




**KOSMAS A. KAVADIAS**  
**SHORT CURRICULUM VITAE**

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**Occupation:** Associate Professor, Soft Energy Applications & Environmental Protection Lab, Dept. of Mechanical Engineering, University of West Attica

### **EDUCATION-QUALIFICATIONS**

PhD in Solar Energy Evaluation and Design - Implementation of Hybrid Energy Systems  
**University of Ioannina**-Physics Department

Master of Science in  
*Energy Management and Environmental Protection Systems*  
**National Technical University of Athens**-School of Chemical Engineering  
**University of Piraeus**- Department of Industrial Management

Diploma of **Mechanical Engineering**  
**Technological Educational Institute of Piraeus**-Mechanical Engineering Department

### **FIELDS OF SPECIALIZATION–RESEARCH INTERESTS**

- ✓ Design and Optimization of Solar Energy Systems
- ✓ Optimization of Hybrid Renewable Energy Systems
- ✓ Design of Stand Alone Energy Systems Based on Renewable Energy Sources
- ✓ Wind-Hydro Energy Production Systems
- ✓ Evaluation of Energy Storage Systems
- ✓ Optimum Management of Autonomous Energy Systems
- ✓ Building Integrated Renewable Energy Systems
- ✓ Zero-Energy Buildings

### **LINGUISTIC ABILITY**

English: Fluently

### **RESEARCH ACTIVITIES**

Participation in the research projects:

- *"TILOS (Technology Innovation for the Local Scale Optimum Integration of Battery Energy Storage)"*, Horizon 2020.
- *"CRISP, Creating Innovative Sustainability Pathways"*, FP7.
- *"Maximization of the Energy Autonomy of Greek Islands with the Use of Hybrid Energy Systems"*, Archimedes I.
- *"Optimisation of Water Systems in Islands with Limited Water Resources"*, Archimedes II.
- *"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"*, Archimedes II.
- *"Integrated Study and Prediction of Electricity Related Air Pollution (NO<sub>x</sub>, SO<sub>2</sub>, CO<sub>2</sub>) in Greece in View of the European Efforts for Improving the Air Quality"*, Archimedes II.
- *"A Comparative Evaluation of Hydrogen-Based Technologies and Other Energy Storage Systems for the Support of Autonomous RES-Based Hybrid Power Stations"*, Archimedes III.
- *"Meteorological Data Utilization for Solar Energy Systems"*, Archimedes III.
- VISION: *"A New Vision for Engineering Economy"*, TEMPUS.
- *"Parametrical Investigation of Wind-Hydro Power Plant Concerning Energy Storage"*, TEI of Piraeus.
- *"Desalination System Based on Gas-Turbines Exhausted Gases"*, Technical University of Crete.
- *"Energy Saving in TEI Buildings"*, TEI of Piraeus.
- *"Development of an Experimental Hybrid Plant based on a Wind Turbine-Photovoltaic Station Collaboration"*, TEI of Piraeus.
- *"NATURA-2000"*, Greek Ministry of Environment, Physical Planning and Public Works.
- *"Energy Saving on Greek Airports Plants"*, National Observatory of Athens.

## **TEACHING EXPERIENCE**

- Assistant Professor – Mechanical Engineering Department, teaching undergraduate and postgraduate courses:
  1. Hybrid Energy Systems
  2. Energy Improvement of Industrial and Residential Sector Buildings
  3. Renewable Energy Systems
  4. Applications of Renewable Energy Sources
  5. Hydraulic Turbomachines
  6. Energy Mechanics & Management of Natural Sources
  7. Waste Management Systems
  8. Wind Energy Systems
- Invited Professor in Oulu University of Applied Sciences.

- Lecturer at educational program entitled "*Wind Parks*" of National Centre of Public Management.
- Lecturer at educational program entitled "*Management of Energy Systems-Energy Saving*", for the education of Technical School Teachers, Pedagogical Institute.
- Lecturer at educational program entitled "*Alternative Energy Sources*", European Program for the education of unemployed people.
- Supervised 57 Undergraduate thesis and 23 Master thesis
- PhD thesis supervisor:
  - Development and experimental investigation of a PEM fuel cell simulation model (University of West Attica)
  - Multi-Criteria Optimization Approach of Hybrid Renewable Energy Applications in Shipping (University of Piraeus)
  - Development and experimental investigation of hybrid Renewable Energy systems optimum operation scheduling in building applications (University of West Attica)

## PUBLISHED WORK

- "**DR-DOS 6.0 User's Handbook**", Christos Kilias, Kosmas Kavadias, New Technology Editions, Athens, 1992, ISBN: 960-7235-07-X.
- "**Laboratory Applications of Soft Energy Resources**", Stamoulis Editions, Athens, 2000, ISBN: 960-351-345-8.
- "**Computational Applications of Soft Energy Resources: Wind Energy, Hydro Power**", Stamoulis Editions, Athens, 2005.
- "**Computational Applications of Soft Energy Resources: Solar Radiation, Photovoltaic Power Plants, Solar Thermal Systems**", Stamoulis Editions, Athens, 2007.
- Chapters in international publications:
  - a. **Kavadias K.A.**, 2010, "**Chapter 14 - Integration of stand-alone and hybrid wind energy systems into buildings**", pp. 475-505, in book "Stand-alone and hybrid wind energy systems. Technology, energy storage and applications" edited by J.K. Kaldellis, Woodhead Publishing, ISBN 978-1-84569-527-9.
  - b. **Kavadias K.A.**, 2012, "**Chapter 2.19 - Stand-Alone, Hybrid Systems**", pp. 623-655, in book "Comprehensive Renewable Energy" edited by Sayigh A., Elsevier B.V., ISBN 978-008-087-872-0.
  - c. **Kavadias K.A.**, Apostolou D., 2018, "**Chapter 6 - Hydro Power**", pp. 152-178, in book "Power Engineering: Advances and Challenges, Part A: Thermal, Hydro and Nuclear Power" edited by Badescu Viorel, Lazaroiu George Cristian, Barelli Linda, CRC Press, ISBN 978-1-138-70585-2.
  - d. **Kavadias K.A.**, Alexopoulos P., Charis G., 2021, "**Chapter 9 - Solar-geothermal power plants**", pp. 152-178, in book "Thermodynamic Analysis and Optimization

of Geothermal Power Plants" edited by Colpan C. Ozgur, Ezan M. Akif, Kizilkan Onder, Elsevier B.V., ISBN 978-0-12-821037-6.

e. **Kavadias K.A.**, Triantafyllou P., 2021, "**Chapter X - Wind-Based Stand-Alone Hybrid Energy Systems**", in book "Reference Module in Earth Systems and Environmental Sciences", Elsevier B.V., ISBN 978-0-12-409548-9.

