# **CURRICULUM VITAE**

(September 2013)

# **GEORGIOS AR. VOKAS**

Dr. Engineer NTUA, Dipl. Electrical Engineer NTUA

Tel. +30 210 5381180, Mob.+30 693 65 70 771, E-mail: gvokas@teipir.gr

### **EDUCATION**

**School:** 30<sup>th</sup> High school / Athens with Honors - Year of Graduation 1984.

**Undergraduate Studies:** National Technical University of Athens (N.T.U.A.) - Faculty of Electrical

and Electronic Engineering - Graduation date: December 1989.

**Dipl. Dissertation title:** "Theoretical study and computer simulation of PV cell characteristics". **Postgraduate Studies:** From July 1990 till November 1995 worked as a post-graduate student

at the National Technical University of Athens in the field of Renewable

Energy Sources (Solar Energy - Photovoltaics).

PhD Dissertation thesis: "Photovoltaic Systems Simulation and Analysis of the Problems caused

to the Electric Grid power quality".

**Ph.D. presentation:** On 18<sup>th</sup> of December 1995

#### FOREIGN LANGUAGES

**ENGLISH:** "Proficiency" Level

**GERMAN:** "Kleinsprachdiplom" Level

### PROFESSIONAL STATUS

2007-today: Assistant Professor in Technological Educational Institute (TEI) of Piraeus/Electronics

Department, in the field of Power Electronics in Renewable Energy Applications.

2001-2007: Head of Energy Department of Action 2.1.3 of the European Operational Program of

Competitiveness in ELANET (Hellenic Development Company) within the 3<sup>rd</sup> European

Community Support Framework.

Completion of 145 investment projects - Budget ca. 150M€. Main tasks:

- Support of private sector proposals in order to ensure their participation in the Community Support Framework and Community Initiatives
- Provision of high quality Management in their implementation.
- Complete Auditing and Supervision of projects of the above categories in order to assure their successful and on-time implementation.

Among the Measures of the OPERATIONAL ENERGY PROGRAM are:

- Solar (PV) and wind (WG) energy production for personal use or for selling,
- Rational use of Energy in Industry and Large buildings,
- Implementation of Natural Gas equipment in industry and Cogeneration,
- ♦ Hydroelectric energy production, Use of Biomass etc.

1997-2000: Project Manager and Technical Auditor in ELANET responsible for the Operational Energy

Program (100 projects - Budget ca. 100 M€). The Measures in which investments take

place are similar to those of the Operational Energy Program.

1998-2009: Lecturer of the post graduate course "Rational Use of Energy, Energy Saving Techniques

and Renewables", TEI of Piraeus & OPEN University UK

2007-today: Supervisor of Master dissertations of the 'MSc in Energy' course of TEI of Piraeus &

Herriot Watt University UK.

1990-today: As an electrical engineer offers high level technical consultant services in numerous of

energy projects (RES, Energy Saving) in licensing, design installation and O&M issues.

### MEMBER OF ORGANIZATIONS

1. Technical Chamber of Greece (TEE), member.

- 2. National Chamber of Electrical and Mechanical Engineers of Greece, member.
- 3. Athletic Sports Club "Academia Oplomachias" (Fencing club), President.
- 4. Hellenic Association of Photovoltaic Companies (HELAPCO), ex-General Secretary.

### OTHER STUDIES – SEMINARS – CONFERENCES

- 1. "Industrial Electronic Control Control Engineering", May July 1991, Hellenic Institute of Technological Applications (Athens).
- 2. "Air Conditioning Systems Air Cleaning Filters", October November 1991, Geneo Toshiba Research Group (Piraeus).
- 3. "Computer Applications on Electro-Mechanical Building Constructions", October -December 1991, Greek Electrical & Mechanical Engineers Association (Athens).
- 4. "Energy Planning and Applications on Active Solar and on other Energy Saving Systems", October December 1992, "Solar Village Ltd." & Aristotle University, (Athens).
- 5. "AERION '93: Industry Applications of Natural Gas", November 1993 Thermie Program E.E.C., (Athens).
- 6. "Industrial Electric Equipment: Design & Quality Control", National Technical University of Athens, May June 1994, (Athens).
- 7. "Energy Saving Techniques and Energy Audits", CRES, NOVOTEL Hotel, April 2000, Athens.
- 8. Over 15 conferences as an attendant or an author presenting a paper.

