

Panagiotis A. Kontaxis

Applications Lecturer, University of West Attica

☎ (+30) 210-5381195

✉ pkont@uniwa.gr

Degrees	
2003-2004	National Technical University of Athens Inter – Departmental Postgraduate Course “ Energy Production and Management ”, Master Degree (Grade 8.53/10) <u>Master thesis</u> : “Suggestion for the designing of an intelligent academic building with minimal energy lighting consumption”, 2004 October, (Grade 10/10).
1999-2003	National Technical University of Athens School of Electrical & Computer Engineering, Diploma degree in electrical and computer engineering , (Grade 8.01/10). <u>Diploma thesis</u> : “Study of the multilayer structure of the soil”, 2002 October, (Grade 10/10).
1992-1996	TEI of Athens – Faculty of Technological Applications Energy Technology Department, Diploma degree in energy engineering , (Grade 8.00/10). <u>Diploma Thesis</u> : “Automated electrical drive system with slip power recovery”, 1996 November, (Grade 10/10).

Scholarships – Awards	
2019	Thomaidio award 2019 - (NTUA) for the journal: G. K. Adam, P. A. Kontaxis, L. T. Doulos, E.-N. D. Madias, C. A. Bouroussis, F. V. Topalis, "Embedded Microcontroller with a CCD Camera as a Digital Lighting Control System", Electronics, 2019, 8(1), 33, DOI: https://doi.org/10.3390/electronics8010033 .
2015	<u>Thomaidio award</u> 2015 - (NTUA) for the conference paper: G.K. Adam, P.A. Kontaxis, C.A. Bouroussis, D.E. Ventzas, F.V. Topalis: "Embedded computer communication and control of DALI LED drivers", 6th Balkan Conference on Lighting, Balkan Light 2015, Athens, Greece, September 16-19, 2015.
2013	<u>Thomaidio award</u> 2013 - (NTUA) for the conference paper: P.A. Kontaxis, E.-N.D. Madias, D. Zevgolis, F.V. Topalis: "Evaluation of image sensors for lighting control applications", 12th European Lighting Conference, LUX EUROPA 2013, Krakow, Poland, September 17-19, 2013.
1992-1995	Scholarships from the <u>State Scholarships Foundation</u> for three academic years: <u>1992-1993</u> , <u>1993-1994</u> , <u>1994-1995</u> . During my studies at the Energy technology department (TEI of Athens).

Professional experience

Lighting studies - measurements

6, 8-9/2017	<u>NTUA (62/3255)</u> Project: Special lighting projects and measurements
	<u>NTUA (65/8036)</u> Project: Study for the photometric demands for traffic lights with LEDs

Evaluations

8/2010	<u>Energy constructions</u> Project: Energy saving in Municipalities Founded: Center for Renewable Energy Sources and Saving
10/2010	<u>Energy projects</u> Project: Green Infrastructures 2010 Founded: General Secretariat for Research and Technology
1 & 2/2010	<u>Investments</u> Technical and economical evaluation Evaluation of 42 projects under national strategic reference framework (ESPA) 2007-2013, OPERATIONAL PROGRAMME «ENTREPRENEURSHIP AND COMPETITIVENESS» 2007-

2013, Programmes «Enhancing Assistance of Women's Entrepreneurship» and «Enhancing Assistance for Entrepreneurship of the Young».

Founded: Hellenic organization of small and medium enterprises and handicraft

Preparation of Investment Projects

10-12/2009	Technical and finance studies. Project: 1 st action for the small companies related with tourism trades and services, Regional Operational Programs (PEP) of (ESPA) 2007-2013 Founded: Morient Ltd
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Management, Supervision and Certification of technical projects

3-5/2006 & 9/2006-10/2009	Project PEP: INTERREG III, Trade & Services, URBAN II, Information society, Integrated Urban Development Projects, Processing-Tourism. Project 2.5.2: Enhancing companies Installing Environmental Management System ISO 14001. Project 2.9.2: Enhancing environmental projects (EMAS and ECOLABEL). -Technical and finance evaluation of specification, energy installations and equipment. (65 projects) -Management and supervision (more than 500 projects) -Certification (115 projects) Founded: Hellenic Development Company
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Energy audits