- **49** published scientific-research papers on **international journals** (A1).
- **103** published scientific-research papers on **international conferences** (A2).
- **h-index 21** on Scopus database (Author ID: 6603007899) and **24** on Google Scholar database (user=dX8ZORIAAAAJ).

## **A1. Published Scientific-Research Papers on International Journals**

1. Kaldellis J.K., Paliatsos A.G., Toumbaniaris P., Kavadias K., **2001**, "The impact of fossil fuel consumption on air pollution problem in Greece", *"Balkan Physics Letters" Journal*, SI/2001, pp. 194-205, also presented in the First Hellenic-Turkish International Physics Conference, Kos-Alikarnassos.
2. Kaldellis J.K., Kavadias K.A., **2001**, "Optimal wind-hydro solution for Aegean Sea islands' electricity-demand fulfillment", *Applied Energy*, vol. 70, pp. 334-354.
3. Kaldellis J.K., Kavadias K., Christinakis E., **2001**, "Evaluation of the wind-hydro energy solution for remote islands", *Energy Conversion & Management*, vol. 42/9, pp. 1105-1120.
4. Kavadias K.A., Kaldellis J.K., **2003**, "An integrated aerodynamic simulation method of wind turbine rotors", *Applied Research Review Journal of the TEI of Piraeus*, vol. 8/1, pp. 221-242.
5. Kaldellis J.K., Kavadias K.A., Paliatsos A. G., **2003**, "Environmental impacts of wind energy applications: 'Myth or reality?'" , *Fresenius Environmental Bulletin*, vol. 12/4, pp. 326-337.
6. Kaldellis J.K., Kavadias K.A., Kondili E., **2004**, "Renewable energy desalination plants for the Greek islands, technical and economic considerations", *Desalination*, vol. 170/2, pp. 187-203.
7. Kaldellis J.K., Kavadias K.A., Filios A., Garofallakis S., **2004**, "Income loss due to wind energy rejected by the Crete island electrical network: The present situation", *Applied Energy*, vol. 79/2, pp. 127-144.
8. Kaldellis J.K., Kavadias K.A., **2004**, "Evaluation of Greek wind parks visual impact: 'The public attitude'" , *Fresenius Environmental Bulletin*, vol. 13/5, pp. 413-423.
9. Kaldellis J.K., Koronakis P., Kavadias K., **2004**, "Energy balance analysis of a stand-alone photovoltaic system, including variable system reliability impact", *Renewable Energy*, vol. 29/7, pp. 1161-1180.
10. 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. 9/5, pp. 499-520.
11. Kaldellis J.K., Kavadias K.A., Kondili E., **2006**, "Energy and clean water coproduction in remote islands to face the intermittent character of wind energy", *International Journal of Global Energy Issues*, vol. 25/3-4, pp. 298-312.
12. Kaldellis J.K., Kavadias K.A., Papantonis D.E., Stavrakakis G.S., **2006**, "Maximizing wind generated electricity with hydro storage: Case study Crete", *Wind Engineering*, vol. 30/1, pp. 73-92.
13. Kaldellis J.K., Kavadias K.A., **2007**, "Cost-benefit analysis of remote hybrid wind-diesel power stations: Case study Aegean Sea islands", *Energy Policy*, vol. 35/3, pp. 1525-1538.

14. Kaldellis J.K., Kavadias K.A., Koronakis P.S., **2007**, "Comparing wind and photovoltaic stand-alone power systems used for the electrification of remote consumers", *Renewable & Sustainable Energy Reviews*, vol. 11/1, pp. 55-77.
15. Moustris K., Paliatsos A.G., Bloutsos A., Nikolaidis K., Koronaki I., Kavadias K., **2008**, "Use of neural networks for the creation of hourly global and diffuse solar irradiance data at representative locations in Greece", *Renewable Energy*, vol. 33, pp. 928-932, also presented in World Renewable Energy Congress IX and Exhibition, August 2006, Florence, Italy.
16. Kaldellis J.K., Zafirakis D., Kavadias K.A., Kondili E., **2009**, "An optimum sizing methodology for combined photovoltaic-energy storage electricity generation configurations", *Solar Energy Engineering*, vol. 131/2, 021010 (12 pages).
17. Kaldellis J.K., Kavadias K.A., Filios A.E., **2009**, "A new computational algorithm for the calculation of maximum wind energy penetration in autonomous electrical generation systems", *Applied Energy*, vol. 86, pp. 1011-1023.
18. Kaldellis J.K., Spiropoulos G.C., Kavadias K.A., Koronaki I.P., **2009**, "Experimental validation of autonomous PV-based water pumping system optimum sizing", *Renewable Energy*, vol. 34, pp. 1106-1113.
19. Kaldellis J.K., Zafirakis D., Kavadias K.A., **2009**, "Techno-economic comparison of energy storage systems for island autonomous electrical networks", *Renewable & Sustainable Energy Reviews*, vol. 13/2, pp. 378-392.
20. Kaldellis J.K., Zafirakis D., Kaldelli El., Kavadias K., **2009**, "Cost benefit analysis of a photovoltaic-energy storage electrification solution for remote islands", *Renewable Energy*, vol. 31, pp. 1299-1311.
21. Kaldellis J.K., Kapsali M., Kavadias K.A., **2010**, "Energy balance analysis of wind-based pumped hydro storage systems in remote island electrical networks", *Applied Energy*, vol. 87, pp. 2427-2437.
22. Kaldellis J.K., Zafirakis D., Kavadias K., **2012**, "Minimum cost solution of wind-photovoltaic based stand-alone power systems for remote consumers", *Energy Policy*, vol. 42, pp. 105-117.
23. Kaldellis J.K., Zafirakis D., Kavadias K., Kondili E., **2012**, "Optimum PV-diesel hybrid systems for remote consumers of the Greek territory", *Applied Energy*, vol. 97, pp.61-67.
24. Kaldellis J.K., Kavadias K., Zafirakis D., **2012**, "Experimental validation of the optimum photovoltaic panels' tilt angle for remote consumers", *Renewable Energy*, vol. 46, pp.179-191.
25. Kaldellis J.K., Kavadias K.A., Zafirakis D., **2013**, "The role of hydrogen-based energy storage in the support of large-scale wind energy integration in island grids", *International Journal of Sustainable Energy*, DOI:10.1080/14786451.2013.846342.
26. Stathopoulos M., Zafirakis D., Kavadias K.A., Kaldellis J.K., **2014**, "The Role of Residential Load-management in the Support of RES- Based Power Generation in Remote Electricity Grids", *Energy Procedia*, vol. 46, pp. 281–286.