#### COMPUTER KNOWLEDGE

Computing Skills: Over twenty-year experience in using PC, Windows Office tools, Basic,

FORTRAN, Pascal etc.

**Special purpose Programs:** PVSYST, AutoCAD, MathCAD, MatLab, PSPICE, MV3SPC.

#### PRACTICAL EXPERIENCE

- 1. Queen's University of Belfast (United Kingdom), July August 1989: Electronic Measuring Devices: Installation & Tests of high efficiency engines Computer applications.
- 2. Enemalta Corporation Electric Power Corp. of Malta (Malta), July August 1990: Electric Power Production Distribution Maintenance and Control.
- 3. ALLSTAR Athletic Company, Germany, February 1991, Electronic Circuit Analysis Maintenance.
- 4. Since 1990 has undertaken and supervised several energy projects (Buildings, Industries, RES).

### ACADEMIC EXPERIENCE

- 1. During the Academic Years: 1990-'91, 1991-'92, 1992-'93, 1993-'94, 1994-'95 and 1995-'96 taught and supervised the following subjects in the Electrical Eng. Dep. of N.T.U.A.:
  - Renewable Energy Sources
  - Electric Machines Laboratory
  - Photometry Illumination Techniques Laboratory
- 2. During the Academic Years: 1998, '99, '00, 01 and '02 taught and supervised the subject of "Photometry-Illumination Techniques" for the TEI of Piraeus.
- 3. During the Academic Years: 2001, '02, '03, '04, '05, '06, '07, '08, '09, '10, '11, '12, '13 taught and supervised the course of "Power Electronics" for the TEI of Piraeus.
- 4. During the Academic Years: 1999, '00, 01, '02, '03, '04, -'05, '06, '07, '08 taught and supervised the course of "Rational Use of Energy, Energy Saving Techniques and Renewables" for the Masters course of TEI of Piraeus & OPEN University UK.
- 5. During the Academic Years: 2009, '10, '11, '12, '13, until today supervises Master dissertations of the 'MSc in Energy' course of TEI of Piraeus & Herriot Watt University UK.

### RESEARCH ACTIVITIES

Dec.89 - June 91:	Member of the NTUA Renewable Energy Research Group working on projects on
	economic feasibility and energy management scenarios of Interconnected and

Stand-alone Photovoltaic (PV) Stations", (NTUA).

Dec.90 - Aug.92: Main Researcher of the Project: "Electric Grid Problems Analysis Caused by

Interconnected Photovoltaic (PV) Stations", VALOREN Program (EEC) - Center

for Renewable Energy Sources (CRES).

Dec.92 - Apr.93: Member of the Research Group of the Project: "Quality of the supplied Electric

Power", Technical Chamber of Hellas.

Sep.93 - Dec.93: Project manager & main researcher of the Project: "Harmonics in Kythnos Island

due to 100kWp Photovoltaic Station: Field Measurements - Simulations -

Modeling", Center for Renewable Energy Sources (CRES).

Sep.96 - Sep.97: Member of the Research Group of the Project: "Fiber telecommunications lines

using the Railway transportation network - Market research and investment

strategies", Economic Univ. - OSE.

Jan.'00 - Dec.'01: Member of the Research Group of the international Project: «Energy saving in

light installations with electronic fluorescent lamps and cost benefit analysis of an extended use in the national electric networks of Greece and Yugoslavia. Study on harmonics and on the quality of the supplied power in various electrical

systems», NTUA – University of Belgrade.

Jan.'01 – 2005: Member of the Research Group of the international Project: «Experimental

evaluation of the electrical and illuminating characteristics of electronic fluorescent lamps and energy saving evaluation. Analysis of the problems that will be caused after an extended use in the national electric networks of Greece and

Yugoslavia», NTUA – University of Belgrade.

Jan.'02 – 2006: Member of the Research Group of the Project: «Quality assurance in the

illuminants production sector », subsidized by the Greek illuminants industries.

Jan.'05 – 2007: Member of the Research Group of the Project: «Development of an automatic

lighting system for the optimization of the use of physical light», Project: «Pythagoras II – Research groups in Universities», Illumination Techniques

Laboratory of NTUA.

