

## Europass Curriculum Vitae



### Personal information

Surname(s) / First name(s) **Katsaprakakis Al. Dimitris**

Address(es) Arkalochori, Heraklion Crete, Greece, 70300

Telephone(s) +30 2810 379220, +30 28910 22148 Mobile: +30 6977 786915

Fax(es) +30 2810 319478

E-mail [dkatsap@wel.teicrete.gr](mailto:dkatsap@wel.teicrete.gr), [dkatsap@aiolikigi.gr](mailto:dkatsap@aiolikigi.gr), [dkatsap@gmail.com](mailto:dkatsap@gmail.com)

URL <http://www.teicrete.gr/tm/el/dkatsapstaffteicretegr>  
<http://www.aiolikigi.gr/en/>

Nationality Greek

Date of birth 15.04.1973

Gender Male

**Single – Married** Married – One child

### Work experience

Dates Since June 1997.

Occupation or position held Member of the Technical Chamber of Greece. Individual professional as Mechanical Engineer.

Main activities and responsibilities Feasibility and application studies relevant to small industries and residential buildings, as far as the electromechanical infrastructure is concerned.  
Feasibility and application studies for power plants of wind parks and pumped storage systems.

Name and address of employer -

Type of business or sector Individual professional.

Dates From 28-1-2000 to 26-9-2001.

Occupation or position held Special Advisor of the Mayor of Viannos, Heraklion Crete.

Main activities and responsibilities

- In charge of the computers network and the services computerisation.
- Submission of proposals in European Union Actions (INTEREG III, Life-Environment 2000, LEADER II & III, etc).
- Supervision of the irrigation network & equipment operation.
- Planning and editing of the municipality annual budget.

Name and address of employer Municipality of Viannos, Heraklion Crete, Greece, 70004.

Type of business or sector Local authority.

Dates	From 1-8-2002 to 31-7-2003.
Occupation or position held	Scientific external contributor at “Developmental of Crete”.
Main activities and responsibilities	In charge for the implementation of specific European Union financial actions, relevant with investments on the renewable energy sources, the energy saving and the rational use of energy.
Name and address of employer	“Developmental of Crete”, Giamalaki 50 & Sofokli Venizelou, Heraklion, Crete, Greece, 71201.
Type of business or sector	Private organisation, non-profit (PNP).
Dates	September 2001 – February 2010.
Occupation or position held	Scientific contributor.
Main activities and responsibilities	Teaching of: <ul style="list-style-type: none"> <li>• Mechanical drawing</li> <li>• AutoCAD</li> <li>• Power plants synthesis</li> </ul> at department of Mechanical and Electrical Engineers.
Name and address of employer	Technological Educational Institute of Crete, Estavromenos, Heraklion Crete, Greece, 71004.
Type of business or sector	University.
Dates	Since February 2010
Occupation or position held	<ul style="list-style-type: none"> <li>• Assistant Professor (February 2010 – July 2016)</li> <li>• Associate Professor (since July 2016)</li> </ul>
Main activities and responsibilities	Permanent academic staff of the Technological Educational Institute of Crete. Teaching of the following courses: <ul style="list-style-type: none"> <li>• Power plants synthesis</li> <li>• Mechanical machinery</li> <li>• Mechanics of fluids</li> <li>• Internal combustion engines</li> <li>• Renewable Energy Sources</li> <li>• Heating and cooling of buildings</li> <li>• Hydrodynamic machines</li> <li>• Software development for engineers.</li> </ul> on the Mechanical and Electrical Engineering school and the post-graduated course of T.E.I. of Crete entitled “Power Systems”.
Name and address of employer	Technological Educational Institute of Crete, Estavromenos, Heraklion Crete, Greece, 71004.
Type of business or sector	University.
Dates	January 2000 - June 2001
Occupation or position held	Participation in the research project, financed by the European Union with the title: “General simulating model of drilling. Three dimensioned surface roughness.”
Main activities and responsibilities	Software construction
Name and address of employer	Technological Educational Institute of Crete, Estavromenos, Heraklion Crete, Greece, 71004.
Type of business or sector	University.

