

CURRICULUM VITAE

Name : STAVRAKAKIS
First Name : George
Father's Name : Spyridon
Birth day : 10 Dec. 1956
Nationality : Greek
Profession : Professor ,
Department of Electronic and Computer Engineering
Technical University of Crete

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CHRONOLOGICAL TABLE OF SCIENTIFIC AND PROFESSIONAL ACTIVITY

1975 - 1980: Five year normal studies in Electrical Engineering, Electrical Engineering Dept., National Technical University of Athens (NTUA), Athens, Greece.

July 1980: Diploma on Electrical Engineering, NTUA.

October 1980: Postgraduate studies on Automatic Control, National Institute of Applied Sciences ("Institut National des Sciences Appliquées-INSA"), Toulouse, France.

July 1981: Diploma "D.E.A. (Diplôme d'Études Approfondies) en AUTOMATIQUE", INSA, Toulouse, France.

December 1980
-January 1984: Research scholarship from the French Government.
Research Assistant, "Laboratoire d' Automatique et d' Analyse des Systemes (LAAS) du Centre National de la Recherche Scientifique (CNRS)", Toulouse, France.
A Ph.D. thesis was prepared during this time on the subject of Modeling, Identification and Control of Active Solar Systems with Sun tracking, including real time microcomputer based implementation of the developed algorithms.

January 1984: Ph.D. in the area of Automatic Control Systems, University "PAUL SABATIER-Toulouse III", Toulouse, France.
Thesis title: "Modélisation et commande du fonctionnement thermique d' un capteur solaire de type THEK".

December 1983-
-April 1984: Research Fellow, "Laboratoire des Signaux et Systemes du CNRS", University of Nice, France.
The research subject was the conception, evaluation and microprocessor implementation of algorithms for fast manoeuvrable targets trajectory tracking.

April 1984-
-April 1985: Military Service in the Greek Air Force research centre (KETA).

April 1985-
-October 1985: Consultant to the Hellenic Productivity Centre (ΕΛΚΕΠΑ) for the development and applications of the Concentrating Solar Systems. Organizer and Lecturer of advanced seminars on the same subject, for Engineers and Physicists.

October 1985-
-July 1988: Research Fellow, Computer Science Department, National Technical University of Athens (NTUA), Greece. Member of a European team under the ESPRIT-I project for Modelling, Identification and Dynamics Compensation during fast trajectory tracking of Industrial Robots.

September 1986-
-July 1988: Adjunct Assistant Professor, Production Engineering and Management Dept., Technical University of Crete.

September 1988-
-September 1989: Visiting Scientist, Institute for System Engineering and Informatics (ISEI)/Components Diagnostics and Reliability Sector, Joint Research Centre (JRC) of the European Communities at ISPRA, Italy.

September 1989-
-November 1990: Assistant Professor of Systems Engineering and Reliability, Production Engineering and Management Dept., Technical University of Crete.

November 1990-
-October 1995: Associate Professor of Systems Engineering, Department of Electronic & Computer Engineering, Technical University of Crete.

February 1993-
-July 1993: Sabbatical leaving as Visiting Professor in the Centre d' Energetique, Ecole des Mines de Paris, France.

October 1995-
-present: Professor of Systems Engineering, Department of Electronic & Computer Engineering, Technical University of Crete.

February 1999-
-July 1999: Sabbatical leaving as Visiting Professor in the Mechanics Department - Laboratory of Measurements, University of Ancona, Italy.

October 2000-
-April 2002: Vice President of the Hellenic Centre for Renewable Energy Sources (CRES).
September 2011-
September 2012: Sabbatical leaving as Visiting Professor in the Faculty of Electrical Engineering, Technical University "Georghe Asachi", Iasi-Romania.

July 2017 : One month stay-scientific collaboration in the Department of Civil & Environmental Engineering- WASEDA University, Tokyo, Japan.

Languages : Greek (mother language), English (excellent), French (excellent), Italian(very good)

Citations : about 2300 (google scholar)

RESEARCH ACTIVITY AND INTERESTS

The general area of research is on the analysis and synthesis of linear and non-linear dynamical systems of discrete or continuous time, deterministic or stochastic, genetic algorithms, Neural Networks and Fuzzy Logic technology as well as the electronic and industrial PC and/or microcomputer based implementation of their research results for real-time applications.

Emphasis is given on Power Systems and Production Systems Modelling, identification and automation, on the smart grids, on Systems Reliability and Safety Analysis, on the Real Time Process Fault Diagnosis and Monitoring, on the Renewable Energy Sources assessment (i.e. measurements, potential evaluation, forecasting, technology improvement, modelling and automation), on the decision support systems (DSS) and Machine Learning for Energy Management and Energy Saving, on the solid waste management and waste-to-energy methodologies evaluation, on the building energy management systems(BEMS), on the Smart(intelligent) Buildings Technology, on the energy and emissions management in ships, on the power theft detection in real time.

The total budget of the projects on the above research areas, which he has managed as coordinator, is approximately EUR 6,000,000.

***He is permanent invited reviewer in the following high impact factor international scientific journals:*

- Member of the Editorial Board and permanent reviewer of the peer review international journal "ENERGIES" i.e.
<http://www.mdpi.com/journal/energies/editors#editorialboard>
 - Society Technical Committee duties : once in the International Committee of Electrical Machines- ICEM
 - Journal of Intelligent and Robotic Systems.
 - IEEE Transactions on Energy Conversion.
 - Electric Power Systems Research
 - International Journal of Distributed Sensor Networks
 - Renewable Energy journal
 - Reviewer on call basis IEEE Transactions on Automation Science and Engineering
 - Neural Computing and Applications
 - Applied Sciences
- Participation in National Committees:

"Member of the Permanent Committee of the Prefecture of Crete for the Energy Planning of Crete Island"

TABLE OF THE MOST IMPORTANT SCIENTIFIC PUBLICATIONS
REFEREED BOOKS IN INTERNATIONAL EDITIONS

1. A.D. POULIEZOS, G. S. STAVRAKAKIS
“Real Time Fault Monitoring of Industrial Processes”.
KLUWER ACADEMIC PUBLISHERS
DORDRECHT / BOSTON / LONDON, April 1994 (ISBN 0-7923-2737-3).
2. E. NOGARET, G. STAVRAKAKIS, G. KARINIOTAKIS, B. PAPADIAS, M. PAPADOPOULOS, N. HATZIARGYRIOU, G. CONTAXIS, J. GATOPOULOS, J. HALLIDAY, J. A. PECAS LOPES et al.
“Development and implementation of an advanced control system for the optimal operation and management of medium-sized power systems with a large penetration from renewable energy sources”.
Official Publication of the European Communities, Report EUR 16686 EN, Brussels, 1996 (ISBN 92-827-5007-8).
3. G.S. STAVRAKAKIS, N. HATZIARGYRIOU, J.A. PECAS LOPES et al (Editors).
“Dissemination of the advanced control technologies and SCADA systems for the isolated power networks with increased use of Renewable Energies”.
Book of Proceedings, Ajaccio – Corsica, March 2000 (Produced as a book-handbook by the Centre of Renewable Energy Sources – CRES, www.cres.gr).
4. G.S. STAVRAKAKIS
“Electrical Parts of Wind Turbines”.
In: Sayigh A, (editor)
Comprehensive Renewable Energy, Vol 2, pp. 269–328. Oxford: Elsevier, May 2012.
5. a. A. APOSTOLOU, T. NIKOLAOU, D. KOLOKOTSA, C. MUNTEANU, G. STAVRAKAKIS
“Integrated Intelligent Systems for the Efficient Management of Indoor Environment and Energy in Buildings”.
Editura POLITEHNIUM, Technical University “ Gh. Asachi” Iasi - Romania,
June 2013, ISBN 978-973-621-400-4.
b. The above book was revised, **reviewed** and accepted to be published by the international scientific editions SPRINGER-VERLAG GmbH as following:
T.NIKOLAOU, D.KOLOKOTSA, G.STAVRAKAKIS, A.APOSTOLOU, C.MUNTEANU
“Managing Indoor Environments and Energy in Buildings with Integrated Intelligent Systems”.
Green Energy and Technology, SPRINGER International Publishing, New York,
ISBN 978-3-319-21797-0(hard copy book) & ISBN 978-3-319-21798-7(eBook).

REFEREED JOURNAL PAPERS

1. J. MIGNOT, G.S. STAVRAKAKIS
“On modelling and identifying the thermal behaviour of a solar paraboloidal collector”

International Journal of Energy Systems, Vol. 4, No 1, pp. 16-19, 1984.

