

CURRICULUM VITAE OF SPYROPOULOS GEORGIOS

PERSONAL DETAILS

Surname **SPYROPOULOS**
First Name **GEORGIOS**
Address **10441, ATHENS, GREECE**
Telephone **+30 210 538 1237, +30 697 4269 843**
Email geospyrop@uniwa.gr
Nationality **Hellenic (Greek)**
Birth Date **MARCH, 1980**



AREAS OF INTEREST

- EV Charging Stations and EV Policy
- Atmospheric Pollution and Impacts of Environmental Factors
- Analysis and Evaluation of Photovoltaic Systems
- Technologies of Environmental Measurements

EDUCATION

• dates	Post
2017 - today	PhD Candidate Thesis: The role of renewable energy electromobility in air quality and bioclimatic conditions. Urban impact modelling, policies and actions. Faculty of Geology and Geoenvironment School of Sciences of the National and Kapodistrian University of Athens, Greece
2004 – 2007	MSc by Research in Environmental Policy and Management Thesis: Integrated Management In Isolated Areas. The Case Of Energy In Ikaria Island. Thesis mark: Excellent Department of the Environment, Aegean University, Greece
1998 – 2003	BEng in Mechanical Engineering (2nd Place in the entry exams) Thesis: Development and Evaluation of Calculation Model for Atmospheric Pollution Estimation Utilizing Domestic Energy Consumption Data. Thesis mark: Excellent Faculty of Mechanical Engineering, Piraeus University of Applied Sciences (ex. Technological Educational Institute of Piraeus), Greece

ACADEMIC EXPERIENCE

• dates	Post
2019 - today	Laboratory Teaching Staff in: Environmental Impact Assessments MSc in Energy and Environmental Investments, University of West Attica - UNIWA (ex. Piraeus University of Applied Sciences), Athens, Greece
2016 - today	Laboratory Teaching and Research Staff in:

Renewable Energy Sources

Atmospheric Pollution – Antipollution Technologies

Environment and Industrial Development

Faculty of Mechanical Engineering, University of West Attica - UNIWA (ex. Piraeus University of Applied Sciences), Athens, Greece

2003 – 2016 Adjunct Teaching and Research Lecturer:

Renewable Energy Sources

Atmospheric Pollution – Antipollution Technologies

Basic Principles of Ecology

Technology of Environmental Measurements

Mechanical Eng. Department | Piraeus University of Applied Sciences | ex. Technological Educational Institute of Piraeus, Athens, Greece

Adjunct Teaching and Research Lecturer in the Labs of:

- **Soft Energy Applications and Environmental Protection**
- **Technology of Environmental Measurements**

1999-2003 Laboratory Assistant as Undergraduate Student in the Labs of:

Soft Energy Applications and Environmental Protection

Computer Aided Design Laboratory

ENERGY & CONSTRUCTIONS Sector, Faculty of Mechanical Engineering, School of Technological Applications, Technological Educational Institute of Piraeus

1999-2001 Laboratory Assistant as Undergraduate Student in the Labs of:

Installation, Operation, and Integration of the Meteorological Station

Department of Physics, Chemistry and Materials Technology Sciences
Technological Educational Institute of Piraeus

PROFESSIONAL EXPERIENCE

• dates Post
2003 – today Chartered Mechanical Engineer, Greece

- **Technical Manager on Development and Construction of the First Solar EV Charging Station in Island Tilos in Greece (2018-2019)**
- **Technical Manager on Development and Construction of a Mobile Air Pollution and Meteorological Data Recording Station, integrated in an Electric Vehicle (2018-2019)**
- **Technical Manager of Accredited Inspection Body for the Installation & Operation of Roof & Large-Scale PV Power Systems (since 12/2012)**
- **Technical Manager on Development and Construction of the First Standalone Solar EV Charging Station in Greece (December 2014)**

with activities in:

Photovoltaic Systems, Data loggers, Energy & Environmental Performance Improvement Studies, Building Constructions regarding Mechanical Studies

2007 – 2008 **Consript Sergeant - Hellenic Air Force, Mechanical Engineer in Tractor Aircrafts**

2001 – 2002 **Mechanical Engineer at Heliostat Ltd.** with activities in
Industrial Application of Cogeneration of Electricity - Cooling - Heating

