

CURRICULUM VITAE
Sara Sulis

Sara Sulis is an Associate Professor of Electrical and Electronic Measurements with the Instrumentation and Measurement Group at the Department of Electrical and Electronic Engineering in the University of Cagliari, Italy.

She obtained the National Scientific Qualification to practice as Full Professor, 09/E4 Measurements.

She was an Assistant Professor from 2006 to 2019. In March 2006, Dr Sulis was awarded a PhD degree in Industrial Engineering by the University of Cagliari, after completing a M.S. degree in Electrical Engineering.

She is Vice-Coordinator of the PhD Program in Industrial Engineering and Referent for the Quality of the Bachelor's Degree in Electronic, Computer and Telecommunication Engineering of UniCa.

She is Secretary of TC39 "Measurements in Power Systems", selected as the recipient of the 2016 Outstanding TC Award for the IEEE Instrumentation and Measurement Society, and a member of the Italian CEI CT38 "Instrument transformers" and of the WG47 of the IEC TC38 "Instrument transformers". She is a member of IEEE Instrumentation and Measurement Society, of the "Associazione Italiana Gruppo Misure Elettriche ed Elettroniche", GMEE, and of the Didactic Commission of the GMEE.

Her research activity focuses on Power Quality issues, i.e. any deviations of voltage and current characteristics from sinusoidal, symmetrical conditions and nominal frequency, in power systems with special attention to harmonic pollution. Over the years, she has worked on the metrological qualification of the measurement processes involved in the above topics and she proposed a numerical approach based on a Monte Carlo probabilistic method as an advantageous alternative to the traditional analytical methods for the evaluation of the uncertainty in measurements obtained by digitally processing sampled input data. In recent years, the research work has focused on distributed measurement systems applied to electric distribution grids and designed to study reliable methodologies to perform both the state estimation and harmonic sources estimation of the network.

Author and co-author of more than 130 scientific papers, she has published on international journals (IEEE Transactions on Instrumentation and Measurement, Measurement, IEEE Transactions on Power Systems, IEEE Transactions on Power Delivery, Energies, COMPEL, EPQU) and on Proceedings of International Conferences sponsored by IEEE Societies and IMEKO. She is a reviewer for international journals and for international conferences, in particular, IEEE International Instrumentation and Measurement Technology Conference (I2MTC) and IEEE International Workshop on Applied Measurements for Power Systems (AMPS). She was an "Outstanding reviewer of 2014" of the Instrumentation and Measurement Society for the IEEE Transactions on Instrumentation and Measurement.

She is associate editor of Trans. on Instrumentation and Measurement (TIM) and Editor of Energies, Section Board Electrical Power and Energy System.

Dr. Sulis has been recognized by TIM as co-author of two articles among the "Top 70 most-cited articles published in the past 7 years". She received the Faculty Course Development Award, funded by the Instrumentation and Measurement Society, for the course "Sistemi Automatici di Misura".

Main research projects

She is L2 Manager of the Working Group "Slow Control" for DarTinArDM, experiment of the DarkSide Collaboration.

(2018-21) Principal investigator of the project Cluster Top Down SEMI "Sistemi Efficienti ed affidabili per il Monitoraggio e la gestione Intelligente dell'energia elettrica" funded by the Region of Sardinia, "Progetti di ricerca e sviluppo POR 2014- 2020 L.d.A. 1.1.4".

(2013-16) Principal investigator of the project "Smart State Estimation: stima dello stato in una rete elettrica intelligente" funded by the Region of Sardinia, "Bando RAS 2012", L.R. August 7, 2007, n. 7.

(2019-) Member of the Project "ARIA" funded by the Autonomous Region of Sardinia, RAS, Centro Regionale di Programmazione L.R. 7/2007.

(2019-2021) Member of the Project “Spirulina del Sulcis”, funded by the Region of Sardinia.

(2015) Member of the Project funded by Terna SpA, the Italian Transmission System Operator. Issue: Support for PMU data analysis and models for the compensation of measurement errors.

(2012) Member of the Research Group in the research contract between E.On Research Center RWTH Aachen University and DIEE: “Analysis of a PV plant in Italy, identification of causes for under-performance and of corrective measures”.

(2008-11) Member of the Project PRIN 2008, funded by Italian Ministry of University: “Methods, architectures and devices with metrology validation for monitoring complex electric systems under reliability and robustness assurance”.

Project of the Research Unit of Cagliari: “Robustness of distributed measurement methods and systems for monitoring, control, management and protection of electric power networks”.

(2006-08) Member of the Project PRIN 2006: “Monitoring electric power distribution systems in a deregulated market scenario: metrological design and development of measurement architectures capable of ensuring result reliability”.

Project of the Research Unit of Cagliari: “Distributed measurement systems for the monitoring of electric distribution networks: design, setting-up, metrological characterization and optimal placement of the measurement stations”.

(2004-06) Member of the Project PRIN 2004: “Innovative methodologies and processes for information quality management in sensor networks”.

Project of the Research Unit of Cagliari: “Sensor networks for the monitoring and management of electric networks in the presence of distributed generation by renewable energy sources”.

Publications

Teaching (Faculty of Engineering and Architecture, University of Cagliari)

Since academic year 2020-2021: together with Prof. Muscas, “**Measurements for electrical energy**”, 90 hours, master's degree in Electrical Engineering.

Since academic year 2015-2016: “**Measurements on Power Systems**”, 60 hours for “Laurea” (bachelor's degree) in Electrical and Electronic Engineering.

Since academic year 2011-2015: **LabVIEW**, 20 hours.

2016, 2020 – Ph.D. School in Industrial Engineering – “Sistemi di acquisizione dati e strumentazione virtuale”, 20 hours.

Academic years 2011-2015: Automatic Measurement Systems, 60 hours for “Laurea Magistrale” (Master's degree) in Electronic Engineering.

Academic years 2008-2011: Virtual Instrumentation, 40 hours curriculum in Electronic Engineering.

Academic years 2006-2011: Complements of Electrical Measurements, 30 hours for “laurea” (bachelor's degree) in Electronic Engineering.