2. G. STAVRAKAKIS, J. AGUILAR-MARTIN
"Processus stochastiques quadratiques Markoviens au sens projectif; Application à l'indentification d' un modèle bilinéaire"
Stochastica, Vol. IX, No 3, pp. 215-244, 1985.
3. G.S. STAVRAKAKIS, J. AGUILAR-MARTIN
"A bilinear model for the thermal behaviour of a point focusing Solar Collector"
Int. Journal of Energy Research, Vol. 10, pp. 291-300, 1986.
4. G. STAVRAKAKIS, G. BITSORIS, M. SANTAMOURIS
"A nonlinear dynamic thermal regulator for a paraboloidal solar collector"
Energy, the International Journal, Vol. 15, No. 6, pp. 467-477, 1990.
5. S.G. TZAFESTAS, G.S. STAVRAKAKIS
"Model Reference Adaptive Control of Industrial Robots with Actuator Dynamics"
First Presented in: IFAC/IFIP/IMACS Internat. Symposium on Robot Theory, December 3-5, 1986, Vienna, Austria
J.Info. & Optimization Sci., Vol. 10, No 3, pp. 423-444, 1989.
6. A. POULIEZOS, G.S. STAVRAKAKIS
"Fast fault diagnosis for industrial processes applied to the reliable operation of Robotic systems"
Int. Journal of Systems Science, Vol. 20, No 7, pp. 1233-1259, 1989.
7. S. TZAFESTAS, G.S. STAVRAKAKIS, A. ZAGORIANOS
"Robot Model Reference Adaptive Control through lower/upper part Dynamic Decoupling"
Journal of Intelligent and Robotic Systems, Vol. 1, pp. 163-184, 1988.
8. M. SANTAMOURIS, D. PAPAIOANNOU, T. ARGURIOU, G. STAVRAKAKIS
"Technical and Economical Comparison between solar water heaters using electro-deposited chrome selective coating and selective paints"
Energy Conversion and Management, Vol. 30, No 4, pp 421-431, 1990.
9. G.S. STAVRAKAKIS, G. KAPSIOTIS, M. SANTAMOURIS
"Digital Parameter - Adaptive Control for a solar Concentrator"
Solar and Wind Technology, Vol. 7, No 2/3, pp. 97-105, 1990.
10. G.S. STAVRAKAKIS, C. LEFAS, A. POULIEZOS
"Parallel processing computer implementation of a real time DC-motor drive fault detection algorithm"

- IEE Proceedings-part B, Vol. 137, No 5, pp. 309-313, Sept. 1990.
11. S. TZAFESTAS, B. KALOBATSOS, G. STAVRAKAKIS, A. ZAGORIANOS
"Some results on the autonomous trajectory generation and adaptive control of Industrial Robots"
Journal of the Franklin Institute, Vol. 329, No 1, pp. 1-14, Nov. 1992.
 12. A. POULIEZOS, G.S. STAVRAKAKIS, C. LEFAS
"Fault detection using parameter estimation"
Quality and Reliability Engineering International, Vol. 5, pp. 283-290, 1989.
 13. G.S. STAVRAKAKIS, E. DIALYNAS
"Efficient computer-based scheme for improving the reliability performance of power substations"
Int. J. of Syst. Science, Vol. 22, No 9, pp. 1527-1539, 1991.
 14. G.S. STAVRAKAKIS, A. LUCIA, G. SOLOMOS
"A comparative study of the Probabilistic Fracture Mechanics and the Stochastic Markovian Process Approaches for Structural Reliability Assessment"
International Journal of Pressure Vessels and Piping, 41, pp. 25-41, 1990.
 15. K.C. KALAITZAKIS, G.S. STAVRAKAKIS
"A simulation model for the reliable integration of a 4.5 MW wind farm into the power grid of the Crete Island"
International Journal of Solar Energy, vol. 9, pp. 137-146, 1990.
 16. M. SANTAMOURIS, G.S. STAVRAKAKIS
"Predicting the atmospheric broadband transmission function due to Rayleigh scattering for solar radiation models"
Sun at Work in Europe, Vol. 5, No 3, Sept. 1990.
 17. G.S. STAVRAKAKIS
"Quality assurance of welds in ship structures"
Quality and Reliability Engineering International, Vol. 6, pp 323-327, 1990.
 18. D.E. MANOLAKIS, C.C. LEFAS, G.S. STAVRAKAKIS, C.M. REKKAS
"Computation of Aircraft Geometric Height Under Radar Surveillance"
IEEE trans. on Aerospace and Electronic Systems, Vol. 28, No 1, Jan. 1992.
 19. P.V. MALATESTAS, M.P. PAPADOPOULOS, G. STAVRAKAKIS
"Modelling and Identification of Diesel - Wind turbines systems for wind penetration assessment"
IEEE trans. on Power Systems, Vol. 8, No. 3, pp. 1091-1098, August 1993.

20. G.S. STAVRAKAKIS, A. POULIEZOS
"Fatigue life prediction using a new moving window regression method"
Mechanical Systems and Signal Processing, 5(4), pp.327-340, 1991.
21. G.S. STAVRAKAKIS
"Improved Structural Reliability Assessment Using Nonlinear Regression Techniques to Process Raw Fatigue Crack Growth Test Data"
Quality and Reliability Engineering International, Vol. 8, pp. 341-347, 1992.
22. G.S. STAVRAKAKIS
"An efficient computer program for marine structures reliability and risk assessment"
The Naval Architect, pp. E342 - E346, July - August, 1993.
23. G.S. STAVRAKAKIS, G.N. KARINIOTAKIS
"A General Simulation Algorithm for the Accurate Assessment of Isolated Diesel-Wind Turbines Systems Interaction - Part I: A General Multimachine Power System Model"
IEEE Trans. on Energy Conversion, Vol. 10, No. 3, pp. 577-583, Sept. 1995.
24. G.N. KARINIOTAKIS, G.S. STAVRAKAKIS
"A General Simulation Algorithm for the Accurate Assessment of Isolated Diesel-Wind Turbines Systems Interaction - Part II: Implementation of the Algorithm and Case-Studies with Induction Generators"
IEEE Trans. on Energy Conversion, Vol. 10, No. 3, pp. 584-590, Sept. 1995.
25. A. ZAGORIANOS, S. TZAFESTAS, G. STAVRAKAKIS
"On line discrete-time LQ-type control of industrial Robots"
Robotics and Autonomous Systems, Vol. 14, pp. 289-299, 1995.
26. A. POULIEZOS, G.S. STAVRAKAKIS, G. TSELENTIS
"Detection of multivariable system noise degradation"
Information and Systems Engineering, Vol. 1, No 3,4, pp. 255-271, 1995.
27. G. N. KARINIOTAKIS, G. S. STAVRAKAKIS, E. F. NOGARET
"Wind Power Forecasting Using Advanced Neural Networks Models"
IEEE Transactions on Energy Conversion, Vol. 11, No. 4, Dec. 1996.
28. K. KALAITZAKIS, G. S. STAVRAKAKIS
"Size Optimisation of a PV System Installed Close to Sun Obstacles"
Solar Energy, Vol. 57, No. 4, pp. 291-299, 1996.

29. E. NOGARET, G. STAVRAKAKIS, G. KARINIOTAKIS et al.
“An Advanced Control System for the Optimal Operation and Management of Medium Size Power Systems with a Large Penetration from Renewable Power Sources”
Renewable Energy, Vol. 12, No. 2, pp. 137-149, 1997.
30. C. PAPAODY SSEUS, E. KOUKOUTSIS, G. STAVRAKAKIS, C.C. HALKIAS
“Exact analysis of the finite precision error generation and propagation in the FAEST and the fast transversal algorithms: A general methodology for developing robust RLS schemes”
Mathematics and Computers in Simulation, Vol. 44, pp. 29-41, 1997.
31. N. PAONE, L. SCALISE, G. STAVRAKAKIS, A. POULIEZOS
“Fault detection for quality control of household appliances by non-invasive laser Doppler technique and likelihood classifier”
MEASUREMENT-Journal of the International Measurement Confederation IMEKO, Vol. 25, pp. 237-247, 1999.
32. A. POULIEZOS, G. STAVRAKAKIS, K. MATHIOUDAKIS
“On-line leak monitoring in fluid pumping systems”
International Journal of Modelling and Simulation, Vol. 20, No. 3, pp. 213-220, 2000.
33. D. KOLOKOTSA, K. KALAITZAKIS, G. STAVRAKAKIS, G. SUTHERLAND, G. EYTAXIAS
“Local Operating Networks technology aiming to improve building energy management system performance satisfying the users’ preferences”
International Journal of Solar Energy, Vol. 21,2-3, pp. 219-242, 2001.
34. C. ANGELAKIS, E.N. LOUKIS, A.D. POULIEZOS, G.S. STAVRAKAKIS
“A Neural Network-based Method for Gas Turbine Blading Fault Diagnosis”
International Journal of Modelling and Simulation, Vol. 21, No. 1, pp. 51-60, 2001.
35. D. KOLOKOTSA, D. TSIAVOS, G. S. STAVRAKAKIS, K. KALAITZAKIS, E. ANTONIDAKIS
“Advanced fuzzy logic controllers design and evaluation for buildings’ occupants thermal-visual comfort and indoor air quality satisfaction”
Energy and Buildings, Vol. 33, No. 6, pp. 531-543, 2001.
36. S. GOUMAS, M. ZERVAKIS, A. POULIEZOS, G. S. STAVRAKAKIS
“Intelligent on-line quality control of washing machines using discrete wavelet analysis features and likelihood classification”
Engineering Applications of Artificial Intelligence, Vol. 14, pp. 655-666, 2001.
37. D. KOLOKOTSA, K. KALAITZAKIS, E. ANTONIDAKIS, G.S. STAVRAKAKIS

