
Curriculum Vitae

Stavros A. Papathanasiou

*Electrical Engineer, PhD
Professor NTUA*

Personal & Contact Information

Date of birth: 4-3-1968

Family status: Married, two children

Work address: National Technical University of Athens (NTUA)
School of Electrical and Computer Engineering,
Electric Power Division
9, Iroon Polytechniou str., 157 80 Athens, Greece
Tel. +30 210 7723658, Fax +30 210 7723593

Home address: 13B, Davaki str.
151 21 Pefki, Athens, Greece

Mobile tel. +30 6944 598557

e-mail: st@power.ece.ntua.gr, stavrospapath@gmail.com

Education

- 1997 **PhD in Electrical Engineering** (wind turbine technology). School of Electrical and Computer Engineering, National Technical University of Athens (NTUA).
- 1991 **Diploma in Electrical and Computer Engineering**, major in Power Engineering, with distinction (GPA 9.25/10), National Technical University of Athens (NTUA).

Professional Experience

- 1992- Consultant to renewable energy and storage projects (including wind, PV, solar thermal and hybrid stations employing pumped storage or battery energy storage technologies), distribution network, electricity infrastructure and smart grid projects. Indicative list of projects provided below.
- 2002- Faculty member (currently Full Professor) in the Electric Power Division, School of Electrical and Computer Engineering, NTUA. Areas of expertise: Renewable energy and distributed generation, electricity storage, distribution networks, island and autonomous power systems, electromobility, smart grids.
- 2002- Technical advisor to the International Olympic Committee (IOC), the Olympic Broadcasting Services (OBS) and Olympic Games Organizing Committees on the power supply infrastructure and energy services for the Olympic Games. Evaluator/auditor of distribution and transmission infrastructure for the Olympic Games in the following host cities/countries and collaboration with respective incumbent DSOs,

TSOs and regulatory authorities on the design, operation, reliability enhancement and cost recovery:

- Athens 2004 (ΔEH/PPC)
- Beijing 2008 (SGCC/Beijing Power Co.)
- London 2012 (UKPN)
- Sochi 2014 (FGH)
- Rio 2016 (Light)
- PyeongChang 2018 (KEPCO)
- Tokyo 2020/21 (TEPCO)
- Beijing 2022 (SGCC/Beijing Power Co./Jibei Power Co.)
- Paris 2024 (Enedis)
- Milano-Cortina 2026 (E-distribuzione and other DSOs)
- Dakar 2026 (SENELEC)

- 2012- Continuous engagement with the Greek energy authorities (Ministry of Energy, Regulator, Transmission and Distribution System Operators) on regulatory, technical and operational aspects of electricity networks, renewables & distributed generation, energy storage, island systems and interconnections, electromobility etc. Activities outlined in more detail in the following sections.
- 2009-2012 Member of the Board of Directors of the Hellenic Transmission System Operator (HTSO) and Market Operator.
- 2002-2009 Technical consultant to the Distribution Division of the Public Power Corporation (PPC S.A., the Greek generation, transmission and distribution utility).
- 2000-2002 Electrical engineer for the Network Department of PPC S.A., involved in distribution network design and installation, quality of supply and distributed generation projects.
- 1990-2002 Researcher in the Electric Power Division of NTUA.

Academic Credentials

- **Director of the Interdepartmental Postgraduate Studies Programme “*Energy Production and Management*”** of the National Technical University of Athens.
- **Member of the administrative committee (Deanery)** of the School of Electrical & Computer Engineering of the National Technical University of Athens.
- **Published work** includes 75 articles in international peer-reviewed scientific journals and more than 150 articles in the proceedings of scientific conferences, mainly in the fields of renewable energy and distributed generation, storage, electricity distribution and smart grids. Published work has received **more than 9000 citations**.
- **Teaching experience** in several courses in the field of electric power engineering (including renewable energy sources, distribution networks, electric machines and power electronics).
- **Supervision** of more than 100 diploma and postgraduate theses, as well as of 12 PhD dissertations (6 completed) in all fields mentioned above.

Areas of Expertise

Expertise in the areas of renewable energy, electricity storage, market and grid integration of distributed energy resources, transmission and distribution networks, autonomous island systems and interconnections, smart grids and electromobility. Engagement in more than **100 research and consulting projects**.

Exposure to diverse **international technical and regulatory environments** through collaboration with DSOs, TSOs and vertically integrated utilities around the world (TEPCO, KEPCO, SGCC, Enedis/EDF etc.).

