passwords and security features. Keep in mind that external antenna will extend the range of the device.

Console output

Access point

```
I (731) wifi:mode : softAP (b4:e6:2d:fb:b8:86)
I (841) wifi:Total power save buffer number: 16
I (841) wifi:Init max length of beacon: 752/752
I (841) wifi:Init max length of beacon: 752/752
I (841) wifi: wifi_init_softap finished. SSID: wifi_ssid, password: wifi_pass, channel: 0
I (841) esp_netif_lwip: DHCP server started on interface WIFI_AP_DEF with IP: 192.168.4.1
I (861) main_task: Returned from app_main()
I (12921) wifi:new:<1,0>, old:<1,1>, ap:<1,1>, sta:<255,255>, prof:1
I (12921) wifi:station: 36:35:17:f4:4e:94 join, AID=1, bgn, 20
I (12981) wifi: station 36:35:17:f4:4e:94 join, AID=1
I (13081) wifi:<ba-add>idx:2 (ifx:1, 36:35:17:f4:4e:94), tid:0, ssn:0, winSize:64
I (13131) esp_netif_lwip: DHCP server assigned IP to a client, IP is: 192.168.4.2
```

Station

```
I (751) wifi:mode : sta (b4:e6:2d:fb:b8:85)
I (751) wifi:enable tsf
I (761) wifi: wifi_init_sta finished
I (1371) wifi:new:<6,0>, old:<1,0>, ap:<255,255>, sta:<6,0>, prof:1
I (1371) wifi:state: init -> auth (b0)
I (2611) wifi:state: auth -> assoc (0)
I (2691) wifi:state: assoc -> run (10)
I (2731) wifi:connected with wifi_ssid, aid = 1, channel 6, BW20, bssid = 7a:c4:6e:55:83:d8
I (2731) wifi:security: WPA3-SAE, phy: bgn, rssi: -62
I (2751) wifi:pm start, type: 1

I (2751) wifi:dp: 1, bi: 102400, li: 3, scale listen interval from 307200 us to 307200 us
I (2781) wifi:<ba-add>idx:0 (ifx:0, 7a:c4:6e:55:83:d8), tid:0, ssn:0, winSize:64
I (2821) wifi:dp: 2, bi: 102400, li: 4, scale listen interval from 307200 us to 409600 us
I (2821) wifi:AP's beacon interval = 102400 us, DTIM period = 2
I (3761) esp_netif_handlers: sta ip: 192.168.73.1, mask: 255.255.255.0, gw: 192.168.73.31
I (3761) wifi: got ip:192.168.73.1
I (3761) wifi: connected to ap SSID: wifi_ssid, password: wifi_pass
I (3771) main_task: Returned from app_main()
```

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