- “Interconnecting smart card system with PLC controller in a local operating network to form a distributed energy management and control system for buildings”
Energy Conversion and Management Journal, Vol. 43, pp. 119-134, 2002.
38. E.S. SERGAKI, G.S. STAVRAKAKIS, A.D. POULIEZOS
“Optimal Robot Speed Trajectory by Minimization of the Actuator Motor Electromechanical Losses”
Journal of Intelligent and Robotic Systems, Vol. 33, pp. 187-207, 2002.
39. S.K. GOUMAS, M.E. ZERVAKIS, G.S. STAVRAKAKIS
“Classification of Washing Machines Vibration Signals Using Discrete Wavelet Analysis for Feature Extraction”
IEEE Trans. Of Instrumentation and Measurement, Vol. 51, No. 3, pp. 497-508, June 2002.
40. K. KALAITZAKIS, G.S. STAVRAKAKIS, E.M. ANAGNOSTAKIS
“Short-term load forecasting based on artificial neural networks parallel implementation”
Electric Power Systems Research, Vol. 63, pp. 185-196, 2002.
41. D. KOLOKOTSA, G.S. STAVRAKAKIS, K. KALAITZAKIS, D. AGORIS
“Genetic algorithms optimized fuzzy controller for the indoor environmental management in buildings implemented using PLC and local operating networks”
Engineering Applications of Artificial Intelligence, Vol. 15, 5, pp. 417-428, 2002.
42. E. TRIPOLITAKIS, D. KOLOKOTSA, K. KALAITZAKIS, G. STAVRAKAKIS
“Study and Implementation of a Fuzzy PD Thermal Comfort Controller for Embedded Fieldbus Systems Applications”,
WSEAS Transactions on Circuits and Systems, 9, Vol. 3, pp. 2051-2057, 2004.
43. D. KOLOKOTSA, K. NIACHOU, V. GEROS, K. KALAITZAKIS, G. STAVRAKAKIS, M. SANTAMOURIS
“Implementation of an Integrated Indoor Environment and Energy Management System”
Energy and Buildings, 37, pp.93-99, 2005.
44. J.KALDELLIS, K.A.KAVADIAS, D.E.PAPANTONIS AND G.S.STAVRAKAKIS
“Maximizing wind generated electricity with hydro storage: case study Crete”
Wind Engineering, Vol. 30, No 1, pp. 72-92, 2006.
45. G. SARIDAKIS, K. DALAMAGIDIS, D. KOLOKOTSA, G.S. STAVRAKAKIS et al.
“Development of a Greenhouse Model with an Intelligent Indoor Environment and Energy Management System for Greenhouses”

- WSEAS Transactions on Environment and Development, Issue 5, Vol. 2, pp.690-697, May 2006.
46. G. KAFETZIS, P. PATELIS, E.J. TRIPOLITAKIS, G.S. STAVRAKAKIS, D. KOLOKOTSA, K. KALAITZAKIS
 "PID Controller Tuning and Implementation Aspects for Building Thermal Control"
 WSEAS Transactions on Circuits and Systems, Issue 7, Vol.5, pp.1016-1021, July 2006.
 47. D. KOLOKOTSA G.A. SARIDAKIS, A. POULIEZOS, G.S. STAVRAKAKIS
 Design and installation of an advanced EIB™ fuzzy indoor comfort controller using Matlab"
 Energy and Buildings, vol.38, pp. 1084-1092, 2006.
 48. G. SARIDAKIS, K. DALAMAGIDIS, D. KOLOKOTSA, G.S. STAVRAKAKIS, E. KOUTROULIS, K. KALAITZAKIS, E.ANTONIDAKIS, J.CHATZAKIS, I. KALIAKATSOS
 "Development of a Greenhouse Model with an Intelligent Indoor Environment and Energy Management System for Greenhouses"
 WSEAS Transactions on Environment and Development, 2, 5, pp. 690-697, 2006.
 49. D. KOLOKOTSA, A. POULIEZOS, G. STAVRAKAKIS
 "Sensor fault detection in building energy management systems"
 DYNAMICS OF CONTINUOUS DISCRETE AND IMPULSIVE SYSTEMS-SERIES B-APPLICATIONS & ALGORITHMS, Vol. 13, pp 221-225 Suppl. S DEC 2006.
 50. D. KOLOKOTSA, G. SUTHERLAND, G. STAVRAKAKIS, S. KARATASSOU, M. SANTAMOURIS
 "A matrix tool for assessing the performance of intelligent buildings"
 Management of Environmental Quality: An International Journal, Volume 18, Number 1, 2007, pp. 36-49(14).
 51. K. DALAMAGIDIS, D. KOLOKOTSA, K. KALAITZAKIS, G.S. STAVRAKAKIS.
 "Reinforcement learning for energy conservation and comfort in buildings"
 Building and Environment, 42, 7, pp. 2686-2698, 2007.
 52. T.G. NIKOLAOU, D.S. KOLOKOTSA, I.D. SKIAS, G.S. STAVRAKAKIS
 "Asset and operational benchmarking for office buildings in Greece"
 International Journal of Sustainable Energy, vol.28, Nos 1-3, March-Sept. 2009, pp. 77-91.
 53. D. KOLOKOTSA, C. DIAKAKI, E. GRIGOROUDIS, G. STAVRAKAKIS, K. KALAITZAKIS
 "Decision support methodologies on the energy efficiency and energy management in buildings"
 ADVANCES IN BUILDING ENERGY RESEARCH, 2009, Vol. 3, pp. 121–146, Chapter 5.
 54. E. KOUTROULIS, D. KOLOKOTSA, G. STAVRAKAKIS

- "Optimal Design and Economic Evaluation of a Battery Energy Storage System for the Maximization of the Energy Generated by Wind Farms in Isolated Electric Grids"
Wind Engineering, Vol. 33, No. 1, 2009.
55. D. KOLOKOTSA, A. POULIEZOS, G. STAVRAKAKIS, C. LAZOS
"Predictive control techniques for energy and indoor environmental quality management in buildings"
Building and Environment 44 (2009) 1850–1863.
56. G.P. GIATRAKOS, T.D. TSOUTSOS, P.G. MOUCHTAROPOULOS, G.D. NAXAKIS, G. STAVRAKAKIS
"Sustainable energy planning based on a stand-alone hybrid renewable energy/hydrogen power system: Application in Karpathos Island, Greece"
Renewable Energy 34 (2009) 2562–2570.
57. Z.E. GKETSIS, M.E. ZERVAKIS, G. STAVRAKAKIS
"Detection and classification of winding faults in windmill generators using Wavelet Transform and ANN"
Electric Power Systems Research 79 (2009) 1483–1494.
58. T. NIKOLAOU, I. SKIAS, D. KOLOKOTSA, G. STAVRAKAKIS
"Virtual Building Dataset for energy and indoor thermal comfort benchmarking of office buildings in Greece"
Energy and Buildings 41 (2009) 1409–1416.
59. C. DIAKAKI, E. GRIGOROUDIS, N. KABELIS, D. KOLOKOTSA, K. KALAITZAKIS, G. STAVRAKAKIS
"A multi-objective decision model for the improvement of energy efficiency in buildings"
Energy 35 (2010) 5483-5496.
60. T. NIKOLAOU, D. KOLOKOTSA, G. STAVRAKAKIS
"Review on methodologies for energy benchmarking, rating and classification of buildings"
Journal of Advances in Building Energy Research, Vol.5, pp.1-18, 2011.
61. T. NIKOLAOU, D. KOLOKOTSA, G. STAVRAKAKIS, I. SKIAS
"On the application of clustering techniques for office buildings' energy and thermal comfort classification"
IEEE Transactions on Smart Grid, Special Issue on Intelligent Buildings and Home Energy Management in a Smart Grid Environment, Volume 3 (4), pp. 2196 - 2210. December 2012.

