

工作
項目

Avantech Smart Green House Solution

內容
摘要

1. Implement a smart green house solution with Advantech products after a lot of research.
2. After connecting to Wi-Fi, all the devices upload sensor data to WISE-PaaS/RMM via Modbus/TCP protocol. Also, WISE-PaaS/RMM can send downlink signal to control the device.
3. Create a Node-Red coding flow to control output device to adjust brightness and temperature depending on sensor data automatically.
4. Create a dashboard of WISE-PaaS/RMM to monitor sensor data and remote control devices.

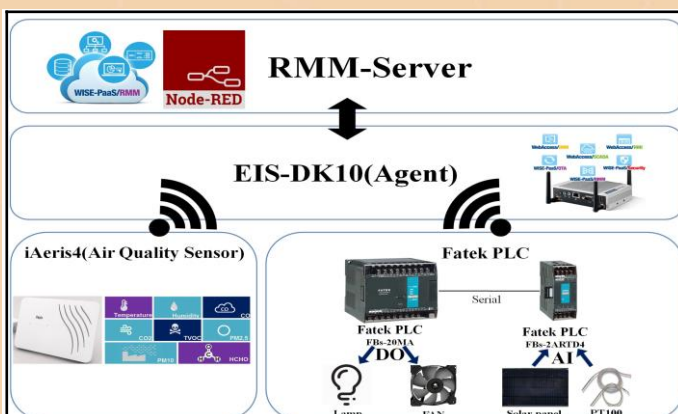


Figure 1. System architecture

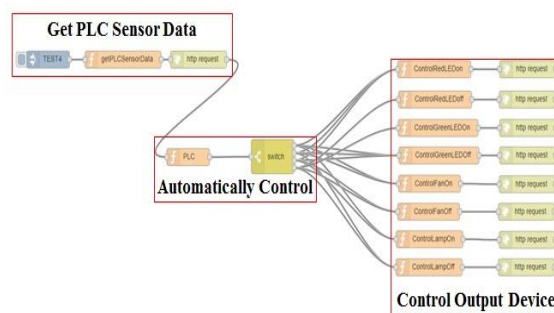


Figure 2. Node-Red coding flow

The lowest layer is “Sensor & Output device layer”, the second layer is “Agent layer” and the highest layer is “Cloud layer”.

Node-Red automatically control coding flow as shown in Figur2. Node-Red will control output device depending on sensor data automatically.



Figure 3. Node-Red coding flow

Dashboard as shown in Figure 3. User can monitor sensor data and control output device from this page. Dashboard can be access from PC or mobile deice.

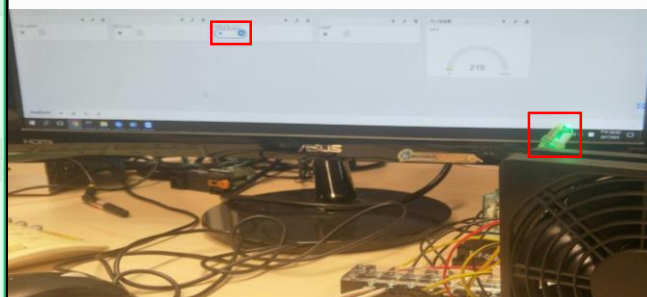


Figure 4. Turn on green LED

實習
成果電機
工程

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實習廠商：研華

實習期間：105/9/12 ~ 106/9/11

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