Sea Water Cooling in Hydra Island
 Industrial Design on AutoCAD
 Writing and Composing Proposals for Energy Research Projects

1998 **Mechanical Engineering Assistant at ALSTOM Hellas A.E. (ex. AEG Hellas)**
 Project: SO₂ emission reduction in Megalopolis Thermal Power Station

REVIEWER IN INTERNATIONAL SCIENTIFIC JOURNALS

International Journal: Renewable Energy (multi-disciplinary journal in renewable energy engineering and research - Elsevier)

PARTICIPATION IN RESEARCH PROJECTS

• dates	Projects
2016 – 2019	"TILOS Project", Technology Innovation for the Local Scale Optimum Integration of Battery Energy Storage, European Union's Horizon Funding 2020 research and innovation programme under Grant Agreement No 646529
2018	"Big Green Data - Air Quality and Biometeorological Assessment in Athens National Garden", Athens Digital Lab - Internet of Things 2018, Partnership of Municipality of Athens Greece, Cosmote, Nokia and Stavros Niarchos Foundation (SNF) , Funding by SNF
2014 – 2016	"Integrated Planning Tool Meeting Energy and Water Needs in Small Scale and Medium Scale Aegean Islands via Utilization of Hybrid Systems Using Renewable Energy", NSRF 2007-2013
2012 – 2016	"Benchmarking Systems of Hydrogen & Energy Storage Technologies, Support Autonomous Hybrid Renewable Power Base Stations", Ministry of Education
2012 – 2014	"Meteorological Data Utilization for Solar Energy Systems", Ministry of Education
2005 – 2006	"Simulation-Study of the Energy Behaviour of Buildings using Economically Acceptable Passive and Hybrid Solar Systems and Construction Materials in order to Improve the Thermal Behaviour of Greek Buildings", Ministry of Education
2005 – 2006	"Integrated Study and Prediction of Electricity Related Air Pollution (NO _x , SO ₂ , CO ₂) in Greece in View of the European Efforts for Improving the Air Quality", Ministry of Education
2006	"Optimisation of Water Systems in Islands with Limited Water Resources", Ministry of Education
2005 – 2006	"PREMIA R & D, Demonstration and Incentive Programmes Effectiveness to Facilitate and Secure Market Introduction of Alternative Motor Fuels", Hellenic Institute of Transport (HIT), Centre for Research & Technology Hellas -CERTH
2005	"Evaluation and Trans valuation of Energy Data Concerning Wind Parks in the area Loutsas", Center of Technological Research for Piraeus and Greek Islands
2004	"Maximization of the Energy Autonomy of Greek Islands with the Use of Hybrid Energy Systems", Ministry of Education

LANGUAGE SKILLS

	GREEK	ENGLISH IELTS (7.5) CAMBRIDGE ADVANCED CERTIFICATE IN ENGLISH (CAE) CAMBRIDGE FIRST CERTIFICATE IN ENGLISH (FCE)	GERMAN GOETHE INSTITUT ZERTIFICATE DEUTSCH BEFRIEDIGENT (227.5/300)
• Reading Level	Native	HIGH	INTERMEDIATE
• Writing Level	Native	HIGH	INTERMEDIATE
• Oral Level	Native	HIGH	INTERMEDIATE

