



CURRICULUM VITAE (01-07-2015)

Dr. JACOB G. FANTIDIS

Electrical & Computer Engineer

Visiting Assistant Professor of TEI Kavalas, Greece

PERSONAL INFORMATION

Place of Birth Edessa, Greece
Home Address Rizo, Pellas 58 500
Email Fantidis@yahoo.gr

EDUCATION

Democritus University of Thrace (Xanthi, Greece October 1998 – June 2003) GPA 8.3/10

Department of Electrical and Computer Engineering
Bachelor of Science in Electrical Engineering
5-year program, 65 courses to graduate
Second highest GPA among my 150 fellow students.

Democritus University of Thrace (Xanthi, Greece October 2003 – June 2005) GPA 9.3/10

Department of Electrical and Computer Engineering
Master Science in Electrical Engineering
Nuclear Technology Laboratory
Highest GPA among my 25 fellow M. Sc. students.
Thesis: ‘Design of portable system for the measurement of radioactivity from environmental samples with the aid of MCNPX code’

Democritus University of Thrace (Xanthi, Greece December 2005 – March 2010) GPA 9.3/10

Department of Electrical and Computer Engineering
Doctor of Philosophy in Electrical Engineering
Nuclear Technology Laboratory
Second highest GPA among my 20 Ph.D fellow students.
Thesis: ‘Optimum design of portable units for non destructive testing of 3D objects using nuclear radiations’

WORK EXPERIENCE

- May 2010 – today: Electrical Engineering Office.
- June 2010 – February 2011: Military service as administrator on computer network of the 4th Army Corps.
- March 2007 – April 2008: Collaborator with the ECDL Greece.

TEACHING EXPERIENCE

Kavala Institute of Technology (Greece) (October 2006 – today)

Master in Innovation in Technology & Entrepreneurship (February 2013 - today) as external collaborator.
(Group Project)

Department of Electrical Engineering (October 2011 – today) as visiting Assistant Professor.
(Modelling of Systems, Technology of New Materials, Electrical Installations I&II, Electrical Machines I&II, Power Systems II, Nuclear Technology, Non Destructive Testing)
Department of Electrical Engineering (October 2009 – June 2011) as visiting Lecturer.
(Renewable Energy, Security and Law in the Employment, Electric Circuits II)
Industrial Informatics Department (October 2006 – September 2009 & October 2011 – today) as Laboratory assistant.
(Electric Circuits, Electronic Circuits)

Teacher on Police Academy (Komotini & Xanthi) (November 2011 – May 2011)

(Computer Science)

Democritus University of Thrace (Greece) (October 2006 – February 2010)

Department of Electrical Electrical and Computer Engineering as Research/Laboratory Assistant (October 2006 – February 2010) in Nuclear technology Laboratory under the supervision of Professor N. F. Tsagas in the following courses:

(Nuclear Technology, Dosimetry, Special Topics In Plasma And Nuclear Technology, Introduction To Nuclear Technology)

Department of Electrical Electrical and Computer Engineering as Laboratory Assistant (October 2007 – September 2009) in Mathematics section in the following courses:

(Linear Algebra, Differential Equations, Mathematical Analysis II, Calculus Of Variations).

Teacher in institute of Vocational Training Xanthi, Greece (October 2004 – February 2010)

(Adobe Photoshop, Sql Server, Network Security, Algorithm – Data structures, Microsoft Access, Microsoft Excel)

Teacher in private high school (September 2006 – June 2008)

