

**PERSONAL INFORMATION****Aphrodite Ktena**

📍 National & Kapodistrian University of Athens, Euripus Campus, Evia 34400 Greece

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Sex Female | Date of Birth 12/02/1967 | Nationality Greek

**POSITION**

Professor

National & Kapodistrian University of Athens, Greece

**WORK EXPERIENCE**

- 30/01/2019 – today **Professor**  
**National & Kapodistrian University of Athens, Greece**  
General Department, Laboratory of Energy Systems
- 26/04/2017-29/01/2019 **Professor**  
**TEI of STerea Ellada, Greece**  
Laboratory of Electrical Installations, Department of Electrical Engineering, School of Engineering Applications
- 01/10/2017-30/09/2018 **Visiting Professor**  
**National Technical University of Athens, Greece**  
Electronic Sensors Laboratory, School of Electrical and Computer Engineering  
Research on modeling of magnetic nondestructive testing methods  
  
MSc Programme – Microsystems and nanodevices  
Introduction to Magnetism and Magnetic Materials
- 06/06/2013-25/04/2017 **Associate Professor**  
**TEI of STerea Ellada, Greece**  
Laboratory of Electrical Installations, Department of Electrical Engineering, School of Engineering Applications
- 22/02/2013-05/06/2013 **Associate Professor**  
**TEI of Chalkida, Greece**  
Laboratory of Electrical Installations, Department of Electrical Engineering, School of Engineering Applications
- 31/12/2008-21/02/2013 **Assistant Professor (tenured)**  
**TEI of Chalkida, Greece**  
Laboratory of Electrical Installations, Department of Electrical Engineering, School of Engineering Applications
- 30/09/2004-30/12/2008 **Assistant Professor**  
**TEI of Chalkida, Greece**  
Laboratory of Electrical Installations, Department of Electrical Engineering, School of Engineering Applications
- 01/03/2002-31/08/2004 **Lecturer**  
**University of Thessaly, Greece**  
Department of Mechanical Engineering, School of Engineering
- 01/01/2003-31/03/2004 **Researcher**  
**Athens University of Economics and Business, Greece**  
  
Software development

- 01/12/2001-31/10/2003 **Researcher**  
**National Technical University of Athens**, Greece  
 Institute of Communication and Computer Systems. School of Electrical and Computer Engineering  
 Modeling of systems with hysteresis
- 16/04/1996-31/10/2001 **Postdoctoral Researcher**  
**University of Ioannina**, Greece  
 Department of Computer Science  
 Software development, modeling and simulations of systems with hysteresis and elastic/viscoelastic systems
- 01/06/1995-31/07/1995 **Postdoctoral Researcher**  
**Université Paris-Sud**, France  
 Laboratoire de Physique des Solides, Training and Mobility of Researchers (TMR),  
 Modeling of thermomagnetic writing
- 01/10/1999-05/07/2002 **Instructor**  
**TEI of Chalkida**, Greece  
 Department of Electrical Engineering, School of Engineering Applications

## OTHER POSITIONS HELD

- 01/11/2005 – today **Director of Laboratory of Electrical Installations**  
 Department of Electrical Engineering, School of Engineering Applications, **TEI of Sterea Ellada** (ex-TEI of Chalkida), Greece
- 04/04/2014 – 31/08/2016 **Head of Department of Electrical Engineering**  
 School of Engineering Applications, **TEI of Sterea Ellada**, Greece
- 01/04/2005 – 29/01/2019 **ERASMUS Institutional Coordinator**  
 TEI of Sterea Ellada (01/08/2013 – 29/01/2019)  
 TEI of Chalkida (01/04/2005 – 04/06/2013)  
 Management and coordination of ERASMUS actions:
  - ❑ 01/10/2016 – today: ERASMUS+ International Credit Mobility (KA107), Budget ~110,000€
  - ❑ 01/10/2014 – today: ERASMUS+ for Higher Education (KA103), Budget ~90,000 / year
  - ❑ 01/10/2007 – 30/09/2014: Life Long Learning – ERASMUS, Budget ~ 70,000 / year
  - ❑ 01/10/2004 – 30/09/2007: Socrates II / ERASMUS, Budget ~55,000 / year