SEMINARS

- *dates* *Seminar Titles*
- 2014 **Operation, Maintenance and Repair of Ecotech Air Quality Analyzers – (32 hours)**
ALFA MEASUREMENTS, Educational Centre
- 2012 **Educational Seminar on Concerning Installation, Operation, Maintenance and Repair of Photovoltaic Inverters - "Installer AZ" - (8 hours), SMA Hellas AE, Educational Centre**
- 2012 **Educational Seminar on Operation of Photovoltaic Inverters - "Advanced Inverter"- (10 hours), SMA Hellas AE, Educational Centre**
- 2012 **Educational Seminar on Operation of Photovoltaic Inverters - "Sunny Family Basic" – (8 hours), SMA Hellas AE, Educational Centre**
- 2012 **Educational Seminar on Operation of Photovoltaic Inverters - "The Refusol Seminar" – (8 hours), Refusol, Educational Centre**
- 2012 **Educational Seminar on Earthing Systems “Earth-termination system” – (8 hours)**
ELEMCO, Educational Centre
- 2012 **Educational Seminar on Design and Installation of the Lightning Protection Systems “Installer Documentation” – (8 hours), ELEMCO, Educational Centre**
- 2012 **Educational Seminar on Design and Installation of the Lightning Protection Systems “Protection of Structures Against Direct Flashes” – (8 hours), ELEMCO, Educational Centre**
- 2011 **Educational Seminar on Earthing Systems “Design of External and Internal Lightning Protection System in PV Plants” – (8 hours), ELEMCO, Educational Centre**
- 2011 **Educational Seminar on Design and Installation of the Lightning Protection Systems “New Instruments for Electrical Documentation” – (8 hours), ELEMCO, Educational Centre**
- 2011 **Introduction to Legislation of RES, Inspection and Certification of PV Systems and Plants (16 hours), TUV AUSTRIA**
- 2008 **Technical Software Mechanical Design – (Professional CAD) “Fully Integrated Environment 9.0 NG” – (25 hours), 4M Educational Center, 4M Intelligent Building Design Company**
- 2003 **Contemporaneous Management - (50 hours)**
AKMI IVT, Educational Center, Vocational Training Provider

PUBLICATIONS JOURNALS - CONFERENCES - BOOKS

- Journals** Em. Kostopoulos, **G. Spyropoulos**, J.K. Kaldellis, 2020, "Real-world study for the optimal charging of electric vehicles", Energy Reports, Volume 6, November 2020, Pages 418-426.
(*peer reviewed*)
1.

2. Daniel H. Alamo, Rafael N. Medina, Santiago D. Ruano, Salvador S. García, Konstantinos P. Moustris, Kosmas K. Kavadias, Dimitris Zafirakis Georgios Tzanes, Effrosyni Zafeiraki, **Georgios Spyropoulos**, John K. Kaldellis, Gilles Notton, Jean-Laurent Duchaud, Marie-Laure Nivet, Alexis Fouilloy, Sylvain Lespinatsm, 2019, "An Advanced Forecasting System for the Optimum Energy Management of Island Microgrids", *Energy Procedia*, Volume 159, February 2019, Pages 111-116.
3. Kaldellis J.K., **Spyropoulos G.**, Liaros S., 2017, "Supporting Electromobility in Smart Cities Using Solar Electric Vehicle Charging Stations", Sayigh, A. (Ed.), *Mediterranean Green Buildings & Renewable Energy*, Springer International Publishing, pp. 501–513.
4. Kaldellis J.K., **Spyropoulos G.C.**, Kavadias K.A., Koronaki I.P., 2009, "Experimental validation of autonomous PV-based water pumping system optimum sizing", *Renewable Energy Journal*, Volume 34, pp.1106-1113.
5. Kaldellis J.K., Chalvatzis K.J., **Spyropoulos G.C.**, 2007, "Transboundary air pollution balance in the new integrated European environment", *Environmental Science & Policy*, Volume 10, Issues 7-8, November-December 2007, Pages 725-733.
6. Kaldellis J.K., **Spyropoulos G.**, Chalvatzis K., Paliatsos Ath., 2006, "Minimum SO₂ electricity sector production using the most environmental friendly power stations in Greece", *Fresenius Environmental Bulletin*, Vol.15/11, pp.1394-1399.
7. Kaldellis J.K., Kavadias K.A., **Spyropoulos G.**, 2005, "Investigating the Real Situation of Greek Solar Water heating Market", *Renewable and Sustainable Energy Reviews*, Vol. 9, pp.499-520.
8. Kaldellis J.K., **Spyropoulos G.**, Chalvatzis K.J., 2004, "The Impact of Greek Electricity Generation Sector on the National Air Pollution Problem", F24-051, *Fresenius Environmental Bulletin*, Vol.13/7, pp.647-656.