#### New applications for research programs:

### 1. Application for the Research Program: Archimides III

Title of the research proposal: "An Electric Network Power Quality evaluation model using Fuzzy

Sets and Field Measurements (NPQFM)" – Main Researcher

The extensive use of sensitive electronic equipment, the increase of distributed generation and the energy market deregulation as well as the increased use of nonlinear loads explain the need for better power quality supply. Power Quality (PQ) is a complex term and indicates the compliance of the supplied power to various international standards. PQ is an issue that is becoming increasingly important to electricity consumers at all levels of usage. The electrical characteristics (v, i, f) must follow pre-specified limits for an acceptable PQ. The estimation of PQ in all 10 different disturbance types is a complex, time-consuming task. The variety of disturbances does not help to characterise the PQ at a certain network point. The aim of this research proposal is to develop a Fuzzy Expert System (FES) methodology able to calculate a Fuzzy Total Power Quality Index (FTPQI). In order to develop a reliable FES adequate knowledge is requested as data, such as the international PQ standards, specific Questionnaires to end-consumers and field measurements of all possible PQ disturbances that occur at an examined site. All the above, including the proper measuring procedure and the detailed statistical analysis of the field measurements are crucial for a successful FES model. FES will be based on the Fuzzy and multi-criteria decision making theory developing a complex mathematical model, which will calculate a unique FTPQ Index for every measured site using as input the measurements of this network point for a specific time period. FTPQI of the specific point includes a global and concentrated information about its PQ level. This research will contribute to the evaluation of examined electric network nodes and provide a ranking between them in terms of PQ using the corresponding FTPQI. This tool will provide the system administrator a reliable and scientific way to check the total PQ of electric networks providing also the possibility of ad-hoc network improvement remedies.

First application 1.9.2009, Last application 6.12.2011.

The research proposal is accepted and now is under progress.

#### 2. Application for the Research Program: Archimides III

Title of research proposal: "Energy saving potential in existing dc motor drives in Greece and relative power quality issues" – Member of the Research Group

The aim of this research is to investigate the energy potential that can be saved due to lack of energy saving techniques usage in dc motor drives systems. The power quality issues that arise in such systems are also of the projects' research interest.

The research project is accepted and now is under progress.

#### PUBLICATIONS- PROJECTS

- 1. G.Vokas, A.Argiriou, K.Theofylaktos, "Rational Use of Energy and Energy Saving Techniques", Technological Educational Institute (TEI) of Piraeus & OPEN University UK, Athens, 1999.
- 2. G.Vokas, E.Kotsalos, C.Koutoulakos, "Energy and Environment", Greek Ministry of Education (Educational Institute), Athens, 2000.
- 3. "Harmonic field measurements at Kythnos PV power plant. Analysis and study modeling with HPH3PH Conclusions", May 1994.
- 4. "Power Quality Impact at PV energy sources in rural area networks", G.Vokas, et.al. June 1994.
- 5. "Quality issues of the supplied electric energy", National Technical Chamber of Greece, May 1993.
- 6. G.A. VOKAS, et.al. "FIBER TELECOMMUNICATION LINES USING THE RAILWAY TRANSPORTATION NETWORK MARKET RESEARCH AND INVESTMENT STRATEGIES", Economic Univ. OSE, JULY 1997.
- 7. G.Vokas, E.Despotou, S.Psomas, M.Sigalas, Ch.Protogeropoulos, S.Pressas, "Proposals for the development of Solar Energy applications in Greece (Solar Thermal Photovoltaic applications)", IENE (South-East Europe Energy Institute), December 2004.
- 8. "HARMONIC PROBLEMS DUE TO THE COOPERATION OF DIESEL AND PHOTOVOLTAIC POWER STATIONS", OCTOBER 1990 MAY 1991, ECONOMIC EUROPEAN COMMUNITY (EEC) PROGRAM VALOREN, PART I.

- 9. "HARMONIC PROBLEMS DUE TO THE COOPERATION OF DIESEL AND PHOTOVOLTAIC POWER STATIONS",
  JUNE 1991 NOVEMBER 1991, ECONOMIC EUROPEAN COMMUNITY (EEC) PROGRAM VALOREN, PART II.
- 10. "HARMONIC PROBLEMS DUE TO THE COOPERATION OF DIESEL AND PHOTOVOLTAIC POWER STATIONS", NOVEMBER 1991 AUGUST 1992, ECONOMIC EUROPEAN COMMUNITY (EEC) PROGRAM VALOREN, FINAL REPORT.