Specific areas of involvement and expertise:

- **Regulation and market participation of electricity storage and distributed energy resources:** legal and regulatory framework for licensing, grid access and market participation of storage stations, integration of behind-the-meter storage in production and consumer facilities, development of hybrid RES-storage, net metering, prosumer facilities.
- **Regulatory aspects of electricity networks:** network codes, connection and use-of-system tariffs, integration of distributed energy resources, hosting capacity analysis, congestion management etc.
- **State aid schemes in Energy:** advisory support for the design, EC notification and transposition in national legal & regulatory framework of State aid schemes in the areas of renewable energy, storage and network infrastructure, experience with open/competitive schemes and individual notifications, inclusion in ENTSO-e TYNDP and PCI status.
- **Autonomous islands and very high RES penetration systems (“green islands”):** Regulatory aspects, electricity market structure, optimal planning, security and reliability of supply, PSO regime, management algorithms, operational and technical aspects, integration of RES and storage, interconnection studies. Feasibility analysis and technical design for “green” islands and off-grid systems.
- **Energy storage projects** (merchant storage, colocation with RES & integration in hybrid RES-storage entities, deployment in consumer premises): CBA studies, investment feasibility assessment, market participation, network access and interconnection, licensing, technical design, participation in support schemes. Experience with **pumped hydro, batteries and thermal energy storage solutions**.
- **RES projects** (wind, PV, solar thermal): feasibility analysis, sizing and technical design, licensing, grid interconnection, PPAs, auction participation and market integration, specialized technical studies (RfG compliance, power quality, short circuit analysis etc.).
- **Green H₂:** investment feasibility analysis, project sizing, operation & management studies, integration with RES facilities, synergies with electricity storage, support schemes.
- **Energy planning:** long-term planning studies for generation & storage systems to support decarbonization targets, generation adequacy analysis.
- **Transmission and distribution:** Equipment selection, sizing and specification, standardization, power quality measurements and analysis, electric and magnetic field measurements, earthing, calculation of losses etc. Dynamic and transient analysis of networks & systems with high RES penetration.
- **Island and offshore wind interconnection:** HVAC and HVDC solutions. Feasibility studies, dimensioning, analysis of technical, economic and operational aspects.

- **Smart grid technologies:** active distribution networks, energy control centres, smart metering infrastructure, FACTS-HVDC, microgrids etc.
- **Electromobility:** Development, operation and grid integration of electric vehicle charging infrastructure. Institutional and regulatory aspects of electromobility.
- **High resilience networks:** Design and analysis of special purpose & high resilience electricity distribution networks and user facilities.
- **Temporary power solutions:** Deployment of conventional and innovative & sustainable temporary power solutions (generation, storage, distribution, UPS).

As a member of the Board of Directors of the Hellenic Transmission System Operator and Market Operator (2009-2012), he dealt with issues related to:

- Transmission system planning and operation.
- System integration of RES generation.
- Electricity market operation.
- Cross-border interconnections and trading.

Additional Information

- Coordinator of the Energy Storage Task Force of the Greek Ministry of Environment and Energy, responsible for the development of the legal and regulatory framework for storage in Greece.
- Participation as an expert to the Inter-ministerial Committee for Energy and Climate of the Greek Government.
- Member of the Greek Electromobility Committee, coordinator of the Recharging Infrastructure and Electromobility Market Group.
- Secretary of CIGRE Greek National Committee.
- Secretary of the CIRED Greek National Liaison Committee.
- Recipient of the CIGRE Technical Committee Award (2013). Distinguished member of CIGRE (2020).
- National representative to the CIGRE Study Committee SC6 – Distribution Systems and Dispersed Generation. Convenor of CIGRE WG C6.24 “Capacity of Distribution Feeders for Hosting DER”. Participation in several CIGRE Task Forces, dealing with distributed generation and storage.
- Senior Member of the IEEE (Power Engineering, Industry Applications, Industrial Electronics and Power Electronics Societies).
- Reviewer for most prestigious journals in electric power & energy (IEEE Transactions, IET Proceedings, Elsevier Journals etc.), as well as for several conferences in the field. Recipient of Reviewer Certificate of Excellence from the Elsevier Journals *Electric Power Systems Research* and *Renewable Energy*.
- Evaluator of research, development and demonstration proposals and projects for national and international programmes.
- National representative to the Mirror Group of the Technology Platform «Electricity Networks for the Future – SMARTGRIDS» of the European Union.