

PERSONAL INFORMATION

Maria Carmela Di Piazza



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Enterprise	University	EPR
<input type="checkbox"/> Management Level	<input type="checkbox"/> Full professor	<input checked="" type="checkbox"/> Research Director and 1st level Technologist / First Researcher and 2nd level Technologist
<input type="checkbox"/> Mid-Management Level	<input type="checkbox"/> Associate Professor	<input type="checkbox"/> Level III Researcher and Technologist
<input type="checkbox"/> Employee / worker level	<input type="checkbox"/> Researcher and Technologist of IV, V, VI and VII level / Technical collaborator	<input type="checkbox"/> Researcher and Technologist of IV, V, VI and VII level / Technical collaborator

WORK EXPERIENCE

Jan. 2021 to present

First Researcher

Italian National Research Council (CNR) Institute of Marine Engineering (INM) unit of Palermo

- Participant, also with the role of scientific coordinator, in several scientific projects and activities within the CNR.
- Track chair for international conferences
- Member of several national and international technical panels/working groups
- Guest editor/member of steering committee of international scientific journals

Business or sector: Research

Dec. 2001 to Dec. 2020

Permanent-staff Research Scientist

Italian National Research Council (CNR) Institute of Marine Engineering (INM) unit of Palermo, former CNR - ISSIA

- Responsible (acting on behalf of the director) for Palermo Operating Unit of CNR –ISSIA (Oct. 2014–Dec. 2016)
- Participant, also with the role of scientific coordinator, in several scientific projects and activities within the CNR.
- Supervisor of several research grants, internships, MSc and doctoral theses.
- Topic/track chair and session chair for international conferences.
- Co-author of over 150 scientific publications, including papers published in international ISI journals and in international conference proceedings, a book and three book chapters
- Member of several national and international technical panels/working groups
- Guest editor of international scientific journals

Business or sector: Research

Sept. 2000 to Dec. 2004

Adjunct Professor

Faculty of Engineering, University of Palermo, Italy

Charged of conducting the following courses: “Electrical Machines”, “Quality and Reliability of Electrical Systems”, “Complements of Electrical Machines and Electrical Systems”

Business or sector: Academic

EDUCATION AND TRAINING

Nov. 1997 to Nov. 2000

PhD in electrical engineering

EQF level 8

University of Palermo, Italy

- Subject covered: power electronics and electrical drives, electromagnetic conducted emission, reliability of electrical machines, power quality
- Research stays: visiting scholar at University of Nottingham (UK), Department of Electrical & Electronic

Sept. 1991 to Jul. 1997

Engineering (Dec. 1999- March 2000)
MSc in electrical engineering
University of Palermo, Italy

- Electrical engineering fundamentals, Electrical systems, Control systems, Electrical Machines, Power electronics

QUALIFICATIONS AND RECOGNITIONS

- 2012: Elevation to Senior Member IEEE grade
- 2013: Qualification as Associate Professor of "Electrical Energy Engineering" (MIUR selection, DD n.222/2012).
- 2017: Shortlisting for the Best Paper Award at the 26th IEEE International Symposium on Industrial Electronics (ISIE 2017)
- 2020: Third prize paper award recognized by IEEE IAS (Industry Applications Society) Industrial Drives Committee

ADDITIONAL INFORMATION

Coordination of Funded Research Projects related to maritime transport (last 10 years)

- "TecBIA: Low Environmental Impact Technologies for the production of energy on ships". Contract between CNR and Fincantieri S.p.A. within the funding programme of the Italian Ministry of Economic Development (MISE) Decree 01.06.2016 (budget OR9: 220k€). Project duration: Oct. 2018-Sept. 2022. **Role:** Scientific Leader of the OR9
- "Technological Leadership"-Innovative Electrical Generation" (GEI)
Contract between CNR and Fincantieri S.p.A. within the funding programme of the Ministry of Infrastructure and Transport (MIT) 10.6.2015 n. 196 (budget of the project 1.547 k€). Project duration: Jan. 2017-Dec. 2018. **Role:** Project Manager
- "Flagship Project RITmare"
Funded by MIUR in the framework of National Research Programme (PNR) 2011-2013
UO SP1-WP3-A6-UO04 (Study of the interactions between signal and power circuits on board), and UO SP1-WP3-A6-UO05 (Control of electromagnetic emissions on board). Budget of the UOs: 300 k€. Project duration: 2012-2016. **Role:** Scientific Leader of the two UOs
- TESEO – "High efficiency technologies for energy and environmental sustainability on board"
PON02_00513: Activity 1.4.4 "Analysis and design of power conversion systems (DC/AC e DC/DC)". Project duration: 2011-2015. **Role:** Scientific Leader of the Activity 1.4.4

PUBLICATIONS

1. M. C. Di Piazza, M. Luna, G. La Tona, A. Accetta, M. Pucci and A. Pietra, "Shipboard microgrids: comparison of solutions based on LVDC distribution on cruise ships," 2021 IEEE International Conference on Environment and Electrical Engineering (IEEEIC / I&CPS Europe), 2021, pp. 1-6, doi: 10.1109/IEEEIC/ICPSEurope51590.2021.9584742G.
2. La Tona, M. Luna, M. C. Di Piazza and A. Pietra, "Energy Management System for Efficiency Increase in Cruise Ship Microgrids," IECON 2019 - 45th Annual Conference of the IEEE Industrial Electronics Society, 2019, pp. 4056-4062, doi: 10.1109/IECON.2019.8927314.
3. M. Pucci, A. Accetta, M. C. Di Piazza, M. Luna, G. L. Tona and A. Pietra, "Electric Ship Propulsion Improvement by Increasing Efficiency of Adjustable-Speed Motor Drives," 2018 IEEE International Conference on Environment and Electrical Engineering (IEEEIC / I&CPS Europe), 2018, pp. 1-5, doi: 10.1109/IEEEIC.2018.8494207.
4. M. C. Di Piazza, M. Luna, G. La Tona, M. Pucci, A. Accetta and A. Pietra, "A New Method for Selecting the Voltage Level for an Advantageous Transition to DC Distribution in Ships," 2018 IEEE International Conference on Electrical Systems for Aircraft, Railway, Ship Propulsion and Road Vehicles (ESARS-ITEC), 2018, pp. 1-5, doi: 10.1109/ESARS-ITEC.2018.8607438.
5. A. Accetta, M. C. Di Piazza, G. La Tona, M. Luna and M. Pucci, "Electric Ship Propulsion with Induction Motor Drive and Li-Ion Battery based Back-up Capability," 2018 IEEE International Conference on Electrical Systems for Aircraft, Railway, Ship Propulsion and Road (ESARS-ITEC), 2018, pp. 1-6, doi: 10.1109/ESARS-ITEC.2018.8607532.

Palermo, 08/04/2024

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