



## Academic Personnel Short Profile / Short CV

<b>University:</b>	Frederick University
<b>Surname:</b>	Karagiorgis
<b>Name:</b>	George
<b>Rank/Position:</b>	Professor
<b>School:</b>	Engineering
<b>Department:</b>	Mechanical Engineering
<b>Scientific Domain:</b>	Energy Systems

Academic qualifications (list by highest qualification)				
Qualification	Year	Awarding Institution	Department	Thesis title (Optional Entry)
Ph.D	1993-98	The City University London UK	Mechanical Engineering	Flow Modelling of Scroll Compressors and Expanders. (Computational Fluid Mechanics related to Energy)
B.Eng.	1991-93	The City University London UK	Mechanical Engineering	Heating Cooling Load Estimate
HND	1989-91	Frederick Institute of Technology	Mechanical Engineering	Design and Construction of a Heat Pump Chiller

Employment history in Academic Institutions/Research Centers – List by the three (3) most recent				
Period of employment		Employer	Location	Position
From	To			
2018	To date	Frederick University	Nicosia, Cyprus	Professor Department of Mechanical Engineering,

				School of Engineering and Applied Sciences
2007	2018	Frederick University	Nicosia, Cyprus	Associate Professor Department of Mechanical Engineering, School of Engineering and Applied Sciences
2003	2007	Frederick Institute of Technology	Nicosia, Cyprus	Assistant Professor Department of Mechanical Engineering
2003	to date	Hystore Technologies	Nicosia, Cyprus	Senior Research Consultant, co-owner
1999 /09	2003	Frederick Institute of Technology	Nicosia, Cyprus	Lecturer Department of Mechanical Engineering
1998	1999	Imperial College of Science Technology and Medicine,	London Uk	Teaching Assistant, Department of Mechanical Engineering
1995	1998	The City University,	London UK	Teaching Assistant, Department of Mechanical Engineering
1995	1998	The City University	London UK	Lab Assistant, Department of Mechanical Engineering

**Key refereed journal papers, monographs, books, conference publications etc. List the five (5) more recent and other five (5) selected –(max total 10)**

Ref. Number	Year	Title	Other authors	Journal and Publisher / Conference	Vol.	Pages
1	2018	Metal Hydride Compressor (MHC) for Hydrogen Compression to Pressure of more than 300bar	C. N. Christodoulou, G. Tzamalīs, D. P. Hadjipetrou, K. G. Deligiannis, M. Odysseos, F. Peru, M. Senholdt, V. Analytis, E. Stamatakis and A. Stubos	Proceedings of 6 <sup>TH</sup> INTERNATIONAL CONFERENCE ON RENEWABLE ENERGY SOURCES & ENERGY EFFICIENCY, Nov. 1-2, 2018, Nicosia, Cyprus		
2	2017	Hybridisation of Photovoltaics with pumping storage. An approach to increase RES penetration and achieve grid benefits. Application in the island of Cyprus	Pavlos Tsamaslis, Athanasios Katsanevakis	Journal of Power Technologies	4(97) (2017)	336 - 341
3	2017	Hydrogen compression and storage with the use of AB <sub>2</sub> and AB <sub>5</sub> type metal hydrides	G. Tzamalīs, Ath. Stubos, Em. Stamatakis, C. N. Christodoulou, K. Deligiannis, D. Hadjipetrou, H. von Storch	Proceedings of 11 <sup>th</sup> National Scientific Conference of Chemical Engineering, 25-27 May 2017, Thessaloniki, Greece		
4	2017	Design, Development, Construction and Operation of a Novel Metal Hydride Compressor	C. N. Christodoulou, Henrik von Storch, Georgios Tzamalīs, Konstantinos Deligiannis, Demetrios Hadjipetrou, Marios Odysseos, Martin Roeb, Christian Sattler	International Journal of Hydrogen Energy	42(17)	1-11
5	2014	Technical and feasibility analysis of gasoline and natural gas fuelled vehicles in	Chasos, C. A, C. N. Christodoulou	AIMS Energy Journal	2(1)	81-88

