

CTESP | CURSO TÉCNICO SUPERIOR PROFISSIONAL



DESENVOLVIMENTO DE SISTEMAS PARA INTERNET DAS COISAS

Direction

Fernando Baltazar Moreira Duarte

Number of Semesters

4

ECTS

120

About

Currently, automation and industrial electronics are undergoing a growing development in which the Internet is increasingly indispensable for the distribution of information, being free of time constraints and capable of transmitting numerical and graphical information on any platform. In an automation network, as the number of components increases, management

and diagnostic problems become increasingly challenging for automation and information technology professionals. This evolution has led to the concept of the Internet of Things (IoT), which can be defined as the intelligent connectivity (communication networks and protocols) of intelligent equipment (physical and virtual objects, information and interfaces). The growth of the IoT combined with the consequent reconfiguration and evolution of industry means that the fourth industrial revolution - Industry 4.0 - is probably very close to becoming a reality. It could be said that Industry 4.0 is the introduction of Internet technologies into industry, and the IoT is the motivation and the path to a fourth phase in the evolution of industry. In this sense, and taking into account the development and evolution of new technologies, the TeSP in Systems Development for the Internet of Things, at the Instituto Politécnico da Lusofonia, aims to respond to the needs of the market and employers, recognizing the importance of ensuring the existence of qualified technicians in the area of new technologies, able to develop automated and intelligent data processes and coordinated use of devices in the most diverse areas of activity.

Course Plan

Course Structure

1º Ano / No Branch

[Analogue Electronics](#) 5 ECTS | [English](#) 3 ECTS | [Fundamentals of Physics](#) 4 ECTS | [Introduction to Operating Systems](#) 4 ECTS | [Math Topics](#) 6 ECTS | [Object Oriented Programming](#) 4 ECTS | [Structured Programming](#) 4 ECTS | [Communication Technologies for Sensor Networks](#) 6 ECTS | [Data Communications and Computer Networks](#) 6 ECTS | [Digital Electronics](#) 6 ECTS | [Introduction to the Internet of Things](#) 4 ECTS | [Sensors and Actuators](#) 4 ECTS | [Soft Skills for Technology](#) 4 ECTS |

2º Ano / No Branch

[Embedded Systems](#) 6 ECTS | [Innovation and Entrepreneurship](#) 3 ECTS | [Mobile Device Programming](#) 5 ECTS | [Platforms and Architectures for Wireless Sensor Networks](#) 6 ECTS | [Technologies and Services for the](#)

[Internet of Things](#) 6 ECTS | [Web and Database Programming](#) 4 ECTS |
[Traineeship](#) 30 ECTS |