Dates	From September 2003 - .
Occupation or position held	Mechanical Engineer, Researcher – Scientist at Wind Energy and Power Systems Syntesis Laboratory.
Main activities and responsibilities	<ul style="list-style-type: none"> <li>• Research and scientific activities – responsibilities concerning wind energy, pumped storage systems, renewable energy sources, power quality, etc.</li> <li>• Computational simulation and analysis of power plants systems of small and large size.</li> <li>• Implementation of feasibility and environmental effects studies concerning the installation of wind parks, pumped storage systems and renewable energy sources projects.</li> <li>• Audits implementation for energy investments financed by the 3rd E.U. Support Framework Programme 2000-2006, OPERATIONAL PROGRAMME "COMPETITIVENESS", Greek Ministry of Development.</li> <li>• Contribution in the research projects: <ul style="list-style-type: none"> <li>✓ Archimedes I, «The power quality of complex power plants», (from 2-6-2004 to 31-12-2006).</li> <li>✓ AKMON, «Malfunctions diagnosis and quality measuring – New methodology and instruments development», (from 7-7-2005 to 7-3-2008).</li> <li>✓ Scientist responsible on behalf of T.E.I. of Crete for the Lifelong Learning project entitled «R.E.S. and energy saving innovative performance technologies», implemented with T.E.I. of Piraeus and T.E.I. of Athens (June 2014 – February 2015).</li> <li>✓ Principal writer in the frames of the action “Kallipos” of two academic books, entitled «Power Plants Synthesis» and «Heating – Cooling – Conditioning of buildings».</li> </ul> </li> </ul>
Name and address of employer	Technological Educational Institute of Crete, Estavromenos, Heraklion Crete, Greece, 71004.
Type of business or sector	University.
Dates	Since October 2010.
Occupation or position held	External evaluator
Main activities and responsibilities	Evaluation of applications on behalf of General Secretary of Research and Technology in Greece for scientific proposals funded by the E.U. or the Greek State.
Name and address of employer	General Secretary of Research and Technology in Greece
Type of business or sector	State authority
Dates	Since June 2010
Occupation or position held	Scientific articles reviewer
Main activities and responsibilities	<p>Reviewing of scientific articles for the following Journals:</p> <ul style="list-style-type: none"> <li>• Renewable Energy</li> <li>• Energy</li> <li>• Renewable and Sustainable Energy Reviews</li> <li>• Energy conversion and management</li> </ul>
Name and address of employer	Elsevier
Type of business or sector	Scientific journals editor
Dates	November 2005 – December 2007.
Occupation or position held	External contributor for the participation of Prefecture of Lasithi in the project WindTechKnow, financed by Interreg IIIC North office.
Main activities and responsibilities	Management of the project, implementation of research, surveys and feasibility studies on behalf of the Prefecture of Lasithi.
Name and address of employer	Prefecture of Lasithi. Agios Nikolaos, Crete, Greece, 72100.
Type of business or sector	Local authority.

Dates	Since June 2010.
Occupation or position held	Reviewer of research articles in the following journals: Energy, Renewable and Sustainable Energy Reviews, Renewable Energy, Energy Conversion and Management.
Main activities and responsibilities	Reviewer
Name and address of employer	Elsevier
Type of business or sector	Publisher.
Dates	Since October 2011.
Occupation or position held	Owner and founder of the private firm "Aeolian Land S.A."
Main activities and responsibilities	Consulting and development of Renewable Energy Sources power plants, integration of energy saving technologies in buildings and premises, innovative energy saving and control hardware and software etc.
Name and address of employer	Arkalochori Heraklion Crete, 70300.
Type of business or sector	Private firm.
<b>Education and training</b>	
Dates	From September 1991 to February 1997.
Title of qualification awarded	Mechanical Engineer.
Principal subjects/occupational skills covered	Mechanical Engineering. Specialised in power production and power sources.
Name and type of organisation providing education and training	National Technical University of Athens.
Level in national or international classification	ISCED5.
Dates	From 3-6-2002 to 30-3-2007.
Title of qualification awarded	PhD.
Principal subjects/occupational skills covered	PhD implementation at School of Mechanical Engineers of National Technical University of Athens, with the title "Maximisation of wind power penetration in isolated power systems". Supervisor: Arthouros Zervos.
Name and type of organisation providing education and training	National Technical University of Athens, School of Mechanical Engineers, Department of fluids.
Level in national or international classification	ISCED6.