		the Cyprus transportation sector		DOI: 10.3934/energy.2014 .1.71		
6	2013	The effect of compositional changes on the structural and hydrogen storage properties of (La–Ce)Ni <sub>5</sub> type intermetallics towards compounds suitable for metal hydride hydrogen compression	M. Odysseos, P. De Rango, E.K. Hlil, T. Steriotis, C. N. Christodoulou, G. Charalambopoulou, T. Papapanagiotou, A. Ampoumogli, V. Psycharis, E. Kouloukias, D. Fruchart, A. Stubos	Journal of Alloys and Compounds	580(S1)	S268–S270
7	2016	Vehicle natural gas internal combustion engine analysis and comparison with conventional gasoline engine	Chasos, C. A., Vasiliou, V. A., C. N. Christodoulou.	Proceedings of the 5 <sup>th</sup> International Conference on Renewable Energy Sources & Energy Efficiency – New Challenges. Hilton Hotel, Nicosia, Cyprus, 5 – 6 May, 2016		
8	2014	Emissions measurements of naturally-aspirated and turbo-charged Diesel internal combustion engines for various biodiesel blends	Chasos, C. A., C. N. Christodoulou.	International Journal of Sustainable Energy DOI: 10.1080/14786451.2014.895355		
9	2008	Renewable Energy Sources (RES) electricity storage in the form of “green” hydrogen	Chris N. Christodoulou, Andreas Poullikkas and Nikos Karagiorgis	Proceedings of Deregulated Electricity Markets Issues in South-Eastern Europe (DEMSEE 2008)		
10	2004	A Review on Water Electrolysis	E. Zoulias, E. Varkaraki, N. Lymberopoulos, C. N. Christodoulou,	The Cyprus Journal of Science & Technology (TCJST)	4(2)	41-71

**Exhibitions (where applicable). List the five (5) more recent and other five (5) selected.  
(max total 10)**

Ref. Number	Date	Topic	International / Local	Location*	Role in Exhibition
1	2018	Metal Hydride Compressor (MHC) for Hydrogen Compression to Pressure of more than 300bar	6th International Conference on Renewable Energy Sources & Energy Efficiency - New Challenges, Nov. 1-22, 2018,	The University of Cyprus, Nicosia, Cyprus	presentation
2	2018	Innovative Metal Hydride Compressor (MHC) for Hydrogen Compression to Pressure of more than 300bar”,	International Conference on Deregulated Electricity Market Issues in South-Eastern Europe (DEMSEE2018), 20-21 September 2018,	Frederick University, Nicosia, Cyprus	presentation
3	2016	Vehicle natural gas internal combustion engine analysis and comparison with conventional gasoline engine	5th International Conference on RES, 5 -6 May 2016	Hilton Hotel Nicosia	Scientific committee, Paper reviewer, presentation
4	2014	Technology Overview of Photovoltaics	IRENA International conference 29-30 May 2014	Aphrodite Hills Hotel	Invited Speech
5	2013	Technical and feasibility analysis of gasoline and natural gas fuelled vehicles	2nd Conference on Power Options for the Eastern Mediterranean Region (POEM 2013), 07-08 October 2013,	Nicosia, Cyprus	paper
6	2013	Chairperson	4th International Conference on RES 6-7/6/2013	Hilton Hotel Nicosia Cyprus	Scientific committee, Paper reviewer

7	2012	Strategic Energy Plan for Cyprus	1st Conference on Power Options for the Eastern Mediterranean Region (POEM 2012), 19-21 November 2012	Limassol, Cyprus	Invited Speech
8	2010	Chairperson	MEDPOWER Conference, 7-8/11/2010	Adams Hotel Agia Napa Cyprus	Chairperson
9	2009	Hydrogen Technologies	DISTRES Conference 2009 11-12/12/2009	Hilton Hotel Nicosia Cyprus	Scientific committee
10	2008	Renewable Energy Sources (RES) electricity storage in the form of "green" hydrogen	International Conference on Deregulated Electricity Market Issues in South-Eastern Europe	Hilton Hotel Nicosia Cyprus	paper

