# **Manuel Cobos Robles**

Industrial Engineer







Industrial Engineer specialized in Energy Engineering with experience in designing and installing photovoltaic systems, as well as skills in the Python programming language and PLC programming. Proficient in Spanish and English, and with basic knowledge of Portuguese.



**Domtesol**Energy Engineer
Malaga, Spain

- > Design and installation of photovoltaic systems of different sizes and complexities.
- > Coordination of projects, including planning, budget management, vendor selection, and supervision of installation team work.
- > Development of customized solutions to meet specific client needs, including systems with storage batteries, and grid-connected systems.

## Universidad de Malaga

September 2022 — September 2023

Malaga, Spain

**Automation Engineer** 

- ➤ Installation of a sensor system in an aerothermal heat pump.
- ➤ Integration of sensor data with Simatic S7-1500 PLC, incorporating Modbus RTU and TCP/IP protocols.
- > Development of a program in TIA Portal v17 for real-time data visualization on a HMI screen and storage in a database.



#### Universidad de Malaga

Graduated in Energy Engineering

## Universidad de Sevilla, Mobility Program

**Energy Engineering** 

## Universidade Federal Fluminense, Mobility Program

Electrical Engineering

Sept. 2017 — Sept. 2023 Malaga, Spain

Sept. 2021 — June. 2022 Seville, Spain

Aug. 2022 — Dec. 2022 Rio de Janeiro, Brazil



#### Coursera

- > Python Data Structures, University of Michigan.
- > Applied AI, IBM.

## AZ LANGUAGES

#### English

Cambridge B2 level.

#### **Spanish**

Native.

#### **Portuguese**

Basic portuguese due to university studies in Brazil.



## Design of a Cogeneration System in a Hospital

The objective of this project was to design a Combined Heat and Power system in a hospital to improve energy efficiency while meeting the hospital's energy demand requirements and reducing energy costs.

### **Automation using TwinCAT 3 software**

The goal of this project was to automate multiple machines within a station of an automation process using TwinCAT 3 software on a Beckhoff PLC. The process included the transportation of a bearing, height measurement, rejection of those with undesired height, and final transfer to the next station.



Programming Language: Matlab, Mathematica, Python, C++, MT<sub>E</sub>X.

Engineering Software: Fluent, Engine Simulation, Autocad, Cype, PVsyst.

Databases/Technologies: MySQL, Anaconda, Visual Studio.

**Office Suite:** Microsoft Excel, Microsoft Word.