- Conferences** Kosmas A. Kavadias, George Kavadias, Jacob Plytas, Konstantinos Moustris, **George Spyropoulos**, (peer reviewed) "Evaluating the Use of Typical Meteorological Years on Calculating Buildings' Energy Consumption",
9. Second International Conference (Tenth Conference of Sustainable Environmental Development), Menoufia University, Faculty of Engineering, 16-20 March 2019, Sharm El Sheikh, Egypt.
 10. **Spyropoulos G.**, Nastos P. Moustris K., Katopodis T., Ntourou K., 2018, "The use of low-cost sensing for air pollution measurements in urban outdoor environments", 14th International Conference on Meteorology, Climatology and Atmospheric Physics (COMECAP), October 15-17, Alexandroupolis, Greece, 2018.
 11. Daniel H. Alamo, Rafael N. Medina, Santiago D. Ruano, Salvador S. García, Konstantinos P. Moustris, Kosmas K. Kavadias, Dimitris Zafirakis, Georgios Tzanes, Effrosyni Zafeiraki, **Georgios Spyropoulos**, John K. Kaldellis, Gilles Notton, Jean-Laurent Duchaud, Marie-Laure Nivet, Alexis Fouilloy and Sylvain Lespinats., 2018, "An Advanced Forecasting System for the Optimum Energy Management of Island Microgrids", *Applied Energy Symposium and Forum, Renewable Energy Integration with Mini/Microgrids, REM 2018*, 29–30 September 2018, Rhodes, Greece.
 12. Em. Kostopoulos, **G. Spyropoulos**, K. Christopoulos, J.K. Kaldellis, 2018, "Solar Energy Contribution to an Electric Vehicle Needs on the Basis of Long-Term Measurements", 1st International Conference of the Greek Society of Experimental Mechanics of Materials, *Procedia Structural Integrity 10 (2018)* 203–210, May 10-12, Athens, Greece, 2018.
 13. Kostopoulos Em., **Spyropoulos G.**, Christopoulos K., Kaldellis J.K., 2018, "Implementation

- Prospects of Solar Electric Vehicles Charging Stations in Small Greek Islands”, Conference Clean Energy in European Islands, April 23-24, Athens, Greece, 2018.
14. **G.C. Spyropoulos**, K. Petridou, St. Liaros, J.K. Kaldellis, 2016, “Real World Driving Energy Consumption and Air Pollution Implications of Decarbonizing the Greek Transport Sector”, EinT2016 – 1st International Conference “Energy in Transportation 2016”, 12 November 2016, Athens, Greece.
 15. St. Liaros, **G.C. Spyropoulos**, J.K. Kaldellis, 2016, “Well-to-Wheel Exergoenvironmental and social cost of electrifying the Greek transport sector: The case of the Kos – Kalymnos complex”, EinT2016 – 1st International Conference “Energy in Transportation 2016”, 12 November 2016, Athens, Greece.
 16. D. Apostolou, K.A. Kavadias, **G. Spyropoulos**, 2016, “Experimental Investigation of a Fuel Cell Hybrid System for Transport Applications”, EinT2016 – 1st International Conference “Energy in Transportation 2016”, 12 November 2016, Athens, Greece.
 17. Kaldellis J.K., St. Liaros, **G. Spyropoulos**, 2016, “Exploitation of RES Potential for Supporting Electromobility in Small Islands”, 5th International Conference on Renewable Energy Sources & Energy Efficiency - New Challenges, 5-6 May 2016, Nicosia, Cyprus
 18. Kaldellis J.K., St. Liaros, **G. Spyropoulos**, 2015, “Electromobility in EU: Current status and future prospects for the Greek market”, International Conference Science in Technology (SCinTE), November 5-7, Athens, Greece.
 19. Kaldellis J.K., **G. Spyropoulos**, St. Liaros, 2015, “Supporting Electro-mobility in Smart Cities Using Solar EV Charging Stations”, World Renewable Energy Congress, Med Green Forum-III, August 2015, Florence, Italy.
 20. Ristas, G., **Spyropoulos, G.C.**, Kavadias, K.A., Kaldellis, J.K., 2013, “Experimental Energy Analysis of a Hybrid Wind-PV Stand-Alone Installation”, 4th International Conference on Renewable Energy Sources & Energy Efficiency – New Challenges, Center for Research & Technology Hellas, 06-07 Jun 2013.
 21. **G.C. Spyropoulos**, M. Emmanouilidis, and J.K. Kaldellis, 2011, “Detailed Examination of Greek Lignite Thermal Power Stations on the Basis of NO_x Emissions”, MESAEP-Symposium 2011, 16th International Symposium on Environmental Pollution and its Impact on Life in the Mediterranean Region, September 24th to 27th, 2011, Ioannina, Greece.
 22. **Spyropoulos G.C.**, M. Emmanouilidis and Kaldellis, 2011, “Investigating the long-term environmental performance of the Greek electricity sector on the basis of SO₂ emissions”, 12th International Conference on Environmental Science and Technology (CEST2011), 8 - 10 September 2011, Rhodes island, Greece.
 23. Mantelis N., Zafirakis D., **Spyropoulos G.C.** and Kaldellis, 2011, “Critical evaluation of the second national allocation plan concerning the control of CO₂ emissions”, 12th International Conference on Environmental Science and Technology (CEST2011), 8- 10 September 2011, Rhodes island, Greece.
 24. V. Stavropoulou, D. Zafirakis, **G. Spyropoulos**, J. Kaldellis, V. Katsirou, 2011, “Comparison of the Energy Pay-Back Period between Wind and Photovoltaic Stand-Alone Power Systems”, EWEA - Europe’s Premier Wind Energy Event, 14-17 March 2011, Brussels, Belgium.
 25. J. K. Kaldellis, P. Fragos, M. Kapsali, D. Zafirakis, **G. Spyropoulos**, 2010, “Dust Deposition Impact on Photovoltaic-Assisted Water Pumping Systems”, World Renewable Energy Congress XI, 25-30 September 2010, Abu Dhabi, UAE.
 26. **G.C. Spyropoulos**, M. Xidis, K.J. Chalvatzis, J.K. Kaldellis, 2008, “Experimental Analysis of a