## EDUCATION & TRAINING

- 01/01/1990 – 01/09/1993 **M. Sc. / Ph. D.**  
 Department of Electrical and Computer Engineering, Carnegie- Mellon University, USA  
 Ph.D. Dissertation: **Vector Preisach Modeling and Magnetic Recording Applications**  
 Advisor: **Professor Stanley Charap**
- 20/08/1986 – 31/12/89 **B.Sc.**  
 Department of Electrical Engineering, University of Bridgeport, USA  
 GPA: 3.87/4.00 (**summa cum laude**)
- 01/10/1984 – 31/07/1986  
 Department of Physics, School of Science, National & Kapodistrian University of Athens, Greece  
 (transferred to University of Bridgeport, USA)

## PERSONAL SKILLS

Mother tongue	Greek				
Other languages	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C2	C2	C2	C2	C2
	Graduate of American College of Greece (Pierce College), University of Bridgeport – USA, Carnegie Mellon University – USA				
French	C1	C1	C1	C1	C1
	Diplôme d' Etudes Supérieures , Sorbonne II (Option Etudes Politiques), Institut Francais d' Athènes				

## RESEARCH

### Research interests

- Modeling and characterization of magnetic materials, hysteresis modeling
- Sensors, measurement technology and systems, metrology
- Magnetic Non-Destructive Testing
- Renewable Energy Sources Microgrids
- Smart Grid Technologies

### Research programmes

#### Project Coordinator

**PELMOB – Partnership for Promotion and Popularization of Electrical Mobility through Transformation and Modernization of WB HEIs Study Programs (Partner)**

Duration: 2022 – 2025

Budget: 39,006.00

**KALCEA – Knowledge Triangle for a Low Carbon Economy (Consortium Coordinator)**

Duration: 2020 -2023

Budget: 871,050.00 €

**ENGINE - Engineering curricula modernization in renewable energy in Albanian Universities (Partner)**

Duration: 2020 -2023

Budget: 53,429.00 €

**ELEMEND – Electrical Energy Markets and Engineering Education (Consortium Coordinator)**

Duration: 2017 – 2020

Budget: 930,543 €

**SMARTEGE – Gamification for Educational Processes**

Duration: 2013-2015

Budget: 98,000€

**ARCHIMEDES II – Magnetostrictive torque sensor**

Duration: 2005-2008

Budget: 50,000€

#### Researcher

2012 – 2015 ARCHIMEDES III – Modeling & optimization of magnetostrictive torque sensor

2005 – 2008 ARCHIMEDES II – Reliable & adjustable system of automated storage, GSRT

## ADDITIONAL INFORMATION

#### Reviewer

Applied Physics A, Applied Science, Buildings, Computational Materials Science, Energies, IEEE Transactions on Magnetics, Journal of Alloys and Compounds, Journal of Colloid and Interface Science, Journal of Engineering, Journal of Magnetics, Journal of Physics D: Applied Physics, Journal of Physics and Chemistry of Solids, Journal of Modern Education

Review, Materials, Materials & design, Measurement, Measurement Science & Technology, Metals, Micromachines, Meteorologische Zeitschrift, Physica B, Sensors and Actuators A, Journal of Physics: Condensed Matter, Smart Materials & Structures, Sustainability

#### Editorial Boards

- ❑ IEEE TRANSACTIONS ON MAGNETICS, since 2018
- ❑ MDPI MAGNETISM, since 2020
- ❑ MDPI METALS, since 2020
- ❑ Electrical Engineering & Electromechanics, since 2021
- ❑ B & H Electrical Engineering, since 2022

