

CURRICULUM VITAE

of

Carlo Muscas

Carlo Muscas was born in Cagliari (Italy) in 1969. He received the M.S. degree (cum laude) in Electrical Engineering in 1994 at the University of Cagliari, where he was Assistant Professor, from 1996 to 2001, and Associate Professor, from 2001 to 2017, in the “Electrical and Electronic Measurements”. Since 2017 he has been Full Professor of Electrical and Electronic Measurement at the same University.

INSTITUTIONAL POSITIONS

- From 2021 to date: Director of the Department of Electrical and Electronic Engineering at University of Cagliari.
- From 2018 to 2021: Vice-Director of the Department of Electrical and Electronic Engineering at University of Cagliari.
- From 2015 to 2018: Coordinator of the Council for the Electrical, Electronic and Computer Engineering B.Sc degrees (Corso di Laurea in Ingegneria Elettrica, Elettronica e Informatica) at the Faculty of Engineering and Architecture, University of Cagliari.
- From 2010 to 2015: Chairman (from June 2012 referred to as Coordinator) of the Council for the Electrical Engineering degrees (Corso di Studi in Ingegneria Elettrica) at the Faculty of Engineering (from June 2012 Faculty of Engineering and Architecture), University of Cagliari.
- From 2007 to 2010: Secretary of the Council for the Electrical Engineering degrees at the Faculty of Engineering, University of Cagliari.
- From 2001 to 2007: elected to represent the associate professors in the Integrated Academic Senate of the University of Cagliari.
- From 2001 to date: Member of the Board (Collegio dei Docenti) of the PhD school in Electrical Engineering and Computer Science at the University of Cagliari and supervisor of several Ph.D. Students.

SCIENTIFIC ASSOCIATIONS

- From 2021 to date: Member of Board of Directors of SGSMA Association (Smart Grid Synchronized Measurements and Analytics)
- From 2015 to date: Chairman of technical committee TC 39 (Measurements in Power Systems) of IEEE Instrumentation and Measurement Society.
- From 2016 to date: Member of Steering Committee of GNSS Consortium (Global Network for Synchrophasor Solutions)
- From 2017 to date: Co-convenor of Joint Working Group IEC TC38/WG55 & IEEE/TC39 for Standard P61869-105 (Recommended Practice for Uncertainty Evaluation in the Calibration of Instrument Transformers)
- From 2009 to 2014: Vice-Chair of technical committee TC 39 (Measurements in Power Systems) of IEEE Instrumentation and Measurement Society.
- From 2008 to 2011: Coordinator of the section “Education in Measurement” of GMEE.
- From 2006 to 2008: Member of the Education Committee (Commissione Didattica) of the GMEE.
- Coordinator of the Research Unit of Cagliari of GMEE (Associazione Italiana Gruppo Misure Elettriche ed Elettroniche).
- Member of the Board of Directors (Consiglio direttivo) of the GMEE.
- Senior Member of IEEE.

ORGANIZATIONAL ACTIVITIES

- General Co-Chair of the IEEE International Workshops on Applied Measurements for Power Systems (AMPS), 11 editions since 2010 (eight editions in Aachen, Germany, one in Liverpool, UK, one in Bologna, Italy, and one as a virtual event).

- Member of Executive Committee of IEEE International Conference on Smart Grid Synchronized Measurements and Analytics (SGSMA)
- Associate Technical Program Committee chair for track “Instrumentation and Measurement for the Energy and Power Industry” in International Conference IEEE I2MTC 2023
- Associate Technical Program Committee chair for the topic “Energy and Power Systems” for the International Conference IEEE I2MTC, from 2015 to 2019.
- Head of the Organizing Committee of the International Workshop “Angelo Barbagelata”, seventh edition of the Workshop on Power Definitions and Measurements under Non-Sinusoidal Conditions, Cagliari, July 2006.
- Coordinator of the Organizing Committee of the Congress GMEE 2003 (XX Annual Meeting of GMEE, Gruppo Misure Elettriche ed Eletttroniche), Villasimius (Cagliari), September 2003.
- Organizer of the special session “Measurements for electric energy grids” in the International Conference Energycon 2012, Florence (Italy), September 2012.
- Co-organizer and chairman of the Special Session “Distributed systems for monitoring, diagnosis and control of electrical power systems” in the International Conference IEEE I2MTC 2008, Victoria (Canada), May 2008.

