

CTESP | CURSO TÉCNICO SUPERIOR PROFISSIONAL



**Direction**

Luis Pires

**Number of Semesters**

4

**ECTS**

120

**About**

In recent decades, concerns related to increasing productivity, reducing working hours and increasing safety have sparked a growing interest in the areas of automation and robotics at various levels and in different areas. The production of quality items at lower costs has required solutions that involve very intensive technology involving more complex automation and

robotics systems. On the other hand, organisations and companies that add information technologies to their processes are growing the job market as there is a need to continually propose solutions that provide answers to the different problems that are emerging. In this context, the Higher Professional Technical Course (CTSP) in Automation and Robotics at the Polytechnic Institute of Lusophony aims to provide comprehensive and articulated training with the aim of equipping trainees with the knowledge, skills and attitudes to plan, programme, implement and guide different production tasks using automation technologies and industrial and mobile robotic equipment in order to optimise production quality and quantity. In particular, it aims to train qualified technicians with the skills to master the vast and interdisciplinary world of Industrial Automation, in order to be able to formulate and model an automatic manufacturing process.

## Course Plan

# Course Structure

### 1º Ano / No Branch

[Circuit Analysis](#) 5 ECTS | [Computer Tools](#) 3 ECTS | [Digital Systems](#) 5 ECTS | [English in a Professional Context](#) 3 ECTS | [General Physics](#) 3 ECTS | [Instrumentation](#) 6 ECTS | [Mathematics I](#) 5 ECTS | [Analogue Electronics](#) 5 ECTS | [Industrial Automation](#) 6 ECTS | [Introduction to Entrepreneurship, Innovation and Technology Transfer](#) 3 ECTS | [Mathematics II](#) 5 ECTS | [Microcontrollers](#) 5 ECTS | [Robotics Fundamentals](#) 6 ECTS |

### 2º Ano / No Branch

[Applied and Mobile Robotics](#) 6 ECTS | [Electrical Machines](#) 3 ECTS | [Fundamentals of Communications](#) 3 ECTS | [Integrated Project](#) 9 ECTS | [Production Management](#) 3 ECTS | [Programming Automats](#) 6 ECTS | [Traineeship](#) 30 ECTS |