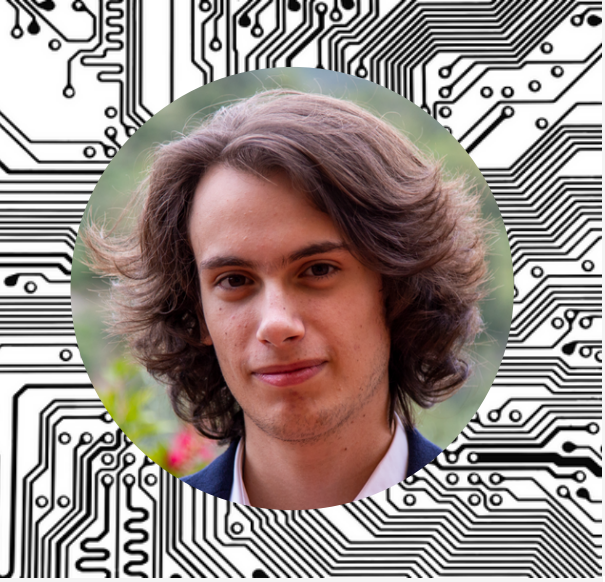

RICCARDO TESTA

Electrical Engineer

CONTACTS

+39 393 042 8728

riccardotesta.pi@gmail.com

riccardotesta.com

17021 Alassio (SV), Italy

ABOUT ME

Passionate about technology and photography, I am curious toward anything science-related. I am open to new professional and educational experiences and I would love to continue specializing in electronics and IoT.

SKILLS

PCB design
Power electronics
Electronics lab test automation
Cable harness
Designign and building robotics
electrical systems

LANGUAGES

Italian	Native
English	C2
Spanish	Basic

EDUCATION

PhD in Electromagnetism, Electronics and Telecommunication

Università degli Studi di Genova
2023 - Now

Project: "Innovative systems and algorithms for high-performance and reliable next-generation multidrop Ethernet networks over a single pair of conductors"
During my PhD I will study the IEEE 802.3 standard family and in particular 10BASE-T1S ethernet for automotive and industrial applications. In a second phase, I will develop and test innovative hardware architectures and algorithms for solving problems or implementing new features in this innovative network specification.

Electrical Engineering - Automation and Robot Technology

Technical University of Denmark
2021 - 2023

Thesis title: "Power Electronics Design with Remote Hardware Diagnostics for a Collaborative Mobile Robot", grade 12/12
During the thesis I developed an intelligent and modular power supply and monitoring system for an autonomous mobile robot. The system is comprised of 6 edge-mounted PCBs and a backplane that interconnects the PCBs with the robot. The system underwent numerous tests and simulations, additionally it was also tested in a EMC chamber.
The system was designed following the relevant IEC/ISO-EN standards, in order to be CE markable without additional revisions. Moreover, before the PCB and schematics design phase, the system has been simulated thoroughly using systems like LTPowerCAD II and LTSpice. After manifacturing and assembly, the system was tested to determine performance parameters like thermals and efficiency.

Industrial and Management Engineering

Università degli Studi di Genova
2017 - 2020

Thesis title: "A domain adaptation technique fault detection and isolation in fuel cells", grade 110/110

Scientific Diploma

Liceo Giordano Bruno
2012 - 2017

ADDITIONAL COURSES AND AWARDS

Open Source Chip Design - Digital FPGA and ASIC flow

Copenhagen, Danimarca

Dic 2022

4-hour course on IC design using an open source workflow thanks to the agreement etween Google, SkyWater Technology, GlobalFoundries and Efabless. The tools were showcased during the course, among them the Google PDK and the interoperability of the different tools.

Blue Dot Diploma - DTU

Kongens Lyngby, Danimarca

Ott 2022

Diploma awarded for participation in high-profile extracurricular scientific projects. The diploma was given to me for my involvement in DanSTAR in the development and construction of the Fornax rocket, a liquid bipropellant rocket entirely designed and built by students. Fornax is one of the most advanced student-built rockets in the world.

EDUCATIONAL EXPERIENCES

Danish Student Association for Rocketry

Kongens Lyngby, Denmark

2022 - 2023

Participation in the design, construction, and testing of Fornax, a liquid bipropellant rocket entirely designed by the association. During my time in the Association, I initially participated as a hardware designer and designed both auxiliary boards for the rocket's main functions and boards integrated into the flight computer. Subsequently, I took on the role of cable harness supervisor and its design, meticulously documenting all connections and considering signal integrity and critical temperature conditions. Finally, I joined the Association's Board of Directors and participated in managing activities, project planning, and member management. Fornax will be launched in October 2023 during the EuRoC 2023 competition with a target apogee of 9km and complete recovery of the vehicle and its payload.