27. Kaldellis J.K., Kapsali M., Kavadias K.A., **2014**, "Temperature and wind speed impact on the efficiency of PV installations. Experience obtained from outdoor measurements in Greece", *Renewable Energy*, vol. 66, pp. 612–624.
28. Kavadias K.A., Paliatsos A.G., Kambezidis H.D., Bartzokas A., **2014**, "Comparison of long-term broadband model results with experimental measurements of solar radiation", *Fresenius Environmental Bulletin*, vol. 23/12a, pp. 3178–3187, also presented in 17<sup>th</sup> International Symposium on Environmental Pollution and its Impact on Life in the Mediterranean Region, MESAEP, September 2013, Istanbul, Turkey.
29. Moustris K.P., Kavadias K.A., Nastos P.T., Larissi I.K., Paliatsos A.G., **2014**, "Heat stress conditions in the Greek territory within the warm period of the year", *Fresenius Environmental Bulletin*, vol. 23/12, pp. 3068-3076, also presented in 17<sup>th</sup> International Symposium on Environmental Pollution and its Impact on Life in the Mediterranean Region, MESAEP, September 2013, Istanbul, Turkey.
30. Kaldellis J.K., Kavadias K.A., Zafirakis D., **2014**, "The role of hydrogen-based energy storage in the support of large-scale renewable energy sources integration in island grids", *Fresenius Environmental Bulletin*, vol. 23/12, pp. 3169-3177, also presented in 17<sup>th</sup> International Symposium on Environmental Pollution and its Impact on Life in the Mediterranean Region, MESAEP, September 2013, Istanbul, Turkey.
31. Harry D. Kambezidis, Basil E. Psiloglou, Kosmas A. Kavadias, Athanasios G. Paliatsos, Aristides Bartzokas, **2016**, "Development of a Greek solar map based on solar model estimations", *Sun and Geosphere*, vol. 11/2, pp. 101-105, also presented in Workshop Solar influences on the ionosphere and magnetosphere, SOZOPOL 2015, June 2015, Sunny Beach, Bulgaria.
32. Kaldellis J.K., Tzanes G.T., Papapostolou C., Kavadias K.A., Zafirakis D., **2017**, "Analyzing the Limitations of Vast Wind Energy Contribution in Remote Island Networks of the Aegean Sea Archipelagos", *Energy Procedia*, vol. 142, pp. 787-792, also presented in 9<sup>th</sup> International Conference on Applied Energy "Energizing the Future" (ICAE2017), August 2017, Cardiff, United Kingdom.
33. Kavadias K.A., Zafirakis D., Paliatsos Ath.G., **2017**, "Application of Typical Meteorological Years for sizing building integrated PV systems under zero load rejections", *Energy Procedia*, vol. 105, pp. 881-887, also presented in 8<sup>th</sup> International Conference on Applied Energy "Transformative Innovations for a Sustainable Future" (ICAE2016), 8-11 October 2016, Beijing, China.
34. Apostolou D., Kavadias K.A., Kaldellis J.K., **2017**, "Analytical hydrogen production and storage simulation for the "Kos-Kalymnos" system", *Energy Procedia*, vol. 105, pp. 4340-4346, also presented in 8<sup>th</sup> International Conference on Applied Energy "Transformative Innovations for a Sustainable Future" (ICAE2016), 8-11 October 2016, Beijing, China.
35. Tzanes G.T., Zafirakis D., Papapostolou C., Kavadias K.A., Kaldellis J.K., **2017**, "PHAROS: An Integrated Planning Tool for Meeting the Energy and Water Needs of Remote Islands using RES-based Hybrid Solutions", also presented in 9<sup>th</sup> International Conference on Applied Energy "Energizing the Future" (ICAE2017), 21-24 August 2017, Cardiff, United Kingdom.

36. Kavadias K.A., Apostolou D., Kaldellis J.K., **2018**, "Modelling and optimisation of a hydrogen-based energy storage system in an autonomous electrical network", *Applied Energy* 227, 574–586.
37. Tzanes G., Zafeiraki E., Papapostolou C., Zafirakis D., Moustiris K., Kavadias K., Chalvatzis K., Kaldellis J.K., **2019**, "Assessing the Status of Electricity Generation in the Non-Interconnected Islands of the Aegean Sea Region", *Energy Procedia* 159, 424–429, also presented in Applied Energy Symposium and Forum, Renewable Energy Integration with Mini/Microgrids (REM 2018), 28-30 September 2018, Rhodes, Greece.
38. Kavadias K.A., Karamanou E., **2019**, "Meteorological input data effect on sizing stand-alone photovoltaic systems", *Energy Procedia* vol. 159, pp. 90–95, also presented in Applied Energy Symposium and Forum, Renewable Energy Integration with Mini/Microgrids (REM 2018), 28-30 September 2018, Rhodes, Greece.
39. Kavadias K.A., Alexopoulos P., Charis G., **2019**, "Techno-economic evaluation of geothermal-solar power plant in Nisyros island in Greece", *Energy Procedia*, vol. 159, pp. 136–141, also presented in Applied Energy Symposium and Forum, Renewable Energy Integration with Mini/Microgrids (REM 2018), 28-30 September 2018, Rhodes, Greece.
40. Alamo D.H., Medina R.N., Ruano S.D., García S.S., Moustiris K.P., Kavadias K.A., Zafirakis D., Tzanes G., Zafeiraki E., Spyropoulos G., Kaldellis J.K., Notton G., Duchaud J.-L., Nivet M.-L., Fouilloy A., Lespinats S., **2019**, "An Advanced Forecasting System for the Optimum Energy Management of Island Microgrids", *Energy Procedia*, vol. 159, pp. 111–116, also presented in Applied Energy Symposium and Forum, Renewable Energy Integration with Mini/Microgrids (REM 2018), 28-30 September 2018, Rhodes, Greece.
41. Kavadias K.A., Alexopoulos P., Charis G., Kaldellis J.K., **2019**, "Sizing of a solar–geothermal hybrid power plant in remote island electrical network", *Energy Procedia*, vol. 157, pp. 901-908, also presented in Technologies and Materials for Renewable Energy, Environment and Sustainability (TMREES18), 19-21 September 2018, Athens, Greece.
42. Moustiris K., Kavadias K.A., Zafirakis D., Kaldellis J.K., **2020**, "Medium, short and very short-term prognosis of load demand for the Greek Island of Tilos using artificial neural networks and human thermal comfort-discomfort biometeorological data", *Renewable Energy*, vol. 147, p.p. 100–109.
43. Kambezidis H.D., Psiloglou B.E., Kaskaoutis D.G., Karagiannis D., Petrinoli K., Gavriil A., Kavadias K., **2020**, "Generation of typical meteorological years for 33 locations in Greece: adaptation to the needs of various applications", *Theoretical and Applied Climatology*, <https://doi.org/10.1007/s00704-020-03264-7>.
44. Kavadias K.A., Tzelepis S., **2020**, "A Simplified Optimization Model for Sizing Proton-Exchange Membrane Fuel Cells", *Journal of Energy and Power Technology* vol. 2/3, <https://doi.org/10.21926/jept.2003011>.



