



# Roberto Chello

PLC & AUTOMATION ENGINEER

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## Experience

### Elettra s.r.l.

PLC & AUTOMATION ENGINEER

Casagiove (CE), Italy

May 2025 – Current

End-to-end PLC engineering for industrial systems, covering software development, network/HMI integration, and commissioning, with emphasis on reliability, rapid diagnostics, and long-term maintainability.

- Designed, programmed, and commissioned PLC applications on **Siemens S7-1200/1500** using **TIA Portal** (LAD/FBD/SCL), with reusable blocks and consistent naming for maintainability.
- Supported **system testing and commissioning**, including I/O checks, safety validations, and servo drive setup, ensuring issue resolution until closure.
- Developed **WinCC** HMI pages with alarms, trends, and diagnostics to speed up troubleshooting and reduce intervention times.
- Integrated PLCs into plant networks via **PROFINET**: IP addressing, device naming, time synchronisation, and data exchange with SCADA/MES through **OPC UA**/Modbus TCP.
- Performed corrective and minor enhancement maintenance with versioned backups and structured change notes to ensure operational continuity.
- Worked with electrical and mechanical teams and suppliers to clarify requirements and close open points during execution.

## Skills

**Productivity** Microsoft Office · Google Workspace

**Development Tools** Visual Studio Code · Eclipse · IntelliJ IDEA

**Operating Systems & Virtualization** Windows 10/11 · Linux (Ubuntu/Mint) · macOS · VMware Workstation · VirtualBox

**Version Control** Git · GitHub

**Programming** C · C++ · Java · Python

**Scripting & Automation** Bash/Zsh · PowerShell · VBA · Excel Macros

**Industrial Automation & Control** PLC Programming (LAD · AWL · SCL) · TIA Portal · STEP 7 · MATLAB · Simulink

**Networking & Industrial Protocols** TCP/IP · VLANs · VPN (OpenVPN) · PROFINET · OPC UA · Modbus TCP

**Robotics & Simulation** ROS · ROS 2 · Dynamixel Protocol 2.0 · RoboDK · RViz · MoveIt!

**Documentation & Markup** L<sup>A</sup>T<sub>E</sub>X · TikZ · Markdown · Doxygen

**Languages** Italian (Native) · English (B2)

### Time management

Effective planning of tasks, deadlines, and priorities

### Teamwork

Collaboration with multidisciplinary teams and stakeholders

### Prioritization

Focus on high-impact tasks and workload management

### Problem-solving

Analytical and structured approach to problem resolution

### Ownership

End-to-end responsibility for tasks and deliverables

### Communication

Clear, concise communication tailored to the technical level

# Education

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## MSc in Computer Engineering – Robotics & Automation | LM-32

UNIVERSITY OF CAMPANIA "LUIGI VANVITELLI"

Aversa (CE), Italy

Sep. 2020 – Nov. 2024

**THESIS TITLE:** CONTROL STRATEGY FOR GRASP FORCE REGULATION AND SLIPPING AVOIDANCE FOR AN ANTHROPOMORPHIC ROBOTIC HAND

**DESCRIPTION:** Development of an advanced control system for the RH8D robotic hand, with Dynamixel-based drivers and ROS 2 integration, to improve dexterity and grasping. Tested on various objects and in industrial automation and collaborative robotics scenarios.

**GRADE:** 106/110

## Internship in Computer Engineering – Robotics & Automation

Aversa (CE), Italy

UNIVERSITY OF CAMPANIA "LUIGI VANVITELLI"

Mar. 2024 – Jun. 2024

**TITLE:** SIMULATION AND CONTROL OF THE SEED ROBOTICS ANTHROPOMORPHIC HAND AND RELATED TACTILE SENSORS IN ROS 2

**DESCRIPTION:** Simulation and control of the RH8D robotic hand and FTS3 sensors in ROS 2, using the Dynamixel library. Software and documentation are available in the ROS 2 repositories of the Robotics Lab at the University of Campania "Luigi Vanvitelli".

## BSc in Electronic and Computer Engineering | L-8

Aversa (CE), Italy

UNIVERSITY OF CAMPANIA "LUIGI VANVITELLI"

Sep. 2011 – Apr. 2020

**THESIS TITLE:** DESIGN AND IMPLEMENTATION OF A WEB APPLICATION FOR THE COMMON CRITERIA CERTIFICATION PROCESS (ISO/IEC 15408 STANDARD)

**DESCRIPTION:** Analysis of the ISO/IEC 15408 security standard, with a focus on Security Assurance Requirements (SAR) and Evaluation Assurance Levels (EAL). Development of a web application to catalog certifiable components according to the standard, emphasizing the importance of EAL in determining security levels.

**GRADE:** 82/110

In accordance with Regulation (EU) 2016/679 (GDPR) and Italian Legislative Decree No. 196/2003, as amended, I authorize the processing of my personal data for recruitment/selection purposes and for the management of the employment relationship.