62. Y.A. KATSIKIANNIS, G.S. STAVRAKAKIS, C. PHARCONIDES
 "Effect of Wind Turbine Classes on the Electricity Production of Wind Farms in Cyprus Island"
 Hindawi Publishing Corporation Conference Papers in Energy, Volume 2013, Article ID 750958, 6
 pages. <http://dx.doi.org/10.1155/2013/750958>.

63. E. LOUKARAKIS, G. STAVRAKAKIS
 "Adaptive enumeration method for the optimal interconnection planning of isolated power
 systems"
 IET Gener. Transm. Distrib., 2013, Vol. 7, Iss. 3, pp. 235–243.

64. YIANNIS A. KATSIKIANNIS , GEORGE 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, 67 (July 2014), pp 230-236.

65. CHRISTINA DIAKAKI, NATALIA PANAGIOTIDOU, ANASTASIOS POULIEZOS, GEORGIOS D.
 KONTES, GEORGE S. STAVRAKAKIS, ET AL.
 "A decision support system for the development of voyage and maintenance plans for ships"
 Int. J. Decision Support Systems, Vol. 1, No. 1, 2015, pp 42-71.

66. Natalia Panagiotidou, George S. Stavrakakis, Christina Diakaki
 "Sustainable urban solid waste management planning with the use of an advanced interactive
 decision support system based on the PROMETHEE II method"
 Int. J. Decision Support Systems, Vol. 1, No. 3, 2015, pp294-324.

67. A.TSIKALAKIS, D.ROUTSIS, A.PAFILIS, K.KALAITZAKIS, G.STAVRAKAKIS
 "A methodology exploiting geographical information systems to site a photovoltaic park inside
 a sustainable community"
 International Journal of Sustainable Energy, Volume 35, Issue 2, 2016.

68. KONSTANTINOS BLAZAKIS, SIMA DAVARZANI, GEORGIOS STAVRAKAKIS,
 IOANA PISICA
 "Lessons Learnt from Mining Meter Data of Residential Consumers"
 Periodica Polytechnica Electrical Engineering and Computer Science, 60(4), pp. 266-272, 2016.

REFEREED PAPERS IN INTERNATIONAL BOOKS

1. A.POULIEZOS - S.G.TZAFESTAS - G.S.STAVRAKAKIS
 "Fault Detection and Location in MRAC Robotic System"
 Proceedings of the First European Workshop on Fault Diagnostics, Reliability and Related
 Knowledge-Based Approaches, August 31-September 3, 1986, Rhodes, Greece.

Also (after further reviewing process) in the book: "System Fault Diagnosis and Related Knowledge-based Approaches", Vol. 1: FAULT DIAGNOSIS AND RELIABILITY, D. Reidel Publ, Dordrecht, pp. 203-217, 1987.

2. A.POULIEZOS - G.S.STAVRAKAKIS
"Linear state estimation in the presence of sudden system changes-An Expert System"
Applied Modelling and Simulation of Technological Systems. P.Borne, S.G.Tzafestas Editors, Book, NORTH-HOLLAND PUBLICATIONS, pp. 41-49, 1987.
3. G.S.STAVRAKAKIS - A.ZAGORIANOS - S.TZAFESTAS
"Combined Euler-Lagrange/Newton-Euler Robot modelling and identification"
Systems Modelling and Simulation.
L.Carotenuto, A.Einsinberg, S.Tzafestas Editors, Elsevier Science Publishers B.V., North-Holland, pp. 209-220, 1989.
4. A. POULIEZOS, G. STAVRAKAKIS, G. TSELENTIS
"A two stage real time fault monitoring system"
In Engineering Systems with Intelligence, S. G. Tzafestas Editor, Kluwer Academic Publishers (book), pp. 653-660, 1992.
5. G. S. STAVRAKAKIS, S. M. PSOMAS
"NDT data interpretation using Neural Networks"
In Knowledge-based (expert) system applications in power plant and structural engineering, A. S. Jovanovic, A. C. Lucia, S. Fukuda Editors, EEC-Joint Research Centre publ., EUR 15408 EN, pp. 383-399, 1994.

PAPERS IN REFEREED INTERNATIONAL CONFERENCES

1. S.G. TZAFESTAS, G.S. STAVRAKAKIS, A. ZAGORIANOS
"Dynamic Decomposition and Adaptive Control of a six - degrees - of freedom Robotic Manipulator"
IFAC 10th World Congress on Automatic Control, Munich, July 27-31, 1987.
2. G.S. STAVRAKAKIS
"Time Decomposition Approach of Robot Control"
IFAC Symposium on Robot Control, SYROCO 88, Karlsruhe, October 5-7, 1988, F.R.G.
3. S. TZAFESTAS, G. STAVRAKAKIS, L. DRITSAS
"Performance analysis of the computed torque control method for robotic manipulators with fast actuators"

IEEE Int. Conf. on Control and Applications, ICCON '89, Jerusalem, April 3-6, 1989.

4. G.S. STAVRAKAKIS
"A Multiprocessor Scheme for Manipulator Autonomous Trajectory Generation and Control"
MICC-IFAC Workshop, Sept. 1-2, 1992, Prague, Czechoslovakia.
5. G. TSELENTIS, A. POULIEZOS, G.S. STAVRAKAKIS
"FAULTLAB: A simulation toolbox for fault detection strategies"
Intern. Conference on Fault Diagnosis "Tooldiag 93", April 5-7, 1993, Toulouse, France.
6. S. PSOMAS, G. STAVRAKAKIS, V. MOUSTAKIS, A. JOVANOVIC
"An expert system for avoiding repeat structural failures in fossil-fired power plants"
ICQFN '94 Intern. Conference, June 1-3, 1994, Barcelona, Spain.
7. S.K. GOUMAS, M.E. ZERVAKIS, A. POULIEZOS , G.S. STAVRAKAKIS, E.P. TOMASINI, N. PAONE, L. SCALISE
"Intelligent On-Line Quality Control of Washing Machines using Discrete Wavelet Analysis Features and Likelihood Classification"
Fourth International Conference on Vibration Measurements by Laser Techniques: Advances and Applications, Enrico Primo Tomasini, Editor, SPIE Vol. 4072 (21-23 June 2000, Ancona, Italy) p.p. 500-511.
8. N.D. HATZIARGYRIOY, E.S. KARAPIDAKIS, G.S. STAVRAKAKIS, I.F. DIMOPOULOS, K. KALAITZAKIS
"Identification of Synchronous Machine Parameters Using Constrained Optimization"
2001 IEEE Power Tech Conference, September 10-13, 2001, Porto, Portugal.
9. D. KOLOKOTSA, A. POULIEZOS, G. STAVRAKAKIS
"Sensor fault detection in building energy management systems"
5th International Conference on Technology and Automation 2005 (ICTA 05)
October 15-16 2005, Thessaloniki, Greece.
10. D. TZAGAS, Z.E.GETISIS, G. STAVRAKAKIS, M.E. ZERVAKIS, P. HATZILIAS
"Simulation model of robotic arm for laparoscopic surgery"
Proceedings of the European Control Conference 2007(ECC 07), pp. 3132-3138, Kos, Greece, July 2-5, 2007.
11. Z.E. GKETSIS, M.E. ZERVAKIS, G.S. STAVRAKAKIS
"Detection and Classification of Winding Faults in Windmill Generators Using Wavelet Transform and ANN"
IEEE-International Electric Machines and Drives Conference-IEMDC2007,

Antalya, Turkey, May 3-5, 2007.

