Manuel Cobos Robles

Industrial Engineer







Industrial Engineer specialized in Energy Engineering. Experience in the design and installation of photovoltaic systems. PLC programming for monitoring and data acquisition of aerothermal systems. Optimization of HVAC equipment and modeling of energy consumption for various types of buildings. I have a strong inclination for continuous learning and am naturally curious.



Domtesol January 2023 — May 2023

Energy Engineer internship

Malaga, Spain

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 May 2023 — September 2023

Automation Engineer internship

- ➤ 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.

BeeBryte

HVAC Optimization Engineer

September 2024 — Present

Lyon, France

▶ HVAC-R equipment optimization: Analyze and optimize the performance of HVAC-R systems.

- Model the site's consumption to establish reference curves.
- > Define and implement sensors and actuators to improve system control.
- > Data analysis and continuous improvement: Model energy consumption, detect anomalies, and enhance tools and processes.

EDUCATION

University Degree in Industrial Engineering

Sept. 2017 — Sept. 2023

Specialization in Energy Engineering

- > Universidad de Malaga
- > Universidad de Sevilla (Mobility program)
- ➤ Universidade Federal Fluminense (Mobility program)

Malaga, Spain Seville, Spain Rio de Janeiro, Brazil



Python Data Structures: University of Michigan.

AZ LANGUAGES

English: Advanced. **Spanish:** Native. **French:** Basic. **Portuguese:** Intermediate.



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. Using as its main energy generation source natural gas.

Person Detection

Artificial intelligence tool for the detection and recognition of people using the OpenCV framework. When the system detects a person, it emits a sound alarm and notifies via email or Telegram about the detection of an intruder, along with a photograph of the individual.

≅ SKILLS

Programming Language: Matlab, Mathematica, Python, C++, ŁTFX.

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

Databases/Technologies: PostgreSQL, Elasticsearch, Git, Anaconda, Visual Studio, Jupyter Notebook, Grafana.

Office Suite: Microsoft Excel, Microsoft Word.