

## **DAVIDE ASTIASO GARCIA**

### **BRIEF BIOGRAPHY**

Davide Astiaso Garcia is Associate Professor of Thermal Sciences, Energy Technology and Building Physics at Sapienza University of Rome and is the Secretary General of the Italian Wind Energy Association (ANEV).

His full operating skills include, among others: Wind Energy, other renewable energies, smart energy systems, energy efficiency in buildings.

Astiaso Garcia has an extensive publication record, including more than 125 peer-reviewed papers in scientific journals indexed in Scopus database. Astiaso Garcia's publications have received over 2.600 citations in Scopus, where he has an h-index of 31 (Scopus ID: 56962755900). He has a body of funded research comprising over €2.5M in European research projects on competitive funds.

In particular, he has participated in more than 15 European (Horizon 2020, Interreg Med, ENPI CBC Med, Erasmus+) and national research projects in the field of renewable energies and smart energy systems (in many cases as Principal Investigator and Project Coordinator). He is awarded with the national scientific qualification as Full Professor.

Since 2019, he is included in the World's Top 2% Scientists List in the Energy field both for the whole carrier and for the last year publications according to the "Updated science-wide author databases of standardized citation indicators" Elsevier and SciTech Strategies (Stanford University).

### **AWARDS AND OTHER HONORS**

2019 - now: Included in the World's Top 2% Scientists List in the Energy field both for the whole carrier and for the last year publications according to the "Updated science-wide author databases of standardized citation indicators" Elsevier and SciTech Strategies

2022 : Full professorship national scientific qualification in Thermal Science, Energy Technology and Building Physics (09/C2 sector)

2012 – 2013: Winner of the Amleto Cavagna award of Sapienza University of Rome to support young researchers on technologies applied to sustainable development

2012 Commendation letter by the Director General for the Internationalization of the Research of the Italian Ministry of Education and Research in 2012

### **SUPERVISION/MENTHORSHIP OF UNDERGRADUATE, GRADUATE, PHD AND POST-DOC FELLOWS:**

2018-now: supervisor of 6 Research fellow in Thermal Science, Energy Technology and Building Physics (ING-IND/11), Sapienza University of Rome

2018-now: supervisor of 3 PhD students of "Energy and Environment" of Dept. of Astronautic, Energetic and Electric Engineering (DIAEE), Sapienza University of Rome

2012 – 2018 I have mentored and tutored 8 PhD students "Energy and Environment" of Dept. of Astronautic, Energetic and Electric Engineering (DIAEE), Sapienza University of Rome

### **NATIONAL AND INTERNATIONAL GRANTS AS PRINCIPAL INVESTIGATOR**

2022- now: PI of Sapienza University research Unit of the H2020 project ILIAD "INTEGRATED Digital Framework FOR Comprehensive MARITIME DATA AND INFORMATION SERVICES" H2020-LC-GD-2020 (Building a low-carbon, climate resilient future: Research and innovation in support of the European Green Deal) Topic: LC-GD-9-3-2020 Type of action: IA. Funded overall budget: 18.9 M€. Funded budget for Sapienza: 390 k€.

- 2022 – now: PI of the project “An integrated multidisciplinary and multiscale digital approach fostering the decarbonisation of port areas” funded by Sapienza University Research call. Budget: 69k€.
- 2021 – now: PI and Project coordinator of the EU Interreg Med project PRISMI PLUS “Transferring a toolkit for RES Integration in Smart Mediterranean Islands and rural areas”. Priority Axis 2: Fostering low-carbon strategies and energy efficiency in specific MED territories: cities, islands and remote areas. 2.2: To increase the share of renewable local energy sources in energy mix strategies and plans in specific MED territories. Funded overall budget: 500 k€. Funded budget for Sapienza: 135 k€.
- 2019 – now: PI of the project “DECARBONisation through the development of a european ISLand facility providing technical Expertise and financial support” funded by Sapienza University Research call. Budget: 37 k€.
- 2018 – now: PI of Sapienza University research Unit of the H2020 project GIFT “Geographical islands flexibility”. Call: H2020-LC-SC3-2018-2019-2020 (BUILDING A LOW-CARBON, CLIMATE RESILIENT FUTURE: SECURE, CLEAN AND EFFICIENT ENERGY) Topic: LC-SC3-ES-4-2018-2020. Type of action: IA. Funded overall budget: 9.5 M€. Funded budget for Sapienza: 472 k€.
- 2018 – now: PI of Sapienza University research Unit of the project YENESIS - Youth Employment Network for Energy Sustainability in Islands, funded by the European Energy Agency (EEA) and Norway grants fund for youth employment – 2.4 M€
- 2017 – 2021: PI of Sapienza University research Unit and WP1 coordinator “Marine Data Availability and Integration” of the H2020 project ODYSSEA -Operating a network of integrated observatory systems in the Mediterranean sea. – 8.4 M€
- 2017 – 2019 PI of ANEV (Italian Wind Energy Association) and member of the Management and evaluation committees of the EU Erasmus + project SIMULWIND - Maintenance simulator for the sustainability of European wind farms – 273 k€
- 2016 – 2018: PI and Project coordinator of the EU Interreg Med project PRISMI - Promoting RES Integration for Smart Mediterranean Islands – 600 k€
- 2015 – 2017: PI of ANEV (Italian Wind Energy Association) and member of the Management and evaluation committees of the EU Erasmus + project SKILLWIND - skills in the wind energy sector – 192 k€