12. G. KAFETZIS, P. PATELIS, D. KOLOKOTSA, G.S. STAVRAKAKIS
“Java Software Platform for Energy and Environmental Buildings Management “
6th International Conference on Electrical Engineering ICEENG 2008, May 27-29, 2008,
Cairo, Egypt.
13. D. KOLOKOTSA, M. PAPAGLASTRA, E. MOURIKI, M. SANTAMOURIS, G. MIHALAKAKOU,
D. MATTHOPOULOS, I.DELIGIANNAKIS, V. TSEZOS, E. DOULKA, A.PAPADOPOULOS,
E. GIAMA, A. ARISTOTELIS, G. STAVRAKAKIS, T.NICOLAOU,S. KEPHALOPOULOS, A.
KATSOYIANNIS
“An innovative training package for indoor environmental quality”
Presented at the Restoration and Protection of the Environment IX, Cephalonia, Greece 29 June
– 3 July 2008.
14. D. KOLOKOTSA, G. STAVRAKAKIS, T. NIKOLAOU, I. SKIAS
“Comparison of asset and operational rating for office buildings' energy performance-A case study
in Athens Greece”
Presented at the Restoration and Protection of the Environment IX, Cephalonia, Greece 29 June
– 3 July 2008.
15. I. MITSIOS, D. KOLOKOTSA , G. STAVRAKAKIS , K. KALAITZAKIS, A. POULIEZOS
“Developing a control algorithm for CEN indoor environmental criteria – addressing air quality,
thermal comfort and lighting”
17th Mediterranean Conference on Control & Automation to be held in Thessaloniki, Greece during
June 24 - 26, 2009.
16. N. PANAGIOTIDOY, V. GEKAS, G. STAVRAKAKIS
“Modeling and evaluation of electrical energy recovery from urban solid waste: the case of
Chania-Crete-Greece”
Proceedings of the 11th International conference on Environmental Science and
Technology-CEST 2009, 3-5 September 2009, Chania, Crete, Greece.
17. E.S. SERGAKI, D.PIROMALIS, N.M. AFENTAKIS, G.S. STAVRAKAKIS
“Methodology of Algorithm Implementation of a PMSM standard variable Speed FOC Motor Drive
incorporating an Efficiency Controller”
The 2009 World Congress on Power and Energy Engineering, WCPEE'09, October 5-8, 2009,
Cairo, Egypt.
18. E.S. SERGAKI, N.M. AFENTAKIS, G.S. STAVRAKAKIS

- “A Hybrid Loss Minimization Controller incorporated to a PMSM speed FOC motor drive, based on a General Loss Model and on a Fuzzy Logic Search Controller, for Transient and Steady States”.
The 2009 World Congress on Power and Energy Engineering, WCPEE'09, October 5-8, 2009, Cairo, Egypt.
19. E.S. SERGAKI, G.S. STAVRAKAKIS, K.C. KALAITZAKIS, D. PIROMALIS
“Algorithm Implementation of a hybrid Efficiency controller incorporated to a PMSM standard FOC variable speed motor drive”
IEEE IECON 2009 the 35th Annual Conference of the IEEE Industrial Electronics Society, 3-5 November 2009 Alfanega Congress Center, Porto, Portugal.
 20. N. Kabelis, E. Grigoroudis, C. Diakaki, D. Kolokotsa, K. Kalaitzakis, G. Stavrakakis
“A multi-objective decision support system for the improvement of energy efficiency in buildings”
Clima 2010 "Sustainable Energy Use", 10th Federation of European HVAC Associations
10th REHVA World Congress, 9-12 May 2010, Antalya, Turkey.
 21. E.S. Sergaki, N. Essounbouli, K.C. Kalaitzakis, G.S. Stavrakakis
“Fuzzy Logic Control for Motor Flux Reduction during Steady state and for Flux Recovery in transient states of indirect FOC AC Drives”
IEEE ICEM 2010 XIX International Conference on Electrical Machines, September 6-8, 2010, Rome, Italy.
 22. G. PAPADIMITRIOU, T. NIKOLAOU, D. KOLOKOTSA, P. SKITTIDES, G. STAVRAKAKIS, T. TSOUTSOS
“The benchmarking of Greek office buildings using clustering techniques”,
In Proc of the joint 3rd Palenc, 5th EPIC and 1st Cool Roofs Conference, 29/9/2010-2/10/2010 Rhode Island, Greece.
 23. R. MAMLOOK, G. STAVRAKAKIS, O. BADRAN, F. JOSEPHIDES
“A Fuzzy Set Methodology to Compare Between Different Autonomous PV-RO Desalination Plants: A Case Study Scenario”
Seventh Jordanian International Mechanical Engineering Conference -2010 (JIMEC'7),
September 27–29, 2010, Amman, Jordan.
 24. G. VISKADOUROS, G. STAVRAKAKIS, E. ELLINAKIS
“Quality Event Recognition and Classification Using a Wavelet-Based Neural Network”
International Conference on Energy, Water & Environment (ICEWE)
Amman, Jordan, in December 12-15, 2010.
 25. E. LOUKARAKIS, G. STAVRAKAKIS
“Investigation of Spinning Reserve Impact on Isolated Systems DC Interconnection Feasibility”
IEEE International Conference on Environment and Electrical Engineering 2011-
EEEIC 2011, Rome, 8-11 May, 2011.

26. E. LOUKARAKIS, E. KALAITZAKIS, E. KOUTROULIS, G. STAVRAKAKIS
 "Investment Perspectives on the Interconnection of Isolated Systems with the Mainland Grid: Crete Case Study"
 IASTED- Power and Energy Systems International Conference-
 EuroPES 2011, Crete, Greece, June 22 – 24, 2011.

27. E. MARKOULAKIS, E.ANTONIDAKIS, G. STAVRAKAKIS
 "A SIMULINK Circuit Model for measurement of consumption of electric energy using frequency method"
 IASTED- Power and Energy Systems International Conference-
 EuroPES 2011, Crete, Greece, June 22 – 24, 2011.

28. G. PAPOUTSOGLOU, A. ANASTASOPOULOU, G. STAVRAKAKIS, P. SOUTTER, C. BALAS
 "In vivo Dynamic Imaging, in silico Modeling and Global Sensitivity Analysis for the Study and the Diagnosis of Epithelial Neoplasia"
 33rd Annual International Conference of the IEEE EMBS
 Boston, Massachusetts USA, August 30 - September 3, 2011.

29. Y.A. KATSIGIANNIS, G.S. STAVRAKAKIS
 "Effect of wind turbine classes on the electricity production of wind farms in Cyprus Island"
 1st Conference on Power Options for the Eastern Mediterranean Region (POEM 2012),
 19-21 November 2012, Limassol, Cyprus.

30. N.PANAGIOTIDOU, G.STAVRAKAKIS,C.VENETIS
 "Sustainable Waste Management Planning with the use of a Decision Support Software Tool based on the application of the PROMETHEE II method",
 DSS2012 – 16th IFIP WG8.3 International Conference on Decision Support Systems,
 Anáivissos, Greece, June 28-30 2012.

31. A.G.TSIKALAKIS, A. ANTONIOU, N. THEODOROU, K. KALAITZAKIS, G. STAVRAKAKIS
 "Impact of the Euro-Asia Interconnector project on the economic operation of Crete and Cyprus power systems"
 2nd Conference on the Power Options for the Eastern Mediterranean Region (POEM 2013),
 7-9 Oct 2013, Nicosia, Cyprus.

32. S.D. KAMINARIS, E.TRIPOLITAKIS, G.S.STAVRAKAKIS, CHR. DIAKAKI
 "An Intelligent Data Acquisition and Transmission Platform for the development of voyage and maintenance plans for ships",
 IISA 2014-IEEE 5th International Conference on Information, Intelligence, Systems and Applications, Chania, Crete-Greece, 7-9 July 2014.

PAPERS IN INTERNATIONAL CONFERENCES

1. J. MIGNO, G.S. STAVRAKAKIS
“Adaptive control of a solar paraboloidal collector”
IASTED - EES 83 Symposium, August 31-September 2, 1983, Athens-Greece.
2. J. AGUILAR-MARTIN, G.S.STAVRAKAKIS
“Optimal predictor for a class of nonlinear stochastic processes. Application to parameter estimation”
Meco 83 Symposium, August 29-31, 1983, Athens-Greece.
3. S.TSITOMENEAS, G.STAVRAKAKIS
“Optical and thermal properties of a solar cylindroparabolic collector” (in Greek)
2nd National Congress on the Alternative Sources of Energy, October 1985, Thessaloniki, Greece.
4. G.S.STAVRAKAKIS, G.BITSORIS, M.SANTAMOURIS
“On the thermal regulation of a solar paraboloidal Collector”
ISES solar world congress 1987.
September 13-18, Hamburg, Fed. Repub. of Germany.
5. M. SANTAMOURIS, D. PAPAIOANNOU, G.S. STAVRAKAKIS
“Design and operation of a hybrid low energy consumption agricultural greenhouse”
ISES solar world congress 1987.
September 13-18, Hamburg, Fed. Repub. of Germany.
6. M. PAPADOPOULOS, P. MALATESTAS, B. PAPADIAS, G.S. STAVRAKAKIS
“Modelling and parameters identification of Diesel-wind turbines systems”
European Communities Wind Energy Conference, Glasgow, England 1989.
7. G.S. STAVRAKAKIS
“A computer code for the quality control of steel in marine structures”
5th International congress on marine technology, May 1990, Athens, Greece.
8. G.S. STAVRAKAKIS, K.C. KALAITZAKIS
“A study for the reliable penetration of a 4.5 MW wind farm into the local power grid of Sitia - Crete”
2nd European Symposium on Soft Energy Sources and Systems at the local level, Chania, Crete, Greece, October 16-21, 1989.
9. G.S. STAVRAKAKIS
“Mechatronics: a new term for the characterization of Technological Challenge of the year 2000 and its impacts” (in Greek)

Symposium: Society, technology and restructuring of production, October 1-3, 1992, Chania, Crete, Greece.