**Personal skills and competences**

Mother tongue(s) **Greek**

Other language(s)

Self-assessment

European level (\*)

**English**

**Italian**

Understanding				Speaking				Writing	
Listening		Reading		Spoken interaction		Spoken production			
B2	Independent user	C1	Proficient user	B2	Independent user	B2	Independent user	C1	Proficient user
A1	Basic user	A2	Basic user	A1	Basic user	A1	Basic user	A2	Basic user

(\*) Common European Framework of Reference for Languages

Social skills and competences

Full social skills developed, mainly because of:

- my participation in theatrical teams and the performance of leading roles
- my work as assistant professor in T.E.I.
- my work in WindTechKnow EU project
- my activities as an individual professional mechanical engineer
- my membership in Greek Photographic Company and the participation in competitions and exhibitions
- my sports activities.

Organisational skills and competences

Full organization skills developed, mainly because of:

- my position in Municipality of Viannos
- my work in Wind Energy Laboratory
- my work in WindTechKnow EU project.

Technical skills and competences

Well developed technical skills, mainly because of:

- my constructions of wood, with professional wood machinery.

Computer skills and competences

- Operation systems: DOS, Windows, UNIX
- Microsoft Office: Word, Excel, Power Point, Access, Outlook.
- Mechanical drawing: AutoCAD (2-D)
- Other applications: CorelDRAW, Adobe Photoshop.
- Software construction: FORTRAN, LabVIEW.
- Several other windows applications.

Artistic skills and competences

- Amateur theatrical actor: Participation in several amateurish and professional performances, taking on leading roles. I have been rewarded twice in Cretan amateurish theatrical competitions for my performance.
- Music: Accordion player since the age of 12. Great collection of albums.
- Photograph: Member of the Greek Photographic Company. Participations in competitions and exhibitions.
- Painting.

Other skills and competences

- Sports: Diving, bicycle, football, shotokan karate.
- Reading: Literature, history.
- Constructions: amateurish wooden constructions (mainly furniture).