#### Editor in Chief

#### Guest Editor & Special Issues

- ❑ IEEE TRANSACTIONS ON MAGNETICS, VOL. 49, NO. 1, JANUARY 2013, Selected papers of the European Magnetic Sensors and Actuators Conference, EMSA2012 (Prague 2012)
- ❑ IEEE TRANSACTIONS ON MAGNETICS, VOL. 51, NO. 1, JANUARY 2015, Selected papers of the European Magnetic Sensors and Actuators Conference, EMSA2014 (Vienna 2014)
- ❑ IEEE TRANSACTIONS ON MAGNETICS, JANUARY 2019, Selected papers of the European Magnetic Sensors and Actuators Conference, EMSA2018 (Athens 2018)
- ❑ Materials, Modeling and Characterization of Magnetic Materials, February 2021
- ❑ Sensors, Recent Advances in Magnetic Sensors, July 2021
- ❑ Education Sciences, Engineering Education in Knowledge Based Society, May 2022
- ❑ Magnetism, Magnetism and Magnetic Properties of Amorphous Alloys, July 2023

#### Associate Editor

- ❑ IEEE TRANSACTIONS ON MAGNETICS, VOL. 48, NO. 4, APRIL 2012, Selected papers of the Soft Magnetic Materials Conference, SMM20 (Kos 2011)
- ❑ IEEE TRANSACTIONS ON MAGNETICS, VOL. 50, NO. 4, APRIL 2014, Selected papers of the Soft Magnetic Materials Conference, SMM21 (Budapest 2013)
- ❑ IEEE TRANSACTIONS ON MAGNETICS, VOL. 52, NO. 5, MAY 2016, Selected papers of the Soft Magnetic Materials Conference, SMM22 (Sao Paulo 2015)
- ❑ IEEE TRANSACTIONS ON MAGNETICS, VOL.53, NO.4, Selected papers of the European Magnetic Sensors and Actuators Conference, EMSA2016 (Torino 2016)
- ❑ IEEE TRANSACTIONS ON MAGNETICS, Selected papers of the European Magnetic Sensors and Actuators Conference, EMSA2022 (Madrid 2022)

#### Other activities

- ❑ **Joint MMM-Intermag 2019** (Washington DC), Programme Committee member
- ❑ European Magnetic Sensors and Actuators Conference, **EMSA2022** (Madrid), Editorial Board; **EMSA2018** (Athens), Scientific and Organization Committee member; **EMSA2016** (Torino), Scientific Committee member; **EMSA2014** (Vienna), Scientific Committee member
- ❑ **7<sup>th</sup> Metrology Conference**, Athens 2018, Scientific and Organization Committee member
- ❑ Soft Magnetic Materials, **SMM22** (Sao Paulo 2015), Publishing Committee member; **SMM20** (Kos 2011), Organization Committee member
- ❑ International Conference on Education and New Developments **END2023** (Lisbon) **END2021** (Madeira), **END2019** (Porto), **END2018** (Budapest); Scientific Committee member
- ❑ **MECO ELEMEND** Workshop, Budva 2018, Chair
- ❑ Symposium on Hysteresis and Micromagnetic Modeling, **HMM07**, Napoli 2007, Session chair
- ❑ International Workshop on Systems and Signal Processing, **IWSSIP09**, Chalkida 2009, Organization Committee member and session chair
- ❑ International Conference on Materials and Applications for Sensors and Transducers, **ICMAST2011**, Kos 2012, Organization Committee member and session chair
- ❑ Mediterranean Excellence in Computing and Ontology – **MECOnet**, Scientific Committee member, since 2018

#### Invited talks

- ❑ Stanley H. Charap and Aphrodite Ktena, **Vector Preisach Modeling**, 38th Annual Conference on Magnetism and Magnetic Materials, Minneapolis (1993)
- ❑ A. Ktena, D. I. Fotiadis, C. V. Massalas, **Modeling hysteresis curves of magnetic and magnetostrictive materials**, Proceedings of the 28th International Summer School on

