

CURRICULUM VITAE

Yiannis A. Katsigiannis

Associate Professor, Department of Electrical and Computer
Engineering, Hellenic Mediterranean University

MSc, BSc, PhD Department of Production Engineering and
Management, Technical University of Crete

BSc Environmental Engineering Department, Technical University of
Crete

Heraklion, March 2026

1. PERSONAL INFORMATION

First name : Yiannis
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2. EDUCATION AND TRAINING

1993 – 2000 : B.Sc. in Production Engineering and Management, Technical University of Crete
2000 – 2003 : M.Sc. in Production systems, Technical University of Crete
2000 – 2005 : B.Sc. in Environmental Engineering, Technical University of Crete
2004 – 2008 : Ph.D. in Renewable Energy Sources (RES) in Isolated Power Systems, Technical University of Crete

3. WORK EXPERIENCE

- **December 2025 – Today**

Associate Professor, Department of Electrical and Computer Engineering, Hellenic Mediterranean University

- **June 2019 – December 2025**

Assistant Professor, Department of Electrical and Computer Engineering, Hellenic Mediterranean University

- **February 2018 – June 2019**

Assistant Professor, Department of Environmental and Natural Resources Engineering, Technological Educational Institute of Crete (Chania)

- **October 2006 – January 2018**

Adjunct Professor, Department of Environmental and Natural Resources Engineering, Technological Educational Institute of Crete (Chania)

- **March 2008 – January 2018**

Adjunct Professor and Research Associate, School of Electronic and Computer Engineering, Technical University of Crete

- **February 2003 – December 2017**

Adjunct Professor and Research Associate, School of Production Engineering and Management, Technical University of Crete

- **March 2006 – August 2011**

Laboratory Assistant, School of School of Mineral Resources Engineering, Technical University of Crete

- **March 2004 – August 2004**

Laboratory Assistant, School of Environmental Engineering, Technical University of Crete

4. RESEARCH ACTIVITY

- **01/03/2024 – Today**

European Union Project entitled: “*Smart Electricity for Buildings Centers of Vocational Excellence (SEBCoVE)*”, Deputy Project Coordinator

- **26/07/2022 – 25/01/2025**

Municipality of Phaistos Project entitled: “*Strategic Energy and Environmental Planning of the Municipality of Phaistos*”, Deputy Project Coordinator

- **26/01/2022 – 27/12/2024**

Hellenic Foundation for Research and Innovation (HFRI) Project entitled: “*Enhancing resilience of Cretan power system using distributed energy resources (CResDER)*”, Project Coordinator

- **01/08/2022 – 31/12/2023**

Institute of Energy, Environment & Climate Change (IEECC) Project entitled: “*Investigation, analysis and design of smart energy systems using hybrid RES and storage technologies*”, Deputy Project Coordinator

- **15/09/2021 – 15/03/2023**

CEF Transport Project entitled: “*ELECTRIPORT – Alternative Maritime Power in the Port of Heraklion*”, Deputy Project Coordinator

- **08/10/2021 – 31/12/2022**

Regulatory Authority for Energy (RAE) Project entitled: “*Investigation of the new mode of operation, the necessary power reserves, the margins for installing new distributed generation units in the power system of Crete following the interconnection with the continental system*”, Deputy Project Coordinator

- **14/02/2022 – 30/11/2022**

Institute of Energy, Environment & Climate Change (IEECC) Project entitled: “*Provision of Consulting Services for the Conservation of Energy and Resources in Municipal Facilities*”, Deputy Project Coordinator