PARTICIPATION IN SCIENTIFIC RESEARCH PROGRAMS

- July 2014 – August 2014: Researcher in Research Project: SAFE H POWER (<http://www.safehpower.eu>), Centre for Research and Technology Hellas.
- March 2012 – August 2012: Researcher in Research Project: NANOCAPILLARY[®], Scientific Project Manager: Professor A. Mitropoulos, TEI Kavalas.
- November 2009 – February 2010: Researcher in Research Project: Measurement of natural and non natural radioactivity in the environment, Scientific Project Manager: Associate Professor G. E. Nicolaou, D.U.TH.
- February 2009 – May 2009: Researcher in Research Project: Specification of nuclear materials from nuclear reactions using isotopic Analysis, Scientific Project Manager: Associate Professor G. E. Nicolaou, D.U.TH.
- March 2008: Researcher in Research Project: Measurement of natural and non natural radioactivity in the environment, Scientific Project Manager: Associate Professor G. E. Nicolaou, D.U.TH.
- December 2007 – June 2008: Researcher in Research Project: Assistance of Computer Studies in Democritus University of Thrace, Scientific Project Manager: Professor D. Papadopoulos, D.U.TH.
- January 2006 – June 2006: Researcher in Research Project: Detection of radioactive isotopes in the solids and liquids with gamma spectroscopy, Scientific Project Manager: Professor N. F. Tsagas, D.U.TH.

- April 2005 – June 2005: Researcher in Research Project: Detection of radioactive isotopes in the solids and liquids with gamma spectroscopy, Scientific Project Manager: Professor N. F. Tsagas, D.U.TH.
- January 2003 – September 2003: Researcher in Research Project: Innovative low electricity consumption air cooling system. Scientific Project Manager: Professor N. F. Tsagas, D.U.TH.

PRIZE – SCHOLARSHIP

- December 2010: Moral prize from the colonel of the 1st regiment Communication Electronic War and Informatics Security.
- September 2006: Award of a scholarship from the Bodossaki Foundation for his Ph.D Dissertation.
- May 2006: Prize money on business plan contest between student of Thrace and East Macedonia.
- December 2004: Award for excellent engineering students from the Technical Chamber of Greece.
- September 2004: Award of a scholarship from the Department of Electrical Engineering and Engineering and Computer Science for his Master Dissertation.
- June 2003: Award of a scholarship from the Hellenic National Fellowship Foundation.
- February 1998: Award of a scholarship from the Hellenic National Fellowship Foundation.

PUBLICATIONS

- [1] **J. G. Fantidis**, “The comparison between simple and advanced shielding materials for the shield of portable neutrons sources”, accepted for publication in International Journal of Radiation Research.
- [2] D. T. Thomas, **J. G. Fantidis**, G. E. Nicolaou, “A neutron radiography facility based on an experimental reactor”, accepted for publication in Journal of Engineering Science and Technology Review.
- [3] **J. G. Fantidis**, D. V. Bandekas, K. Karakoulidis, G. Lazidis, C. Potolias, “The temperature measurement of the windings in a three-phase electrical motor under different conditions”, accepted for publication in Gazi University Journal of Science Part A: Engineering and Innovation.
- [4] **J. G. Fantidis**, A. Antoniadis, “Optimization study for BNCT facility based on a DT neutron generator”, International Journal of Radiation Research 13 (1), (2015) 13–24.
- [5] **J. G. Fantidis**, D. V. Bandekas, C. Potolias, K. Karakoulidis, P. Kogias, “Financial crisis in Greece, the reason for the replacement of heating diesel systems” American Journal of Environmental Engineering and Science. Vol. 2, No. 1, 2015, pp. 1–6.
- [6] C. Potolias, J. C. Mourmouris, **J. G. Fantidis**, D. V. Bandekas, A. Kourtidis, “Financial Crisis in Greece, economics evaluation of the replacement of heating diesel oil with a heat pump system” Inzinerine Ekonomika – Engineering Economics 25(2) (2014) 141–151.
- [7] **J. G. Fantidis**, E. Saitioti, D.V. Bandekas, N. Vordos, “Optimised BNCT facility based on a compact DD neutron generator”, International Journal of Radiation Research 11(4) (2013) pages 207–214.
- [8] **J. G. Fantidis**, K. Karakoulidis, G. Lazidis, C. Potolias, D. V. Bandekas, “The study of the thermal profile of a three-phase motor under different conditions”, ARPN Journal of Engineering and Applied Sciences, 8 (11) (2013) 892 – 899.
- [9] **J.G. Fantidis**, D.V. Bandekas, C. Potolias, N. Vordos, “Cost of PV electricity – Case study of Greece”, Solar Energy 91 (2013) pages 120–130.
- [10] **J.G. Fantidis**, D.V. Bandekas, N. Vordos, “The Replacement Of Research Reactors With A Compact Proton Linac For Neutron Radiography”, Radiation Physics and Chemistry 86 (2013) pages 74–78.