3-5/2006	Energy audits: Picar S.A. 'Army Share Fund Building', Piraeus Bank- ETBA building, Hotel Hilton Athens. Founded: NTUA/ University Research Institute of Communication and Computer Systems
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Design and Drafting Standards

9-11/2006	- Study and writing of equipment specifications to conduct photometric tests. - Study and writing of equipment specifications to conduct energy audits. Founded: NTUA/ University Research Institute of Communication and Computer Systems
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Installation and measurements in lighting systems

5-6/2006	Installation and operation of traffic lights Founded: NTUA/ University Research Institute of Communication and Computer Systems
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Energy projects

1-5/2006	Advices on energy issues and application studies in energy saving systems. Founded: Exelixi SA.
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Lighting projects

2/2005-2/2006	Interior and exterior lighting, using simulation programs and emphasizing in energy saving, stores, office buildings, churches, Industrial buildings, commercial buildings, hotels etc. Projects: GOODY'S, Mother care, Hotel Porto Caras, Alliberti factory, Germanos stores, National bank of Greece, Mercedes Ismailos, BMW Vagianellis, Ever Green etc. Founded: <u>Gallis S.A., Department of Professional Lighting</u>
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Quality control, electrical testing and EMC testing of electrical and electronic equipment

2002-2003	<u>NTUA (62/1395)</u> Project: Quality control and electromagnetic compatibility of electrical and electronic equipment.
2000-2001	<u>NTUA (62/1192)</u> Project: Quality control and electromagnetic compatibility of electrical and electronic equipment.
1998-1999	<u>NTUA (62/817)</u> Project: Quality control, electrical testing and EMC testing of electronic equipment.

Teaching experience	
Applications Lecturer, Department of Electrical and Electronics Engineering, University of West Attica	
3/2018-now	<p><u>Teaching Lessons</u> Lighting Technology (Laboratory) Building Electrical Installations (Laboratory) up to 2020 Power Electronics I (Laboratory) from 2021</p> <p>Applications Professor, Department of Energy Technology Engineering, TEI of Athens</p>
2010-2017	<p><u>Teaching Lessons</u> <i>Theoretical lessons:</i> Energy systems studies, Electric drives, Electric machines part II. <i>Laboratory lessons:</i> Energy systems studies, Electrical installations, Power systems part I, Power systems part II, Electric machines part I, Electric machines part II, Power electronics, Electric drives.</p> <p><u>Laboratory Director</u> <i>Electric Machines and Drives Laboratory</i></p> <p><u>Project director</u> Project 'Energy auditors training' (2014-16)</p> <p><u>Laboratory guides</u> -S. Koukoulas, P. Kontaxis, "Power systems part I", 2016, pp.66. -S. Koukoulas, P. Kontaxis, "Power systems part II", 2016, pp.85. -A. Sakarellos, P. Kontaxis, "Electric machines part I", 2011, pp.58. -A. Sakarellos, P. Kontaxis, "Electric machines part II", 2012, pp.53. -A. Sakarellos, P. Kontaxis, "Power electronic", 2011, pp.48. -A. Sakarellos, P. Kontaxis, "Electric drives", 2012, pp.78.</p> <p>Laboratory Associate, Department of Energy Technology Engineering, TEI of Athens</p>
2001-2009	<p><u>Teaching Lessons</u> <i>Laboratory lessons:</i> Energy systems studies, Electrical installations, Power systems part I, Power systems part II, Electric machines part I, Electric machines part II, Power electronics, Electric drives, Ships electrical installation (Department of naval engineering), Circuit analysis.</p>
Research projects	
2019-2021	<p><u>FLEXITRANSTORE N.T.U.A.</u> Project: An integrated platform for increased flexibility in smart transmission grids with storage entities and large penetration of renewable energy sources.</p>
2012-2015	<p><u>THALES N.T.U.A.</u> Project: Development of a novel intelligent lighting control system with imaging sensor for optimum daylight exploitation and energy saving.</p>
2012-2015	<p><u>ARCHIMEDES III - T.E.I. of Piraeus,</u> Project: An Electric Network Power Quality evaluation model using Fuzzy Sets and Field Measurements.</p>
2011	<p><u>Innovation coupons for lower middle companies</u> Company: Anastasiadis Anestis & CO GP, Innovation entity: National Technical University of Athens, Coupon number: 54369716-01-000262. Project: 'Design of a luminarie and electronic controller for a standalone street luminarie with photovoltaic'.</p>
2009	<p><u>SEEDT – Intelligent Energy Europe (matching funds)</u> Project: Strategies for development and diffusion of energy efficient distribution transformers</p>