- **15/03/2019 – 14/11/2022**

- ERASMUS+ Project entitled: “*Applied Curricula in Technology for East Africa (ACTEA)*”, researcher
- **19/01/2022 – 31/08/2022**
Interreg Europe Project entitled: “*REBUS – Renovation for Energy Efficient Buildings*”, Deputy Project Coordinator
 - **12/12/2018 – 15/05/2022**
ERASMUS+ Project entitled: “*Mastering Energy Supply focusing on Isolated Areas (MESfIA)*”, researcher
 - **13/07/2018 – 31/03/2021**
National Strategic Reference Framework (NSRF) 2014-2020 Project entitled: “*Centre for the study and sustainable exploitation of Marine Biological Resources (CMBR)*”, researcher
 - **05/09/2018 – 24/01/2019**
Region of Crete Project entitled: “*Research & feasibility study for the implementation of the net metering and virtual net metering measure in all the Municipalities of Crete*”, researcher.
 - **01/05/2016 – 31/12/2016**
EEA Grants Project entitled: “*Design of an intelligent system for sustainable management of water networks: application to Crete*”, researcher
 - **01/03/2014 – 30/06/2015**
National Strategic Reference Framework (NSRF), Cooperation 2011 Project entitled: “*Redesign and Recycling of Photovoltaic Panels*”, main researcher
 - **01/04/2013 – 30/06/2013 and 01/12/2014 – 31/07/2015**
LIFE Project entitled: “*Local Authorities Alliance for Forest Protection*”, researcher
 - **01/03/2012 – 28/2/2015**
National Strategic Reference Framework (NSRF), Archimedes III Project entitled “*Research and Development of an Intelligent Real Time Energy and Power Management for Crete’s Power System with High RES Penetration*”, main researcher
 - **01/05/2010 – 30/4/2013**
Intelligent Energy - Europe Project entitled: “*REE_TROFIT: Training on Renewable Energy solutions and Energy Efficiency in reTROFITting*”, main researcher
 - **01/10/2006 – 31/10/2007**
Intelligent Energy - Europe Project entitled: “*EEBD: Electronic Energy Buildings Directive*”, researcher
 - **14/04/2005 – 13/04/2006**

Special Research Fund Account (Technical University of Crete) entitled: “*Investigating the potential of installing renewable energy technologies in off-grid systems*”, main researcher

5. RESEARCH INTERESTS

1. Renewable energy sources and their integration to power systems
2. Small- and large-scale energy storage
3. Artificial intelligence and optimization
4. Smart grids
5. Power systems analysis
6. Energy efficiency in buildings
7. Recycling and life cycle analysis of renewable power technologies
8. Computer Aided Design (CAD)

6. LANGUAGES

Greek (native), English (excellent)

7. SCIENTIFIC PUBLICATIONS

7.1 JOURNALS

- [1] P.S. Georgilakis and J.A. Katsigiannis, “Petri net modeling of transformer fault diagnosis process,” *WSEAS Transactions on Circuits and Systems*, vol. 2, no. 4, pp. 845-850, 2003.
- [2] V.L. Stampolidis, Y.A. Katsigiannis, and P.S. Georgilakis, “A methodology for the economic evaluation of photovoltaic systems,” *Operational Research*, vol. 6, no. 1, pp. 37-54, January-April 2006.
- [3] P.S. Georgilakis, J.A. Katsigiannis, K.P. Valavanis, and A.T. Souflaris, “A Systematic Stochastic Petri Net Based Methodology for Transformer Fault Diagnosis and Repair Actions,” *Journal of Intelligent and Robotic Systems*, vol. 45, pp. 181-201, 2006.
- [4] I.J. Gousgouriotis, Y.A. Katsigiannis, and P.S. Georgilakis, “Economic evaluation of biomass heating systems: a case of greenhouses in northern Greece,” *Operational Research*, 2007, vol. 7, no. 1, pp. 83-104, January-April 2007.
- [5] Y.A. Katsigiannis, P.S. Georgilakis, and G.J. Tsinarakis, “Introducing a coloured fluid stochastic Petri net based methodology for reliability and performance evaluation of small isolated power systems including wind turbines,” *IET Renewable Power Generation*, vol. 2, no. 2, pp. 75-88, 2008.
- [6] Y.A. Katsigiannis and P.S. Georgilakis, “A multiobjective evolutionary algorithm approach for the optimum economic and environmental performance of an off-grid power system containing renewable energy sources,” *Journal of Optoelectronics and Advanced Materials*, vol. 10, no. 5, pp. 1233-1240, 2008.
- [7] Y.A. Katsigiannis and P.S. Georgilakis, “Optimal sizing of small isolated hybrid

