

Your Staff,

Your Asset.

Your Future

# **Vocational Training program** IoT & Data Science

Expression of Interest : FREE of Fees\* (https://bit.ly/2XWvtZY) " Registrations: September 2019 Duration: November 2019 - August 2020. THE COST OF THE TRAINING PROGRAMS ARE FUNDED BY THE ERASMUS+ PROJECT SENDING

24,697 open Data Scientist positions on LinkedIn in the United States alone, while the top 3 most common skills requested in LinkedIn data scientist job postings are Python, R, and SQL

> demand increase 28%

for DS

43%

0.5M

strunggle to hire 68%

The SEnDIng vocational training programs are based on modular and multi-disciplinary curricula combining technical with transversal (or soft) skills. They have been designed in consultation with VET providers, academics, technology companies and experts that are active at the Data Science and IoT domains. Their aim is to fight the skills' gap by providing vocational trainings that meet the demand and last trends of Data Science and IoT industries.

- Upskill your employees at Data Science and IoT domains for FREE
- Find experts on IoT and Data Science certified by SEnDIng **VET program**
- **Boosting Data Science** & IoT Skills
- Meet new challenges in the market
- Reap reduced training expenses.
- Help your organization to capitalize on the Data Science and IoT potential.
- Available in Greece, Cyprus and Bulgaria

## Phase 1 Online training (103 hours).

The online training will be provided in the form of asynchronous courses at the areas of Data Science or IoT. Each online training program consists of a series of modules that helps you master specific knowledge, skills and competences at the areas of Data Science or IoT.

## Phase 2 Face to face training (20 hours).

The face to face training aims to cultivate the transversal skills of the trainees. Trainees will be eligible to participate in the face to face training, once the online Data Science or IoT training are completed. Offered in Greece, Bulgary and Cyprus

# Phase 3: Work based learning (4 months).

Work based learning aims to provide knowledge, skills and competences by doing a job and by reflecting on the experience. It will run at the companies whose employees will participate in the training. The use cases will be defined in cooperation with the companies participating in the program based on their interests and needs.

After the completion of the 3 phases training, the trainees will be asked to take a final exam in order to be formally certified

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# "THE COST IS FUNDED BY THE PROJECT SENDING What your staff will learn?

# **Expression of Interest**

Those interested to participate in work based learning will be eligible, given that they have successfully attend the online Data Science (103 hours) or IoT training (103 hours) and the face to face training on transversal skills (20 hours). Please visit our website http://bit.ly/vet-program to see the Data Science & IoT online courses, as well as the face to face courses for transversal skills.

#### IoT LEARNING OUTCOMES

#### Knowledge

- Describe the value that IoT delivers in different business domains.
- Explain the business processes related to IoT in specific domains.
- Understand IoT architectures and the related network and communication protocols.
- Recognize different types of sensors, actuators, displays
  and related embedded electronics
- Design the application level (e.g. use protocols that support different IoT applications) of IoT in the context of big data, cloud technologies and DS.
- · Formulate requirements about IoT information security.

#### **Skills**

- Analyse, argue and describe the business value of a particular IoT system.
- Design an IoT system that includes sensors, controllers, actuators and displays, connected to a cloud platform through Internet connection.
- Develop and deploy workflows and dashboards for an IoT system that includes sensors, controllers, actuators and displays, connected to a cloud platform through Internet connection.
- Develop working code for an IoT system that includes sensors, controllers, actuators and displays, connected to a cloud platform through Internet connection.
- Apply IoT information security concepts.

## Competence

 Exercise self-management within the guidelines of work or study contexts that are usually predictable, but still are a subject to change;

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 Supervise the routine work of others, taking some responsibility for the evaluation and improvement of work or study activities;

# Transversal (soft) Skills

- Communication skills;
- Adaptability to change:
- Teamwork;
- Ability to present in front of colleagues and clients;
- Goal-orientation; Thinking outside the box; Agile mind-set;



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## Skills

- Analyse domain specific trends and present them as structured information.
- · Create code to statistically analyse data.
- Apply data statistics and data visualization.
- Deploy simple machine learning techniques.
- · Deploy data storage and retrieval techniques.
- Implement data models validation techniques.
- Ensure that IPR, security and privacy issues are respected.

# Knowledge

- Describe the key concepts of Data Science.
- Describe ICT methods and tools applicable for the storage and retrieval of data.
- Describe methods and tools applicable for the statistical analysis of data.
- Explain basic concepts and requirements related to information security and privacy.