<b>Research Projects. List the five (5) more recent and other five (5) selected (max total 10)</b>				
<b>Ref. Number</b>	<b>Date</b>	<b>Title</b>	<b>Funded by</b>	<b>Project Role*</b>
1	2018-2021	INTEGRATION OF INNOVATIVE GREEN TECHNOLOGIES ON EXISTING PUBLIC TRANSPORTATION BUSES for 5% to 30% FUEL SAVINGS ( <b>BUS-FUEL-<u>SAVINGS</u></b> )	RPF	Senior Researcher
2	2018-2020	Storage & Renewables Electrifying Cyprus ( <b>SREC</b> )	RPF	Scientific Coordinator/Researcher
3	2014-2018	Advanced Metal Hydride Hydrogen Compressors – Pilot Development and Market Penetration "ATLAS-MHC"	FP7-PEOPLE-2013-IAPP/612292	Senior Consultant
4	2010-2014	Advanced Metal Hydride Tanks for Intergraded Hydrogen Applications "ALTAS-H2"	FP7-PEOPLE-IAPP-2009/251562	Senior Researcher

5	2005-2009	Promotion and Consolidation of all RTD activities for renewable distributed generation technologies in the Mediterranean region, DISTRES	FP6-2004-INCO-MPC-3	Senior Researcher
6	2004-2009	The birth of a European Distributed EnErgy Partnership that will help the large-scale implementation of distributed energy resources in Europe, EU-DEEP	FP6-2002-Energy-1, SES6-CT-2003-503516/Energie	Senior Researcher
7	2005-2007	Grid-connected Photovoltaic substation with parallel electricity storage in the form of hydrogen	RPF	Senior Researcher
8	2004-2007	Distributed energy generation with the use of H2/Fuel Cells, with zero CO2 emissions	RPF	Senior Researcher
9	2004-2007	Hydrogen production, purification and storage with the use of Renewable Energy Sources, such as Solar and Wind Energy	RPF	Senior Researcher
10	2002-2008	Cluster Pilot Project for the Integration of Renewable Energy Sources into European Energy Sectors Using Hydrogen (H2), RES2H2	Contract No. ENK5-CT-2001-00536 / Energie	Senior Researcher
11	2003-2003	Combined Cycle Power Plant with Integrated Low Temperature Heat, NAS-LOTHECO”	ENK5-CT2000-00063/Energie	Scientific Coordinator/Researcher

**Academic Consulting Services and/or Participation in Councils / Boards/ Editorial Committees.  
List the five (5) more recent (Optional Entry)**

Ref. Number	Period	Organization	Title of Position or Service	Key Activities
1	2009	Distress conference	Chairperson / conference	RES
2	2009	Distress conference	Member of the scientific committee	RES
3	2010	MEDPOWER conference	Chairperson / conference	RES
4	2012	Thoukidides Think Tank	Invited speech	Strategic Energy Plan for Cyprus

5	2012	POEM Conference	Invited speech	Strategic Energy Plan for Cyprus
6	2013	4 <sup>th</sup> International conference on RES	Chairperson, member of the scientific committee	RES
7	2013	POEM Conference	Chairperson / conference	RES
8	2014	IRENA international conference	Invited speech	Technology Overview of Photovoltaics
9	2016	5 <sup>th</sup> International conference on RES	Paper's reviewer	RES
10	2018	5 <sup>th</sup> International conference on RES	Chairperson / conference	RES

**Other Achievements. List the five (5) more recent and other five (5) selected.  
(max total 10) (Optional Entry)**

Ref. Number	Date	Title	Key Activities:
1	2016	Committee	Participation in MS Thesis Committees
2	2016	Committee	Participation in the restructuring of Mechanical Engineering (Oil&Gas direction)
3	2015	President of the Committee	Preparation of «Τεχνικός Οχημάτων»
4	2014	Committee	Preparation of «Τεχνικός Μηχανολογικών Εγκαταστάσεων»
5	2013	Committee	Preparation of Specialization in Oil&Gas Engineering within the Mechanical Engineering course of study (syllabus, etc)
6	2012	Committee	Preparation of Masters in Oil&Gas and Offshore Engineering (syllabus, etc)
7	2011	Committee	Preparation of Masters in Energy and the Built Environment (syllabus, etc)