

CURRICULUM VITAE

of

Susanna Mocci

Susanna Mocci earned her summa cum laude Degree in Electrical Engineering from the University of Cagliari in 2001 and completed her Ph.D. in Industrial Engineering in 2005. From 2005 to 2018, she was a research fellow at the Department of Electrical and Electronic Engineering at the University of Cagliari.

Since December 2023, she is Associate Professor in Power Systems at DIEE-UNICA.

She's a co-founder of the university spin-off RESPECT S.r.l. (Renewable Energy Smart Power and Clean Technology), a consultancy firm specializing in renewable energies and energy efficiency. From 2017 to 2023, she served as the President of the Board of Directors of RESPECT Srl.

From 2019 to 2023, she held the position of "Technical-Scientific Consultancy aimed at developing models for AT and MT storage systems, innovative electrical networks, application of electrical system flexibility in Ancillary Services markets, and Energy Management Systems (EMS)", within joint research between UniCA-EnSiEl. From 2014 to 2016, she was a Member of the Smart Grids European Technology Platform (ETP SmartGrids) - WG1: "Network operation and assets."

She currently serves as the President of the Sardinian Section of AEIT (Italian Association of Electrical, Electronics, Automation, Informatics, and Telecommunications - www.aeit.it) and is a member of the Institute of Electrical and Electronic Engineers (IEEE). She's also a member of the StoRES Project Consortium (<https://stores.interreg-med.eu>) and the Renewable Energy Community (<https://renewable-energies.interreg-med.eu>).

Publications[Scopus](#)[Scholar](#)**Main Research Areas**

Her extensive research in power systems has led to a high number of publications in national and international journals and conference proceedings. Her main research themes include:

Planning and management tools for active distribution networks:

- Implementation of probabilistic methodologies, decision theory, multi-objective programming, and trade-off analysis.
- Dynamic programming methodologies to identify a set of solutions (Pareto set) in long-term planning and determine intervention strategies to minimize distribution network investments.
- Reliability studies and planning of distribution networks considering system aging and its correlation with component failure rates.

Management of active distribution networks and innovative network schemes:

- Study of innovative network schemes for better distributed generation integration (Microgrids, intentional islands).
- Load management models and demand integration policies (ECORET Project).
- Models of energy storage systems and electric mobility (e-visiØn Project).
- Decentralized control systems (MAS, Multi-Agent Systems) for Smart Grids.
- Aggregation, coordination, and optimization of distributed energy resources using IoT and Cloud systems to provide dispatching services to the electric distributor (VIRTUALENERGY Project).
- Smart microgrids in port areas for efficient energy management through renewable integration and sustainable electric mobility (POSEIDON Project).

Impact of renewable energy sources on electrical systems:

- Integration of RES in distribution and transmission networks.

- Study of electric mobility development and widespread adoption of generation and storage systems in distribution networks (e-visiØn, Birdies Projects).
- Development of optimal policies for effective integration of photovoltaic systems and energy storage in residential areas through smart solutions in Mediterranean islands and rural areas (EU InterregMED StoRES Project) and in public buildings through the development of nanogrid concepts (EU CBCMED BERLIN Project).