

FRANCESCA PIZZIMENTI

Electrical Engineer & PhD Student in Power Electronics

@ francesca.pizzimenti@uniroma1.it
Francesca Pizzimenti

Via delle Sette Sale 12B, 00184

Roma (RM), Italy



ABOUT ME

As a PhD student in Power Electronics, I am currently involved in the design, control and testing of power electronic converters for High Voltage Direct Current (HVDC) transmission systems with point-to-point and multi-point configuration. My research activity relies on the design and control of modular multilevel converters employing both silicon and wide-bandgap semiconductor devices, in particular silicon carbide (SiC) power devices.

EXPERIENCE

Visiting PhD Student

University of Nottingham

Jul 2023 – Dec 2023 Nottingham, UK

- Visiting PhD Student at the Power Electronics and Machines Centre.
- Six months research activity on the high voltage (up to 30 kV) silicon carbide (SiC) power devices for HVDC and STATCOM applications.

Industrial PhD Student

Terna S.p.A

Jan 2023 – Ongoing Rome, IT

- Industrial PhD Student at the "Equipment Studies and Calculations" of the Italian Transmission System Operator (TSO) Terna S.p.A.
- Eighteen months research activity on the design, control and testing of a reduced scale low voltage mock-up of a multi-terminal VSC-HVDC transmission system.

Teaching Assistant

Sapienza University of Rome

Feb 2022 – Ongoing Rome, IT

- Teaching Assistant for the "Power Electronics" courses given at the Erasmus Mundus Joint Master Degree-STEPS programme and Electrical Engineering Bachelor Degree.

Collaboration Scholarship

Sapienza University of Rome

Jan 2020 – Feb 2021 Rome, IT

- Collaboration scholarships for the international sector of the Civil and Industrial Engineering Faculty.

EDUCATION

PhD in Electrical Engineering

Sapienza University of Rome

Jan 2022 – Ongoing

M.Sc in Electrical Engineering

Sapienza University of Rome

Sept 2019 – Oct 2021

Grade: Summa cum laude

Thesis title: "Study of cooling methodologies for power electronic converters employing gallium nitride (GaN) transistors"

B.Sc in Energy Engineering

Sapienza University of Rome

Sept 2015 – March 2019

Grade: 107/110

Thesis title: "Economic and technical evaluation of the use of storage systems concentrated in a secondary substation"

ACHIEVEMENTS

Young Female Student/Professional Award
IEEE Industrial Electronics Society-Italy Chapter

Best PhD Student Poster
PhD student poster session of IEEE-EEEIC 2023 conference

Best PhD Student Poster
PhD student poster session of IEEE-EEEIC 2022 conference

Qualified Industrial Engineer
Professional qualification for the Italian standards

PROFESSIONAL SKILLS

Microsoft Office Pack Matlab PLECS PSIM
PSCAD Ansys Maxwell ATP-EMTP AutoCAD

LANGUAGES

Italian
English