EDITORIAL ACTIVITIES

- From 2021 to date: Associate Editor of IEEE Open Journal of Instrumentation and Measurement.
- From 2010 to 2021: Associate Editor of IEEE Transactions on Instrumentation and Measurement (in 2011, 2012, 2013, 2014, 2015 and 2016 acknowledged as “Outstanding Associate Editor”).
- Guest Editor of the Special Section on “Fundamentals of Measurements for Power Systems”, IEEE Transactions on Instrumentation and Measurement (Vol. 62, N° 8, 2013).
- Guest Editor of eight Special Sections on “Applied Measurements for Power Systems”, IEEE Transactions on Instrumentation and Measurement (from 2011 to 2018).
- Guest Editor of “Electrical Power Quality and Utilization Journal”, Special Issue on Seventh Workshop “Angelo Barbagelata” on Power Definitions and Measurements under Non-Sinusoidal Conditions, Volume XIII, N. 1, 2007.
- Reviewer for the following International journals: “IEEE Transactions on Instrumentation and Measurement”, “IEEE Transactions on Smart Grids”, “IEEE Transactions on Power Delivery”, “IEEE Transactions on Power Systems”, “IEEE Instrumentation and Measurement Magazine”, “IET Generation, Transmission & Distribution”, “Electrical Power Quality and Utilization Journal”, “Measurement Science and Technology”, “Measurement”. In 2008 and 2014 acknowledged as “Outstanding Reviewer” of the IEEE Transactions on Instrumentation and Measurement. In 2015 acknowledged as Top Reviewer of Elsevier journal “Sustainable Energy Grids and Networks”

RESEARCH PROJECTS AND CONTRACTS

- 2004: local coordinator of the Projects PRIN financed by Italian Ministry of University “Sensor networks for the monitoring and management of electric networks in the presence of distributed generation by renewable energy sources”).
- 2006: local coordinator of the Projects PRIN financed by Italian Ministry of University “Distributed measurement systems for the monitoring of electric distribution networks: design, setting-up, metrological characterization and optimal placement of the measurement stations”.
- 2007: scientific director of the research contract between SELT srl and Department of Electrical and Electronic Engineering at University of Cagliari “Specifications and control logic of a distributed system for the management of renewable energy sources”.
- 2008: local coordinator of the Projects PRIN financed by Italian Ministry of University “Robustness of distributed measurement methods and systems for monitoring, control, management and protection of electric power networks”).
- 2010: scientific director of the research contract between Officine Magro and Department of Electrical and Electronic Engineering at University of Cagliari “Monitoring of the quality of electricity supply and verification of electrical systems installed in the mechanic’s workshop”.

- 2012: scientific director of the research contract between E.ON Research Center RWTH Aachen University and Department of Electrical and Electronic Engineering at University of Cagliari “Analysis of a PV plant in Italy, identification of causes for under-performance and of corrective measures”.
- 2013: scientific director of the research contract between Consorzio Industriale Provinciale Medio Campidano and Department of Electrical and Electronic Engineering at University of Cagliari “Monitoring of energy consumption and power quality in the MV and LV electric plant of the R.S.U. plant in the industrial area of Villacidro”.
- 2015: scientific director of the research contract between TERNA SpA and Department of Electrical and Electronic Engineering at University of Cagliari on “Metrological characterization and experimental analysis of PMUs”.
- 2017: scientific coordinator of research unit at Department of Electrical and Electronic Engineering at University of Cagliari for the project “UMR-BT (Remote Monitoring Unit – Low Voltage), in partnership with REPL Italia Srl, funded by Sardegna Ricerche – RAS (Autonomous Region of Sardinia)
- 2017: scientific director of research contract between TERNA SpA and Ensiel consortium (unity of Department of Electrical and Electronic Engineering at University of Cagliari) on “Innovative solutions for distributed and synchronized measuring systems for the dynamic analysis of electrical network”.
- 2018: principal investigator of the Project funded by RAS (Autonomous Region of Sardinia) entitled “Real time Non-Intrusive Load Monitoring for smart management of electric loads”.
- 2020: scientific director of research contract between TERNA SpA and Ensiel consortium (unity of Department of Electrical and Electronic Engineering at University of Cagliari) on “WAMS, PQM and DFR measurement systems for monitoring electrical networks”.
- 2023: coordinator of Task 6.2 (Smart Monitoring and management of multi vector energy systems) in Spoke 7 of "Ecosistema innovazione Regionale" (Italian PNRR funded project)

BIBLIOMETRIC INDICATORS (from SCOPUS database, April 21, 2023)

- Number of documents: 193
- Number of citations: 3618
- h-index: 34