Manuel Cobos Robles

Energy Engineer

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Personal website

Professional Summary

Energy Engineer 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.

Experience

Domtesol January 2023 — June 2023
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
Automation Engineer *Malaga, Spain*

- 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.

Education

Universidad de Malaga Sept. 2017 — Sept. 2023
Graduated in Energy Engineering *Malaga, Spain*

Universidad de Sevilla, Mobility Program Sept. 2021 — June. 2022
Energy Engineering *Seville, Spain*

Universidade Federal Fluminense, Mobility Program Aug. 2022 — Dec. 2022
Electrical Engineering *Rio de Janeiro, Brazil*

Training & Certification

Coursera

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

Languages

English
Cambridge B2 level.

Spanish
Native.

Portuguese
Basic portuguese due to university studies in Brazil.

Projects

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.

Skills

Programming Language: Matlab, Mathematica, Python, C++, LaTeX.
Engineering Software: Fluent, Engine Simulation, Autocad, Cype, PVsyst.
Databases/Technologies: MySQL, Anaconda, Visual Studio.
Office Suite: Microsoft Excel, Microsoft Word.