- Application of Mathematics in Engineering and Economics, Sozopol, Bulgaria (2002)
- Hristoforou E, Ktena A., **Magnetostriction and magnetostrictive materials for sensing applications**, San Sebastian (2007)
- A. Ktena, **Residual stresses and vector hysteresis modeling**, HMM2015, Iasi (2015)
- Aphrodite Ktena, Xenia Vourna, Evangelos Hristoforou, **New problems in magnetic material modeling, 5th KMM-VIN Industrial Workshop, Multi-scale and multi-physics materials modeling for advanced industries**, Madrid (2016)
- E. Hristoforou, P. Vourna, A. Ktena and P. Svec, **STRESS MONITORING & ANNIHILATION IN STEELS BASED ON MAGNETIC TECHNIQUES**, CSMAG'16 16th Czech and Slovak Conference on Magnetism, Košice, Slovakia, June 13th-17th (2016)
- P. Vourna, A. Ktena, E. Hristoforou, **Determination of the residual stress tensor distribution in steels using magnetic properties**, International Conference on Metallurgy and Materials 2016, Sofia (2016)
- Evangelos Hristoforou, Aphrodite Ktena, Shengkai Gong, **Magnetic Sensors: Taxonomy, Applications and New Trends**, MMM-Intermag, Washington DC (2019)
- Aphrodite Ktena, **Magnetic Permeability as a Metric for NDT**, VIII Conference on Diagnostics of Materials and Industrial Components, DMIUT 2019, Gdansk, Poland, 2019
- Aphrodite Ktena, **Magnetic Permeability vs Barkhausen Noise Measurements for Magnetic NDT Applications**, Advances in Magnetism, AIM2020, Moena, Italy, June 2021

#### Other talks

- Aphrodite Ktena, Christos Manassis, **An overview of sensors, hysteresis modeling and MATLAB applications**, Artesis Plantijn Hogeschool, Antwerpen (2005)
- Aphrodite Ktena, **Preisach Formalism & Applications in magnetic materials**, Department of materials science and technology, University of Crete (2011)
- A.Ktena, E. Hristoforou, **Physics and Modeling of Magnetic Non Destructive Testing Techniques**, Universal Network of Magnetic Non-Destructive Testing, Kos (2011)
- Aphrodite Ktena, **Student Centered Learning - implementation at various levels and different contexts**, Workshop on Student-Centered Learning in Higher Education Institutions, Chisinau, Moldova (2013)
- Vassilios Katsifas, Aphrodite Ktena, Christos Manasis, **TIDAL ENERGY THE EVRIPOS' STRAIT CASE**, University of Cranfield, UK (2013)
- Aphrodite Ktena, Evangelos Hristoforou, Xenia Vourna, **Magnetic Non-Destructive Testing Techniques**, University of Cranfield, UK (2013)
- Aphrodite Ktena, **How smart can a building be (ICT in ZEB)**, Workshop in Energy management for buildings in the Region of Continental Greece, Chalkida (2014)
- Aphrodite Ktena, **Gamifying the learning process**, University of Novi Sad, April 2018
- Aphrodite Ktena, **THE TRANSFORMATION OF THE POWER GRID: SUPPLY AND DEMAND IN ENERGY TRANSITION TIMES**, Round Table BHAS2021, Mostar 2021.
- Aphrodite Ktena, Spyros Angelopoulos, Evangelos Hristoforou, **Microstructure and Magnetization Processes in Steels: Physics and Phenomenology**, MDPI Webinar, June 2022.