# **PAPERS**

#### In International Journals (J):

- **J1. G.A. Vokas**, A.V. Machias, "Harmonic voltages and currents on two Greek islands with Photovoltaic stations: Study and Field Measurements", IEEE Trans. on Energy Conversion, Vol. 10, No.2, June 1995.
- **J2.** F.V.Topalis, I.F.Gonos, **G.A. Vokas**, "Arbitrary waveform generator for harmonic distortion tests on compact fluorescent lamps", Measurement, Journal of the International Measurement Confederation, London U.K., Vol 30(4), pp 257-267, December 2001.
- **J3.** P.N. Korovesis, **G.A. Vokas**, I.F. Gonos, F.V. Topalis, "Influence of large scale Installation of energy saving lamps on the line voltage distortion of a weak network supplied by photovoltaic station", IEEE Transactions on Power Delivery, Vol. 19, No4, October 2004.
- **J4.** Ach. G.K. Kostoulas, **G.A. Vokas**, F. Skitides, "Review of Solar Radiation estimation and Solar Data Banks elaboration methodologies over Greece", WSEAS Transactions on Circuits and Systems, Issue 5, Vol.3, pp.1221-1227, July 2004.
- J5. N. Christantonis, G.A. Vokas, F. Skitides, "Simulation of hybrid Photovoltaic-Thermal Collector (PV-TC) Systems for domestic Heating and Cooling Case Study: Island of Rhodes", WSEAS Transactions on Circuits and Systems, Issue 5, Vol.3, pp.1228-1233, July 2004.
- **J6.** C.K. Kokkinou, A. Kotronarou, P. Skitides, **G.A. Vokas**, "Design of an Environmental Inspection Agency for Effective Enforcement in Cyprus", IASME Transactions, Issue 4, Vol.2, pp.590-595, June 2005.
- J7. K. Menagias, Ach. Kostoulas, N. Theodoropoulos, **G.Vokas**, "A small building integrated Photovoltaic/ Thermal (PV/T) system in Athens. An economic analysis", WSEAS Transactions on Business and Economics, Issue 4, Vol.3, pp.331-336, April 2006.
- **J8.** N.Theodoropoulos, **G.A.Vokas**, F.Skittides, P.Kostagiolas, "Simulation of a Photovoltaic/ Thermal air heating System in the region of Patras, Greece", WSEAS Transactions on Power Systems, Issue 6, Vol.1, pp.1042-1047, Greece, June 2006.
- J9. N. Theodoropoulos, G.A. Vokas, F.Skittides, P.Kostagiolas, "A Theoretical Approach of a Hybrid Photovoltaic Thermal Air Heating System for domestic heating", WSEAS Transactions on Heat and Mass Transfer, Issue 3, Vol.1, pp. 199-205, March 2006.
- **J10. G.A. Vokas,** N. Christantonis, F. Skitides, "Hybrid Photovoltaic-Thermal Systems for domestic Heating and Cooling A theoretical approach", Solar Energy-Elsevier, pp. 607-615, Vol. 80, 2006.
- **J11.** E.Paraskevadaki, S.Papathanasiou, **G.A.Vokas**, "Effects of partial shading on the PV module characteristic curves", Materials Science Forum, Vol. 670, pp 391-398, 2010.
- J12. Georgios A. Vokas, Panagiotis G. Klironomos, John K. Kaldellis, "Evaluation of Building Integrated Photovoltaic Systems' Potential in the Industrial Sector: Case Study Oinofyta-Viotia Zone", Journal of Energy and Power Engineering ISSN 1934-8975, USA JEPE13010604, accepted for publication.

#### In Technical Journals (TJ):

- TJ1. G.A. Vokas, «Photovoltaic cells and applications», Journal "The Electrician", Issue 140-141, July 2003.
- **TJ2.** G.A. Vokas, «Energy Saving: Possibilities and perspectives for investors and engineers», Conference of TEE, Patra, July 2003. Also published in Journal "Technical Survey" Issue 142, February 2004.
- **TJ3.** G.A.Vokas, Th.Lagorkopoulos, N.Nikolinakos, A.Samaras, "Results of the energy saving projects managed by ELANET in 2<sup>nd</sup> ECSF", Technical Journal of PSDMH, Vol 377, May 2005.