- power systems using tabu search,” *Journal of Optoelectronics and Advanced Materials*, vol. 10, no. 5, pp. 1241-1245, 2008.
- [8] P.S. Georgilakis and Y.A. Katsigiannis, “Reliability and economic evaluation of small autonomous power systems containing only renewable energy sources,” *Renewable Energy*, vol. 34, no. 1, pp. 65-70, 2009.
- [9] A.G. Tsikalakis, Y.A. Katsigiannis, P.S. Georgilakis, and N.D. Hatziargyriou, “Impact of wind power forecasting error bias in the economic operation of autonomous power systems,” *Wind Energy*, vol. 12, pp. 315-331, 2009.
- [10] E.S. Karapidakis, A.A. Tsave, P.M. Soupios, and Y.A. Katsigiannis, “Energy efficiency and environmental impact of biogas utilization in landfills,” *International Journal of Environmental Science and Technology*, vol. 7, no. 3, pp. 599-608, 2010.
- [11] Y.A. Katsigiannis, P.S. Georgilakis, E.S. Karapidakis, “Multiobjective genetic algorithm solution to the optimum economic and environmental performance problem of small autonomous hybrid power systems with renewable,” *IET Renewable Power Generation*, vol. 4, iss. 5, pp. 404-419, 2010.
- [12] Y.A. Katsigiannis, P.S. Georgilakis, G.J. Tsinarakis, “A novel colored fluid stochastic Petri Net simulation model for reliability evaluation of Wind/PV/Diesel small isolated power systems,” *IEEE Transactions on Systems, Man, and Cybernetics, Part A*, vol. 40, no. 6, pp. 1296-1309, 2010.
- [13] E.S. Karapidakis, Y.A. Katsigiannis, P.S. Georgilakis, E. Thalassinakis, “Generation expansion planning of Crete power system for high penetration of renewable energy sources,” *Materials Science Forum*, vol. 670, pp. 407-414, 2011.
- [14] Y.A. Katsigiannis, P.S. Georgilakis, E.S. Karapidakis, “Hybrid Simulated Annealing – Tabu Search method for optimal sizing of autonomous power systems with renewables,” *IEEE Transactions on Sustainable Energy*, vol. 3, no. 3, pp. 330-338, 2012.
- [15] E. Karapidakis, A. Tsikalakis, Y. Katsigiannis, M. Moschakis, “Impact of increased RES generation on power systems dynamic performance,” *Materials Science Forum*, vol. 721, pp. 185-190, 2012.
- [16] Y.A. Katsigiannis, E.S. Karapidakis, A.G. Tsikalakis, E.G. Maravelakis, “Techno-economic and environmental evaluation of large scale PV integration in Greece,” *Materials Science Forum*, vol. 721, pp. 287-292, 2012.
- [17] Y.A. Katsigiannis and P.S. Georgilakis, “Effect of customer worth of interrupted supply on the optimal design of small isolated power systems with increased renewable energy penetration,” *IET Generation, Transmission & Distribution*, vol. 7, iss. 3, pp. 265-275, 2013.
- [18] Y.A. Katsigiannis, G.S. Stavrakakis, and C. Pharconides, “Effect of wind turbine classes on the electricity production of wind farms in Cyprus Island,” *Conference Papers in Energy (Hindawi Publishing Corporation)*, vol. 2013, Article ID 750958, 6 pages.
- [19] Y.A. Katsigiannis and G.S. Stavrakakis, “Estimation of wind energy production in various sites in Australia for different wind turbine classes: A comparative technical and economic assessment,” *Renewable Energy*, vol. 67, pp. 230-236, 2014.
- [20] Y.A. Katsigiannis, E.S. Karapidakis, A.G. Tsikalakis, and A. Katsamaki “Large-scale energy storage and dynamic performance of the autonomous power system in Crete Island: A review of the literature,” *International Journal of Energy*, vol. 8, pp. 60-70, 2014.
- [21] E. Karapidakis, P. Georgilakis, A. Tsikalakis, Y. Katsigiannis, and M. Moschakis, “Dynamic performance assessment of wind energy pump storage units in Crete’s power system,” *Materials Science Forum*, vol. 792, pp. 305-310, 2014.