- 2006 ARCHIMEDES II - T.E.I. of Athens
Project: "Development of new methodologies of grounding systems measurement and simulation using new technologies"
- 2006 PYTHAGORAS – N.T.U.A.
Project: Development of a system of automatic adjustment of artificial lighting for the optimized exploitation of daylight

Publications

International Journals (11)

1. George K. Adam, Nikos Petrellis, Panagiotis A. Kontaxis, Tilemachos Stylianos, **"COTS-Based Real-Time System Development: An Effective Application in Pump Motor Control"**, Computers 2020, 9(4), 97, (<https://doi.org/10.3390/computers9040097>)
2. Panagiota M. Deligianni, George J. Tsekouras, Costas D. Tsirekis, Vassiliki T. Kontargyri, Fotis D. Kanellos, Panagiotis A. Kontaxis, **"Techno-Economic Optimization Analysis of an Autonomous Photovoltaic Power System for a Shoreline Electrode Station of HVDC Link: Case Study of an Electrode Station on the Small Island of Stachtoroi for the Attica–Crete Interconnection"**, Energies 2020, 13(21), 5550, (<https://doi.org/10.3390/en13215550>)
3. Lambros T. Doulos, Aris Tsangrassoulis, Evangelos-Nikolaos Madias, Spyros Niavis, Antonios Kontadakis, Panagiotis A. Kontaxis, Vassiliki T. Kontargyri, Katerina Skalkou, Frangiskos Topalis, Evangelos Manolis, Maro Sinou, Stelios Zerefos, **"Examining the Impact of Daylighting and the Corresponding Lighting Controls to the Users of Office Buildings"**, Energies 2020, 13(15), 4024, (<https://doi.org/10.3390/en13154024>)
4. E.-N.D. Madias, L.T. Doulos, P.A. Kontaxis, F.V. Topalis, **"Multicriteria decision aid analysis for the optimum performance of an ambient light sensor: Methodology and case study"**, Operational Research 2020 (<https://doi.org/10.1007/s12351-020-00575-5>)
5. Lambros Doulos, Ioannis Sioutis, Panagiotis Kontaxis, Georges Zissis, Kostantinos Faidas, **"A decision support system for street lighting based on energy performance indicators and environmental criteria: Overview, methodology and case study"**, Sustainable cities and Society, vol., pp., 2019
6. E.-N.D. Madias, L.T. Doulos, P.A. Kontaxis, F.V. Topalis, **"A decision support system for techno-economic evaluation of indoor lighting systems with LED luminaires"**, Operational Research 2019 (<https://doi.org/10.1007/s12351-019-00485-10>)
7. G.K. Adam, P.A. Kontaxis, L.T. Doulos, E.-N.D. Madias, C.A. Bouroussis and F.V. Topalis, **"Embedded Microcontroller with a CCD Camera as a Digital Lighting Control System"** Electronics 2019, 8(1), 33. (<https://doi.org/10.3390/electronics8010033>)
8. L.T. Doulos, A. Tsangrassoulis, P.A. Kontaxis, A. Kontadakis, F.V. Topalis, **"Harvesting daylight with LED or T5 fluorescent lamps? The role of dimming"**, Energy and Buildings, vol.125, pp.336-347, 2017. (<https://doi.org/10.1016/j.enbuild.2017.02.013>)
9. E.-N.D. Madias, P.A. Kontaxis, F.V. Topalis, **"Application of multi-objective genetic algorithms to interior lighting optimization"**, Energy and Buildings, vol.125, pp.66-74, 2016. (<https://doi.org/10.1016/j.enbuild.2016.04.078>)
10. G.A. Vokas, P.A. Langouranis, P.A. Kontaxis, F.V. Topalis, **"Analysis of power quality field measurements and considerations on the power quality standard"**, Journal of Technology and Sciences, Vol.1, No.1, 2015.
11. C.A. Bourousis, N-E.D. Madias, P.A. Kontaxis, F.V. Topalis: **"Benchmark report on the photometric and electrical performance of LED replacements of GU10 halogen spot lamps"**, Ingineria Iluminatului 2012; 14, 2: 7-16.