#### Courses Taught

##### Undergraduate courses

- Magnetism and Magnetic Materials (National Technical University of Athens)
- Measurement Technology
- Electrical Measurements
- Measurement systems
- Electrical Installations
- Electrical circuits
- Design of electrical & electronic circuits
- Mechatronics (University of Thessaly)
- Electronics (University of Thessaly)

##### Graduate courses

- System optimization
- Modelling and simulation
- Standards and Electricity markets
- Introduction to Magnetism and Magnetic Materials (National Technical University of Athens)

#### Memberships

- Technical Chamber of Greece (T.E.E.), since 2005, M71629
- IEEE, M92104696
- CIGRE, since 2014

**MONOGRAPHS**

1. Aphrodite **Ktena**, Vector Preisach Modeling and Magnetic Recording Applications, Ph.D. Dissertation, Department of Electrical and Computer Engineering, Carnegie- Mellon University, USA

**CHAPTERS in BOOKS**

1. Aphrodite **Ktena**, Evangelos Hristoforou, Magnetic Effects in Sensing Applications, Encyclopedia of Sensors, ed. C.A.. Grimes et. al., Vol. 10, pp. 1-70 (2006)
2. Aphrodite **Ktena**, Gamification and technological literacy - Educating electricity users, Chapter 12, Education Applications & Developments II, Mafalda Carmo, Ed., In Science Press, pp 123-134 (2016).
3. Hristoforou, Evangelos, Aphrodite **Ktena**, and Spyridon Angelopoulos. "Magnetostrictive Materials for Sensing Applications." 355-365. Elsevier. (2022).

**PUBLICATIONS (ISI JOURNALS)**

1. Stanley H. Charap and Aphrodite **Ktena**, Vector Preisach Modeling, Journal of Applied Physics, 73(10), 5818-5823 (1993)
2. Aphrodite **Ktena** and Stanley H. Charap, Vector Preisach Modeling and Recording Applications, IEEE Transactions in Magnetism, 29(6), 3661-3663 (1993)
3. A. Charalambopoulos, A. **Ktena**, D. I. Fotiadis, C. V. Massalas, The effect of Viscoelastic Brain on the Dynamic Characteristics of the Human Head - Neck System, Acta Mechanica, 130, 159-173 (1998)
4. A. **Ktena**, D. I. Fotiadis, C. V. Massalas, A new 2-D model for inhomogeneous permanent magnets, IEEE Transactions of Magnetism, 36 (6), 3926-3931 (2000)
5. A. **Ktena**, D. I. Fotiadis, C. V. Massalas, A 2-D model for inhomogeneous permanent magnets, Journal of Applied Physics, 87 (9), 4780-4782 (2002)
6. A. **Ktena**, D. I. Fotiadis, P. D. Spanos, C. V. Massalas, A Preisach model identification procedure and simulation of hysteresis in ferromagnets and shape memory alloys, Physica B, 306 (1-4), 25015-25021 (2002)
7. A. **Ktena**, D. I. Fotiadis, P. D. Spanos, A. Berger and C. V. Massalas, Identification of 1D and 2D Preisach models for ferromagnets and shape memory alloys, International Journal of Engineering Science, 40 (20), 2235-2247 (2002)