45. Darmanis M., Çakan M., Moustris K.P., Kavadias K.A., Nikas K.-S.P., **2020**, "Utilisation of mass and night ventilation in decreasing cooling load demand", *Sustainability*, vol. 12, 7826, <https://doi.org/10.3390/su12187826>.
46. Tzelepis S., Kavadias K.A., Marnellos G., George Xydis G., **2021**, "A review study on proton exchange membrane fuel cell electrochemical performance focusing on anode and cathode catalyst layer modelling at macroscopic level", *Renewable and Sustainable Energy Reviews*, vol. 151, <https://doi.org/10.1016/j.rser.2021.111543>.
47. Kavadias K.A., Triantafyllou P., **2021**, "Hybrid Renewable Energy Systems' Optimisation. A Review and Extended Comparison of the Most-Used Software Tools", *Energies*, vol. 14/24, <https://doi.org/10.3390/en14248268>.
48. Tzelepis S., Kavadias K.A., Marnellos G.E., Xydis G., **2021**, "A review study on proton exchange membrane fuel cell electrochemical performance focusing on anode and cathode catalyst layer modelling at macroscopic level", *Renewable and Sustainable Energy Reviews*, vol. 151, <https://doi.org/10.1016/j.rser.2021.111543>.
49. Kavadias K.A., Kosmas V., Tzelepis S., **2022**, "Sizing, optimization, and financial analysis of a green hydrogen refueling station in remote regions", *Energies*, vol. 15, 547, <https://doi.org/10.3390/en15020547>.

## **A2. Published Scientific-Research Papers on International Conferences**

1. Vlachou D., Christinakis E., Kavadias K., Kaldellis J., **1999**, "Optimum wind-hydro energy station operation, using an advanced fluid flow analysis code", 3<sup>rd</sup> National Congress on Computational Mechanics, Conference Proceedings, pp. 811-819, University of Thessaly, June 1999, Volos, Greece.
2. Kaldellis J.K., Kavadias K., Garofallakis J., **2000**, "Renewable energy solution for clean water production in the Aegean Archipelago islands", Mediterranean Conference on Policies and Strategies for Desalination and Renewable Energies, NTUA/RENES, June 2000, Santorini, Greece.
3. Kaldellis J.K., Kavadias K., Vlachou D., **2000**, "Improving the economic viability of desalination plants", Mediterranean Conference on Policies and Strategies for Desalination and Renewable Energies, NTUA/RENES, June 2000, Santorini, Greece.
4. Sigalas J.S., Kavadias K.A., Kaldellis J.K., **2000**, "An autonomous anaerobic wastewater treatment plant based on R.E.S. Theoretical and experimental approach", International Conference on Restoration and Protection of the Environment V, Conference Proceedings, pp. 735-743, July 2000, Thassos, Greece.
5. Neonakis J., Kavadias K., Kaldellis J.K., **2000**, "Estimating the starting point for substantial wind energy penetration in the Greek market", The World Renewable Energy Congress-VI, Conference Proceedings, pp. 2324-2327, World Renewable Energy Network, July 2000, Brighton, UK.
6. Gaglia A., Kaldellis J.K., Kavadias K., Konstantinidis P., Sigalas J., Vlachou D., **2000**, "Integrated studies on renewable energy sources. The soft energy application

laboratory, mechanical engineering department, TEI Piraeus", The World Renewable Energy Congress-VI, Conference Proceedings, pp. 1588-1591, World Renewable Energy Network, July 2000, Brighton, UK.

7. Christinakis E., Kavadias K., Kaldellis J.K., **2000**, "Wind-hydro solution possibilities for the Aegean Sea islands", International Conference "Wind Power for the 21st Century", Paper VP9.13, September 2000, Convention Centre, Kassel, Germany.
8. Kavadias K., Neonakis J., Kaldellis J.K., **2000**, "Economic viability of wind farm investments in Greece, using probabilistic analysis", International Conference "Wind Power for the 21st Century", Paper VP2.6, September 2000, Convention Centre, Kassel, Germany.
9. Kavadias K.A., Kaldellis J.K., **2000**, "Storage system evaluation for wind power installations", International Conference "Wind Power for the 21st Century", Paper OR7.3, September 2000, September 2000, Convention Centre, Kassel, Germany.
10. Kaldellis J.K., Vlachou D., Kavadias K., **2001**, "An integrated renewable energy solution for very small Aegean Sea islands", International Conference on Renewable Energies for Islands, Paper 68, NTUA/RENES, June 2001, Chania, Crete, Greece.
11. Christinakis E., Kavadias K., Kaldellis J.K., **2001**, "Maximum wind-hydro power penetration in small & medium sized islands", International Conference on Renewable Energies for Islands, Paper 33, NTUA/RENES, June 2001, Chania, Crete, Greece.
12. Kavadias K., Kaldellis J.K., Komninoglou A., **2001**, "Wind energy surplus management for remote consumers using a water pumping storage system", European Wind Energy Conference and Exhibition 2001, Conference Proceedings, pp. 972-975, July 2001, Bella Center, Copenhagen, Denmark.
13. Kaldellis J.K., Neonakis J.K., Kavadias K.A., **2001**, "A time-depending cost-benefit analysis concerning the economic attractiveness of wind parks in Greece", European Wind Energy Conference and Exhibition 2001, July 2001, Bella Center, Copenhagen, Denmark.
14. Kaldellis J.K., Vlachou D., Kavadias K., **2001**, "The incorporation of wind parks in Greek landscape. The public opinion towards wind turbines", European Wind Energy Conference and Exhibition 2001, July 2001, Bella Center, Copenhagen, Denmark.
15. Kaldellis J.K., Paliatsos A.G., Toumbaniaris P., Kavadias K., **2001**, "The impact of fossil fuel consumption on air pollution problem in Greece", presented in the First Hellenic-Turkish International Physics Conference, Kos-Alikarnassos, published also in "*Balkan Physics Letters*" Journal, SI/2001, pp. 194-205.
16. Kaldellis J.K., Kavadias K.A., **2002**, "Optimum wind-hydro configuration for remote islands on the basis of maximum benefit to cost ratio", 2002 Global Windpower Conference & Exhibition, Paper GWP081, April 2002, CNIT, La Defense, Paris, France.
17. Kaldellis J.K., Vlachos G.Th., Kavadias K.A., **2002**, "Optimum sizing basic principles of a combined photovoltaic-wind-diesel hybrid system for isolated consumers",