National Technical Journals (5)

1. P.A. Kontaxis, E.-N.D. Madias, F.V. Topalis, **"Novel artificial lighting control systems"**, Electrician and Lighting, issue 310, pp.34-39, December 2018.
2. L. Doulos, P. Kontaxis, K. Laskos, F. Topalis, A. Tsangrassoulis, **"Importance and psycho-physiological effects of lighting"**, Electrician and Lighting, issue 336, pp.39-41, April 2021.
3. L. Doulos, P. Kontaxis, K. Laskos, F. Topalis, A. Tsangrassoulis, **"Buildings Lighting"**, Construction sites Issues, issue 237, pp. 20-23, Julu-August 2021.
4. P. Kontaxis, **"Street solar luminaires"**, Electrician and Lighting, issue 339, pp..41-43, July-August 2021.
5. L. Doulos, P. Kontaxis, K. Laskos, F. Topalis, A. Tsangrassoulis, **"The main points of the new TEE directive for natural and artificial lighting"**, BUILDING, issue 8, pp. 38-40, September 2021.

International Conferences (21)

1. P.A. Kontaxis, E.-N.D. Madias, P.F. Topali, L.T. Doulos, C.A. Bouroussis, F.V. Topalis, **"Optimization analysis for the determination of photosensor position for energy saving and visual comfort"**, 10th International Conference on ENERGY & ENVIRONMENT (EE '15), Budapest, Hungary, December 12-14, 2015.
2. E.-N.D. Madias, L.T. Doulos, P.A. Kontaxis, F.V. Topalis, **"Intelligent lighting control system with photosensor on the task area, dimming the luminaires via LAN"**, 10th International Conference on ENERGY & ENVIRONMENT (EE '15), Budapest, Hungary, December 12-14, 2015.
3. P.A. Kontaxis, P.A. Langouranis, G.A. Vokas, F.V. Topalis, **"Power quality field measurements in Greece: Measurement Review and Analysis"**, International Scientific Conference, eRA – 10, Piraeus, Greece, 23- 25 September 2015.
4. G.K. Adam, P.A. Kontaxis, C.A. Bouroussis, D.E. Ventzas, F.V. Topalis: **"Embedded computer communication and control of DALI LED drivers"**, 6th Balkan Conference on Lighting, Balkan Light 2015, Athens, Greece, September 16-19, 2015.
5. P.F. Topali, P.A. Kontaxis, L.T. Doulos, E.-N.D. Madias, F.V. Topalis: **"Energy saving and visual comfort by optimizing photosensor position"**, 6th Balkan Conference on Lighting, Balkan Light 2015, Athens, Greece, September 16-19, 2015.
6. C.A. Bouroussis, P.A. Kontaxis, F.V. Topalis: **"Interior lighting control by daylight harvesting using a smart imaging sensor"**, 6th Balkan Conference on Lighting, Balkan Light 2015, Athens, Greece, September 16-19, 2015.
7. L.T. Doulos, P.A. Kontaxis, E.-N.D. Madias, C.A. Bouroussis, A. Tsangrassoulis, F.V. Topalis: **"The role of dimmable LED luminaires to daylight harvesting"**, 6th Balkan Conference on Lighting, Balkan Light 2015, Athens, Greece, September 16-19, 2015.
8. A. Skouroliakou, P. Kontaxis, S. Anagnostakis, S. Triantopoulos, S. Tsantis: **"Measurement Of Extra Low Frequency Elf Electromagnetic Fields In Indoor Working Areas"**, Physica Medica 30, e89, 2014.
9. P.A. Kontaxis, S.D. Kaminaris, E.-N.D. Madias and F.V. Topalis: **"Evaluation of Image Sensors for Lighting Control Applications Using Fuzzy Logic"**, 9th Mediterranean Conference on Power Generation, Transmission, Distribution and Energy Conversion, MEDPOWER 2014, Athens, Greece, November 3-7, 2014.
10. S.D. Kaminaris, P.A. Kontaxis, E.-N.D. Madias and F.V. Topalis: **"Optimizing energy efficient lighting using fuzzy logic methodology"**, 9th Mediterranean Conference on Power Generation, Transmission, Distribution and Energy Conversion, MEDPOWER 2014, Athens, Greece, November 3-7, 2014.
11. P.A. Kontaxis, E.-N.D. Madias, D. Zevgolis, F.V. Topalis: **"Evaluation of image sensors for lighting control applications"**, 12th European Lighting Conference, LUX EUROPA 2013, Krakow, Poland, September 17-19, 2013.
12. E.-N.D. Madias, P.A. Kontaxis, L.T. Doulos, F.V. Topalis: **"Optimizing energy efficient lighting using multi-criteria analysis"**, 12th European Lighting Conference, LUX EUROPA 2013, Krakow, Poland, September 17-19, 2013.
13. P.A. Kontaxis, C.A. Bouroussis, L.T. Doulos, F.V. Topalis: **"Applications of CCD sensors in photometry and in daylight responsive systems"**, 5th Balkan Conference on Lighting, Balkan Light 2012, Belgrade, Serbia, October 3-6, 2012.
14. C.A. Bouroussis, P.A. Kontaxis, E.-N.D. Madias, F.V. Topalis: **"Photometric and electrical performance of LED lamps for replacement of GU10 halogen spot lamps"**, 5th Balkan Conference on Lighting, Balkan Light 2012, Belgrade, Serbia, October 3-6, 2012.