## **NATIONAL AND INTERNATIONAL GRANTS AS MEMBER OF THE RESEARCH TEAM**

- 2017-2019: member of the Sapienza University research Unit of the project PRIN Riqualficazione del parco edilizio esistente in ottica NZEB (nearly Zero Energy Buildings): Costruzione di un network nazionale per la ricerca - Redevelopment of the existing building stock from a NZEB (nearly Zero Energy Buildings) perspective: Construction of a national network for research” funded by MiUR .
- 2016 - Developer of an Exploitation Plan for the project Don Quichote “Demonstration Of New Qualitative Innovative Concept of Hydrogen Out of wind Turbine Electricity” FP7 FCH JU – 2.9 M€
- 2014: 2017: Coordinator of “energy efficiency, ICT, energy and mobility Networks” activities of PRACTICE (Planning Rethinked Ageing Cities Through Innovative Cellular Environments) project funded by the Executive Programme on Scientific and Technological Cooperation between Italian Republic and the Kingdom of Sweden for the years 2014-2017 – 160 k€
- 2013 – 2015: Chair of the Steering Committee – Contact person – WP1 coordinator “Management and coordination” of the EU ENI CBC Med project GREAT Med “Generating a Risk and Ecological Analysis Toolkit for the Mediterranean” – 1.9 M€

- 2012 – 2013: member of the research team of the project “Strumenti e metodi di analisi per la progettazione sostenibile degli spazi urbani aperti - Analysis tools and methods for the sustainable design of open urban spaces” funded by Sapienza University of Rome
- 2010 – 2013: Head 1 of the research group of SoURCE (Sustainable Urban Cells) project funded by the Executive Programme on Scientific and Technological Cooperation between Italian Republic and the Kingdom of Sweden for the years 2010-2013. 270 k€
- 2011: Member of the research team of the ESLAND project - European Culture expressed in Island Landscapes, funded by the EU Culture Programme – 400 K€
- 2010: Member of the research team of the EUCALAND - European Culture expressed in Agricultural Landscapes, funded by the EU Culture Programme – 476 K€

### **TEACHING ACTIVITIES AND SEMINARY**

- 2022 - 2022. Member of the Scientific and Educational Board of the 2nd level Master CDT&AI - Digital Twin and Artificial Intelligence. Digital Technologies and Processes in the Built Environment
- 2020-2022: Two-year training course on innovation in teaching - Sapienza University of Rome
- 2022-now: Lecturer of the 2nd level Master degree “Ingegneria dell'Innovazione - Innovation Engineering.”, Faculty of Civil and Industrial Engineering, Sapienza University
- 2008-now: Professor of the following courses: Applied Physics, Technical Systems, energy efficiency buildings design, Structural consolidation and HVAC Plant in historical buildings - Sapienza University of Rome, Italy
- 2016-2019: Lecturer and Scientific coordinator of the 1st level Master degree “Strategy Energy Management System – SEMS”. Dept. of Astronautic, Energetic and Electric Engineering, Sapienza University
- 2010: Lecturer at the International Summer School on Bioarchitecture in Protected Areas, Sapienza University of Rome
- 2008: Lecturer at the course Natural and cultural heritage of coastal zones, Cambridge Univ., UK

### **ACTIVITY AS CHAIRMAN, INVITED SPEAKER, PLENARY SPEAKER, MEMBER OF THE SCIENTIFIC AND ORGANIZING COMMITTEE IN INTERNATIONAL CONF.S**

- 2022: Member of the scientific committee of the 16th International Conference on Meteorology, Climatology and Atmospheric Physics – COMECAP 2023
- 2017-now: Member of the Scientific Advisory Board and of the Int. Scientific Committee (since 2017), co-organizer and Chair of Sessions " Future energy systems technologies and models fostering Green Deal targets across buildings, electricity and mobility sectors " at SDEWES Conferences
- 2017-current: Chair of int. conferences of several sessions on renewable energies and energy efficiency of building
- 2015-current: Reviewer of more than 20 international journals indexed in Scopus and/or ISI
- 2007-current Presenter of original research papers (>30) in international conferences