- Photovoltaic Stand-Alone System in TEI of Piraeus”, International Scientific Conference SynEnergy Forum (S.E.F.), 28-31 May 2008, Spetses, Greece.
27. **Spyropoulos G.C.**, Poniros N., Kabbadias K., Kaldellis J.K., 2007, "Operation Analysis of Experimental PV-Hybrid Installation", 2nd National Conference Mechanical-Electric Engineering, May 2007, Athens, Greece
 28. Alasis E., **Spyropoulos G.**, Kavadias K.A., Kaldellis J.K., 2006, "Experimental and Theoretical Analysis of Remote Medium Size Photovoltaic Stations", IXth World Renewable Energy Congress, Florence-Italy
 29. Chalvatzis K.J., **Spyropoulos G.C.**, Kaldellis J.K., 2006, "Transboundary SO₂ Transfer in the Integrated European Environment", International Conference of Protection and Restoration of the Environment VIII, July 2006, Chania, Creta Island, Greece.
 30. **Spyropoulos G.C.**, Chalvatzis K.J., Kaldellis J.K., 2006, "Optimizing the Environmental Performance of the Greek Electricity Sector Concerning the NO_x Emissions", International Conference of Protection and Restoration of the Environment VIII, July 2006, Chania, Creta Island, Greece.
 31. Chalvatzis K.J., **Spyropoulos G.C.**, Kaldellis J.K., 2006, "European Integration and Transboundary Transfer of Air Pollution: Analyzing the case of Nitrogen Oxides", WSEAS Transactions on Environment and Development, Vol.2(2), pp.103-108, May 2006, Chalkida, Evia Island, Greece
 32. Kaldellis J.K., **Spyropoulos G.C.**, Chalvatzis K., Paliatsos Ath., 2005, "Minimum SO₂ electricity sector production using the most environmental friendly power stations in Greece", 13th International Symposium on Environmental Pollution and its Impact on Life in the Mediterranean Region, 8-12 October 2005, Thessaloniki – Greece.
 33. Kaldellis J.K., Kavadias K., Kondili E., **Spyropoulos G.**, 2005, "Education and Research on Renewable Energy Sources (RES): The Soft Energy Applications Laboratory of TEI of Piraeus", International Conference on Integration of RES into Buildings, July 2005, Patras, Greece.
 34. **Spyropoulos G.**, Chalvatzis K., Paliatsos A., Kaldellis J., 2005, "Sulphur dioxide emissions due to electricity generation in the Aegean sea islands: Threat or overestimated danger?" 9th International conference on environmental science and technology, RhodesIsland, 1-3 September 2005, Vol. B, 883-888. (ISBN 1106-5516, ISBN 960-7475-33-X).
 35. Chalvatzis K.J., **Spyropoulos G.C.**, Kaldellis J.K., 2004, "The Contribution of the Greek Electricity Generation Sector on the Global Climate Change", International Conference on Protection and Restoration of the Environment VII, June 28-July 1, 2004, Mykonos, Greece.
 36. Kaldellis J.K., **Spyropoulos G.**, Chalvatzis K.J., Vlachos G., 2004, "Estimating the Energy Related Nitrogen Oxides Production in Greece, for the Next Decade", 7th Hellenic Conference in Meteorology, Climatology and Atmospheric Physics, Univ. of Cyprus, Nicosia, Cyprus.
 37. Kaldellis J.K., Chalvatzis K.J., **Spyropoulos G.**, Paliatsos A., 2004, "Transboundary Air Pollution in Greece. Economic and Political Aspects", 7th Hellenic Conference in Meteorology, Climatology and Atmospheric Physics, Univ. of Cyprus, Nicosia, Cyprus.
 38. Kaldellis J.K., **Spyropoulos G.**, Chalvatzis K., Paliatsos Ath., 2003, "Analyzing the Air Pollutants Production of Greek Electricity Sector for 1995–2010 Period", "Ecological Protection of the Planet Earth II", Sofia, Bulgaria.