- EuroSun 2002 The 4<sup>th</sup> ISES Europe Solar Congress "Renewable Energy for Local Communities of Europe" (Toward Rio+10), Paper W141, June 2002, Bologna, Italy.
18. Kaldellis J.K., Kavadias K.A., Vlachou D.S., **2002**, "Long-term evolution of PPC wind parks operation in Aegean Archipelago remote islands", EuroSun 2002 The 4<sup>th</sup> ISES Europe Solar Congress "Renewable Energy for Local Communities of Europe" (Toward Rio+10), Paper W140, June 2002, Bologna, Italy.
  19. Kaldellis J.K., Kavadias K.A., Neonakis J.K., **2002**, "A probabilistic computational method for the economic evaluation of soft energy applications in course of time", 4<sup>th</sup> GRACM Congress on Computational Mechanics, Paper 2002\_60, Greek Association of Computational Mechanics, June 2002, Patra, Greece.
  20. Kavadias K.A., Kaldellis J.K., **2002**, "A fast-simplified aerodynamic analysis of small wind turbines", The World Wind Energy Conference and Exhibition, July 2002, Berlin, Germany.
  21. Kaldellis J.K., Kavadias K.A., Vlachou D.S., **2002**, "An autonomous photovoltaic-wind power installation properly sizing for remote consumers in Greece", The World Wind Energy Conference and Exhibition, July 2002, Berlin, Germany.
  22. Kaldellis J.K., Kavadias K.A., Vlachou D.S., **2002**, "Electricity load management of APS using wind-hydro solution", 3rd Mediterranean Conference and Exhibition on Power Generation, Transmission Energy and Distribution "Med Power 2002", Paper MED02\_126a, IEE/NTUA, November 2002, Athens, Greece.
  23. Kaldellis J.K., Tzioti M.G., Kavadias K.A., **2003**, "Noise and visual impact of wind power stations: What is the public opinion in Greece?", 2<sup>nd</sup> International Conference on Ecological Protection of the Planet Earth, Conference Proceedings, pp. 528-535, June 2003, Sofia, Bulgaria.
  24. Kaldellis J.K., Kavadias K.A., Korbakis G., Vlachou D.S., **2004**, "The impact of local ambient conditions on the energy production of contemporary wind power stations", 7<sup>th</sup> Panhellenic (International) Conference of Meteorology, Climatology and Atmospheric Physics, September 2004, Nicosia, Cyprus.
  25. Kaldelli El., Xirakis Ef., Kavadias K., Kaldellis J.K., **2005**, "Techno-economic evaluation of autonomous building integrated photovoltaic systems in Greece", International Conference on "Integration of RES into Buildings", July 2005, Patra, Greece.
  26. 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, Patra, Greece.
  27. Kaldellis J.K., Kondili E., Kavadias K.A., **2006**, "Risk evolution during a wind park investment realization", European Wind Energy Conference and Exhibition 2006, February 2006, Athens, Greece.
  28. Kaldellis J.K., Kavadias K.A., **2006**, "Optimum sizing of a stand-alone wind-diesel system on the basis of life cycle cost analysis", European Wind Energy Conference and Exhibition 2006, February 2006, Athens, Greece.

29. Kavadias K.A., Zafirakis D., Kondili E., Kaldellis J.K., **2006**, "Cost-benefit analysis of variable water pumping configurations based on wind energy surplus in autonomous electrical networks", European Wind Energy Conference and Exhibition 2006, February 2006, Athens, Greece.
30. Kaldellis J.K., Kavadias K.A., Filios A., **2006**, "Techno-economic evaluation of large energy storage systems used in wind energy applications", European Wind Energy Conference and Exhibition 2006, February 2006, Athens, Greece.
31. Kaldellis J.K., Kavadias K.A., Kondili E.M., **2006**, "Estimating the wind energy rejection by the Crete island electrical network during the next decade", WSEAS International Conference on Energy and Environmental Systems (EE'06), May 2006, Chalkida, Greece.
32. Kaldellis J.K., Kavadias K.A., Kondili E.M., **2006**, "Analyzing the relation between noise-visual impact and the public attitude towards wind energy applications in Greece", Protection and Restoration of the Environment VIII, July 2006, Chania, Greece.
33. Alasis E., Spyropoulos G., Kavadias K.A., Kaldellis J.K., **2006**, "Experimental and theoretical analysis of remote medium size photovoltaic stations", World Renewable Energy Congress IX and Exhibition, August 2006, Florence, Italy.
34. Moustiris K., Paliatsos A., Kaldellis J.K., Nikolaidis K., Koronaki I., Kavadias K.A., **2006**, "Use of neural networks for the creation of hourly global and diffuse solar irradiance data at representative locations in Greece", World Renewable Energy Congress IX and Exhibition, August 2006, Florence, Italy, also published in *Renewable Energy*, vol. 33, pp. 928-932.
35. Kavadias K.A., Kondili E.M., Kaldellis J.K., **2006**, "Renewable energy based hydrogen production methods: An economic and energy efficiency comparison", World Renewable Energy Congress IX and Exhibition, August 2006, Florence, Italy.
36. Kaldellis J.K., Kavadias K.A., Paliatsos A.G., **2006**, "Evaluation of state and private wind power investments in Greece on the basis of long-term energy productivity", World Renewable Energy Congress IX and Exhibition, August 2006, Florence, Italy.
37. Kaldellis J.K., Kondili E., Kavadias K.A., Zafirakis D., **2006**, "Off-grid solutions based on RES and energy storage configurations", 1<sup>st</sup> International Renewable Energy Storage (IRES I), October 2006, Gelsenkirchen, Germany.
38. Kavadias K.A., Zafirakis D., Kondili E., Kaldellis J.K., **2007**, "The contribution of renewables on reducing the electricity generation cost in autonomous island networks", International Conference on Clean Electrical Power, May 2007, Capri, Italy.
39. Kaldellis J.K., Kavadias K.A., **2007**, "Macroeconomic and environmental impacts of wind energy applications in Greece. The public opinion", 1<sup>st</sup> Conference on Environmental Management, Engineering, Planning and Economics (CEMEPE), June 2007, Skiathos, Greece.
40. Zafirakis D., Fragos P., Kavadias K., Kaldellis J.K., **2007**, "Determining the energy pay-back period of PV-battery stand-alone systems: Case study Greece", 2<sup>nd</sup>

International Conference "The Case of Energy Autonomy: Storing Renewable Energies", IRES-II, Eurosolar, November 2007, Bonn, Germany.