8. H. Hauser, E. Hristoforou and A. **Ktena**, Modeling of magnetostriction in delay lines, Journal of Applied Physics, 93 (10), 8633-8635 (2003)
9. A. **Ktena**, D.I. Fotiadis, and C.V. Massalas, Hysteresis modeling in materials and systems, Advanced Composites Letters, 13 (1), 85-91 (2004)
10. A. **Ktena**, D.I.Fotiadis, A. Berger and C.V.Massalas, Hysteresis modeling of Gd-films and AFC- thin film recording media, Physica B, 343, 101-106 (2004)
11. A. **Ktena**, D.I.Fotiadis, A. Berger and C.V.Massalas, Preisach modeling of AFC magnetic recording media, IEEE Transactions in Magnetism, 40 (4), 2128-2130 (2004)
12. Ioanna Giouroudi, Aphrodite **Ktena**, Evangelos Hristoforou, Microstructural Characterization of Cylindrical Fe<sub>1-x</sub>Ni<sub>x</sub> Thin Films, Journal of Optoelectronics & Advanced Materials, 6 (2), 593-598 (2004)
13. Christos Petridis, Paraskevas Tsaklidis, Afroditi **Ktena**, Evangelos Hristoforou, Negative magnetostrictive delay lines used in sensing applications, Journal of Optoelectronics & Advanced Materials, 6 (2), 661-666 (2004)
14. A. Berger, D. Margulies, H. Do, A. **Ktena**, and K. Dahmen, Lateral Correlation Length of Magnetization Reversal in Soft Magnetic Films, Journal of Applied Physics 97, 10K109-1:3 (2005)
15. D. M. Kepaptsoglou, A. **Ktena**, E. Hristoforou, Magnetic Sensor Uncertainty Dependence on Hysteresis Effects, Sensors and Actuators A 119, 133-137 (2005)
16. A. Berger and A. **Ktena**, Hysteresis Gain-to-Loss-Ratio Measurements, Physica B 372, 147-151 (2006)
17. Kontos N, **Ktena** A, Sofianopoulou T, et. al., Inductive response of ferrites based on resonance effects, Journal of Optoelectronics & Advanced Materials, 8 (5): 1770-1774 (2006)
18. Petridis C, **Ktena** A, Laskaris E, et al. Ni-Fe thin film coated Cu wires for field sensing applications, Sensor Letters 5 (1): 93-97 (2007)
19. Hristoforou E, **Ktena** A., Magnetostriction and magnetostrictive materials for sensing applications, Journal of Magnetism and Magnetic Materials 316 (2): 372-378 (2007)
20. Petridis C, **Ktena** A, Bolshakova I, et al., On the magnetic and magnetoelastic uniformity measurements on magnetostrictive ribbons and wires, Journal of Magnetism and Magnetic Materials 316 (2): E628-E631 (2007)
21. **Ktena** A, Alexandrakis V, Panagiotopoulos I, et al., A study on the macroscopic properties of hard/soft bilayers, Physica B – Condensed Matter 403 (2-3): 320-323 (2008)
22. **Ktena** A., Hristoforou E., Stress dependent magnetization and vector Preisach modeling in low carbon steels, IEEE Transactions of Magnetism, vol. 48, n.4, pp. 1433 – 1436 (2012)
23. **Ktena Aphrodite**, Manasis Christos, and Tsakiridis Petros, Design and Characterization of a Magnetostrictive Torque Sensor, Sensor Letters, 10, 1–3 (2013)

