Internet of Things (IoT) Engineering

Build connected IoT solutions end to end: devices, sensors, protocols, cloud and analytics.

DURATION	FORMAT	LEVEL	LABS
45 hours	Onsite, online or hybrid	Intermediate	Cloud sandbox included

About this programme

A 45-hour, lab-heavy Internet of Things course. Teams program microcontrollers and Raspberry Pi devices, connect sensors and actuators, move data over MQTT and CoAP, and land it in AWS IoT or Azure IoT Hub for dashboards and analytics — covering smart-home, healthcare and industrial IoT (IIoT) use cases.

Who it is for: Embedded, software and cloud engineers building connected products

What your team will be able to do

- Explain IoT architectures, components and communication layers
- Program Arduino/ESP and Raspberry Pi devices to read sensors and drive actuators
- Move device data with MQTT, CoAP and HTTP over Wi-Fi, BLE and Zigbee
- Connect devices to AWS IoT or Azure IoT Hub and build dashboards
- Apply IoT data analytics and edge computing to real use cases

Before you start

- Basic programming in C or Python
- Basic electronics helps but is not required

Course outline

We send the module-by-module outline with your proposal, adapted to your team's tools and goals.

Assessment and certification

How learning is checked

- A short knowledge check on day one and again at the end, so you can see each person's progress
- Graded hands-on labs in every module, reviewed by the trainer
- A final exercise that applies the programme to a problem like your team's own

Certificate and exams

- Participants who complete the programme receive a Cognitive Networks AI certificate of completion.

Formats and cohort size

- Onsite: At your office or a venue you choose, in full days.
- Online, live: Instructor-led over video, usually in half-day sessions so people can keep up with work.
- Hybrid: Some days in a room together, the rest online. Useful when a team works across cities.

Cohort size: 15 to 25 people per trainer. Larger teams run as parallel cohorts on the same outline, so everyone learns the same thing.

Pricing: We quote per cohort, based on duration, format and number of cohorts. There is no per-seat price list: tell us your team and we send a proposal within one business day.

Bring this programme to your team

Request a proposal at cognitivenetworks.ai/contact?programme=iot-engineering

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