- **TJ4.** Em.Vafiadis, G.A. Vokas , «Renewable Energy Sources (RES) Reality and Perspectives», EYDAP Journal, Q4 2005.
- **TJ5.** G.A.Vokas, Ch.Protogeropoulos, «Photovoltaic Systems in Greece: Recent status and Perspectives". Anemologia, ELETAEN, Vol.36, March 2006.
- **TJ6.** G. Vokas, P. Klironomos, G. Kaldelis, «Evaluation of BIPV integration in Greek Industrial Buildings», "Sigchroni Techniki Epitheorisi, March 2013.

#### **In Conference Proceedings (C):**

- **C1.** G.A. Vokas, J.L. Souflis, A.V. Machias, "Computer Modeling and Parameters Estimation for Solar Cells", Mediterranean Electrotechnical Conference Melecon, Ljubljana, Slovenia, May 22-24, 1991.
- **C2.** G.A. Vokas, A.V. Machias, A.M. Sarantelis, "A Study For Large Scale Energy Production Using Photovoltaics For The Island Of Limnos", Applications Of The Renewable Energy Sources At The Local Level, 3rd European Conference 1991, Chios, Greece, September 11-14, 1991.
- **C3.** G.A. Vokas, A.V. Machias, A.M. Sarantelis, "An Economic Study For The Application Of Photovoltaic Power On Two Greek Islands", 11th Conference of IASTED in Modeling, Identification And Control, Innsbruck, Austria, February 10-12, 1992.
- **C4.** G.A. Vokas -S.KAMINARIS-A.ANDROUTSOS-J.SOUFLIS-A.MACHIAS-V.PAPADIAS, "Electric Grid problems analysis caused by interconnected Photovoltaic stations", 4th Nat. Conference on Renewable Energy Sources, Institute of Solar Technique, 6 8 of October 1992, Xanthi Greece.
- **C5.** G.A. Vokas, P.Bourkas, A.Machias, "Software development for the study and design of stand-alone photovoltaic systems", 4th Nat. Conference on Renewable Energy Sources, Institute of Solar Technique, 6 8 of October 1992, Xanthi Greece.
- C6. G.A. Vokas, A.V. Machias, "Harmonic Voltages and Currents on Two Greek Islands with Photovoltaic Stations: Study and Field Measurements", Athens Power Tech Conference, Athens, Greece, September 5-8, 1993.
- **C7.** M.Tortoreli, P.Baltas, G.A.Vokas, A.Machias, "Photovoltaic Induced Harmonic Power Distortion in the Kythnos Island Field Measurements and Analysis", International Solar Conference, Amsterdam The Netherlands, April 1994.
- **C8.** S.A.Papathanasiou, G.A.Vokas, M.P.Papadopoulos, "Use of Power Electronic Converters in Wind and Photovoltaic Generators", IEEE International Symposium on Industrial Electronics ISIE'95, Vol.1, p.p.254-259, Athens, Greece, July 10-14, 1995.
- **C9.** G.A. Vokas, I.F.Gonos, F.N.Korovesis, F.V.Topalis, «Influence of compact fluorescent lamps on the power quality of weak low-voltage networks supplied by autonomous photovoltaic stations», PowerTech'2001, Vol.1, Porto, Portugal, September 10-13, 2001.
- **C10.** F.N. Korovesis, G.A. Vokas, I.F. Gonos, F.V. Topalis, "Influence of large scale installation of energy saving lamps on the line voltage distortion of a weak network supplied by photovoltaic station", Proceedings of the 3<sup>rd</sup> Mediterranean Conference on Power Generation, Transmission and Distribution, MedPower 2002 Conference, Athens, Greece, November 4-6, 2002.
- **C11.** I.D. Kateri, N.G. Chondrakis, G.A. Vokas, F.V. Topalis, "Energy saving by utilization of daylight in school buildings", Proceedings of Iluminat Conference 2003, Cluj-Napoca, Romania, May 8-9, 2003.
- C12. N. Christantonis, G.A. Vokas, F. Skitides, "Simulation of hybrid Photovoltaic-Thermal Collector (PV-TC) Systems for domestic Heating and Cooling Case Study: Island of Rhodes", WSEAS International Multiconference, Athens, Greece, July 12-15, 2004.
- **C13.** Ach. G.K. Kostoulas, G.A. Vokas, F. Skitides, "Review of Solar Radiation estimation and Solar Data Banks elaboration methodologies over Greece", WSEAS International Multiconference, Athens, Greece, July 12-15, 2004
- **C14.** G.A. Vokas, A. Nikolopoulos, "Financing and Implementing the Hybrid Wind- Hydroelectric Project of Ikaria", MedPower'04 Conference, Lemesos, Cyprus, November 14-17, 2004.
- **C15.** Kateri, N. Chondrakis, G.A. Vokas, F. Topalis, E. Dialynas, "Benefits of installed Wind Parks in Greece", MedPower'04 Conference, Lemesos, Cyprus, November 14-17, 2004.