41. Zafirakis D., Kavadias K., Kaldellis J.K., **2008**, "Evaluation of the wind-CAES energy solution for the Aegean Islands. The case of a private wind park in Crete", European Wind Energy Conference and Exhibition 2008, March 2008, Brussels, Belgium.
42. Papakonstandis Sp., Zafiris D., Santis K., Kavadias K., Kaldellis J.K., **2008**, "Energy analysis of a hydro-PV-diesel hybrid system in North Greece", International Scientific Conference SynEnergy Forum, May 2008, Spetses, Greece.
43. Kaldellis J.K., Kondili, E.M., Kavadias K.A., **2008**, "Analyzing the public opinion towards wind energy applications in Greece», World Renewable Energy Congress X and Exhibition, July 2008, Glasgow, Scotland.
44. Kavadias K.A., Zafirakis D.P., Rozakeas K., Kaldellis J.K., **2008**, "Optimum sizing of a hydrogen production installation based on renewable energy surplus", World Renewable Energy Congress X and Exhibition, July 2008, Glasgow, Scotland.
45. Kapsali M., Kavadias K.A., Kaldellis J.K., **2008**, "Energy based sizing of a wind-hydro solution for maximum wind energy penetration in Lesvos island", World Renewable Energy Congress X and Exhibition, July 2008, Glasgow, Scotland.
46. Zafirakis D., Kavadias K.A., Kaldellis J.K., **2008**, "Optimum energy storage sizing for the application of a wind-CAES configuration in autonomous island networks", 6<sup>th</sup> Mediterranean Conference on Power Generation, Transmission and Distribution, MedPower 2008, November 2008, Thessaloniki, Greece.
47. Tiligadas D., Kavadias K.A., Kaldellis J.K., **2008**, "Maximum wind energy contribution in autonomous island electrical networks using probabilistic analysis", 6<sup>th</sup> Mediterranean Conference on Power Generation, Transmission and Distribution, MedPower 2008, November 2008, Thessaloniki, Greece.
48. Kavadias K.A., Kapsali M., Kaldellis J.K., **2009**, "An integrated computational method for the optimum sizing of a wind-based pumped hydro storage system", European Wind Energy Conference (EWEC 2009), March 2009, Marseille, France.
49. Kaldellis J.K., Kavadias K.A., Zafirakis D., **2009**, "Integrated electrification solution for remote islands based on wind-PV hybrid system", European Wind Energy Conference (EWEC 2009), March 2009, Marseille, France.
50. Zafirakis D.P., Kavadias K.A., Kaldellis J.K., **2010**, "Optimization of energy autonomous wind-photovoltaic hybrid systems", World Renewable Energy Congress XI, September 2010, Abu Dhabi, UAE.
51. Kavadias K.A., Karagiannis J., Zafirakis D.P., Kaldellis J.K., **2010**, "Experimental validation of the optimum photovoltaic angle in urban environment areas", World Renewable Energy Congress XI, September 2010, Abu Dhabi, UAE.
52. Kavadias K.A., Paliatsos A.G., Moustris K.P., Larissi I.K., Bartzokas A., **2010**, "Building comprehensive meteorological data files with the use of Artificial Neural Networks", World Renewable Energy Congress XI, September 2010, Abu Dhabi, UAE.

53. Kavadias K.A., Spilios Ef., Zafirakis D., Kaldellis J.K., **2010**, "A revised integrated computational algorithm for the optimum sizing of stand-alone hybrid energy systems", 5<sup>th</sup> International Renewable Energy Storage Conference (IRES 2010), November 2010, Berlin, Germany.
54. Zafirakis D., Kapsali M., Kavadias K.A., Kaldellis J.K., **2010**, "Development of support schemes for the promotion of bulk energy storage systems in Greece", 5<sup>th</sup> International Renewable Energy Storage Conference (IRES 2010), November 2010, Berlin, Germany.
55. Katsirou V., Zafirakis D., Kavadias K., Kaldellis J.K., **2011**, "An integrated methodology for the experimental validation of a wind turbine's power curve", European Wind Energy Conference (EWEA 2011), March 2011, Brussels, Belgium.
56. Zafirakis D., Kavadias K., Kondili E., Kaldellis J.K., **2011**, "Optimum sizing of a PV-battery-diesel hybrid system for remote consumers", International Conference on Applied Energy (ICAE 2011), May 2011, Perugia, Italy.
57. Kavadias K.A., Gitersos Ch., Zafirakis D., Kaldellis J.K., **2011**, "Optimum photovoltaic angle estimation for stand-alone installations of south Europe on the basis of experimental measurements", International Conference on Clean Electrical Power (ICCEP 2011), June 2011, Ischia, Italy.
58. Zafirakis D., Kavadias K.A., Kondili E., Kaldellis J.K., **2011**, "Energy performance evaluation of a hybrid system in the Athos state", International Conference on Clean Electrical Power (ICCEP 2011), June 2011, Ischia, Italy.
59. Kaldellis J.K., Zafirakis D., Kavadias K.A., Kondili E., **2011**, "Comparative Evaluation of Hydrogen-based and other Energy Storage Systems for the Support of Autonomous RES-based Hybrid Power Stations", International Conference eRA (eRA-6), September 2011, Athens, Greece.
60. Zafirakis D., Kavadias K.A., Efthimiadis S., Kapsali M., Kaldellis J.K., **2012**, "100% RES integration in the island of Agios Efstratios-Greece with the use of different wind-energy storage systems", European Wind Energy Conference (EWEA 2012), April 2012, Copenhagen, Denmark.
61. Gavrilopoulou El., Zafirakis D., Kavadias K.A., Kaldellis J.K., **2012**, "The need for the development of a new readjusted Weibull distribution for increased reliability of energy yield estimation", European Wind Energy Conference (EWEA 2012), April 2012, Copenhagen, Denmark.
62. Zafirakis D., Kavadias K.A., Kokotsakis A., Kaldellis J.K., **2013**, "Development of PV-CAES configurations for the electrification of remote communities", International Conference on Clean Electrical Power (ICCEP 2013), June 2013, Alghero, Sardinia, Italy.
63. Papadopoulos G., Zafirakis D., Kavadias K.A., Kaldellis J.K., **2013**, "Investigating the role of hybrid PV-diesel stand-alone systems for the electrification of remote telecommunication stations in Greece", International Conference on Applied Energy (ICAE 2013), July 2013, Pretoria, South Africa.
64. Alikaj D., Zafirakis D., Kavadias K.A., Kaldellis J.K., **2013**, "Optimum sizing of hybrid, wind-based configurations for the satisfaction of remote consumers' total energy

