

Want to expand your ICT skills or perhaps learn the fundamentals of Python programming?

Study the basics of Python programming and IoT in autumn 2019

Kajaani University of Applied Sciences offer free of charge training starting in autumn 2019. In this training you will not only learn the basics of versatile and popular Python programming language but also to use it in different IoT (Internet of Things) applications.

Why

After this training students will have basic skills of Python programming language and knowledge how to use it for different IoT solutions. Learned skills will help students to find job in ICT industry and update their skills to fit the changing requirements of software industry.

What

Training is university level and in total 15 ECTS. Studies are mostly implemented as online studies. Training will take place in the autumn 2019 (September - December), and students can choose all courses or separate ones. If student later starts degree studies in a university of applied sciences, ECTS from this training can be granted for degree studies.

Courses

Introduction to IoT & Cloud
5 ECTS
Level: beginner

Python Basics for IoT
5 ECTS
Level: beginner

Python Project for IoT
5 ECTS
Level: intermediate

To who

Training is for all interested: unemployment, employed, students, persons who consider new career. Students are required an ability to work independently and willingness and enthusiasm to develop his/her skills. Also, basic skills of programming and computer use are required. Persons living, studying or working in Kainuu area are prioritized when choosing students.

Registration

Registration take place online 6.5. – 31.7.2019. Fill the form in address:

www.kamk.fi/dwbltraining

All registered will have information about training in August 2019.

More information about training:

www.kamk.fi/dwbltraining

Taneli Rantaharju

Tel. 044 7101 253

email: taneli.rantaharju@kamk.fi

Training is part of DWBL-project, Digital & Work Based Learning to boost employment opportunities. Project is funded by European Social Fund, granted by Centre for Economic Development, Transport and the Environment of Pohjois-Pohjanmaa.



Centre for Economic Development,
Transport and the Environment



Leverage from
the EU
2014–2020

Tentative schedule

Introduction to IoT & Cloud
Python Basics for IoT
Python Project for IoT

September 2019	October 2019	November 2019	December 2019
Introduction to IoT & Cloud			
Python Basics for IoT			
	Python Project for IoT		

Course introductions

Introduction to IoT & Cloud

5 ECTS

Level: beginner

Teaching:
English

Materials:
English

The Internet of Things has become a global phenomenon. It is predicted that 30- 50 billion of things will be connected to the Internet by 2020.

The Course Internet of Things and Cloud covers the basic concepts and terminologies of IoT & cloud system. It explains what IoT is and the technologies enabling IoT. It further expands on the ecosystem, several use cases and applications of IoT.

The course is designed for the beginners that includes an introduction to the IoT & Cloud Systems. It includes an introduction to Raspberry Pi Hardware and a simple lab exercise to get the practical insights of IoT.

Python Basics for IoT

5 ECTS

Level: beginner

Teaching:
English

Materials:
English

Python has become one of the major programming languages in recent times. Internet of Things is connecting millions of devices and is revolutionizing the way devices interact with each other.

The course Python Basics for IoT will explore the tools in Python ecosystem to build IoT applications. It explains the Python Setup process and basics of Python programming to be able to program on the Raspberry Pi.

The focus of the course is mainly on Python as you learn to install and set up Python as well as understand its operators, datatypes, variables and functions. Also understanding Standard Python Libraries, reading and writing files will become familiar during course.

Project for IoT

5 ECTS

Level: intermediate

Teaching:
Finnish/English

Materials:
English

Students will be able to work in an agile distributed software development project, collecting data from IoT devices and storing it to a database for analysis and visualization.

The programming part is done in Python and project documentation is done with Markdown language.

This course requires Python programming skills and knowledge and understanding of IoT. You can gain required skills by participating earlier courses or other ways, for example in work, other studies or self-learning.