

# **CURRICULUM VITAE**

*Yiannis A. Katsigiannis*

Assistant 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, September 2022

## **1. PERSONAL INFORMATION**

First name : Yiannis  
Surname : Katsigiannis  
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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**

- **June 2019 – Today**

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**

- **26/01/2022 – Today.**

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

- **15/03/2019 – Today**

ERASMUS+ Project entitled: “*Applied Curricula in Technology for East Africa (ACTEA)*”, researcher

- **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. Computer Aided Design (CAD)

## **6. LANGUAGES**

Greek (native), English (very good)

## **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. Hatziaargyriou, “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 renewables,” *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.

## **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.

## **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,” *3<sup>rd</sup> 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. Hatziargyriou, "Improved wind power forecasting using a combined neuro-fuzzy and artificial neural network model," *4<sup>th</sup> 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. Hatziargyriou, "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. 3<sup>rd</sup> 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," *6<sup>th</sup> 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," *8<sup>th</sup> 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," *3<sup>rd</sup> 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," *4<sup>th</sup> 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.

#### **7.4 CONFERENCES (ACCEPTED ON ABSTRACT SUBMISSION)**

- [1] Y.A. Katsigiannis, G.A. Saridakis, E.S. Karapidakis, and D.S. Kolokotsa, "Organization of Virtual Classrooms as a Means for Disseminating the European Parliament Directive on the Energy Performance of Buildings," *Proc. 5<sup>th</sup>*



- International Conference on New Horizons in Industry, Business and Education (NHIBE 2007)*, Rhodes Island, Greece, pp. 155-159, 30-31 August 2007.
- [2] Y.A. Katsigiannis and P.S. Georgilakis, "Optimal sizing of small isolated hybrid power systems using tabu search," *Proc. 5<sup>th</sup> Japanese-Mediterranean Workshop on Applied Electromagnetic Engineering for Magnetic, Superconducting and Nano Materials (JAPMED'5)*, Larnaca, Cyprus, pp. 67-68, 16-19 September 2007.
- [3] 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," *Proc. 5<sup>th</sup> Japanese-Mediterranean Workshop on Applied Electromagnetic Engineering for Magnetic, Superconducting and Nano Materials (JAPMED'5)*, Larnaca, Cyprus, pp. 61-62, 16-19 September 2007.
- [4] Y.A. Katsigiannis and E.S. Karapidakis, "Comparing Different Approaches to Solve the Unit Commitment Problem Considering Hydro-Pumped Storage Stations," *Proc. International Workshop on Deregulated Electricity Market Issues in South-Eastern Europe (DEMSEE'07)*, Istanbul, Turkey, pp. 147-153, 19-20 September 2007.
- [5] Y.A. Katsigiannis, P.S. Georgilakis, E.S. Karapidakis, "A simulated annealing algorithm for optimal sizing of a small isolated power system," *6<sup>th</sup> Japanese-Mediterranean Workshop on Applied Electromagnetic Engineering for Magnetic, Superconducting and Nano Materials (JAPMED'6)*, Bucharest, Romania, 27-29 July 2009.
- [6] Y.A. Katsigiannis, E.S. Karapidakis, "Economic evaluation of a micro power grid system within Crete Island," *6<sup>th</sup> Japanese-Mediterranean Workshop on Applied Electromagnetic Engineering for Magnetic, Superconducting and Nano Materials (JAPMED'6)*, Bucharest, Romania, 27-29 July 2009.
- [7] K. Rovlias, D. Kolokotsa, Y.A. Katsigiannis, P.S. Georgilakis, "Evaluation of energy-saving measures in the residential sector of Greece," *6<sup>th</sup> Japanese-Mediterranean Workshop on Applied Electromagnetic Engineering for Magnetic, Superconducting and Nano Materials (JAPMED'6)*, Bucharest, Romania, 27-29 July 2009.
- [8] E.S. Karapidakis, Y.A. Katsigiannis, P.S. Georgilakis, and E. Thalassinakis, "Generation expansion planning of Crete power system for high penetration of renewable energy sources," *6<sup>th</sup> Japanese-Mediterranean Workshop on Applied Electromagnetic Engineering for Magnetic, Superconducting and Nano Materials (JAPMED'6)*, Bucharest, Romania, 27-29 July 2009.
- [9] A. Annuk, T. Tamm, T. Hoim, Y.A. Katsigiannis, and V. Palge, "Configuration of integrated energy system according to probabilistic information," *Proc. Engineering for Rural Development*, Jelgava, pp. 299-304, 26-27 May 2011.
- [10] Y.A. Katsigiannis, E.S. Karapidakis, A.G. Tsikalakis, E.G. Maravelakis, "Techno-economic and environmental evaluation of large scale PV integration in Greece," *7<sup>th</sup> Japanese-Mediterranean and Central European Workshop on Applied Electromagnetic Engineering for Magnetic, Superconducting and Nano Materials (JAPMED'7)*, Budapest, Hungary, 6-9 July 2011.
- [11] E. Karapidakis, A. Tsikalakis, Y. Katsigiannis, M. Moschakis, "Impact of increased RES generation on power systems dynamic performance," *7<sup>th</sup> Japanese-Mediterranean and Central European Workshop on Applied Electromagnetic Engineering for Magnetic, Superconducting and Nano Materials (JAPMED'7)*, Budapest, Hungary, 6-9 July 2011.
- [12] Y.A. Katsigiannis and G.S. Stavrakakis, "Effect of wind turbine classes on the electricity production of wind farms in Cyprus Island," *1<sup>st</sup> Conference on Power Options for the Eastern Mediterranean Region (POEM 2012)*, Limassol, Cyprus, 19-