15. E-N.D. Madias, L.T. Doulos, P.A. Kontaxis, F.V. Topalis: "**Applying multi-criteria decision analysis for selecting street lighting luminaires**", 5th Balkan Conference on Lighting, Balkan Light 2012, Belgrade, Serbia, October 3-6, 2012.
16. G. Vokas, S. Kaminaris, P. Kontaxis, G. Ioannidis, M. Rangousi, S. Papathanasiou, P. Malatestas and F. Topalis: "**Electric Network Power Quality assessment using Fuzzy Expert System Methodology**", 8th Mediterranean Conference on Power Generation, Transmission, Distribution and Energy Conversion, MEDPOWER 2012, Cagliari, Italy, October 1-3, 2012.
17. G.J. Tsekouras, F.D. Kanellos, Ch.N. Elias, V.T. Kontargyri, C.D. Tsirekis, I.S. Karanasiou, A.D. Salis, P.A. Kontaxis, A.A. Gialketsi, N.E. Mastorakis: "**Short term load forecasting in Greek interconnected power system using ANN: A study for output variables**", 15th WSEAS International Conference on Systems (CSCC '11), Corfu, Greece, July 14-16, 2011.
18. G.J. Tsekouras, N.E. Mastorakis, F.D. Kanellos, V.T. Kontargyri, C.D. Tsirekis, I.S. Karanasiou, Ch.N. Elias, A.D. Salis, P.A. Kontaxis, A.A. Gialketsi: "**Short Term Load Forecasting in Greek Power System using ANNs: Confidence Interval Estimation using a Novel Re-sampling Technique with Corrective Factor**", 9th WSEAS International Conference on Circuits, Systems, Electronics, Control & Signal Processing, (CSECS '10), Vouliagmeni, Athens, Greece, December 29-31, 2010.
19. G.J. Tsekouras, F.D. Kanellos, V.T. Kontargyri, C.D. Tsirekis, I.S. Karanasiou, Ch.N. Elias, A.D. Salis, P.A. Kontaxis, N.E. Mastorakis: "**Short Term Load Forecasting in Greek Intercontinental Power System using ANNs: a Study for Input Variables**", 10th WSEAS International Conference on Neural Networks, (NN '09), Prague, Czech Republic, March 23-25, 2009.
20. V.T. Kontargyri, G.J. Tsekouras, A.A. Gialketsi, P.A. Kontaxis, "**Comparison between artificial neural networks algorithms for the estimation of the flashover voltage on insulators**", 9th WSEAS International Conference on NEURAL NETWORKS (NN'08), Sofia, Bulgaria, May 2-4, 2008.
21. I.F. Gonos, V.T. Kontargyri, I.A. Stathopoulos, P.A. Kontaxis, A.X. Moronis, "**Variation of multilayer structure of the soil during the year**", Greek National Committee CIGRE, Athens, December 15-16, 2005.