10. G. TSELENTIS, A. POULIEZOS, G. S. STAVRAKAKIS
“FAULTMONITOR: A Computational tool for fast fault monitoring in critical dynamic industrial processes” (in Greek)
1st Panhellenic Conference “Health and safety in the process industries”, Dec. 9-11, 1992, Athens, Greece.
11. G. KARINIOTAKIS, G. STAVRAKAKIS, E. NOGARET, M. BORDIER
“Advanced modelling and identification of autonomous wind-diesel power system. Application on the French island Desirade”
1993 European Community Wind Energy Conference, 8-12 March 1993, Lubek - Travemunde, Germany.
12. A. POULIEZOS, G. STAVRAKAKIS, G. TSELENTIS
“Detection of multivariable system noise degradation”
IEEE Mediterranean Symposium on new Directions in Control Theory and applications, June 21-23, 1993, Chania, Crete, Greece.
13. G. N. KARINIOTAKIS, E. B. KOSMATOPOULOS, M. A. CHRISTODOULOU, G. S. STAVRAKAKIS
“Load forecasting using dynamic high-order neural networks”
IEEE International Power Conf. “Athens Power Tech 93 - APT '93”, Sept. 5-8, 1993, Athens, Greece.
14. G. KARINIOTAKIS, E. NOGARET, G. STAVRAKAKIS and J. BILLEREY
“Analysis and Evaluation of the Real Time Operation of a Wind-Diesel Power System with High Wind Power Penetration”
EWEC '94, Europ. Wind Energy Assoc. Conference, 10-14 October 1994, Thessaloniki, Greece.
15. E. NOGARET, G. STAVRAKAKIS, J. C. BONIN, G. KARINIOTAKIS, B. PAPADIAS, G. CONTAXIS, M. PAPADOPOULOS, N. HATZIARGYRIOY et al.
“Development and Implementation of an advanced Control System for Medium Size Wind-Diesel Systems”
EWEC '94, Europ. Wind Energy Assoc. Conference, 10-14 October 1994, Thessaloniki, Greece.
16. E. NOGARET, G. STAVRAKAKIS, J. C. BONIN, G. KARINIOTAKIS, M. PAPADOPOULOS
N. HATZIARGYRIOU et al.

- “A new expert system based control tool for power systems with large integration of PVs & wind power plants”
First World Conf. On Photovoltaic Energy Conversion, Dec. 5-9, 1994, Hilton Waikoloa Village, Hawaii, USA.
17. G.S. STAVRAKAKIS
“On-line statistical process monitoring and feedback adjustment”
First ECPD International Conference on Advanced Robotics and Intelligent Automation, 6-8 September 1995, Athens, Greece.
18. G. S. STAVRAKAKIS
“Application of optimization methods to the modern production systems” (in Greek)
3rd Logistics Management Conference, 7-8 Nov., 1995, Pantion University, Athens, Greece.
19. A. POULIEZOS, G. STAVRAKAKIS
“FAULTLAB: A computer tool for the design and evaluation of industrial processes fault detection strategies” (in Greek)
Technical Chamber of Greece Conference: New technologies in Automatic Control, 14-15 Dec., 1995, Athens, Greece (Intercontinental Hotel).
20. P. ZALIMIDIS, G. STAVRAKAKIS
“Real-time quality control in production systems” (in Greek)
National Conference on Technology and Automation, 9-10 May 1996, T.E.I. of Piraeus, Greece.
21. E. NOGARET, G. STAVRAKAKIS, G. KARINIOTAKIS, M. PAPADOPOULOS,
N. HATZIARGYRIOU et al.
“An advanced control system for wind diesel power systems”
1996 European Union Wind Energy Conference, 20-24 May 1996, Goteborg, Sweden.
22. G. KARINIOTAKIS, E. NOGARET, G. STAVRAKAKIS
“A Fuzzy Logic and a Neural Network based Wind Power Forecasting Model”
1996 European Union Wind Energy Conference, 20-24 May 1996, Goteborg, Sweden.
23. E. NOGARET, G. STAVRAKAKIS, G. KARINIOTAKIS, M. PAPADOPOULOS,
N. HATZIARGYRIOU et al.
“Development and Implementation of an Advanced Control System for Autonomous Power Systems including Renewable Power Sources”
UPEC 96, Sept. 18-20, 1996, Iraklion, Greece.
24. E. SERGAKI, G. STAVRAKAKIS

- “Optimal Control of Robotic Manipulators with DC-Actuators Electromechanical Losses Minimization”
UPEC 96, Sept. 18-20, 1996, Iraklio, Greece.
25. G.S. STAVRAKAKIS, A. POULIEZOS, M. ZERVAKIS, E. ANAGNOSTAKIS, G. TSELENTIS
“Feature Extraction and Neural-Fuzzy Classification of Washing Machines Vibration Signals for On-line Quality Control Purposes”
EUFIT '97, 5th European Congress on Intelligent Techniques & Soft Computing, Sept. 8-11, 1997, Aachen, Germany.
26. G. KARINIOTAKIS, E. NOGARET, G. STAVRAKAKIS
“Advanced Short-Term Forecasting of Wind Power Production”
EWEC 97, European Wind Energy Conference & Exhibition, Oct. 5-9, 1997, Dublin, Ireland.
27. G. STAVRAKAKIS, A. POULIEZOS, G. TSELENTIS
“Fault Detection and Classification of Vibration Signals for Quality Control of Household Appliances during Production”
2nd Conference on Technology and Automation, Oct. 2-3, 1998, Thessaloniki, Greece.
28. D. KOLOKOTSA, K. KALAITZAKIS, G. STAVRAKAKIS et al.
“Advanced Decision Support techniques in combination with smart card and Local Operating Network technologies for intelligent energy management in buildings”
Energy Performance Indoor Climate Conference - EPIC 98, 19-22 November 1998, Lyon-France.
29. D. KOLOKOTSA, G. STAVRAKAKIS, K. KALAITZAKIS, D. TSIAVOS
“Fuzzy control for improved buildings energy management systems”
ESIT '99, 3-4 June 1999, Orthodox Academy of Crete, Chania, Greece.
30. D. KOLOKOTSA, G. STAVRAKAKIS, K. KALAITZAKIS, A. POULIEZOS, E. LOUKIS
“Optimization of a fuzzy controller using genetic algorithms for the indoor comfort control in buildings”
IFDICON 2001, 24-28 June 2001, Santorini, Greece.
31. D. Kolokotsa, K. Kalaitzakis, G. Stavrakakis, T. Tsoutsos,
“Applying Genetic Algorithms for the decision support of thermal, visual comfort, indoor air quality and energy efficiency in buildings”,
Proceedings of NTUA RENES Conference in Renewable energy sources –Priorities in the Liberalization of the Energy Market, Athens 19-21 March 2001.
32. M. PAPADAKI, T. TSOUTSOS, G. STAVRAKAKIS, M. ANTONIDAKIS
“Development of a Methodology for the Sustainable Management of an Energy System”

- 7th National Congress for the Renewable Energy Sources, 6-8 November 2002, Patras, Greece (in Greek).
33. D. KOLOKOTSA, G. S. STAVRAKAKIS
"Small Residential Wind Turbines in the Urban Environment"
Med Power 2002, 4-6 November 2002, Athens, Greece.
 34. K. KALAITZAKIS, G. STAVRAKAKIS, D. KOLOKOTSA
"Advanced Artificial Neural Networks for Short-term Load Forecasting"
IASTED International Conference on Power and Energy Systems (EuroPES 2002), 25-28 June, 2002, in Crete, Greece.
 35. D. KOLOKOTSA, K. KALAITZAKIS G. STAVRAKAKIS,
"Advanced Artificial Neural Networks for Short-term Load Forecasting"
International Conference on RES for island, tourism & water desalination, EREC03, Hersonissos, Crete, 26-28 May 2003.
 36. D. KOLOKOTSA, Z. LIAO, K. KALAITZAKIS, G. STAVRAKAKIS, A. POULIEZOS, E. ANTONIDAKIS, T. TSOUTSOS, V. GEROS, M. SANTAMOURIS
"Smart energy management in the built environment"
Restoration and Protection of the Environment IV, Mykonos, July 18-23 2004.
 37. E. TRIPOLITAKIS, D. KOLOKOTSA, K. KALAITZAKIS, G. STAVRAKAKIS
"Study and Implementation of a Fuzzy PD Thermal Comfort Controller for Embedded Fieldbus Systems Applications"
WSEAS Conference on Circuits and Systems, Rethymno Crete, October 24-26, 2004.
 38. G. SUTHERLAND, D. KOLOKOTSA, G. STAVRAKAKIS, S. KARATASSOU, M. SANTAMOURIS
"Matrix Tool for Assessing the Performance of Intelligent Buildings"
Passive and Low Energy Cooling Palenc 2005, Santorini island, 19-21 May 2005.
 39. D. KOLOKOTSA, A. POULIEZOS, G. STAVRAKAKIS
"Sensor fault detection in building energy management systems"
2006 International Conference on Intelligent Systems and Knowledge Engineering (ISKE2006) , April 6-7, 2006, Shanghai, China.
 40. T. NIKOLAOU, D. STAVRAKAKIS, D. KOLOKOTSA, E. PAPANIKOLAOU
"Assessment of shading contribution in the energy performance improvement of office buildings in Athens using TRNSYS simulation"
EPIC 2006, November 20-22 2006, Lyon France.