- **C16.** A. Xanthakis, Chr.Karopoulos, Em.Vafeiades, V. Eftaxiopoulou, G.A.Vokas, «The EYDAP contribution in energy production from RES. Design, Financing, Construction and Operation of small Hydroelectric plants beside Mornos-Evinos water pipeline», 3<sup>rd</sup> National Conference RENES-NTUA, 23-25 February 2005.
- **C17.** G.A. Vokas, Th. Lagorkopoulos, N. Nikolinakos, A.Samaras, «Results of energy projects managed by ELANET during B' European Support Framework», 1<sup>st</sup> National Conference of PSDMH, Energy-Industry-Telecommunications, 28-30 of March, 2005.
- C18. Pavlos, P.A. Kostagiolas, Ph. Skittides, G.A. Vokas, "An empirical investigation on the effects of Quality & Safety management systems implementation for the Mining Industry in Greece", Proceedings of 2nd International Scientific Conference on Information Technology and Quality, Spetses, Greece, June 4-5, 2005.
- **C19.** Pappa, A., Kostagiolas P.A., Skittides Ph., Vokas G.A., "An empirical investigation on the effects of quality management systems application in the flourmill industry in Greece", Proceedings of 2nd International Scientific Conference on Information Technology and Quality, Greece, June 4-5, 2005.
- **C20.** P.A.Kostagiolas, Ph. Skittides, G.A. Vokas, "Healthcare service quality in Greece: A servqual based approach for the public healthcare sector", 2nd International Scientific Conference on Information Technology and Quality, Spetses, Greece, June 4-5, 2005.
- **C21.** Valsamaki, Kostagiolas, Skittides, Vokas G.A., "A self-assessment methodology for the construction industry based on quality awards criteria", Poster in 2nd International Scientific Conference on Information Technology and Quality, Spetses, Greece, June 4-5, 2005.
- **C22.** C.K. Kokkinou, A. Kotronarou, P. Skittides, G.A. Vokas, "Design of an Environmental Inspection Agency for Effective Enforcement in Cyprus", WSEAS Int. Conference in Energy, Environment, Ecosystems, Sustainable Development 2005, Vouliagmeni, Athens, Greece, July 12-14, 2005.
- **C23.** G.A. Vokas, "Experiences with photovoltaic projects subsidized by OPC (Operational Programme for Competitiveness) in Greece", Invited Speaker in HANNOVER MESSE Renewable Energies Export Forum, Hannover, April 27th, 2006.
- **C24.** N. Theodoropoulos, K. Menagias, Ach. Kostoulas, G. Vokas, "Economic viability analysis of a roof integrated Photovoltaic/ Thermal (PV/T) system in Athens", Proceedings of the 2006 IASME/WSEAS Int. Conf. on Energy, Environment, Ecosystems & Sustainable Development, (pp207-210), Greece, July 11-13, 2006.
- **C25.** N. Theodoropoulos, G.A Vokas, F. Skittides, P. Kostagiolas, "Simulation of a Photovoltaic/ Thermal air heating System in the region of Patras, Greece", Proceedings of the 2006 IASME/WSEAS Int. Conf. on Energy, Environment, Ecosystems & Sustainable Development, (pp201-206), Greece, July 11-13, 2006.
- **C26.** N. Theodoropoulos, G.A Vokas, F. Skittides, P. Kostagiolas, "Hybrid Photovoltaic Thermal Air Heating System", International Conference on Energy, Environment, Ecosystems and Sustainable Development 2006 IASME/WSEAS, Βουλιαγμένη / Αθήνα, 11-13 Ιουλίου 2006.
- **C27.** Ach.Kostoulas, N.Theodoropoulos, G.A.Vokas, "Υπολογισμός βαθμοημερών θέρμανσης και ψύξης για Ελληνικές πόλεις με τη χρήση διάφορων μεθοδολογιών", 8<sup>th</sup> National Conference of Renewable Energy Sources, Thessaloniki, 29-31 March 2006.
- C28. Venianaki Anastasia, Skittides Philimon, Kostagiolas A. Petros, Vokas Georgios, "Integrating Hazard Analysis of Critical Control Points (HACCP) and Process Mapping, for better Quality Dairy Products", 9th International Conference on Technology Policy and Innovation, Session G2, Santorini, June 18-21, 2006.
- **C29.** E.Thomopoulos, C.Protogeropoulos, J.Chadjivassiliadis, G.A. Vokas, "National Position Paper for the Improvement of the Regulatory, Frameworks, Support Schemes and Monitoring, Systems for Photovoltaics in Greece", PV Policy Group, December 2006.
- **C30.** G.A. Vokas, G. Glinou, "Recent developments and perspectives of Photovoltaic applications in Greece", ENERGYTEC, 1st Energy Forum and Exhibition, HELEXPO, Athens, Greece, November 2006.
- **C31.** G.A.Vokas, V.Christofilos, F.Korovesis, A.Samaras, "Energy Saving of projects subsidized by the 3<sup>rd</sup> ECSF Results, Experiences, Perspectives", Academy of Athens, November 2006.
- **C32.** I.Chatzakis, G.A.Vokas, F.V.Topalis, "The influence of replacement of incandescent lamps with compact fluorescents to the harmonic distortion in non-interconnected island grids", 7th IASME Int.Conference on Power Systems, High Voltages, Electric Machines, Venice, Italy, November 21-23, 2007.