21 November 2012.

- [13] Y.A. Katsigiannis, A. Katsamaki, A.G. Tsikalakis, "Education and Training of Building Professionals on Retrofitting Actions on Crete Island," *24<sup>th</sup> EAEEIE (European Association for Education in Electrical and Information Engineering) Annual Conference*, Chania, Greece, 30-31 May 2013.
- [14] 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," *8<sup>th</sup> Japanese-Mediterranean Workshop on Applied Electromagnetic Engineering for Magnetic, Superconducting and Nano Materials (JAPMED'8)*, Athens, Greece, 23-28 June 2013.
- [15] Y.A. Katsigiannis and G.S. Stavrakakis, "Estimation of wind energy production in Australia for different wind turbine classes," *International Conference on Renewable Energy for Sustainable Development and Decarbonisation (WREC 2013)*, Perth, Australia, 14-18 July 2013.
- [16] A.G. Tsikalakis, E.S. Karapidakis, E. Thalassinakis, K. Siderakis, and Y.A. Katsigiannis, "Concerns about protection schemes in Interconnected operation of the island of Crete," *12<sup>th</sup> International Conference on Developments in Power System Protection (DPSP 2014)*, Copenhagen, Denmark, 31 March - 3 April 2014.
- [17] Y. Katsigiannis and F. Kanellos, "A tool for evaluating optimal configuration of hybrid power systems including renewable energy technologies," *53<sup>rd</sup> EWGCFM Meeting & 2<sup>nd</sup> International Conference of the RCEM*, Chania, Greece, 22-24 May 2014.
- [18] Y. Katsigiannis, A. Katsamaki, M. Rentoumis, P. Koulouridakis, I. Athanailidis, and N. Bilalis, "Evaluation of photovoltaic recycling methods using environmental indicators," *Proc. 4<sup>th</sup> International Symposium and 26<sup>th</sup> National Conference on Operational Research*, Chania, Crete, Greece, pp. 341-345, 4-6 June 2015.
- [19] M. Rentoumis, I. Athanailidis, P. Koulouridakis, Y. Katsigiannis, and N. Bilalis, "Development of a three dimensional industrial production line simulation for crystalline silicon photovoltaic panel recycling," *Proc. 4<sup>th</sup> International Symposium and 26<sup>th</sup> National Conference on Operational Research*, Chania, Crete, Greece, pp. 351-356, 4-6 June 2015.
- [20] Y.A. Katsigiannis, E.S. Karapidakis, and A. Katsamaki, "Optimal economic dispatch in autonomous power systems: A review," *Proc. 9<sup>th</sup> International Conference "New Horizons in Industry, Business and Education" (NHIBE 2015)*, Skiathos, Greece, pp. 74-80, 27-29 August 2015.
- [21] Y. Katsigiannis, A. Katsamaki, M. Rentoumis, P. Koulouridakis, I. Athanailidis, and N. Bilalis, "Use of proper environmental performance indicators for evaluation of various photovoltaic recycling procedures," *Proc. 9<sup>th</sup> International Conference "New Horizons in Industry, Business and Education" (NHIBE 2015)*, Skiathos, Greece, pp. 390-395, 27-29 August 2015.
- [22] Y.A. Katsigiannis and E.S. Karapidakis, "Effect of pumped hydro storage units installation on the operation of the autonomous Cretan power system," *11<sup>th</sup> International Conference on Deregulated Electricity Market Issues in South-Eastern Europe (DEMSEE'07)*, Heraklion, Crete, Greece, 22-23 September 2016.
- [23] A. Pouliezios, F.D. Kanellos, S. Papaefthimiou, and Y.A. Katsigiannis, "Energy management system for water distribution systems: Application to Crete," *11<sup>th</sup> International Conference on Deregulated Electricity Market Issues in South-Eastern Europe (DEMSEE'07)*, Heraklion, Crete, Greece, 22-23 September 2016.
- [24] Y.A. Katsigiannis and E.S. Karapidakis, "Operation of wind-battery hybrid power stations in autonomous Greek islands," *52<sup>nd</sup> International Universities' Power Engineering Conference (UPEC 2017)*, Heraklion, Crete, Greece, 28-31 August