41. D. KOLOKOTSA, G. STAVRAKAKIS, S. KAMINARIS, V. GEROS, M. SANTAMOURIS, M. KITRINAKIS, S. TRIPOLITSIOTIS, N. BAKONIKOLAS, G. KONSTANTOPOULOS
"E-Building: A software platform for energy auditing and management of buildings"
EPEQUB Conference, Milos Greece, 2006.
42. S.A. MARKOULAKIS, G.S. STAVRAKAKIS, T.G. NIKOLAOU
"Short-term load forecasting based on the Kalman filter and the Neural-fuzzy Network (ANFIS)"
Energy & Environmental Systems (EE06) WSEAS/IASME International Conference,
Chalkida, Evia Island, Greece, May 8-13, 2006.
43. E.S. SERGAKI, G.S. STAVRAKAKIS
"Optimal speed trajectory tracking of an AC motor drive system with simultaneous minimization of its electromagnetic losses and fuzzy logic efficiency optimization in steady and transient states"
XVII International Conference on Electrical Machines-ICEM 2006, Chania, Crete Island, Greece,
September 2-5, 2006.
44. Z. GKETSIS, G. STAVRAKAKIS, M. ZERVAKIS
"Detection of winding faults in windmill generators using the wavelet transform analysis method"
XVII International Conference on Electrical Machines-ICEM 2006, Chania, Crete Island, Greece,
September 2-5, 2006.
45. Z. GKETSIS, M. ZERVAKIS, G. STAVRAKAKIS
"Early Detection of winding faults in windmill generators using wavelet transform and ANN classification"
Proceedings Artificial Neural Networks-ICANN2006, September 2006, Athens, Greece, Part II, pp.
746.
46. E.S. SERGAKI, P.S. GEORGILAKIS, A.G. KLADAS, G.S. STAVRAKAKIS
"Fuzzy Logic Based Online Electromagnetic Loss Minimization of Permanent Magnet Synchronous Motor Drives"
XVIII International Conference on Electrical Machines ICEM 2008, 6-9 September 2008,
Vilamoura, Portugal.
47. E.S. SERGAKI, G.S. STAVRAKAKIS
"Online Search Based Fuzzy Optimum Efficiency Operation in Steady and Transient States for DC and AC Vector Controlled Motors"
XVIII International Conference on Electrical Machines ICEM 2008, 6-9 September 2008,
Vilamoura, Portugal.
48. T. NIKOLAOU, D. KOLOKOTSA, G. STAVRAKAKIS, I. SKIAS
"Building energy performance evaluation according to Greek Law 3661/08. Comparison between measured and calculated approach"
3rd International Conference Enertech '08 to be held 20-23 November 2008 at MEC Paiania,
Athens, Greece.

49. T. NIKOLAOU, G. STAVRAKAKIS, I. SKIAS, E. SKARLOU
“Optimal sizing and design of pumped-storage wind-hydro power plants according to the constraints of Greek Law 3468/2006: case study for Crete”
3rd International Conference Enertech '08 to be held 20-23 November 2008 at MEC Paiania, Athens, Greece.
50. E. KOUTROULIS, G. STAVRAKAKIS, D. KOLOKOTSA
“Optimal design and evaluation of a battery energy storage system for the exploitation of the rejected energy generated by wind farms in isolated electric grids”
3rd International Conference Enertech '08 to be held 20-23 November 2008 at MEC Paiania, Athens, Greece.
51. E. THALASSINAKIS, E.N. DIALYNAS, G. STAVRAKAKIS
“Improving Emergency Reserve in Isolated Power Systems by Using the Short Time Overloading Capability of Generating Units”
MedPower 2008 -6th Mediterranean Conference and Exhibition on Power Generation, Transmission, Distribution and Energy Conversion ,2 – 5 November 2008, Hotel Macedonia Palace, Thessaloniki, Greece.
52. G.M. VISKADOUROS, G.S. STAVRAKAKIS
“A comparative study of Optimal Power Flow methods applied in large interconnected systems. Application in the interconnected system of Balkans”
DEMSEE 2009, 4th International Conference on Deregulated Electricity Market Issues in South-Eastern Europe, September 17-18, 2009, Mihailo Pupin Institute, Belgrade, Serbia.
53. G. STAVRAKAKIS, K. GOBAKIS
“Real-time Forest Fire Detection with Wireless Sensor Network in Samaria Gorge-Crete-Greece”
XIII World Forest Congress –WRC 2009, Buenos Aires, Argentina, 18-23 October 2009.
54. S. DVORSAK, J. VARGA, G. STAVRAKAKIS et al.
“Bio-waste management in the Balkan Countries: The cases of Romania, Slovenia, Greece & Bulgaria”
ORBIT 2010, "Organic Resources in the Carbon Economy", Europe's largest Organic Waste Management Conference, Heraklion, Crete, Greece, June 29-July 3, 2010.
55. S. DVORSAK, J. VARGA, G. STAVRAKAKIS et al.
“Sampling and Analysis of Solid Municipal Waste In Balkan Region: The First Results and its significance”
ISWA World Congress, Hamburg, Germany, 15th – 18th November 2010.
56. G. STAVRAKAKIS, N. PANAGIOTIDOU, K. MOUSTAKAS et al.
“Development of a Decision Support Software Tool for the evaluation of different Waste Management Scenarios”
ISWA World Congress, Hamburg, Germany, 15th – 18th November 2010.

57. G.P. VLASSIS, T. NIKOLAOU, G.S. STAVRAKAKIS, I. SKIAS
 “Per hour modeling of the operation of the isolated Power Production System of Crete-Greece with and without the introduction of a 20MW Pumped Storage System”
 The Deregulated Electricity Market issues in South-Eastern Europe 2010 (DEMSEE2010), 23-24 September 2010 in Sitia – Crete.
58. E. ELLINAKIS, G. VISKADOUROS, G. STAVRAKAKIS
 “Power Quality Monitoring in Isolated Power Grids Using Wavelet-Based ANFIS”
 The Deregulated Electricity Market issues in South-Eastern Europe 2010 (DEMSEE2010), 23-24 September 2010 in Sitia – Crete.
59. K. GOBAKIS, G. STAVRAKAKIS
 “Simplified building thermal capacitance modeling and control using Matlab/Simulink”
 Passive and Low Energy Cooling for the built Environment (PALENC) 2010, 29 September-1st October 2010, Rhodes Island, Greece.
60. N. KABELIS, E. GRIGOROUDIS, C. DIAKAKI, D. KOLOKOTSA, K. KALAITZAKIS, G. STAVRAKAKIS
 “A multi-objective decision support system for the improvement of energy efficiency in buildings”
 9th Special Conference of the Hellenic Operational Research Society (HELORS), "Quantitative Models in the Managerial and Financial Decision Making", May 2010, Agios Nikolaos, Greece.
61. K. GOBAKIS, D. KOLOKOTSA, G. STAVRAKAKIS, C. LYKAS
 “Application of advanced clustering methods in a GIS based forest fire risk assessment tool”
 CRETE 2012- 3rd International Conference on Industrial and Hazardous Waste Management. September 12-14, 2012, Chania – Greece.
62. Y.A. KATSIKIANNIS, G.S. STAVRAKAKIS
 "Estimation of wind energy production in Australia for different wind turbine classes"
 World Renewable Energy Congress - WREC 2013 International Conference", Murdoch University, Perth, Western Australia, 14-18 July 2013.