- **C33.** G.A. Vokas, "Large and Medium scale PV Installations Experience gained", 2nd International Conference on RES and Energy Efficiency ENERTECH, October 18-21, Athens-Greece 2007.
- **C34.** Drosou, V., Lamaris P., Vokas G., Skittides Ph., "Maintenance experience from solar assisted air conditioning installations in Greece", Proceedings of the 2nd International Conference on Solar Air Conditioning, Tarragona, Spain, poster, edited by OTTI, p.p.129-139, October 18-19, 2007.
- **C35.** Stavros Mastorakis, Georgios Vokas, "Design considerations for a PV-diesel hybrid system powering mobile telecommunication repeater stations in Greece", 4th European Conference PV-Hybrid and Mini-Grid 2008 OTTI e.V. (Eds.), Vouliagmeni Athens, May 29-30, 2008.
- C36. Stavros Mastorakis, Georgios Vokas, "Feasibility study of different powering supply schemes for rural applications", 4th European Conference PV-Hybrid and Mini-Grid 2008 OTTI e.V. (Eds.), Vouliagmeni Athens, May 29-30, 2008.
- **C37.** G.A. Vokas, C.A. Bouroussis, F.V. Topalis, "Policies and Measures Fostering Energy Efficient Distribution Transformers in Europe", MedPower'08, 6th Mediterranean Conference and Exhibition on Power Generation, Transmission and Distribution, Thessalonica, November 3-7, 2008.
- **C38.** E. Meidanis, G.A. Vokas, J.K. Kaldellis, "Theoretical Simulation and Experimental Analysis of a PV-Based Water Pumping System", 6th Mediterranean Conference and Exhibition on Power Generation, Transmission and Distribution, Thessalonica, November 3-7, 2008.
- **C39.** G.A.Vokas, "Installation Problems of PV applications in Islands Suggestions", Technical Chamber of Dodecanese, Rhodes, 8-9 May 2009.
- **C40.** E.Paraskevadaki, S.Papathanasiou, G.A.Vokas, "Effects of partial shading on the PV module characteristic curves", International Conference JAPMED06, Bucharest, 27-29 July 2009.
- **C41.** P.Gazis, G.A.Vokas, S.Papathanasiou, "Trends of power electronics on renewable energy systems", International Scientific Conf. e RA 5, Piraeus, Greece, 15 18 September 2010.
- **C42.** Sotirios Nanou, Stavros Papathanassiou, Georgios Vokas, "Small signal analysis and gain scheduling control of a Photovoltaic DC/DC converter", 27<sup>th</sup> European Photovoltaic Solar Energy Conference and Exhibition, , Frankfurt, Germany, 24-28 September 2012.
- C43. G.Ch.Ioannidis, C.S.Psomopoulos, S.D.Kaminaris, G.A.Vokas, P.Pachos, S.Tsiolis, "Energy Savings & Power Quality in dc Motor Drive Systems in the Hellenic Territory: Methodology & Early Results", eRA 7, The SynEnergy Forum, The Conference for International Synergy in Energy, Environment, Tourism and contribution of Information Technology in Science, Economy, Society and Education, TEI Piraeus, Piraeus Greece, 27-30 September 2012.
- C44. G.A.Vokas, S.D.Kaminaris, P.A.Kontaxis, M.Rangoussi, G.Ch.Ioannidis, S.A.Papathanassiou, P.V.Malatestas, F.V.Topalis, "Electric Network Power Quality assessment using Fuzzy Expert System Methodology", 8<sup>th</sup> Mediterranean Conference on Power Generation, Transmission, Distribution and Energy Conversion MEDPOWER 2012, Cagliari Italy, 1-3 October 2012.
- **C45.** G.K.Koufopoulos, G.A.Vokas, "Improved design of a hybrid energy system for telecommunication applications", 8<sup>th</sup> Mediterranean Conference on Power Generation, Transmission, Distribution and Energy Conversion MEDPOWER 2012, Cagliari Italy, 1-3 October 2012.
- **C46.** P.G.Klironomos, G.A.Vokas, J.K.Kaldellis, "Potential of Building Integrated Photovoltaic Systems (BIPV): Study on the Oinofyta Viotias Industrial Buildings zone", 8<sup>th</sup> Mediterranean Conference on Power Generation, Transmission, Distribution and Energy Conversion MEDPOWER 2012, Cagliari Italy, 1-3 October 2012.
- **C47.** G.Ch.Ioannidis, C.S.Psomopoulos, S.D.Kaminaris, G.A.Vokas, P.Pachos, S.Tsiolis, S.N.Manias, "Investigation of the Possibility of Energy Saving in dc Motor Driving Systems in the Hellenic Territory", Methodology & Early Results, 8<sup>th</sup> Mediterranean Conference on Power Generation, Transmission, Distribution and Energy Conversion MEDPOWER 2012, Cagliari Italy, 1-3 October 2012.
- **C48.** A. Kokkinopoulos, G. Vokas G., P. Papageorgas, "Energy harvesting implementing embedded piezoelectric generators The potential for the Attiki Odos traffic grid", TerraGreen 13 International Conference 2013 Advancements in Renewable Energy and Clean Environment, February 15-17, Beirut Lebanon 2013.
- **C49.** P. Papageorgas, D. Piromalis, K. Antonakoglou, G. Vokas, D. Tseles and K. Arvanitis, "Smart Solar Panels: In-situ monitoring of photovoltaic panels based on wired and wireless sensor networks", TerraGreen 13