39. Kaldellis J.K., Chalvatzis K., **Spyropoulos G.**, Paliatsos Ath., 2003, "Estimating the Energy Related Sulphur Oxides Production in Greece, for the Next Decade", *8th International Conference on Environmental Science and Technology, Conference Proceedings, University of Aegean, Global-NEST, Lemnos, Greece.*

BOOKS

- Author "Green Buildings and Renewable", Editors: Dr. Ali Sayigh, Chapter 31 - "Energy Balance Analysis for an Island PV Station Used for EV Charging on the Basis of Net Metering", J.K. Kaldellis, **G. Spyropoulos**, K. Christopoulos, 2020, Publisher: Springer International Publishing, Print ISBN: 978-3-030-30840-7, Electronic ISBN: 978-3-030-30841-4
- Author "Mediterranean Green Buildings & Renewable Energy", Editors: Dr. Ali Sayigh, Chapter 37 - "Supporting Electro-mobility in Smart Cities Using Solar EV Charging Stations", J.K. Kaldellis, **G. Spyropoulos**, St. Liaros, 2017, ISBN 978-3-319-30746-6, pages 501-513
- Author "Computational Applications of Renewable Energy - Solar Energy, Photovoltaics, Solar Thermal Systems", Kaldellis J.K., **Spyropoulos G.C.**, Kavadias K.A., 2007, Athens, Stamoulis Publications, ISBN: 978-960-351-686-6, pp. 395
- Editor "**Scientific Research Results**", Volume 5, Kaldellis J.K., **Spyropoulos G.C.**, 2006, Athens, Stamoulis Publications ISBN: 960-88222-2, pp. 222

RESEARCH AWARDS

- 2017 European Commission, 2017, "EU Sustainable Energy Award" in the energy islands category, project TILOS Island - Horizon 2020
- 2017 European Commission, 2017, "EU Sustainable Energy Citizens Award" in the citizens category, project TILOS Island - Horizon 2020
- 2012 Greek Ministry of Education, Research and Religious Affairs, 2012, "Scientific contribution for the development and application of modern RES technologies in wind, hydro and photovoltaic systems"

HOBBIES - INTERESTS

Music: Rock, Soul, Jazz, Lounge

Travelling: Greece, Germany, Austria, France, Belgium, Slovenia, Croatia, Italy, Slovakia, Bosnia and Herzegovina, Montenegro, Hungary, Czech Republic, United Kingdom, Poland, Turkey, Holland, Albania, Bulgaria, Spain, Cuba, Thailand, Malaysia, Cambodia, Jordan, China, Egypt

Writing: Traveling notes, Articles in several cultural editions

Photography: Traveling Photography and personal expositions in several cultural halls

Other: Acrobatic dance – Acrodance, Street Motorcycling, Mountain-Cycling