PARTICIPATION IN EUROPEAN COMMISSION AND NATIONAL FUNDED RESEARCH PROGRAMMES

1. ESPRIT-I - project CIM 278: “Integrated sensor-based Robot System”. October 1985 - July 1988.
 Subcontractor of the National Technical University of Athens.
2. BRITE/EURAM programme 1989-1992 - project 2124: “Enhancement of inspection and maintenance of industrial structures using reliability based methods and expert systems”.
 September 1988 - September 1989.

- Subcontractor of Synthesis s.r.l. - Milano, Italy in collaboration with the Institute of System Engineering and Informatics (ISEI) of the JRC-Ispra, Italy.
3. ESPRIT-II - project 63/40. February 1990 - February 1991. Optimal inventory-production control of multiproduct manufacturing systems.
Subcontractor of the National Technical University of Athens.
 4. Wind Energy European Research and Development - contract CEE No 0028-F (CEE-ARMINES).
June 1990 - July 1991.
Subcontractor of ARMINES (Ecole Nationale Supérieure des Mines de Paris), Paris, France.
 5. Non-Nuclear Energy (Joule) EEC project J02-CT92-0053: "Development and Implementation of an advanced control system for the optimal operation and management of medium size power systems with a large penetration from renewable power sources" Oct. 92 - Dec. 94.
Co-coordinator with ARMINES (Ecole Nationale Supérieure des Mines de Paris).
 6. STRIDE - 195. Hellenic Initiative for Multimedia Technologies and Applications. Responsible of the special action on Virtual Reality (Human animation through kinematic and dynamic simulation).
January 1st, 1992 - December 31st, 1993.
 7. Human Capital and Mobility, November 1993 - November 1995.
A Force-Reflecting Hand Controller based on a new Compact Architecture - major applications in TELEOPERATION. Partner.
 8. BRITE/URAM Research Training Fellowship (BRE2-CT93-3039), November 1993 - November 1995.
Decision making for requalification of structures. Partner.
 9. FAULTLAB: A computational tool for the evaluation through simulation of various fault diagnosis methods in dynamical systems, January 1994 - December 1995. Research project (ΠENEΔ) financed from the General Secretariat of Research and Technology - Ministry of Industry, Energy and Technology - Greece. Partner.
 10. Research project 92BE331 (ΠΑΒΕ), A fuzzy expert system for the environmental conditions monitoring in cargo-ships containers, September 1994 - September 1996. General Secretariat of Research and Technology - Ministry of Industry, Energy and Technology - Greece. Main Contractor.
 11. CRAFT project No BRE2-CT93-0816, Maintenance Management & Performance Monitoring System for (Mobile) Lifting Equipment, January 1994 - December 1995. Subcontractor of the Partner PROJECT S.A. - Europliroforissi Institute. Larissa - Greece.

12. Research project 94BE37 (ΠΑΒΕ), Development and implementation of a real-time monitoring system for industrial furnaces based on fuzzy logic techniques, September 1995-September 1997.
General Secretariat of Research and Technology - Ministry of Industry, Energy and Technology - Greece. Partner.
13. Research project with MAHB/ISEI/JRC-ISPRA, Prevention Control of Major Accident Hazards and their Consequences to man and the environment, January 1996-December 1998. Subcontractor of the Institute ISEI of the European Community Joint Research Center at ISPRA-ITALY.
14. Research Project MEDEA (EC Workprogram: MEASUREMENT AND TESTING), Quality Control for House-hold Appliances by On-line Evaluation of Mechanical Defects, January 1996-December 1999.
Partner.
15. BRITE/EURAM Sub-contractor of MPA Institute-Stuttgart for the “Development of a multicriteria decision making software tool for supporting the inspection planning in power plants”.
February 1996-December 1996.
16. Non-Nuclear Energy (JOULE) EEC project CARE: Advanced Control Advice for power systems with large scale integration of Renewable Energy Sources.
January 1997-June 2000. Associated Partner.
17. EU Energy Centre for North West Russia - TACIS Programme, Sept. 1996-Sept. 1998.
Training programme on the technical and financial aspects of efficiency in energy use.
Saint-Petersburg, Russia, 14-21 Sept. 1997. Main Lecturer.
18. BUILTECH: Combining Smart Card and Local Operating Network Technologies with Advanced Decision Support Techniques to Develop an Intelligent Industrial Energy Management System for Buildings.
JOULE-III contract JOE3-CT97-0044. Dec. 1997 - April 2001. Coordinator.
19. EPEAEK: Preparation of Under-graduate Courses in the area of Technological Development and Connection of the Systems Engineering Studies with the Greek Market.
Ministry of Education, 1998 - 2000. Partner.
20. EPEAEK: Preparation of Post-graduate Courses in the area of Industrial, Energy and Transportation Systems.
Ministry of Education, 1998 - 2000. Partner.
21. EPEAEK: Energy & Environment - Distance Education Course.
Ministry of Education, 1998 - 2000. Partner.

22. Dissemination of the Advanced Control Technologies for Isolated Power Systems with Increased Renewable Energy Sources Penetration.
THERMIE Type B Contract DIS-1625-98-GR, November 1998 - October 2000. Scientific Manager.
23. CAREER OFFER for Greek Scientist living abroad.
«Research on the microclimatic conditions and elaboration of models for their prediction for optimal fire management inside the Samaria Gorge in Crete Island».
General Secretariat for Research and Technology. February 1999-February 2002.
Scientific Manager.
24. LEONARDO DA VINCI. «Developing distance training courses for SMART Buildings Energy Management».
Contract EL/B/P/2000/114146. December 2000 – December 2003. Coordinator.
PROJECT SITE: www.smart-be.tuc.gr .
25. INFORMATION SOCIETY TECHNOLOGIES PROGRAMME. «INDustry-driven TRaining for Low-power European Designers-INTRALED».
Contract IST-2001-34631. January 2002 – February 2005. Sub-Contractor of the company INTRACOM.
26. SMART NODE FOR INDOOR AIR QUALITY AND ENERGY MANAGEMENT IN BUILDINGS.
Creation of Spin-off Company, program 01 ΠΡΑΞΕ 71, General Secretariat of Research and Technology. September 2002 – December 2003. Prime Contractor.
27. ACCELERATION OF SMART BUILDINGS TECHNOLOGIES AND MARKET PENETRATION.
Contract SAVE 4.1031/Z/02-094/2002. February 2003 – March 2005. Prime Contractor – Coordinator.
28. e-MANAGEMENT FOR INDOOR ENVIRONMENT AND ENERGY SAVINGS IN BUILDINGS.
General Secretary of Research and Technology (GSRT) Concerted Program “Renewable Energy Sources and Energy Saving”. September 2003 – September 2006. Coordinator.
29. “PURE- PROMOTING THE USE OF PHOTOVOLTAIC SYSTEMS IN THE URBAN ENVIRONMENT THROUGH DEMO RELAY NODES.1-1-2006—31-12-2008. Senior Scientific Researcher.
30. RERINA - Integration of Renewable Energy Technologies in Rural Insular Areas. SAVE -ALTENER funded. December 2005-December 2007.Senior Scientific Researcher.

31. BALKWASTE-Waste network for sustainable solid waste management planning and promotion of integrated decision tools in the Balkan region". LIFE + funded. 1st January 2009- 31-12-2011.
32. LIFE FOREST CITIES-Local Authorities' Alliance for Forest Fire Prevention
LIFE+ funded.1st January 2010 until 30-06-2013.
33. CREAM-Innovative technological platform for compact and reliable electronic integrated in actuators and motors.
EC FP-7 financed Project. 1st September 2010 until 31 August 2011.
Sub-contractor of the Partner Technological Educational Institute of Piraeus.
34. An integrated system for monitoring ship's emissions and operating parameters with application to optimal management of the ship energy demands during operation.
[E-GREENSHIP], (2011-2014). General Secretary Research Technology - ΓΓΕΤ 09ΣΥΝ-51-871.
35. Local Partnerships for Greener Cities and Regions-Green Partnerships-MED OPERATIONAL PROGRAMME 2007-2013. Partner.
36. Design of an intelligent system for sustainable management of water networks: application to Crete Island-Greece. Oct. 1st 2015-Dec. 31st 2016. Project code: ΣΑ075/8.Funding code: GR02XM EOX 2009-2014. Partner.
37. Development and application of advanced artificial intelligence methods in the purpose of theft detection in "smart" electric power grids with increased RES penetration.
1st-11-2017 until 28-02-2019. General Secretary of Research and Technology. 1st ELIDEK Announcement for Doctoral Candidates. Scientific Responsible.
38. CMBR - Centre for the study and sustainable exploitation of Marine Biological Resources.
Responsible of the work package concerning the electricity needs covering of the marine structure using Renewable Energy Sources.1st-01-2018 until 31-12- 2020. National Roadmap for Research Infrastructures-General Secretary of Research and Technology. Partner.