- [11] **J. G. Fantidis**, G. E. Nicolaou, “Multiple Fast Neutron and Gamma-ray beam systems for the detection of illicit materials”, *Journal of Radioanalytical and Nuclear Chemistry* 295 (2) (2013) pages 973–977.
- [12] **J. G. Fantidis**, D. V. Bandekas, C. Potolias, N. Vordos, “Fast and thermal neutron radiographies based on a compact neutron generator”, *Journal of Theoretical and Applied Physics* 2012, 6:20.
- [13] **J. G. Fantidis**, D. V. Bandekas, C. Potolias, N. Vordos, “Financial and economic crisis and its consequences to the diesel-oil and biomass heating market-Case study of Greece”, *Journal of Electrical Systems* 8 (2) (2012) pages 249–261.
- [14] **Jacob G. Fantidis**, Dimitrios V. Bandekas, Nick Vordos, Costas Potolias, Kostas Karakoulidis, “Financial Crisis and the New Data on the Wood Pellet Heating: Case Study Of Greece”, *Research Journal of Applied Sciences* 7 (3) 2012 pages 138–145.
- [15] J. C. Mourmouris, C. Potolias, **J. G. Fantidis**, “Evaluation of Renewable Energy Sources Exploitation at remote regions, using Computing Model and Multi-Criteria Analysis: A Case-Study in Samothrace, Greece”, *International Journal of Renewable Energy Research* 2 (2) 2012 pages 307–316.
- [16] **J. G. Fantidis**, V. C. Mantzari, E. Kalkani, D. V Bandekas, N. Vordos, “A hybrid wind and hydroelectric power production system in generation in Plaka, Alexandroupolis, Greece”, *journal International Journal of Advances in Engineering, Science and Technology* 2 (4) 2013 pages 376–385.
- [17] **J. G. Fantidis**, “A study of a transportable Thermal Neutron Radiography unit based on a compact RFI linac”, *journal Journal of Radioanalytical and Nuclear Chemistry* 293 (2012) pages 95–101.
- [18] **J. G. Fantidis**, D. V. Bandekas, C. Potolias, N. Vordos, K. Karakoulidis, “Financial analysis of solar water heating systems during the depression: Case study of Greece”, *Inzinerine Ekonomika – Engineering Economics* 23 (1) 2012 pages 33–40.
- [19] **Jacob G. Fantidis**, Pantelis Antoniadis, Constantinos Potolias, Dimitrios V. Bandekas, Nicolaos Vordos, “Financial and economic crisis creates new data on the electricity for remote consumers: Case study Greece”, *International Journal of Advances in Engineering, Science and Technology* 1 (1) 2011 pages 49–61.
- [20] **J. G. Fantidis**, D. V. Bandekas, C. Potolias, N. Vordos, “The effect of the financial crisis on electricity cost for remote consumers: case study Samothrace (Greece)”, *International Journal of Renewable Energy Research* 1 (4) 2011 pages 281–289.
- [21] **J. G. Fantidis**, G. E. Nicolaou, C. Potolias, N. Vordos, D. V. Bandekas, “The comparison of four neutron sources for Prompt Gamma Neutron Activation Analysis (PGNAA) in vivo detections of Boron”, *Journal of Radioanalytical and Nuclear Chemistry* 290 (2) 2011 pages 289–295.
- [22] **J. G. Fantidis**, G. E. Nicolaou, “A transportable Fast Neutron and dual Gamma-ray system for the detection of illicit materials”, *Nuclear Instruments and Methods in Physics Research Accelerators, Spectrometers, Detectors and Associated Equipment A* 648 2011 pages 275–284.
- [23] **J. G. Fantidis**, C. Potolias, D.V. Bandekas, “Wind turbine blade non destructive testing with a transportable radiography system”, *Science and Technology of Nuclear Installations*. Volume 2011, Article ID 347320, pages 1–6.
- [24] **J. G. Fantidis**, C. Potolias, N. Vordos, D. V. Bandekas, “Optimization study of a transportable neutron radiography system based on a ^{252}Cf neutron source”, *Moldavian Journal of the Physical Sciences* 10 (1) 2011 pages 121–131.
- [25] **J. G. Fantidis**, G. E. Nicolaou, N. F. Tsagas, “A transportable neutron radiography system”, *Journal of Radioanalytical and Nuclear Chemistry* 284 2010 pages 479–484.
- [26] **J. G. Fantidis**, K. Potolias, D. V. Bandekas, “Non destructive testing of medium and high voltage cables with a transportable radiography system”, *Journal of Engineering Science And Technology Review* 3 (1), 2010, pages 89–94.