- International Conference 2013 Advancements in Renewable Energy and Clean Environment, February 15-17, Beirut Lebanon 2013.
- **C50.** G.Ioannidis, C.Psomopoulos, S.Kaminaris, P.Pachos, H.Villiotis, S.Tsiolis, P.Malatestas, G.Vokas, S.N. Manias, "AC-DC & DC-DC Converters for DC Motor Drives Review of basic topologies", Proceedings of the 2013 International Conference on Electronics and Communication Systems, July, Rhodes Greece 2013.

### SPECIAL HONORS - SCHOLARSHIPS

- 1. Elected General Secretary of the Hellenic Association of Photovoltaic Companies (HELAPCO).
- 2. Two Certificates of Excellence for level of studies in High School Period and Special Honors during the High School Graduation.
- 3. A three-year 1<sup>st</sup> Scholarship of the "National Scholarships Foundation" for post-graduation studies.
- 4. National Technical University Scholarship for Research Activities.
- Chairman of Session M-3: Modeling, Identification and Control, IASTED International Conference, Innsbruck -Austria, February 10 -12, 1992.

## MAIN SCIENTIFIC INTERESTS

- FEASIBILITY STUDY, ENERGY MANAGEMENT & DESIGN OF LARGE SCALE PV PARKS
- ECONOMIC SCENARIOS FOR ENERGY PLANNING USING RENEWABLE ENERGY SOURCES
- POWER QUALITY AND ENERGY STRATEGIES
- RATIONAL USE OF ENERGY IN INDUSTRY AND BUILDING SECTOR
- MEASURING GRID-CONNECTED COMMERCIAL INVERTERS
- DESIGN & CONSTRUCTION OF 3-PHASE 6-PULSE CONTROLLED RECTIFIERS / INVERTERS