- [22] Y. Katsigiannis, M. Rentoumis, A. Katsamaki, A. Chatzikokolaki, and N. Bilalis, “Estimation of quantities of waste materials for photovoltaic installations in Crete Island,” *International Journal of Manufacturing & Industrial Engineering*, vol. 1, iss. 3, pp. 18-22, 30 September 2014.
- [23] E.E. Sfikas, Y.A. Katsigiannis, and P.S. Georgilakis, “Simultaneous capacity optimization of distributed generation and storage in medium voltage microgrids,” *Electrical Power and Energy Systems*, vol. 67, pp. 101-113, 2015.
- [24] Y.A. Katsigiannis, F.D. Kanellos, and S. Papaefthimiou, “A software tool for capacity optimization of hybrid power systems including renewable energy technologies based on a hybrid genetic algorithm – tabu search optimization methodology,” *Energy Systems*, vol. 7, no. 1, pp. 33-48, 2016.
- [25] Y.A. Katsigiannis and E.S. Karapidakis, “The effect of pumped hydro storage units installation on the operation of the autonomous Cretan power system,” vol. *Power Systems, Energy Markets and Renewable Energy Sources in South-Eastern Europe*, Trivent Publishing, pp. 297-308, 2016.
- [26] A. Pouliezios, F.D. Kanellos, S. Papaefthimiou, and Y.A. Katsigiannis, “Energy management system for water distribution systems: Application to Crete,” vol. *Power Systems, Energy Markets and Renewable Energy Sources in South-Eastern Europe*, Trivent Publishing, pp. 365-373, 2016.
- [27] M.G. Rentoumis, I. Athanailidis, P. Koulouridakis, Y.A. Katsigiannis, and N. Bilalis, “Implementation of parametric design philosophy into industrial production line simulation for c-Si PV modules,” *International Journal of Decision Support Systems*, vol. 2, no. 1/2/3, pp. 168-180, 2016.
- [28] Y. Katsigiannis, A. Annuk, and E.S. Karapidakis, “Contribution of pumped hydro energy storage for more RES utilization on autonomous power systems,” *Agronomy Research*, vol. 15, no. 4, pp. 1621-1628, 2017.
- [29] I.V. Athanailidis, M.G. Rentoumis, Y.A. Katsigiannis, and N. Bilalis, “Integration & assessment of recycling into c-Si photovoltaic module’s life cycle,” *International Journal of Sustainable Engineering*, vol. 11, iss. 3, pp. 186-195, 2018.
- [30] N. Neofytou, K. Blazakis, Y. Katsigiannis, and G. Stavrakakis, “Modeling vehicles to grid as a source of distributed frequency regulation in isolated grids with significant RES penetration,” *Energies*, vol. 12, iss. 4, 720, pp. 1-23, 2019.
- [31] N. Bouzounierakis, Y. Katsigiannis, K. Fiorentzis, and E. Karapidakis, “Effect of hybrid power station installation in the operation of insular power systems,” *Inventions*, vol. 4, iss. 3, 38, pp. 1-13, 2019.
- [32] K. Fiorentzis, A. Tsikalakis, E. Karapidakis, Y. Katsigiannis, and G. Stavrakakis, “Improving reliability indices of the autonomous power system of Crete Island utilizing extended photovoltaic installations,” *Energies*, vol. 13, iss. 1, 64, pp. 1-15, 2020.
- [33] K. Fiorentzis, Y. Katsigiannis, and E. Karapidakis, “Full-scale implementation of RES and storage in an Island energy system,” *Inventions*, vol. 5, iss. 4, 52, pp. 1-13, 2020.
- [34] A. Paspatis, K. Fiorentzis, Y. Katsigiannis, and E. Karapidakis, “Smart Campus Microgrids towards a Sustainable Energy Transition – The Case Study of the Hellenic Mediterranean University in Crete,” *Mathematics*, vol. 10, iss. 7, 1065, pp. 1-19, 2022.
- [35] F.D. Kanellos, K. Kalaitzakis, I. Psarras, and Y. Katsigiannis, “Efficient and robust power and energy management for large clusters of plug-in electric vehicles and distribution networks,” *IET Energy Systems Integration*, 2022.
- [36] K. Blazakis, Y. Katsigiannis, and G. Stavrakakis, “One-day-ahead solar irradiation

