

CURRICULUM VITAE

of

Giuditta Pisano

From November 2022 Giuditta Pisano is Associated Professor in Power Systems at the Dept. Of Electrical and Electronic Engineering DIEE of the University of Cagliari (area 09/E2 profile ING-IND/33 – Power systems).

Scientific and professional qualifications

- 2006, PhD in Industrial Engineering (University of Cagliari - Italy).
- From 2020, secretary of the Italian Chapter of the Institute of Electrical and Electronics Engineers (IEEE) Power and Energy Society.
- 2014 and 2018, Qualification for the role of Associate Professor on Power Systems, valid until 04/12/2025 and 05/11/2029.
- 2002, Qualification for professional engineering activities.

Research and Working Experience

- 2023 Expert commissioned by JRC (EU Commission) for the activity titled: Support the development of an assessment framework for candidate smart electricity grids and electricity storage projects.
- 2022-2023, Independent Expert on Cost-Benefit analysis commissioned by ARERA (Italian Regulatory Authority for Energy, Networks and Environment) for evaluating one project included in the "National Electricity Transmission Grid Development Plan" of 2021. ARERA resolution n. 3/2022
- 2019-2022 Assistant professor (tenure track) on Power Systems at the DIEE of the University of Cagliari as per article 24, paragraph 3, point b of Italian law no. 240/2010 (area 09/E2 profile ING-IND/33).
- 2019, Independent Expert on Cost-Benefit analysis commissioned by ARERA and TERNA for evaluating two projects included in the "National Electricity Transmission Grid Development Plan" of 2017. ARERA resolution n. 14/2018
- 2017-2019 Assistant professor (fixed term) on Power Systems at the DIEE of the University of Cagliari as per article 24, paragraph 3, point a of Italian law no. 240/2010 (area 09/E2 profile ING-IND/33).
- 2012 - 2017 Assistant professor (fixed term) on Power Systems at the DIEE of the University of Cagliari as per article 24, paragraph 3, point a of Italian law no. 240/2010 (area 09/E2 profile ING-IND/33).
- 2006 – 2012 Research Fellow at the University of Cagliari (Italy). Winner of 3 research grants at the University of Cagliari. Research themes: distributed generation, control and optimisation; electric vehicles; renewables integration; microgrids.
- 2010 - 2019 CEO of RESPECT Renewable Energy Smart Power and Clean Technology Srl, a spin-off company of the University of Cagliari (Co-founder in / member from 2008).

Teaching Activity

- Form A/Y 2012-2013 Lecturer of the Course titled "Power and Electrical Safety in Hospital", University of Cagliari, Bachelor's Degree in Biomedical Engineering of the University of Cagliari (5 ECTS)
- Form A/Y 2022 - 2023 Co-Lecturer of the modules "Terna and Electricity Market" and "Electrical Engineering", postgraduate (II level) Master's degree on Power system digitalisation for energy transition.
- A/Y 2022 - 2023 Co-Lecturer of the Courses titled "Electrical Power Systems" (6 ECTS) and "Fundamentals of Electrical Power Distribution and Smart Grids" (6 ECTS), Bachelor's Degree in Electrical, Electronic and Computer Engineering of the University of Cagliari
- 2009 Lecturer of the Laboratory titled "Mechanical design of overhead power lines", University of Cagliari, Master's Degree in Electrical Engineering (2 ECTS).
- Lecturer of courses (provided by private and public bodies) on themes related to smart grids, energy efficiency, renewables, home and building automation, cloud computing, smart technologies and applications.

Research interests

The research activity of Giuditta Pisano is demonstrated by over 100 scientific papers (<https://iris.unica.it>), published in international Journals or conference proceedings. 80 papers are indexed in SCOPUS - h-index 19, 1299 citations (Jan 2024). The most important research fields investigated are briefly summarised in the following:

- Impacts of climate change and assessment of the resilience of distribution systems
- Flexibility assessment and market participation of Distributed Energy Resources.
- Planning and Operation of innovative electric distribution system and smart grids (impact of Distributed Generation, storage devices, electric vehicles and renewable energy sources).
- Distribution Systems State Estimation (state estimation algorithms, harmonic state estimation, optimal placement of measurement devices, impact on the operation of distribution management systems, dynamic estimation).
- Co-simulation of power and communication systems (impact of state estimation and communication media in Smart Grid operation).
- Power Quality of distribution networks (optimal planning algorithms to reduce the voltage dips in distribution networks).
- Artificial neural networks to optimise the schedule of generators and responsive loads of a group of industrial and commercial customers aggregated in a Microgrid.