

Curriculum Vitae Europass

General information

Name/Surname **Federico Santi**
 Address
 Mobile phones
 E-mail addresses
 Nationality
 Date of Birth
 Gender

Education

2016 Certified Energy Management Expert (EGE) - international standard UNI EN ISO 11339
 2004 Ph.D. Energy Engineering, University of Rome "Sapienza"
 1999 Scholarship ENEA (Italian Agency for Energy, Environment and New Technologies) Casaccia Research Center, Rome, Italy
 1999 Engineers National Examination (Registrar of Professional Engineers of Rome N. 20930)
 1999 M.Sc. Electrical Engineering, University of Rome "Sapienza"

Academic experience

Period 2006 - up to now
 Employer University of Rome "Sapienza"
 DIAEE - Department of Astronautics, Electrical and Energy Engineering
 M.Sc. Energy Engineering
 Role *Ext. Prof. of "Energy System Analysis and Modeling"*
 Main activities About 60 M.Sc. students per year
 Supervisor of more than 80 M.Sc. thesis researches in energy engineering and of 3 Ph.D. thesis researches in energy engineering.
Visiting Professor at the University of Dar Es Salaam – College of Engineering and Technology (UDSM-CoET) since 2021; Visiting at *Nanjing Southeast Technical University* (China) and *Lund University – IIEE* (Sweden).
 Author of more than 60 publications.
 Chairman / invited speaker at 26 international conferences in 9 Countries / 4 Continents.
 Invited to hold the *opening speech* for the opening ceremony of Rosen Innovation Center in Lingen, (Germany) about: "*Adiabatic CAES Systems*", in front of the Prime Minister of Low-Saxony.
 In 2020, invited speaker – together with the CEOs Matteo Codazzi (CESI) e Salvatore Pinto (AXPO) – at the IAEE webinar about "*Energy Security and Other Multiple Benefits of Energy Efficiency*".
 Board member and scientific advisor of AIEE, the Italian branch of IAEE (International Association for Energy Economics). Responsible of AIEE's Italian Energy Outlook.
 Board member of "*Francesco Illiceto Association for the promotion of studies on electric energy*".

Professional Experience

Short Description

Energy Engineering (Consulting)

- Energy manager and energy engineering designer for Italian Government-owned companies like:
 - ENAV – Italian National Air Traffic Management Company (2005-2011),
 - SOGEI – Italian National Company for Information Technology (2012-2018),
 - GNAM – Italian National Gallery of Modern Art (2019-today)
- Technical advisor for energy efficiency loans at the Italian bank UniCredit - Project Finance Department
- Since 1999, registered professional engineer (Engineers Registrar of Rome – N. 20930) with an experience of 20 years as a consultant, designer, work manager, commissioning/test authority for energy engineering works as:
 - More than 600 MW Renewable Energy Sources power plants and grid connections (90MW solar PV, 190MW wind, 160MW biomass, 40MW biogas, 140MW hydro)
 - Energy efficiency projects on more than 3 million cubic meters of buildings of different kinds (offices, data-centers, airport terminals, supermarkets/malls, museum, academies, etc.)
 - Inventor/coordinator of the first-in-Europe bank Project Financing initiative for energy efficiency in food distribution sector (more than 60 million EUR invested in 35 supermarkets in Italy)
 - Owner energy engineering at Rome Fiumicino international airport (40 million passengers/year) dynamic energy modeling of the new terminals (near-zero energy buildings); energy system design; HV and MV internal grids reconfiguration (4 x 40 MVA), substation and emergency generation/CHP; Energy System Design of the new airport development plan, 80 million passengers per year (+200 GWh/year) air-side 110 MWp new solar storage systems; glare studies; engineering design; engineering design of 80 MW plug-in electric vehicles recharge infrastructure (MV grid)
 - Coordinator of energy engineering for large works characterized by innovation:
 - in-situ cleaning and coating* off-shore oil pipelines affected by internal bacteria corrosion (MIC; published on World Pipeline Feb. 2011: "The Italian Job"); new innovative Bulk Handling System for coal fired large thermal power plants TVN (*PowerGen International Prize awarded*), TVS, Vado Ligure; innovative off-shore LNG-RV terminal;
 - Winner (first prize) of the international design tender "NexTower" to design the new control towers for the Italian airports, thanks to innovative energy solutions
- Scientific advisor for assessment/development of new energy technologies, like:
 - A new Cogenerating Heat and Power (CHP) Concentrated Photovoltaic system (Solergy), for the Italian National Authority of Air Transportation (ENAC)
 - A new Thermal Energy Storage system using fluidized-bed silicon sand, for Magaldi Power
 - Concept design of a new Adiabatic Compressed Air Energy Storage system (A-CAES)
- Independent verification of European Space Agency (ESA-ESRIN) sustainability pathway "20-20-20". Energy analysis and modeling of ESA's facilities.
- *Principal investigator steering committee* member of the European project SAVE "White & Green Certificates" (to prepare EC Directive 2006/32/CE on energy efficiency)
- Since 2017 director of an engineering team in charge for verifying - on behalf of the Italian Government owned company GSE – the requests for incentives for renewable thermal energies. Up to now the team has evaluated more than 50.000 requests for incentives.

Main customers