- and windspeed forecasting with advanced deep learning techniques,” *Energies*, vol. 15, iss. 12, 4361, pp. 1-25, 2022.
- [37] E.E. Pompodakis, L. Strezoski, N. Simic, A.G. Paspatis, M.C. Alexiadis, A.G. Tsikalakis, Y.A. Katsigiannis, and E.S. Karapidakis, “Short-circuit calculation of droop-controlled islanded AC microgrids with virtual impedance current limiters,” *Electric Power Systems Research*, vol. 218, 109184, pp. 1-15, 2023.
- [38] A.G. Paspatis, K. Fiorentzis, I. Katsigiannis, A. Tsikalakis, E.S. Karapidakis, E.J. Thalassinakis, and A. Gigantidou, “Assessment of the required running capacity in weakly interconnected insular power systems,” *Electric Power Systems Research*, vol. 221, 109436, pp. 1-9, 2023.
- [39] E.E. Pompodakis, Y. Katsigiannis, and E.S. Karapidakis, “Incorporating Modern Fault Ride-Through Standards into the Short-Circuit Calculation of Distribution Networks,” *Sensors*, vol. 23, 8868, pp. 1-25, 2023.
- [40] E.E. Pompodakis, Y.A. Katsigiannis, and E.S. Karapidakis, “Optimizing fault ride-through of dgs in distribution networks to preserve recloser-fuse coordination,” *IEEE Access*, vol. 12, pp. 31228-31242, 2024.
- [41] A. Ahmed, E. Pompodakis, Y. Katsigiannis, and E. Karapidakis, “Optimizing the Installation of a Centralized Green Hydrogen Production Facility in the Island of Crete, Greece,” *Energies*, vol. 17, 1924, pp. 1-17, 2024.
- [42] E.E. Pompodakis, G.I. Orfanoudakis, Y. Katsigiannis, and E.S. Karapidakis, “Robust Secondary Controller for Islanded Microgrids with Unexpected Electrical Partitions under Fault Conditions,” *Energies*, vol. 17, 3727, pp. 1-19, 2024.
- [43] M. Nikologiannis, I. Mozakis, I. Iliadis, and Y. Katsigiannis, “Financial Assessment of Microgrid’s Independence using RES and Hydrogen-Based Energy Storage,” *WSEAS Transactions on Power Systems*, vol. 19, pp. 307-321, 2024.
- [44] K. Blazakis, N. Schetakakis, P. Bonfini, K. Stavarakakis, E. Karapidakis, and Y. Katsigiannis, “Towards Automated Model Selection for Wind Speed and Solar Irradiance Forecasting,” *Sensors*, vol. 24, 5035, pp. 1-25, 2024.
- [45] E.E. Pompodakis, G.I. Orfanoudakis, Y.A. Katsigiannis, and E.S. Karapidakis, “Hydrogen Production from Wave Power Farms to Refuel Hydrogen-Powered Ships in the Mediterranean Sea,” *Hydrogen*, vol. 5, pp. 494-518, 2024.
- [46] E.E. Pompodakis, G.I. Orfanoudakis, Y. Katsigiannis, and E. Karapidakis, “Techno-economic feasibility analysis of an offshore wave power facility in the Aegean Sea, Greece,” *Energies*, vol. 17, 4588, pp. 1-23, 2024.
- [47] E.E. Pompodakis, A. Boubaris, D. Voglitsis, N. Papanikolaou, Y.A. Katsigiannis, and E.S. Karapidakis, “Variable-Length Transfer Delay-Based Synchronization Approach for Improved Dynamic Performance in Single-Phase Inverters,” *IEEE Access*, vol. 12, pp. 151331-151347, 2024.
- [48] K. Blazakis, S. Perrakis, E. Karapidakis, F. Mavromatakis, and Y. Katsigiannis, “ML-Based Multi-Horizon Wind Speed and Wind Direction Forecasting for Aviation and Energy Applications in Coastal Crete,” *Electronics*, vol. 14, 4856, pp. 1-17, 2025.
- [49] P. Madouros, Y. Katsigiannis, E. Pompodakis, E. Karapidakis, and G. Stavarakakis, “Study of a University Campus Smart Microgrid That Contains Photovoltaics and Battery Storage with Zero Feed-In Operation.” *Solar*, vol. 6, 8, pp. 1-21, 2026.

