



## Academic Personnel Short Profile / Short CV

<b>University:</b>	Frederick University
<b>Surname:</b>	Christofides
<b>Name:</b>	Nicholas
<b>Rank/Position:</b>	Associate Professor
<b>School:</b>	Engineering
<b>Department:</b>	Electrical Engineering, Computer Engineering and Informatics
<b>Scientific Domain:</b>	Transmission and Distribution - Specialization: Distributed Photovoltaic Generation and Systems

Academic qualifications				
Qualification	Year	Awarding Institution	Department	Thesis title (Optional Entry)
PhD	2003	UMIST	Electrical Engineering	On-Line Partial Discharge Monitoring In Belted Paper-Insulated Medium Voltage Cables
MSc	2000	UMIST	Electrical Engineering	Location of Partial Discharges in a Distribution Power Transformer
BEng	1999	The University of Birmingham	Electrical Engineering	Super-conducting magnetic energy storage unit

Employment history in Academic Institutions/Research Centers				
Period of employment		Employer	Location	Position
From	To			
Sep 2007	Today	Frederick University	Nicosia, Cyprus	Associate Professor
Sep 2006	Sep 2007	Frederick Institute of Technology	Nicosia, Cyprus	Lecturer
Sep 2004	Sep 2006	Americanos College	Nicosia, Cyprus	Assistant Professor

Key refereed journal papers, monographs, books, conference publications etc.						
Ref. Number	Year	Title	Other authors	Journal and Publisher / Conference	Vol.	Pages
1	2024	Modified Flower Pollination Algorithm for Energy Forecasting and Demand Management coupled with Improved Battery Life for Smart Building Micro-grid	A Hamza, M Uneeb, Z Ali, S Dudley, S M Alghamdi and N Christofides	TPEC conference		
2	2023	Penetration of distributed generation in Microgrids: characteristics and challenges	K Tillyros, N Christofides, M Komodromos	UPEC Conference		
3	2019	Diversifying the role of distributed generation grid side converters for improving the power quality of distribution networks using advanced control techniques	Z. Ali, N. Christofides, L. Hadjimetriou, E. Kyriakides	IEEE Transactions on Industry Applications	55(4)	
4	2022	Performance Analysis and Benchmarking of PLL-Driven Phasor Measurement Units for Renewable Energy Systems	Z. Ali, K. Saleem, R. Brown, S. Dudley,	Energies	15(5)	
5	2021	A Novel Machine Learning-Based Load-Adaptive Power Supply System for Improved Energy Efficiency in Datacenters	M Chrysostomou, D Chrysostomou	IEEE Access	9	
6	2021	Multicell Power Supplies for Improved Energy Efficiency in the Information and Communications Technology Infrastructures	M. Chrysostomou, S. Ioannou, A. Polycarpou	Energies	14(21)	
7	2021	Comparative study of the environmental footprints of marinas on European Islands	N Cruz-Pérez, J R-Martín, C Garcia, F Ioras, N Christofides, et. al	Nature Scientific Reports 11	Art No. 9410	
8	2019	Performance Evaluation and Benchmarking of PLL Algorithms for Grid-Connected RES Applications	Z Ali, K Saleem, A Polycarpou, K Mehran	IET Renewable Power Generation	14	52-62
9	2018	A new MAF based $\alpha\beta$ EPMAFPLL for grid connected RES with improved performance under grid faults	Z. Ali, L. Hadjimetriou, E. Kyriakides	Electric Power Systems Research	154	130-139
10	2017	Design of an Advanced PLL for Accurate Phase Angle Extraction Under Grid Voltage Harmonics/Interharmonics and DC Offset	Z. Ali, L. Hadjimetriou, E. Kyriakides	IET Power Electronics	11	995-1008
11	2018	Three-phase phase-locked loop synchronization algorithms for grid-connected renewable energy systems: A review	Z. Ali, L. Hadjimetriou, E. Kyriakides	Renewable and Sustainable Energy Reviews	90	434-452
12	2018	A comprehensive review on inverter topologies and control strategies for grid connected photovoltaic system	K. Zeb, W. Uddin, M.A. Khan, Z. Ali, M.U. Ali, N	Renewable and Sustainable Energy Reviews	94	1020-1141
13	2014	External Lightning Protection and Earthing Designs in Large Scale Solar Applications	Charalambous C.A., Kokkinos N	IEEE trans. on Electromagnetic Compatibility	56	427-434,