Driving license **Category B.**

## A. Publications

## a. In journals

1. **D. Katsaprakakis, D.G. Christakis, K. Kontaxakis**, "Introduction of pumped storage system into the existing power production system of Crete", *Technika Chronika*, Science publication of Technical Chamber of Greece, IV, No 1-2, p. 57-80.
2. **Dimitris Al. Katsaprakakis, Dimitris G. Christakis, Emmanouel Voumvoulakis, Arthouros Zervos, Dimitris Papantonis, Spiros Voutsinas**, "The introduction of wind powered pumped storage systems in isolated power systems with high wind potential", *International Journal of Distributed Energy Resources*, Volume 3, Number 2 (2007), Pages 83 – 112.
3. **Dimitris Al. Katsaprakakis, Nikos Papadakis, Dimitris G. Christakis, Arthouros Zervos**, "On the wind power rejection in the islands of Crete and Rhodes", *Wind Energy Journal*, Volume 10, September 2007, Pages 415-434.
4. **Dimitris Al. Katsaprakakis, et al**, "Pumped storage systems introduction in isolated power production systems", *Renewable Energy*. Volume 33, March 2008, Pages 467-490.
5. **Dimitris Al. Katsaprakakis, Dimitris G. Christakis, Arthouros Zervos, Spiros Voutsinas**, "A power quality measure", *IEEE Transactions on Power Delivery* 23 (2) , pp. 553-561.
6. **Dimitris Al. Katsaprakakis, Nikos Papadakis, George Kozirakis, Yiannis Minadakis, Dimitris G. Christakis, Konstantinos Kondaxakis**, "Electrification of the island of Dia based on renewable energy sources", *Applied Energy*, Volume 86, April 2009, Pages 516-527,.
7. **Katsaprakakis DA et al**. "Introduction of a wind powered pumped storage system in the isolated insular power system of Karpathos–Kasos". *Applied Energy*. Volume 97, September 2012, Pages 38-48.
8. **Dimitris Al. Katsaprakakis**. "A review of the environmental and human impacts from wind parks. A case study for the Prefecture of Lasithi, Crete". *Renewable and Sustainable Energy Reviews*, Volume 16, Issue 5, June 2012, Pages 2850-2863.
9. **Dimitris Al. Katsaprakakis, Dimitris G. Christakis, Ioannis Stefanakis, Petros Spanos, Nikos Stefanakis**. Technical details regarding the design, the construction and the operation of seawater pumped storage systems. *Energy*, Volume 55, 15 June 2013, Pages 619-630.
10. **Dimitris Al. Katsaprakakis, Dimitris G. Christakis**. Seawater pumped storage systems and offshore wind parks in islands with low onshore wind potential. A fundamental case study. *Energy*, Volume 66, 1 March 2014, Pages 470-486.
11. **Dimitris Al. Katsaprakakis**. Comparison of swimming pools alternative passive and active heating systems based on renewable energy sources in Southern Europe. *Energy*, Volume 81, 1 March 2015, Pages 738-753
12. **Dimitris Al. Katsaprakakis, Stamatis Kalligeros, Nikos Pasadakis, Myron Moniakis, Ioannis Skias**. The feasibility of the introduction of natural gas into the electricity production system in the island of Crete (Greece). *Energy for Sustainable Development*, Volume 27, August 2015, Pages 155-167.
13. **Dimitris Al. Katsaprakakis, Dimitris Christakis**. The exploitation of electricity production projects from Renewable Energy Sources for the social and economic development of remote communities. The case of Greece: an example to avoid.. *Renewable and Sustainable Energy Reviews*. Volume 54, 1 February 2016, Pages: 341-349.
14. **Dimitris Al. Katsaprakakis**. Hybrid power plants in non-interconnected insular systems. *Applied Energy*. Volume 164, 15 February 2016, Pages 268-283.

b. In conferences

1. **D. Katsaprakakis, D.G. Christakis**, "On the wind power penetration percentage in the island of Crete", RES & RUE for islands international conference, Cyprus, 30-31 August 2004.
2. **D. Katsaprakakis, D.G. Christakis, D. Poulis, Y. Minadakis**, "A power quality measure", RES & RUE for islands international conference, Cyprus, 30-31 August 2004.
3. **D.G. Christakis, D. Katsaprakakis**, «A measure for the wind power quality» EWEA 2004 Conference, 22-25 November 2004, London.
4. **D. Al. Katsaprakakis, D. G. Christakis**, «The use of pumped storage systems in power production system of Crete», 3rd Pan-Hellenic Conference «The performance of renewable energy sources. Perspectives and priorities towards the target of 2010», 23-25 February 2005, Athens (in Greek).
5. **D. Al. Katsaprakakis, D. G. Christakis**, «100% power production in Crete with the use of wind parks and pumped storage systems», 3rd Pan-Hellenic Conference «The performance of renewable energy sources. Perspectives and priorities towards the target of 2010», 23-25 February 2005, Athens (in Greek).
6. **D. Al. Katsaprakakis, D. G. Christakis**, «A measure for the wind power quality», 3rd Pan-Hellenic Conference «The performance of renewable energy sources. Perspectives and priorities towards the target of 2010», 23-25 February 2005, Athens (in Greek).
7. **D. Katsaprakakis, D.G. Christakis**, "A wind parks, pumped storage and diesel engines power system for the electric power production in Astypalaia", Conference on Sustainable Energy, Brasov, Romania 7, 8 July 2005 (oral presentation).
8. **D. G. Christakis, D. Al. Katsaprakakis**, "The combined management of water potential and wind energy: a lever for development in Municipality of Viannos", 1st Pan-Viannitiko Conference, Ano Viannos, 27-28 August 2005 (in Greek, oral presentation).
9. **D. Al. Katsaprakakis, George Betzios, D. G. Christakis**, «Combined management of water and wind potential for the island of Lesbos», 17th Conference of Pan-Hellenic Ecological Organisations Network: «Renewable Energy Sources», Mitilini, 7-9 October 2005 (in Greek).
10. **D. Al. Katsaprakakis, D.G. Christakis**, «A wind parks, pumped storage and diesel engines power production hybrid system for the power production in Astypalaia», EWEC 2006 Conference & Exhibition, 27 February to 2 March, 2006, Athens.
11. **D. Al. Katsaprakakis, D.G. Christakis, Emm. Voumvoulakis** «Maximisation of RES penetration in Crete with the use of pumped storage systems», Institute of energy for south-east Europe, «Energy and development in Crete», 26, 27 May 2006, Chania (in Greek).
12. **D. Al. Katsaprakakis, D.G. Christakis**, "Experience from the wind parks operation in Crete and perspectives towards the maximization of the wind power penetration", 5th World Wind Energy Conference & Exhibition WVEC 2006, "Energy Independence powered by Wind", New Delhi, India, 6-8 November 2006.
13. **D. Al. Katsaprakakis, D.G. Christakis**, "Maximisation of R.E.S. penetration in Greek insular isolated power systems with the introduction of pumped storage systems", ENERTECH 2007, 2nd International Conference & Exhibition, "Renewable Energy Sources and Energy Efficiency", Athens, 18-21 October 2007 (oral presentation).
14. **D. Al. Katsaprakakis, D.G. Christakis**, "Maximisation of R.E.S. penetration in Cyclades islands", Institute of energy for south-east Europe, "The energy problem in Cyclades", 20-21 June 2008, Ermoupoli, Syros (in Greek, oral presentation).