7.2 BOOK CHAPTERS

- [1] J.A. Katsigiannis, P.S. Georgilakis, A.T. Souflaris, and K.P. Valavanis, “Diagnosing transformer faults with petri nets,” in *Methods and Applications of Artificial Intelligence*, G.A. Vouros and T. Panayiotopoulos (Editors), Lecture Notes in

- Computer Science, LNAI 3025, Berlin: Springer, pp. 420-431, April 2004.
- [2] Y.A. Katsigiannis, A.G. Tsikalakis, P.S. Georgilakis, and N.D. Hatzargyriou, “Improved wind power forecasting using a combined neuro-fuzzy and artificial neural network model,” in *Advances in Artificial Intelligence*, G Antoniou et al. (Editors), Lecture Notes in Computer Science, LNAI 3955, Berlin: Springer, pp. 105-115, April 2006.
- [3] Y.A. Katsigiannis, P.S. Georgilakis, and E.S. Karapidakis, “Genetic algorithm solution to optimal sizing problem of small autonomous hybrid power systems,” in *Artificial Intelligence: Theories, Models and Applications*, S. Konstantopoulos et al. (Editors), Lecture Notes in Computer Science, LNAI 6040, Berlin: Springer, pp. 327-332, May 2010.
- [4] Y.A. Katsigiannis, P.S. Georgilakis, and M.N. Moschakis, “Evaluating the performance of small autonomous power systems using reliability worth analysis,” in *Reliability Modeling and Analysis of Smart Power Systems*, R. Karki, R. Billinton, A.K. Verma (Editors), Springer, pp. 147-167, 2014.
- [5] A. Tsikalakis, Y. Katsigiannis, M. Kourgiantakis, and I. Viskadouraki, “Training needs for operating and designing hybrid power systems,” in *Advances in Engineering Research, Volume 36*, V.M. Petrova (Editor), New York: Nova Science Publishers, pp. 1-93, July 2020.
- [6] A. Paspatis, E. Pompodakis, I. Katsigiannis, and E. Karapidakis, “Advanced Control Functionalities of Smart Grids from Communication and Computational Perspectives,” in *Smart Grid 3.0: Computational and Communication Technologies*, pp. 221-239, 2023.

7.3 CONFERENCES (ACCEPTED AFTER FULL TEXT REVIEW)

- [1] J.A. Katsigiannis, K.P. Valavanis, N. Bilalis, P.S. Georgilakis, A.T. Souflaris, G.J. Dalaviras, A.G. Mavrogiorgos, and D.G. Papparigas, “Transformer fault diagnosis modeling using petri nets,” *Proc. International Conference on Intelligent Systems Applications to Power Systems (ISAP 2003)*, Lemnos, Greece, 31 August – 3 September 2003.
- [2] J.A. Katsigiannis, P.S. Georgilakis, A.T. Souflaris, and K.P. Valavanis, “Diagnosing transformer faults with petri nets,” *3rd Hellenic Conference on Artificial Intelligence (SETN '04)*, Samos, Greece, 5-8 May 2004.
- [3] N. Bilalis, J.A. Katsigiannis, P.S. Georgilakis, A.T. Souflaris, and A. Antoniadis, “Automating the product design cycle for custom made products,” *Proc. International Design Conference*, Dubrovnik, Croatia, 18-21 May 2004.
- [4] P.S. Georgilakis, J. Katsigiannis, and K.P. Valavanis, “Petri net based transformer fault diagnosis,” *Proc. IEEE International Symposium on Circuits and Systems (IEEE ISCAS 2004)*, Montreal, Canada, vol. 5, pp. 980-983, 23-26 May 2004.
- [5] A.E. Haniotis, J.A. Katsigiannis, P.S. Georgilakis, and A.G. Kladas, “Active and reactive power management of grid connected variable speed permanent magnet generator wind turbine,” *Proc. International Conference on Renewable Energy and Power Quality (ICREPO 2005)*, Zaragoza, Spain, 16-18 March 2005.
- [6] Y.A. Katsigiannis, A.G. Tsikalakis, P.S. Georgilakis, and N.D. Hatzargyriou, “Improved wind power forecasting using a combined neuro-fuzzy and artificial neural network model,” *4th Hellenic Conference on Artificial Intelligence (SETN '06)*, Heraklion, Crete, Greece, 18-20 May 2006.
- [7] A.G. Tsikalakis, Y.A. Katsigiannis, P.S. Georgilakis, and N.D. Hatzargyriou, “Determining and exploiting the distribution function of wind power forecasting error for the economic operation of autonomous power systems,” *Proc. IEEE Power*