24. P Vourna, **A Ktena**, A Mpalliou, AG Mamalis, E Hristoforou, Steel Health Monitoring Using Magnetic Techniques, *Materials Science Forum* 792, 139-143 (2014)
25. **Aphrodite Ktena**, Evangelos Hristoforou, Gunther J.L. Gerhardt, FrankP. Missell, Fernando J.G. Landgraf, Daniel L. Rodrigues Jr., M. Alberteris-Campos, Barkhausen noise as a microstructure characterization tool, *Physica B*, 435, 109-112 (2014)
26. **Aphrodite Ktena**, Daniele Davino, Ciro Visone, Evangelos Hristoforou, Stress dependent vector magnetic properties in electrical steel, *Physica B*, 435, 25-27 (2014)
27. **Aphrodite Ktena**, Christos Manasis, Evangelos Hristoforou, On the measurement of permeability and magnetostriction in ribbons and wires, *IEEE Transactions on Magnetics* 50 (4), 1-4 (2014)
28. Polyxeni Vourna, **Aphrodite Ktena**, Evangelos Hristoforou, Residual Stress Analysis in Non-Oriented Electrical Steel sheets by Barkhausen Noise Measurements, *IEEE Transactions on Magnetics*, 50 (4), 1-4 (2014)
29. P. Vourna, **A. Ktena**, P.E. Tsakiridis, E. Hristoforou, A novel approach of accurately evaluating residual stress and microstructure of welded electrical steels, *NDT & E International*, 71, 33–42 (2015)
30. Vourna, P. Hervoche, C., Vrana, M., **Ktena, A.**, Hristoforou, E., Correlation of Magnetic Properties and Residual Stress Distribution Monitored by X-Ray and Neutron Diffraction in Welded AISI 1008 Steel Sheets, *IEEE Transactions on Magnetics*, 51 (1) (2015)
31. P. Vourna, **A. Ktena**, P.E. Tsakiridis, E. Hristoforou: An accurate evaluation of the residual stress of welded electrical steels with magnetic Barkhausen noise, *Measurement: Journal of the International Measurement Confederation*, 71, pp. 31-45 (2015)
32. Evangelos Hristoforou, Polyxeni Vourna, Aphrodite Ktena, and Peter Svec, On the Universality of the Dependence of Magnetic Parameters on Residual Stresses in Steels, *IEEE Transactions on Magnetics*, 52 (5) (2016) 6201106 [doi: 10.1109/TMAG.2015.2509642](https://doi.org/10.1109/TMAG.2015.2509642)
33. **Aphrodite Ktena**, Christos Manasis, Dimitrios Bargiotas, Vasilis Katsifas, Takvor Soukissian, Harilaos Kontoyiannis, Estimation of the Energy Potential of the Euripus' Gulf Tidal Stream Using Channel Sea-surface Slope, *International Journal of Monitoring and Surveillance Technologies Research (IJMSTR)*, 3(4), 23-42, (2016)
34. P Vourna, **A Ktena**, AG Mamalis, E Hristoforou, PW Chen, Q Zhou, Magnetic Barkhausen measurements for determining residual stress distribution in welded electrical steels, *Material Science Forum* 856, 147-152 (2016)
35. **Aphrodite Ktena**, Christos Manasis, Dimitrios Bargiotas Vasilis Katsifas Takvor Soukissian, Harilaos Kontoyiannis, Energy Potential of Euripus' Gulf Tidal Stream, *IEEE Transactions* DOI: [10.1109/IISA.2015.7388041](https://doi.org/10.1109/IISA.2015.7388041) (2016)
36. **A. Ktena**, Residual stresses and vector hysteresis modeling, *Physica B: Condensed Matter*, 486, 29-33 (2016)
37. Polyxeni Vourna, Evangelos Hristoforou, **Aphrodite Ktena**, Peter Svec, Eleni Mangiorou, Dependence of magnetic permeability on residual stresses in welded steels, *IEEE Transactions on Magnetics* 53, 4 (2017) [doi: 10.1109/TMAG.2016.2628025](https://doi.org/10.1109/TMAG.2016.2628025)
38. E Hristoforou, **A Ktena**, P Vourna, K Argiris, Dependence of magnetic permeability on residual stresses in alloyed steels, *AIP Advances* 8 (4), 047201 (2017)
39. **Aphrodite Ktena**, Charalambos Elias, Christos Manasis, Yannis Koutsoubis, Enea Mele, Elias Constantos, Evgenia Tsalkitzi, Anna Tatsiopoulou, Christos Tatsiopoulos, Gamification for energy use profiling, *B&H Electrical Engineering*, 12, 2018.