- 2017.
- [25] K.E. Fiorentzis, Y.A. Katsigiannis, E.S. Karapidakis, and A.G. Tsikalakis, “Evaluating the effect of wind-hydro hybrid power stations on the operation of Cretan power system,” *52<sup>nd</sup> International Universities’ Power Engineering Conference (UPEC 2017)*, Heraklion, Crete, Greece, 28-31 August 2017.
- [26] N. Bouzounierakis, Y. Katsigiannis, K. Fiorentzis, and E. Karapidakis, “Effect of hybrid power station installation in the operation of insular power systems,” *4<sup>th</sup> International Hybrid Power Systems Workshop*, Crete, Greece, 22-23 May 2019.
- [27] A. Tsikalakis, G. Zisis, L. Canale, Y. Katsigiannis, S. Tantane, D. Hamdani, S. Dhakal, S. Kumar, H.N. Kha Nguyen, T. Hung Vo, S. Sarjiya, and S. Suarez Garcia, “Setting An Innovative Master Degree on Energy Supply focusing on Isolated Areas – The Mesfia Erasmus+ Project,” *30<sup>th</sup> Building Services and Energy Efficiency Conference (BSEE 2020)*, Iasi, Romania, 2-3 July 2020.
- [28] A. Tsikalakis, K. Fiorentzis, Y. Syllignakis, N. Mavrikakis, D. Giaourakis, and I. Katsigiannis, “Training needs regarding Gensets for isolated areas,” *International Conference on Energy, Environment and Climate Change (ICUE 2020)*, Pathumthani, Thailand, 20-22 October 2020.
- [29] F. Mavromatakis, Y. Katsigiannis, H. Haritaki, K. Siderakis, and G. Stavrakakis, “An engineering financial analysis of a research sea platform,” *Proc. International Conference On Applied Economics (ICOAE 2021)*, Heraklion, Crete, Greece, pp. 425-438, 26-28 August 2021.
- [30] Y. Katsigiannis, A. Paspatis, K. Fiorentzis, D. Giaourakis, J. Syllignakis, and A. Tsikalakis, “A review of software tools for technical training needs in isolated areas,” *Proc. Mastering Energy Supply for Isolated Areas (MESfIA) 2021 International Conference*, Asian Institute of Technology, Thailand, pp. 190-199, 31 August-1 September 2021.

## **8. EDITOR IN SCIENTIFIC JOURNALS**

Editor in the following Special Issues:

- “Applications, Integration and Trends of Renewable Energy Technologies”, MDPI Sustainability Journal  
[https://www.mdpi.com/journal/sustainability/special\\_issues/app\\_tech\\_sus](https://www.mdpi.com/journal/sustainability/special_issues/app_tech_sus)
- “Energy Storage, Energy Conversion, and Multifunctional Materials”, MDPI Energies Journal  
[https://www.mdpi.com/journal/energies/special\\_issues/Energy\\_Storage\\_Energy\\_Conversion](https://www.mdpi.com/journal/energies/special_issues/Energy_Storage_Energy_Conversion)
- “Renewable and Sustainable Energy Integration in Power Systems”, MDPI Applied Sciences Journal  
[https://www.mdpi.com/journal/applsci/special\\_issues/Energy\\_Integration](https://www.mdpi.com/journal/applsci/special_issues/Energy_Integration)

## **9. REVIEWS IN SCIENTIFIC JOURNALS**

He is reviewer in the following Journals:

- IEEE Transactions on Systems, Man, and Cybernetics, Part A
- IEEE PES Transactions on Power Systems
- IEEE PES Transactions on Sustainable Energy

- IEEE PES Transactions on Energy Conversion
- IEEE PES Transactions on Smart Grid
- IEEE Access
- IET Generation Transmission and Distribution
- IET Renewable Power Generation
- Wiley European Transactions on Electrical Power
- Elsevier Applied Energy
- Elsevier Energy Policy
- Elsevier Energy Conversion and Management
- Elsevier International Journal of Electrical Power and Energy Systems
- Elsevier Renewable Energy
- Elsevier Renewable Energy Focus
- Elsevier Sustainable Cities and Society
- Elsevier Computer & Operations Research
- Elsevier Ain Shams Engineering Journal
- Springer Journal of Energy Systems
- Springer Journal of Innovation and Entrepreneurship
- Springer Journal of the Knowledge Economy
- Springer International Journal of Precision Engineering and Manufacturing-Green Technology
- T&F Journal of Civil Engineering and Management
- T&F International Journal of Green Energy
- ASCE Journal of Energy Engineering
- MDPI Applied Sciences
- MDPI Clean Technologies
- MDPI Electronics
- MDPI Energies
- MDPI Processes
- MDPI Sustainability
- WSEAS Transactions on Information Science and Applications