15. **D. Al. Katsaprakakis, D.G. Christakis**, “Maximisation of R.E.S. in Greek islands (Technological, Economic and Legislative parameters)”, Development agencies’ network for insular Greece, Pan-European conference, “Sustainable development policies for islands: Europe, Mediterranean, Greece, networking and cooperation”, Corfu, 3-5 July 2008 (in Greek, oral presentation).
16. **D. G. Christakis, D. Al. Katsaprakakis**, “Exploitation of R.E.S. in Municipality of Viannos”, 2nd Pan-Viannitiko Conference with emphasis on Environment and Public Health, Ano Viannos, 29-31 August 2008 (in Greek, oral presentation).
17. **D. Al. Katsaprakakis, D.G. Christakis, Kosmas Pavlopoulos, Irene Dimitrellou, Sofia Stamataki**, «Maximisation of R.E.S. penetration in very small power systems. Case study: Agios Efstratios.», Fourth National Conference: The application of Renewable Energy Sources “Towards an Ambitious and Reliable National Action Schedule”, 10-12 May 2010 Athens. (in Greek).
18. **Dimitris Al. Katsaprakakis, Dimitris G. Christakis, Kosmas Pavlopoulos, Sofia Stamataki, Irene Dimitrelou, Stefanakis Ioannis, Spanos Petros**, «Introduction of a wind powered pumped storage system in the isolated insular power system of Karpathos – Kasos», Third International Conference on Applied Energy - 16-18 May 2011 - Perugia, Italy.
19. **Dimitris Al. Katsaprakakis, Dimitris G. Christakis, Ioannis Stefanakis**. Hybrid power plant for electricity and potable water production through desalination in Kasos. 1<sup>st</sup> Kassian Symposium. Kasos 19-20 August 2014.
20. **Karapidakis, E.S., Christakis, D., Katsaprakakis, D., Stamatelos, A.** Interconnection of Crete’s power system and further wind power utilization. IET Conference Publications. Volume 2014, Issue CP665, 2014. 9th Mediterranean Conference on Power Generation, Transmission Distribution and Energy Conversion, MedPower 2014; Athens; Greece; 2 – 5 November 2014; Code 117811.
21. **Dimitris Al. Katsaprakakis, Dimitris G. Christakis**. The exploitation of R.E.S. for electricity production. A mean of decentralised social and economic growth. The existing situation in Greece during the last years. 10<sup>th</sup> National Conference on R.E.S. 26-28 of November 2014, Thessaloniki, Greece (in Greek).
22. **Dimitris Al. Katsaprakakis, Dimitris G. Christakis**. The development of hybrid power plants for electricity production aiming at the R.E.S. penetration maximization in insular autonomous systems. 10<sup>th</sup> National Conference on R.E.S. 26-28 of November 2014, Thessaloniki, Greece (in Greek).
23. **D. Al. Katsaprakakis, D. Zafirakis, D. G. Christakis, J. Kaldellis**. A sustainable energy and development pattern based on R.E.S. for insular and rural communities. 13th International Conference on Protection and Restoration of the Environment, Mykonos island, Greece, | 3rd to 8th of July, 2016.
24. **Dimitris Al. Katsaprakakis**. Development possibilities of insular and rural communities based on the exploitation of Renewable Energy Sources. The potential of Energy Cooperatives. 2<sup>nd</sup> Kassian Symposium. Kasos 6-10 August 2016.
25. **Dimitris Al. Katsaprakakis, George Zidianakis**. Upgrading Energy Efficiency For School Buildings In Greece. International Conference on Sustainable Synergies from Buildings to the Urban Scale, SBE16, Thessaloniki, Greece, 17-19 of October 2016 (approved).