- needs", European Wind Energy Conference (EWEA 2013), February 2013, Vienna, Austria.
65. Kavadias K.A., Andreadis D., Alyssandrakis A., Zafirakis D., Kaldellis J.K., **2013**, "The Role of Hydrogen-Based Energy Storage in the Support of Large-Scale Wind Energy Integration in Island Grids", 4<sup>th</sup> International Conference on Renewable Energy Sources, June 2013, Nicosia, Cyprus.
  66. Ristas G., Spyropoulos G., Kavadias K.A., Kaldellis J.K., **2013**, "Experimental Energy Analysis of a Hybrid Wind-PV Stand-Alone Installation", 4<sup>th</sup> International Conference on Renewable Energy Sources & Energy Efficiency – New Challenges, June 2013, Nicosia, Cyprus.
  67. Moustris K.P., Kavadias K.A., Nastos P.T., Larissi I.K., Paliatsos A.G., **2013**, "Heat stress conditions in the Greek territory within the warm period of the year", 17<sup>th</sup> International Symposium on Environmental Pollution and its Impact on Life in the Mediterranean Region, MESAEP, September 2013, Istanbul, Turkey, also published in *Fresenius Environmental Bulletin*, vol. 23/12, pp. 3068-3076.
  68. Kavadias K.A., Zafirakis D., Kaldellis J.K., **2013**, "The role of hydrogen-based energy storage in the support of large-scale renewable energy sources integration in island grids", presented in the 17<sup>th</sup> International Symposium on Environmental Pollution and its Impact on Life in the Mediterranean Region, MESAEP, September 2013, Istanbul, Turkey.
  69. Kavadias K.A., Zafirakis D., Moustris K., Paliatsos A.G., Kambezidis H.D., Bartzokas A., **2013**, "Development of a Greek solar map based on experimental measurements", 17<sup>th</sup> International Symposium on Environmental Pollution and its Impact on Life in the Mediterranean Region, MESAEP, September 2013, Istanbul, Turkey.
  70. Kavadias K.A., Paliatsos A.G., Kambezidis H.D., Bartzokas A., **2013**, "Comparison of long-term broadband model results with experimental measurements of solar radiation", 17<sup>th</sup> International Symposium on Environmental Pollution and its Impact on Life in the Mediterranean Region, MESAEP, September 2013, Istanbul, Turkey, also published in *Fresenius Environmental Bulletin*, vol. 23/12a, pp. 3178–3187.
  71. Paliatsos A.G., Moustris K.P., Kavadias K.A., **2014**, "Estimation of hourly global irradiation using artificial neural networks", 12<sup>th</sup> International Conference on Meteorology, Climatology and Atmospheric Physics (COMECAP 2014), vol. 3, pp. 21-25, May 2014, Heraklion, Greece.
  72. Moustris K.P., Kavadias K.A., Paliatsos A.G., Ertürk Fırat, **2014**, "Development and application of Artificial Neural Networks in the prognosis of global irradiation", International Conference eRA (eRA-9), September 2014, Athens, Greece.
  73. Zafirakis D., Kavadias K.A., Kondili E., Kaldellis J.K., **2014**, "Optimum sizing of PV-CAES configurations for the electrification of remote consumers", European Symposium on Computer Aided Process Engineering (ESCAPE24), June 2014, Budapest, Hungary.

74. Chliaoutakis A., Protogeropoulos Chr., Weiss I., Kaldellis J., Kavadias K.A., **2014**, "Two-year performance comparison assessment between central and multistring-based inverters installed in large-scale photovoltaic power stations in Greece", European PV Solar Energy Conference and Exhibition (EU PVSEC), September 2014, Amsterdam, The Netherlands.
75. Kambezidis H.D., Psiloglou B.E., Kavadias K.A., Paliatsos A.G., Bartzokas A., **2015**, "Development of a Greek solar map based on solar model estimations" in Workshop Solar influences on the ionosphere and magnetosphere, SOZOPOL 2015, June 2015, Sunny Beach, Bulgaria, also published in Sun and Geosphere, vol. 11/2, pp. 101-105.
76. Moustiris K.P., Kavadias K.A., Paliatsos A.G., **2015**, "Treatment and implementation of measurements for the creation of a typical electricity consumption profile for a residential consumer", 5<sup>th</sup> International Conference on Environmental Management, Engineering, Planning and Economics (CEMEPE) and SECOTOX Conference, June 2015, Mykonos, Greece.
77. Moustiris K.P., Kavadias K.A., Paliatsos A.G., **2015**, "The efficiency of artificial neural networks modelling in forecasting daily global solar irradiation one day ahead", 18<sup>th</sup> International Symposium on Environmental Pollution and its Impact on Life in the Mediterranean Region, MESAEP, September 2015, Crete, Greece.
78. Kavadias K.A., Zafirakis D., Paliatsos A.G., **2015**, "Numerical simulation of a solar water heating system (SWHS)", International Conference eRA (eRA-10), September 2015, Athens, Greece.
79. Maleviti F., Kavadias K.A., **2015**, "Spatial interpolation methods applied over Greece for solar potential mapping", International Conference eRA (eRA-10), September 2015, Athens, Greece.
80. Apostolou D., Kavadias K.A., Kaldellis J.K., **2015**, "Analytical Simulation of a Combined Electrolysis for Hydrogen Production – H<sub>2</sub> Storage", International Conference eRA (eRA-10), September 2015, Athens, Greece.
81. Kambezidis H.D., Psiloglou B.E., Kavadias K.A., Paliatsos A.G., Bartzokas A., **2015**, "Implementation of meteorological measurements for the development of a solar radiation database", International Conference in Solar Variability and its Heliospheric Effects, BBC SWS Regional Network, November 2015, Athens, Greece.
82. Kavadias Kosmas A., Paliatsos Athanasios G., Kambezidis Harry D., **2015**, "A Contemporary Solar Energy Map for an Area in the South of the Balkan Peninsula", 5<sup>th</sup> International Conference on Power and Energy Systems (ICPES 2015), November 2015, Lisbon, Portugal.
83. Kavadias K.A., Zafirakis D., Paliatsos Ath.G., **2016**, "Application of Typical Meteorological Years for sizing building integrated PV systems under zero load rejections", 8<sup>th</sup> International Conference on Applied Energy "Transformative Innovations for a Sustainable Future" (ICAE2016), 8-11 October 2016, Beijing, China.