40. Mirza Saric, Jasna Hivziefendic, Tatjana Konjic, **Aphrodite Ktena**, Distributed generation allocation considering uncertainties, *International Transactions on Electrical Energy Systems*, 28 (9), e2585 (2018) <https://doi.org/10.1002/etep.2585>
41. P Vourna, **A Ktena**, P Tsarabaris, E Hristoforou, Magnetic Residual Stress Monitoring Technique for Ferromagnetic Steels, *Metals* 8 (8), 592 (2018)
42. S Angelopoulos, P Vourna, **A Ktena**, P Tsarabaris, E Hristoforou, Design and Development of a New Magnetometer Calibration Device, *IEEE Transactions on Magnetics*, 55 (1), 8493562 (2019)
43. E Hristoforou, **A Ktena**, S Gong, Magnetic Sensors: Taxonomy, Applications, and New Trends, *IEEE Transactions on Magnetics*, 55 (7), 8606122 (2019)
44. Angelos Angelopoulos, Angelos Angelopoulos, **Aphrodite Ktena**, Christos Manasis and Stamatis Voliotis, Impact of a Periodic Power Source on a RES Microgrid, *Energies* 2019, 12(10), 1900; <https://doi.org/10.3390/en12101900>
45. Kaiming Liang, Spyridon Angelopoulos, Georgios Lepipas, Panagiotis Tsarabaris, **Aphrodite Ktena**, Xiaofang Bi, Evangelos Hristoforou, Sensor to Monitor Localized Stresses on Steel Surfaces Using the Magnetostrictive Delay Line Technique, *Sensors* 19 (21), 4797 (2019)
46. E Mele, C Elias, **A Ktena**, Machine Learning Platform for Profiling and Forecasting at Microgrid Level, *Electrical, Control and Communication Engineering* 15 (1), 21-29 (2019)
47. J Radosavljević, N Arsić, M Milovanović, **A Ktena**, Optimal Placement and Sizing of Renewable Distributed Generation Using Hybrid Metaheuristic Algorithm, *Journal of Modern Power Systems and Clean Energy* 8 (3), 499-510 (2020)
48. S. Angelopoulos, D. Misiaris, G. Banis, K. Liang, P. Tsarabaris, **A. Ktena**, E. Hristoforou, Steel health monitoring device based on Hall sensors, *Journal of Magnetism and Magnetic Materials*, Volume 515, 167304 (2020) <https://doi.org/10.1016/j.jmmm.2020.167304>.
49. Liang K, Tsarabaris P, **Ktena A**, Bi X, Hristoforou E. Smart Stress Annihilation in Steels Using Residual Stress Distribution Monitoring and Localized Induction Heating. *Metals*. 10(6):838, (2020). <https://doi.org/10.3390/met10060838>
50. Manasis C, Assimakis N, Vikias V, **Ktena A**, Stamatelos T. Power Generation Prediction of an Open Cycle Gas Turbine Using Kalman Filter. *Energies*. 13(24):6692(2020). <https://doi.org/10.3390/en13246692>
51. N Assimakis, M Adam, **A Ktena**, C Manasis, Steady state Kalman filter design for cases and deaths prediction of Covid-19 in Greece, *Results in Physics*, 104391 (2021)
52. E Mele, A Natsis, **A Ktena**, C Manasis, N Assimakis, Electromobility and Flexibility Management on a Non-Interconnected Island, *Energies* 14 (5), 1337 (2021)
53. **A Ktena**, M Hasicic, FJG Landgraf, E Moudilou, S Angelopoulos, On the use of differential permeability and magnetic Barkhausen Noise Measurements for Magnetic NDT Applications, *Journal of Magnetism and Magnetic Materials* 546, 168898 (2022)

54. K Liang, S Angelopoulos, **A Ktena**, X Bi, E Hristoforou, Residual Stress Distribution Monitoring and Rehabilitation in Ferromagnetic Steel Rods, *Sensors* 22 (4), 1491 (2022)
55. P. Pattakos, A. Katsoulas, S. Angelopoulos, **A. Ktena**, P. Tsarabaris and E. Hristoforou, "Development of an Autonomous Magnetic Permeability Sensor," in *IEEE Transactions on Magnetics*, 2022, [https://doi: 10.1109/TMAG.2022.3205106](https://doi.org/10.1109/TMAG.2022.3205106).
56. S. Angelopoulos, P. Priftis, A. Anastasopoulos, **A. Ktena** and E. Hristoforou, "Design and Development of a High-Sensitivity, Portable and Low-Cost Fluxgate Magnetometer," in *IEEE Transactions on Magnetics*, 2022, [doi: 10.1109/TMAG.2022.3212585](https://doi.org/10.1109/TMAG.2022.3212585)
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