### c. Chapters in volumes

1. **Al Katsaprakakis D and Christakis DG** (2012). "Wind Parks Design, Including Representative Case Studies." In: Sayigh A, (ed.) Comprehensive Renewable Energy, Vol 2, pp. 169–223. Oxford: Elsevier.
2. **Dimitris Al. Katsaprakaki** (2016). "Energy Storage For Offshore Wind Farms". In: Chong Ng & Prof. Li Ran, (ed.) Offshore wind farms: Technologies, design and operation. Pages 459-493. Woodhead Publishing Limited.

### Comprehensive analysis of the published articles:

The topics of above articles can be summarized as:

- Power plants synthesis based on Renewable Energy Sources (R.E.S.) for the production of electricity in insular systems.
- Thermal power plants supported by Renewable Energy Technologies analysis and simulation.
- Wind power penetration in non-interconnected systems with or without the support of storing technologies.
- Security of power plants with high wind power penetration.
- Power quality.
- Reduction of power plants' electricity production cost and saving of conventional energy sources (e.g. coal, oil) by introducing R.E.S. power production plants.
- Wind parks environmental impacts. Optimum wind parks sitting.
- Energy saving.
- Heating and cooling of buildings.

### B. Books

1. **Dimitris Al. Katsaprakakis**. Courses on Wind Energy and Wind Parks Construction. Funding: INTERREG IIIC NORTH - Regional Wind Technology and Knowledge Transfer Strategies – Prefecture of Lasithi. Crete, 2008.
2. **Dimitris Al. Katsaprakakis**. Mechanical machinery. Handbook for the teaching of the relevant course in T.E.I. of Crete. October 2007.
3. **Dimitris Al. Katsaprakakis**. Power Plants Synthesis. «Kallipos» Hellenic Academic Electronic Books and References. October 2015.
4. **Dimitris Al. Katsaprakakis, Moniakis Myron**. Heating, Cooling and Conditioning of Buildings. «Kallipos» Hellenic Academic Electronic Books and References. October 2015.

### C. Participation in the following work-specific teams, funded by the Technical Chamber of Greece:

1. **Katsaprakakis Dimitris, Moniakis Myron, Pasadakis Nikos, Skias Ioannis**. "Feasibility for the introduction of natural gas in the electricity production system of Crete". Delivered on February 2010.
2. **Aggelakis Andreas, Vamvasakis Ioannis, Vergis Georgios, Violaris Georgios, Dialynas Georgios, Katsaprakakis Al. Dimitris, Kornelaki Elisavet, Bikakis Evaggelos, Papadaki Marina, Sampson Dimitris**. "Perspectives for the production of drinkable water from the Almyros river, by applying reverse osmosis methodology. Delivered on October 2013.

**D. International acknowledgment of academic and research work.**

Scopus h-index: 9

Google Scholar h-index: 10

Citations: Scopus: 224 – Google Scholar: 358 (November 2016).