84. Apostolou D., Kavadias K.A., Kaldellis J.K., **2016**, "Analytical hydrogen production and storage simulation for the "Kos-Kalymnos" system", 8<sup>th</sup> International Conference on Applied Energy "Transformative Innovations for a Sustainable Future" (ICAE2016), 8-11 October 2016, Beijing, China.
85. Kavadias K.A., Liaros St., Kambezidis H.D., Paliatsos Ath.G., **2016**, "TMY Performance in Calculating Building's Thermal Energy Consumption", 5<sup>th</sup> International Conference "ENERGY in BUILDINGS 2016", ASHRAE Hellenic Chapter, November 2016, Athens, Greece.
86. Apostolou D., Kavadias K.A., Kaldellis J.K., **2016**, "Experimental investigation of a fuel cell hybrid system for transport applications", 1<sup>st</sup> International Conference "ENERGY in TRANSPORTATION 2016", ASHRAE Hellenic Chapter, November 2016, Athens, Greece.
87. Moustris K.P., Kavadias K.A., Kokkosis A.I., Paliatsos Ath.G., **2016**, "One day-ahead forecasting of mean hourly global solar irradiation for energy management systems purposes using Artificial Neural Network modeling", 10<sup>th</sup> Mediterranean Conference on Power Generation, Transmission, Distribution and Energy Conversion (MedPower 2016), November 2016, Belgrade, Serbia.
88. Moustris K.P., Zafirakis D., Kavadias K.A., Kaldellis J.K., **2016**, "Wind power forecasting using historical data and artificial neural networks modeling", 10<sup>th</sup> Mediterranean Conference on Power Generation, Transmission, Distribution and Energy Conversion (MedPower 2016), November 2016, Belgrade, Serbia.
89. Tzanes G.T., Zafirakis D., Papapostolou C., Kavadias K.A., Kaldellis J.K., **2017**, "PHAROS: An Integrated Planning Tool for Meeting the Energy and Water Needs of Remote Islands using RES-based Hybrid Solutions", 9<sup>th</sup> International Conference on Applied Energy "Energizing the Future" (ICAE2017), 21-24 August, Cardiff, United Kingdom.
90. Kaldellis J.K., Tzanes G.T., Papapostolou C., Kavadias K.A., Zafirakis D., **2017**, "Analyzing the Limitations of Vast Wind Energy Contribution in Remote Island Networks of the Aegean Sea Archipelagos", 9<sup>th</sup> International Conference on Applied Energy "Energizing the Future" (ICAE2017), August 2017, Cardiff, United Kingdom.
91. Moustris K.P., Kavadias K.A., Zafirakis D., Kaldellis J.K., **2018**, "24hours ahead prognosis of load demand for the Greek Island of Tilos", Clean Energy in European Islands, April 2018, Piraeus University of Applied Sciences, Athens, Greece.
92. Kosmas A. Kavadias, Panagiotis Alexopoulos, George Charis, John K. Kaldellis, **2018**, "Sizing of a solar–geothermal hybrid power plant in remote island electrical network", International Conference Technologies and Materials for Renewable Energy, Environment and Sustainability, TMREES18, Energy Procedia, pp. 901–908, 19–21 September 2018, Athens, Greece.
93. Kosmas A. Kavadias, Emily Karamanou, **2018**, "Meteorological input data effect on sizing stand-alone photovoltaic systems", Applied Energy Symposium and Forum, Renewable Energy Integration with Mini/Microgrids, REM 2018, Energy Procedia 159, 90–95, 29–30 September, Rhodes, Greece.

94. Kosmas A. Kavadias, Panagiotis Alexopoulos, George Charis, **2018**, "Techno-economic evaluation of geothermal-solar power plant in Nisyros island in Greece", Applied Energy Symposium and Forum, Renewable Energy Integration with Mini/Microgrids, REM 2018, Energy Procedia 159, 136–141, 29–3 September, Rhodes, Greece.
95. Tzanes G., Zafeiraki, E., Papapostolou C., Zafirakis D., Moustris K., Kavadias K., Chalvatzis K., Kaldellis J.K., **2018**, "Assessing the Status of Electricity Generation in the Non-Interconnected Islands of the Aegean Sea Region", Applied Energy Symposium and Forum, Renewable Energy Integration with Mini/Microgrids, REM 2018, Energy Procedia 159, 424–429, 29-3 September, Rhodes, Greece.
96. Alamo D.H., Medina R.N., Ruano S.D., García S.S., Moustris K.P., Kavadias K.A., Zafirakis D., Tzanes G., Zafeiraki E., Spyropoulos G., Kaldellis J.K., Notton G., Duchaud J.-L., Nivet M.-L., Fouilloy A., Lespinats S., **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), Energy Procedia 159, 111–116, 28-30 September, Rhodes, Greece.
97. Moustris K.P., Kavadias K.A., Zafirakis D., Kaldellis J.K., **2018**, "Medium and short-term prognosis of load demand for the Greek Island of Tilos using artificial neural networks and human thermal comfort-discomfort biometeorological data", 14<sup>th</sup> International Conference on Meteorology, Climatology and Atmospheric Physics (COMECAP 2018), 15-17 October, Alexandroupolis, Greece.
98. Kosmas A. Kavadias, Emily Karamanou, George Tzanes, **2019**, "Implementation of Typical Meteorological Years for Optimum Sizing of Autonomous PV Systems", Second International Conference (Tenth Conference of Sustainable Environmental Development), Menoufia University, Faculty of Engineering, 16-20 March, Sharm El Sheikh, Egypt.
99. Kosmas A. Kavadias, George Kavadias, Jacob Plytas, George Spyropoulos, Konstantinos Moustris, **2019**, "Evaluating the Use of Typical Meteorological Years on Calculating Buildings' Energy Consumption", Second International Conference (Tenth Conference of Sustainable Environmental Development), Menoufia University, Faculty of Engineering, 16-20 March, Sharm El Sheikh, Egypt.
100. Tzelepis S., Kavadias K.A., **2019**, "Theoretical simulation model of a proton exchange membrane fuel cell", International Conference Technologies and Materials for Renewable Energy, Environment and Sustainability, TMREES19GR, AIP Conference Proceedings 2190, 020052 (2019), pp. 020052 1-7, 4-6 September, Athens, Greece.
101. Zafirakis D., Kavadias K.A., Kostopoulos E., Christopoulos K., Kaldellis, J.K., **2020**, "Microgrid Energy Management Strategies for the CHP-based Campus of the University of West Attica through PV Power Generation, Battery Storage & EV-driven Demand Response", EuroSun 2020, 1-3 September, Athens, Greece.
102. Triantafyllou P., Kavadias K.A., Tzanes G., Zafirakis D., **2020**, " comparative analysis of hybrid renewable energy systems simulation tools", EuroSun 2020, 1-3 September, Athens, Greece.

103. Darmanis M., Çakan M., Moustris K.P., Nikas K.-S.P., Kavadias K.A., **2020**, "Synergy of mass and night cooling in reducing mechanical-ventilation energy demand. The case of an earthen structure", 20<sup>th</sup> International Symposium on Environmental Pollution and Its Impact on Life in the Mediterranean Region, Mediterranean Scientific Association of Environmental Protection (MESAEP), Virtual, pp. 231–232.