Research Projects				
Ref. Number	Date	Title	Funded by	Project Role
1	2024	Peer-to-Peer Green Energy Sharing Platform for Cold Ironing	RIF	Partner/researcher
2	2024	Peer-to-peer microgrid energy management with storage integration	RIF	Partner/researcher
3	2024	Decentralized energy management platform for smart communities	RIF	Partner/researcher
4	2020-2022	ΤΕΧΝΗΤΗ ΝΟΗΜΟΣΥΝΗ ΓΙΑ ΡΕΥΜΑΤΟΚΛΟΠΕΣ & ΥΓΕΙΑ ΜΕΤΑΣΧΗΜΑΤΙΣΤΩΝ	European commission	researcher
5	2018-2021	Carbon Neutral Sport Marinas Management International Master Modules Programme-INCAMP	European commission Life-long Learning Program - Erasmus Multilateral Projects	Teacher, technician, administration
6	2014-2016	European Islands Continue Education on Resources Efficiency Virtual Gateway	European commission Life-long Learning Program	Teacher, technician, administration
7	2010-2014	Weather Intelligence for Renewable Energies member	COST action 1002	Consortium member
8	2009-2012	Wave energy converter mechanism by transmitting reciprocating, variable amplitude and direction wave motion into uni-rotational motion	RPF	Researcher
9	2018-2020	Σύστημα θέρμανσης, ψύξης - ΖΝΧ μηδενικού δείκτη κατανάλωσης ενέργειας	Υπουργείο Εμπορίου	Research team member

**Academic Consulting Services and/or Participation in Councils / Boards/ Editorial Committees**

Ref. #	Period	Organization	Title of Position or Service	Key Activities
1	2024	CNELEC, CLC/TC82 - Solar Photovoltaic Systems	National representative	Liaison to the Cyprus Standardization organization
2	2018-2020	Cyprus Organisation for Standardisation (CYS), CYS TC23	member	Translation of BS7671 17 <sup>th</sup> ed. A3 to Greek
3	2006-present	Photovoltaic systems companies	consultant	Consulting on grid-connected and stand-alone photovoltaic systems
4	n/a	IEEE Journal of Emerging and Selected Topics in Power Electronics	reviewer	reviewer
5	n/a	IEEE Systems Journal	reviewer	reviewer
6	n/a	International Journal of Sustainable Energy	reviewer	reviewer
7	n/a	IEEE International Energy Conference – ENERGYCON 2018	reviewer	reviewer
8	n/a	MDPI Sensors - Open Access Journal Sensors	reviewer	
9	n/a	MDPI Sustainability — Open Access Journal Sensors	reviewer	
	n/a	MDPI Sensors - Applied Sciences journal	reviewer	
10	September 2014	DEMSEE conference		Organising committee
11	September 2018	DEMSEE conference		Organising committee
12	2020	IET 2020 MEDPOWER conference	Intern. advisory comm. member	reviewer
13	2018-present	Coordinator and instructor in the PV installers certification program, approved by the ministry of Energy	Vocational trainer	Vocational trainer
14	2010-present	In charge of the department's infrastructure and equipment committee		

**Awards / International Recognition**

Ref. #	Date	Title	Awarded by:
1		Certified Energy Auditor, registered with the	Ministry of Energy, Commerce, Industry and Tourism
2		Certified instructor for professional training, registered with the Cyprus Human Resources Development Agency (HRDA)	Human Resource development agency
3		Qualified Expert for the energy performance certificates of residential and non-residential buildings	Ministry of Energy, Commerce, Industry and Tourism
4		Category A Qualified Electrical Engineer	Ministry of transport, Communications and works
5		Certified Energy Auditor	Ministry of Energy, Commerce, Industry and Tourism