Robotics, embedded systems, IoT e-learning chain

Practical course - 1d - 05h06 - Ref. 8SE
Price : 190 CHF E.T.

Wondering how connected objects work? Our IoT channel offers you the chance to explore the world of connected objects in depth, and get started on your own projects. You'll learn how to use the Fusion 360 tool to carry out your projects independently, from A to Z.

Teaching objectives

At the end of the training, the participant will be able to:

- Master the basics of electronics.
- Know the Fusion 360 tool.
- Dimension your project with the 2D plan.
- Design your project and create the different parts of the box.
- Familiarity with the Scratch programming language.
- Use the extensions offered by Scratch.
- Learn techniques for creating your own projects.
- Defining the IoT.
- Understand how the IoT works.
- Identify possible applications.

Intended audience

Any individual or professional wishing to discover the IoT.

Prerequisites

No special knowledge required.

PARTICIPANTS

Any individual or professional wishing to discover the IoT.

PREREQUISITES

No special knowledge required.

TRAINER QUALIFICATIONS

The experts leading the training are specialists in the covered subjects. They have been approved by our instructional teams for both their professional knowledge and their teaching ability, for each course they teach. They have at least five to ten years of experience in their field and hold (or have held) decision-making positions in companies.

ASSESSMENT TERMS

The trainer evaluates each participant's academic progress throughout the training using multiple choice, scenarios, hands-on work and more.
Participants also complete a placement test before and after the course to measure the skills they've developed.

TEACHING AIDS AND TECHNICAL RESOURCES

• The main teaching aids and instructional methods used in the training are audiovisual aids, documentation and course material, hands-on application exercises and corrected exercises for practical training courses, case studies and coverage of real cases for training seminars.
• At the end of each course or seminar, ORSYS provides participants with a course evaluation questionnaire that is analysed by our instructional teams.
• A check-in sheet for each half-day of attendance is provided at the end of the training, along with a course completion certificate if the trainee attended the entire session.

Practical details

Digital activities

IT structure: recorded courses, expert videos and best practice sharing.

Mentoring

L'option tutorat propose un accompagnement personnalisé par un formateur référent ORSYS, expert du domaine. Adapté aux besoins, aux capacités et au rythme de chaque apprenant, ce tutorat combine un suivi asynchrone (corrections personnalisées d'exercices, échanges illimités par message…) et des échanges synchrones individuels. Bénéfice : une meilleure compréhension, le développement des compétences et un engagement durable dans la formation.

Pedagogy and practice

A wealth of content produced by trainers following a rigorous pedagogical approach. During each course, operational cases are commented on by experts to help learners put into practice what they have just learned. To help learners anchor their memory, each content item is broken down into short sequences of 3 to 10 minutes. This enables each learner to learn dynamically and independently.

TERMS AND DEADLINES

Registration must be completed 24 hours before the start of the training.

ACCESSIBILITY FOR PEOPLE WITH DISABILITIES

Do you need special accessibility accommodations? Contact Mrs. Fosse, Disability Manager, at psh-accueil@orsys.fr to review your request and its feasibility.

Course schedule

1 IoT, understand its concepts and discover examples

- Discover the IoT.
- Networking.
- Applications in the public domain.
- Applications for companies.
- Prospects and obstacles.

2 Fusion 360, custom case modeling for Raspberry Pi 3 and 4

- Introduction to Fusion 360.
- Project sizing.
- Project design.

3 Scratch 3, learn about extensions for an introduction to robotics

- Introduction.
- Speech synthesis and translation extension.
- Use the webcam.
- Makey Makey and the Music extension.
- Micro:bit extension.
- Lego Wedo extension.
- Lego Boost extension.