Member of the Board of Directors

Skills acquired: Project planning, member and activity management.

Cable Harness Lead

Skills acquired: Cable harness design, cable selection considering mechanical and electrical external conditions, crimping, and assembly.

Electrical Engineer and Photographer

Skills acquired: PCB and schematic design, 3D design with SOLIDWORKS, PCB and sensor testing.

CEO e Founder

WattBoks | Kongens Lyngby, Denmark

2022

As part of the university course "X-Tech Entrepreneurship," I co-founded a startup aimed at automating home energy storage using market data and energy usage forecasts. I served as the CEO and was responsible for contacting potential partners, securing funding, and developing the electronics for the proof-of-concept prototype. As part of my duties, I also managed and organized tasks for a team of 6 students with various skills. Furthermore, the startup was selected as one of the top 5 finalists in the "Digital" category at VentureCup, the Danish national startup competition.

WORK EXPERIENCE

Consultancy

Independent Consultant

Sealand Capital | Copenhagen, Denmark

Apr 2023 - Now

Technical consulting for reverse engineering and product development from concept to market.

Independent Consultant

Simply Power | Copenhagen, Denmark

Nov 2022 - Jan 2023

Research work, initial implementation, and design of a framework for predicting market prices of FCR-N and FCR-D ancillary services.

Yuman

Kongens Lyngby, Denmark

Aug 2022 - Jun 2023

Yuman is an innovative autonomous mobile robotics startup that is developing a modular robot capable of handling object transport in a hospital environment, working alongside healthcare professionals and patients.

I began my journey at Yuman as a master's thesis student, and during this period, I also contributed to activities beyond my thesis. To continue these responsibilities, I was initially hired part-time, where I worked on the design of auxiliary PCBs with IMU, cable harness design, and rapid prototyping of new robot iterations.

Finally, after completing my master's degree, I was hired full-time, and my duties included PCB and hardware system design for the safe operation of the robot, 3D and 2D wiring design using SOLIDWORKS, cable selection, and wiring assembly. Additionally, I programmed in C++ to establish communication on the Linux CAN bus between a battery, a computer, and a ROS node.

- Lead Electrical Engineer
- Part-Time Electrical Engineer
- Master's Thesis Student

IT and Websites

Website Manager

4Rheuma

2019 - Now

Updating and maintaining the association's website.

IT Manager

Fisiocampus | Savona, Italy

2018 - 2019

IT Manager for the international congress PSIM 2019 held at the Savona Campus. My responsibilities included:

- Building and maintaining a Moodle-based website.
- Creating C# software to automate the compilation process of the book of proceedings.
- Setting up projectors, PCs, and microphones, designing PowerPoint layouts, and providing technical support.

Denmark Technical University

Teaching Assistant

2022 - 2023

Teaching Assistant in the "X-Tech Entrepreneurship" course, where student groups create startups and develop them over a 13-week period, seeking funding and reaching out to potential clients for their solutions.

I provided technical and business mentorship and acted as a facilitator, overseeing a total of 9 startups across two semesters. Additionally, I organized events for expos and final course exams.

Photographer

2022 - 2023

Photographer for the "X-Tech Entrepreneurship" and "Innovation in Engineering" courses.

Università di Genova

Part-Time Collaboration

Università degli Studi di Genova | Savona, Italy
2019- 2021

I worked as a part-time employee for two years as 150-hour collaborator, and performed the following tasks: building and maintaining computers, data analysis using Excel, wiring, and organizing server racks and switches. Additionally, I served as an English guide for international guests visiting the Savona Campus and its Smart Polygeneration Microgrid on multiple occasions.

EDUCATIONAL AND WORK STAGES

Stage

Università degli Studi di Genova | Savona, Italy
Jun - Aug 2016

Duties:

- Building and maintaining computers.
- Data analysis using Excel.
- Creating a model to assess the sustainability of a building powered solely by solar panels, utilizing historical data.
- Wiring and organizing server racks and switches.

Scienctific Communicator

Associazione Festival della Scienza | Genova, Italy
October 2016

Scientific communicator at the "I Love Physics" exhibit. As part of my duties, I acted as an English-Italian interpreter for international guests visiting the exhibit.

Stage

CERSAA | Albenga, Italy
May- Jun 2015

Work in a chemical merchandise and microbiological laboratory, which includes water analysis, formaldehyde analysis, and testing for the presence of Legionella Pneumophila.

TRATTAMENTO DATI

Autorizzo il trattamento dei miei dati personali ai sensi del Dlgs 196 del 30 giugno 2003 e dell'art. 13 GDPR

Savona, 25/09/2023