### **EDITORIAL ACTIVITIES**

- 2021-now: Managing Guest Editor of Special Issues (SI) of Energy Conversion and Management X dedicated to the SDEWES Conf.
- 2021-now: Editorial Board Member of Section "Energy" of the journal Applied Science, MPDI (IF=2.679).
- 2021: Guest Editor of the Special Issue " Offshore Renewable Energies and Marine Energy Systems" of the journal Applied Science, MPDI (IF=2.679)

- 2020: Topic Editor of “Renewable Energies, Storage Systems and Sustainable Mobility for Increasing the Energy Independence of Small Islands and Remote Areas”, of the journal “Frontiers in Energy Research
- 2020: Guest Editor of the Special Issue "Building Physics and Building Energy Systems" of the journal Applied Science, MPDI (IF=2.679)
- 2018 – now: Editor of Journal of Energy Research and Reviews since 2018

### **EXPERT EVALUATOR OF PROJECT PROPOSALS**

- 2018 – 2020: European Commission Research Executive Agency (REA): expert for the evaluation of the project proposal under H2020 calls “FET OPEN (Future Emerging Technologies)”.
- 2021: Disruptive Technologies Innovation Fund. Enterprise Ireland.
- 2022 - FARE Ricerca in Italia: Framework per l’attrazione ed il rafforzamento delle eccellenze per la ricerca in Italia – III edizione. Ministero Università e Ricerca.

### **MEMBER OF SCIENTIFIC SOCIETIES AND COMMISSIONS OF TRUST**

- 2022\_ now: Member of the Ethics Committee for Transdisciplinary Research of Sapienza University of Rome
- 2017-current: Member of the Board of Professors of the PhD in “Energy and Environment” of Dept. of Astronautic, Energetic and Electric Engineering (DIAEE), Sapienza University of Rome
- 2016 – now: Advisor of the international relations of CITERA (Interdepartmental Centre for Territory, Building, Conservation and Environment) Sapienza University of Rome/ Italy
- 2017 – 2020: Secretary General of the Coordinamento FREE (RES and energy efficiency association) / Italy
- 2016- 2019: Member of the Strategy Committee and coordinator of the “RES and Power to Gas” working group of the Hydrogen Mobility Italian Association MH2IT
- 2015: Member of the Green Economy national council, of the Sustainable development foundation, Italy
- 2015- 2020: Member of Directors Committee of Italian Confindustria (General Confederation of Italian Industry) on Energy sector
- 2015-2019: Coordinator of the Energy Market Working group of the Italian Wind Energy Association (ANEV)
- 2011: Adviser of the Italian delegation at MEPC 62 (Marine Environment Protection Committee) of IMO - International Maritime Organization, UK
- 2008-2012: Member of the board of directors of academic spin off Se.Qu. Env." (Security and Quality for the Environment) Ltd

### **NATIONAL PROJECTS AND AGREEMENTS**

- 2013: ForEnergy project - Preliminary analysis of the gas yield of the organic fraction of waste as part of the "economic study of an energy model for distributed generation. Dipartimento Energia e Ambiente – Università degli Studi Guglielmo Marconi
- 2011 – 2013: Implementation of a Territorial Information System to support the energy monitoring plan for pollutants in the atmosphere. Dipartimento Energia e Ambiente – Università degli Studi Guglielmo Marconi
- 2010 – 2011: Analysis of the environmental impacts due to the presence of urban agglomerations in the Italian National Parks, with particular regard to: Atmospheric emissions; Lighting of outdoor spaces and light pollution; Sound sources and noise pollution; Impacts caused by the presence of structures and infrastructures and the concreting of soils. Collaboration agreement between Sapienza University of Rome and the Italian Ministry of the Environment.
- 2010 – 2011: Feasibility study for the construction of energy production systems using renewable sources within the port areas of Anzio, Formia, Terracina and Ventotene for powering the

systems and infrastructures of the port areas themselves and the boats hosted. Collaboration agreement between Sapienza University of Rome and Lazio Region.

2011: Impact assessment of an MWe Plant for the production of electrical and thermal energy fueled by vegetable oil. Dipartimento Energia e Ambiente – Università degli Studi Guglielmo Marconi

2006 – 2011: Risk analysis and assessment of the environmental and anthropogenic impacts and sensitivities of the Italian marine-coastal strip to maritime pollution of hydrocarbons and HNS (Hazardous and Noxious Substances), and development of the related GIS database (Geographic Information System). Collaboration agreement between Sapienza University of Rome and the Italian Ministry of the Environment.

2008: 2011: Impact assessment and environmental impact study (SIA) for a co-incineration plant of the company ENERONUT Spa. Dipartimento Energia e Ambiente – Università degli Studi Guglielmo Marconi

2006: Development of a technical manual and a GIS cartographic database for the planning of interventions in the urban stretch of the Tiber river, through the use of naturalistic engineering techniques. Collaboration agreement between Sapienza University of Rome and Autorità di Bacino del Tevere.