



## Marino Calefati

**Address:** Via Trieste , 214, 70042, Mola di Bari, Italy

**Email address:** [marinocalefati1998@outlook.it](mailto:marinocalefati1998@outlook.it)

**Phone number:** (+39) 3469426424

**LinkedIn:** [www.linkedin.com/in/marino-calefati-884b61206](http://www.linkedin.com/in/marino-calefati-884b61206)

**Gender:** Male **Date of birth:** 25/04/1998 **Nationality:** Italian

### WORK EXPERIENCE

[ 05/05/2022 – Current ] **Postgraduate research scholarship**

***Polytechnic of Bari***

**City:** Bari

**Country:** Italy

**Main activities and responsibilities:**

Public-private laboratory "IOT 4.0 (LPPI 4.0)" between Eletttric 80 s.p.a., SM.I.L.E. 80 s.r.l., ISIRES - Research organization s.r.l. and Polytechnic of Bari.

Winner of the postgraduate research scholarship concerning the activity of "Rerouting algorithms for the strategic simulation of autonomous vehicle routes".

[ 07/03/2016 – 25/03/2016 ] **School-work alternance**

***MERMEC S.p.A.***

**City:** Monopoli

**Country:** Italy

**Main activities and responsibilities:**

Wiring of electrical panels

[ 02/03/2015 – 20/03/2015 ] **School-work alternance**

***ICAM srl***

**City:** Putignano

**Country:** Italy

**Main activities and responsibilities:**

Wiring of electrical panels

[ 03/2018 – 09/2019 ] **Assistant cook**

***Zari Pub***

**City:** Mola di Bari

**Country:** Italy

[ 2020 – Current ] **Master's Degree in Automation Engineering**

**Polytechnic of Bari** <http://www.poliba.it>

**Address:** Via Edoardo Orabona 4, 70126, Bari, Italy

**Main subject / occupational skills covered:**

Projects:

- A Decentralized Noncooperative Control Approach for Sharing Energy Storage Systems in Energy Communities

Course: Dynamical Systems Theory

This project focuses on the optimal scheduling of the charging and discharging strategies of a community energy storage system, which is shared by the prosumers belonging to a grid-connected energy community. A novel control mechanism based on noncooperative game theory was implemented in Matlab. Subsequently, an article related to this topic was published.

- Motion analysis of a heavy spinning top

Course: Applied Mechanics - Rigid Body Dynamics

The motion of a symmetrical heavy top was studied both through a resolution of the differential equations obtained from the second cardinal equation of dynamics, and through the study, conducted in parallel, of the Lagrangian. Both methods have been implemented in MATLAB.

- Design of a home alarm system with FPGA

Course: Digital Programmable Systems

A home automation alarm system was designed using the VHDL language, implementing it on FPGA.

- Algorithms for collision avoidance of industrial manipulators

Course: Robotics - Industrial Handling

In this project, two algorithms for collision avoidance route planning were analyzed, in particular RRT and BiRRT. Using the Robotics System Toolbox and the Navigation Toolbox it was possible to simulate both algorithms with robots and different environments, creating tasks of increasing complexity. Finally, the two algorithms were compared from the performance point of view.

[ 2017 – 2020 ] **Bachelor's Degree in Electronics and Telecommunications Engineering**

**Polytechnic of Bari** <http://www.poliba.it>

**Address:** Via Edoardo Orabona 4, 70126, Bari, Italy

**Final grade:** 110/110 cum Laude

**Thesis:** Automatic control for safe collaborative robotic applications

[ 2012 – 2017 ] **Technical Institute**

**Vito Sante Longo** <https://www.iisstecnicomonopoli.it>

**Address:** Via Cesare Beccaria , 70043, Monopoli, Italy

**Field(s) of study:** Electrical engineering and electronics

**Final grade:** 100/100

## COURSES

---

[ 07/2015 – 08/2015 ] **Trinity College London**

LAL School, Londra, Regno Unito

## CERTIFICATIONS

---

[ 22/04/2021 ] **MATLAB Onramp**

<https://matlabacademy.mathworks.com/progress/share/certificate.html?id=f42ab6ee-a751-47b4-b597-53a829830d7e&>

[ 11/08/2015 ] **Trinity College London**

Grade 6

LAL London - July 2015

Certificate issued 11 August 2015

[ 01/2022 ] **Cybersecurity Fundamentals**

Issued by: Exprivia

Badge for issuing certification of skills during participation in the Cybersecurity Fundamentals course and passing the final test.

Acquisition of fundamental skills necessary to understand the attack methodologies used, risk scenarios, security controls and processes and organizations to execute the processes in a Cybersecurity scenario.

<https://app.myopenbadge.com/receive/YjXgxVJW-749589e4f6cced08aa8ef37adfa625d2-2h3WgLrHzA-71643280760/SjVhPCTwdXM-2669d46ad0ad4deb54481f00f3707342-Qgb3Srw-9/public>

## PUBLICATIONS

---

[ 2021 ]

### **A Decentralized Noncooperative Control Approach for Sharing Energy Storage Systems in Energy Communities**

Calefati, M.; Proia, S.; Scarabaggio, P.; Carli, R.; Dotoli, M., "A Decentralized Noncooperative Control Approach for Sharing Energy Storage Systems in Energy Communities", Systems, Man, and Cybernetics, 2021 IEEE International Conference on (SMC 2021), October 17-20, Melbourne, Australia, pp. 1430-1435. doi: 10.1109/SMC52423.2021.9658851

<https://ieeexplore.ieee.org/document/9658851>

## DIGITAL SKILLS

---

MATLAB/MATLAB Simulink | Python | VHDL per FPGA | OrCAD Capture | OrCAD PCB Designer | LaTeX | Microsoft Office

## LANGUAGE SKILLS

---

**Mother tongue(s):** Italiano

**Other language(s):**

**Inglese**

**LISTENING** B2 **READING** B2 **WRITING** B2

**SPOKEN PRODUCTION** B2 **SPOKEN INTERACTION** B2

## DRIVING LICENCE

---

**Motorbikes:** A1

**Cars:** B

## VOLUNTEERING

---

**Legambiente**

## HOBBIES AND INTERESTS

---

**Judo**

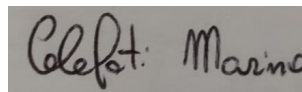
**Football**

**Padle**

---

*In compliance with the GDPR and the Italian Legislative Decree no. 196 dated 30/06/2003, I hereby authorize you to use and process my personal details contained in this document.*

Mola di Bari, 01/06/2022



Marino Calefati