- Engineering Society General Meeting (IEEE PES 2006)*, Montreal, Canada, 18-22 June 2006.
- [8] Y.A. Katsigiannis and P.S. Georgilakis, “Reliability and Economic Evaluation of Small Autonomous Power Systems containing only Renewable Energy Sources,” *XVII International Conference on Electrical Machines (ICEM 2006)*, Chania, Crete Island, Greece, 2-5 September 2006.
- [9] E.S. Karapidakis, A.A. Tsave, Y.A. Katsigiannis, and M.N. Moschakis, “Energy efficiency and environmental impact of biogas utilization in landfills,” *Proc. 3rd International Conference on Energy and Development – Environment – Biomedicine (EDEB ‘09)*, Vouliagmeni, Athens, Greece, pp. 105-113, 29-31 December 2009.
- [10] Y.A. Katsigiannis, P.S. Georgilakis, and E.S. Karapidakis, “Genetic algorithm solution to optimal sizing problem of small autonomous hybrid power systems,” *6th Hellenic Conference on Artificial Intelligence (SETN 2010)*, Athens, Greece, 5-7 May 2010.
- [11] E.S. Karapidakis, Y. Katsigiannis, N. Zografakis, “Sustainable Power Generation Expansion of Crete Island,” *8th World Energy System Conference*, Targoviste, Romania, 1-3 July 2010.
- [12] Y.A. Katsigiannis, P.S. Georgilakis, S.C. Papadopoulos, M.N. Moschakis, “Evaluating the Performance of Small Autonomous Power Systems using Reliability Worth Analysis,” *IEEE Power Engineering Society General Meeting (IEEE PES 2012)*, Istanbul, Turkey, pp. 762-767, 10-14 June 2012.
- [13] Y.A. Katsigiannis, A.G. Tsikalakis, E.S. Karapidakis, and A. Katsamaki, “Impact of residential buildings retrofitting actions on the electricity production of Crete Island,” *3rd International Conference on Development, Energy, Environment, Economics (DEEE ‘12)*, Paris, France, 2-4 December 2012.
- [14] Y.A. Katsigiannis, E.S. Karapidakis, A.G. Tsikalakis, and A. Katsamaki, “A review of the proposed large-scale energy storage applications on the autonomous power system of Crete,” *4th International Conference on Development, Energy, Environment, Economics (DEEE ‘13)*, Paris, France, 29-31 October 2013.
- [15] Y. Katsigiannis, M. Rentoumis, A. Katsamaki, A. Chatzikokolaki, and N. Bilalis, “Estimation of quantities of waste materials for photovoltaic installations in Crete Island,” *Proc. International Conference on Advances in Mechanical and Automation Engineering (MAE 2014)*, Rome, Italy, pp. 10-14, 7-8 June 2014.
- [16] E.S. Karapidakis, Y. Katsigiannis, A. Tsikalakis, and E. Maravelakis, “Current status and future prospects of Crete’s power system,” *2014 International Symposium on Fundamentals of Electrical Engineering (IEEE ISFEE)*, Bucharest, Romania, pp. 1-6, 28-29 November 2014.
- [17] M. Markaki, E. Karapidakis, Y. Katsigiannis, M. Apostolaki, G. Kornilakis, and P. Floyris, “Extensive use of net-metering in Crete’s region public buildings,” *International Conference on Electronics, Engineering Physics and Earth Science (EEPES.EU)*, Kavala, Greece, 21-23 June 2023.
- [18] E. Karapidakis, M. Nikoligiannis, G. Konstantinidis, and Y. Katsigiannis, “Introduction of optimal photovoltaic and wind power balance algorithm in power systems,” *International Conference on Electronics, Engineering Physics and Earth Science (EEPES.EU)*, Kavala, Greece, 21-23 June 2023.
- [19] K. Blazakis, Y. Katsigiannis, N. Schetakakis, and G. Stavrakakis, “One-Day-Ahead Wind Speed Forecasting Based on Advanced Deep and Hybrid Quantum Machine Learning,” *Proc. International Conference on Frontiers of Artificial Intelligence, Ethics, and Multidisciplinary Applications (FAIEMA 2023)*, Athens, Greece, pp. 155-168, 25-26 September 2023.
- [20] E. Karapidakis, K. Koutsourou, I. Katsigiannis, S. Yfanti, and I. Iliadis, “Correlation

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Editor in the following Special Issues:

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9. REVIEWS IN SCIENTIFIC JOURNALS

He is reviewer in the following Journals:

- IEEE Transactions on Systems, Man, and Cybernetics, Part A
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