

CURRICULUM VITAE

of

Matteo Troncia

Matteo Troncia is Research Assistant Professor at the Institute for Research in Technology (IIT) at the Engineering School (ICAI) of the Comillas Pontifical University. In 2021, he received the PhD degree (Doctor Europaeus) in industrial engineering from the University of Cagliari (Italy) with a thesis on the methodologies for appraising smart grid projects in which flexibility competes with grid expansion. He is an electrical engineer; he received his Master's Degree (cum laude) in 2017 from the University of Cagliari. During his PhD, he has been part of the Power System group of the Department of Electrical and Electronic Engineering (DIEE). In 2014, he was a student intern at the Department of Energy Management and Power System Operation (e²n) at the University of Kassel (Germany). In 2020, Matteo joined the Smart and Sustainable Grids research area of IIT as postdoctoral researcher. His activity mainly concerns research projects regarding power system decarbonisation and electricity markets for integrating renewables and distributed energy resources in the electricity sector. From January 2021, he is operating agent of ISGAN Academy of the International Smart Grid Action Network, which is a Technology Collaboration Programme supported by the International Energy Agency (IEA).

Areas of interest:

Electricity markets, system service markets, energy economics, integration of renewable and distributed energy resources in the electricity sector, smart grids, techno-economic appraisal and cost-benefit analysis for initiatives concerning the electricity sector, power system planning and operation.

Experience:

Throughout his career, he has focused on topics related to power system decarbonisation. Based on the electrical engineering background, he investigated power systems and smart grids. In particular, his research focused on the appraisal of smart grid initiatives with novel decision-making support methods and tools and cost-benefit analysis for the electricity sector, contributed to the International Smart Grids Action Network (ISGAN) – Annex 3 which scope is to support the regulatory bodies and companies through guidelines and tools for strategic assessment to promote sustainable development of the power system. Moreover, he has been investigating the design of market mechanisms for ancillary services, distribution system planning and operation, the use of blockchain in the power system, and the power load profile analysis by using clustering techniques to improve the accuracy of power system studies for planning and operation.

Current research interests:

Effective coordination of the electricity actors (TSO-DSO-FSP), electricity markets, system service markets, integration of renewable and distributed energy resources in the electricity sector, techno-economic appraisal, cost-benefit analysis, multi-criteria analysis for initiatives concerning the electricity sector and sector coupling.