- [27] **J. G. Fantidis**, G. E. Nicolaou, N. F. Tsagas, “Optimization study of a transportable neutron radiography unit based on a compact neutron generator”, Nuclear Instruments and Methods in Physics Research Accelerators, Spectrometers, Detectors and Associated Equipment 618 (1–3) 2010 pages 331–335.
- [28] **J. G. Fantidis**, G. E. Nicolaou, N. F. Tsagas, “A transportable neutron radiography system based on a SbBe neutron source”, Nuclear Instruments and Methods in Physics Research Accelerators, Spectrometers, Detectors and Associated Equipment 606 (3) 2009 pages 806–810.
- [29] **J. G. Fantidis**, G. E. Nicolaou, N. F. Tsagas, “A Monte Carlo simulation of neutron activation analysis of bulk objects”, Radiation Measurements 44(3) 2009 pages 273–277.

CONFERENCES

- **J. G. Fantidis**, D. V. Bandekas, P. Kogias, N. Vordos, “The Evaluation on Dual, Triple and Quadruple Energy X-Ray Systems for the Material Characterisation of a Suspicious Bulky Object”, Recent Advances in Energy, Environment, Biology and Ecology, 10-12 January 2014, Tenerife, Spain.
- D.V. Bandekas, N. Vordos, **J. Fantidis**, “Adaptive Control Method Applied to a Hydro Generator in a Multimachine Power System”, Recent Advances in Energy, Environment, Biology and Ecology, 10-12 January 2014, Tenerife, Spain.
- **J. G. Fantidis**, D. V. Bandekas, N. Vordos, S. Karachalios, “Wind Energy Potential in Greece Using a Small Wind Turbine”, Recent Advances in Energy, Environment and Development, Cambridge, January 30 – February 1, 2013, USA.
- N. Vordos, D. V. Bandekas, J. W. Nolan, **J. G. Fantidis**, A. Ioannou, “Design and Simulation of Hybrid Power System with Wind Turbines, Photovoltaics and Fuel Cells”, Recent Advances in Energy, Environment and Development, Cambridge, January 30–February 1, 2013, USA.
- **J. G. Fantidis**, D. V. Bandekas, N. Vordos, “Techno-Economical Study of Hybrid Power System for a Remote Village in Greece”, 6th WSEAS International Conference on Renewable Energy Sources (RES '12), Porto 1–3 July 2012, Portugal.
- **J. G. Fantidis**, G. E. Nicolaou, N. F. Tsagas, “Localisation And Distribution Of Radioactivity In Soil: solid angle issue”, International Conference on Environmental Radioactivity, Vienna 22–27 April 2007, Austria.
- **J. G. Fantidis**, G. E. Nicolaou, F. N. Tsagas, “Identification of Unknown Nuclear Material”, 16th Symposium of the Hellenic Nuclear Physics Society - Athens 26–27 May 2006, Greece.

SEMINARS

- “Power Systems Dynamics, Operation and Control in Restructured Environment”, S. N. Singh, Indian Institute of Technology, India 9 – 13 May 2005.
- “Control of Converters for Wind Energy Systems”, Manfred Stiebler, Technical University of Berlin, Germany 16 – 20 May 2005.

MEMBERSHIPS

- Member of the Technical Chamber of Greece
- Member of Hellenic Physics Society
- Member of the Hellenic Association of Electrical & Computer Engineering