

## CURRICULUM VITAE

### 1. PERSONAL INFORMATION

**First Name:** Apostolos  
**Last Name:** Michopoulos  
**Father's Name:** Konstantinos  
**Date of Birth:** January 30, 1977  
**Place of Birth:** Larissa, Greece  
**Nationality:** Hellenic  
**Marital Status:** Single  
**Work Address:** University of Cyprus  
Faculty of Engineering  
P.O. Box 20537, 1678 Nicosia, Cyprus  
**Telephone:** + 357 96 68 5952 (mobile)  
+ 357 22 89 2981 (office)  
**Email:** [michopoulos.apostolos@ucy.ac.cy](mailto:michopoulos.apostolos@ucy.ac.cy)  
**Researcher ID:** <http://www.researcherid.com/rid/D-2264-2015>  
**Scholar ID:** <https://scholar.google.com/citations?user=56npbUsAAAAJ&hl=el&oi=ao>  
**Publons:** <https://publons.com/researcher/2425925/apostolos-k-michopoulos/>

### 2. EDUCATION

1995 - 2003 **Diploma (Dipl.-Ing./ M.Eng.) in Mechanical Engineering**  
Faculty of Engineering, Aristotle University of Thessaloniki, Greece  
M.Eng. Thesis: "The effects of the environmental policies on the products' reverse logistic chain using dynamic analysis"  
Supervisors: Ass. Prof. P. Georgiadis, Dr. D. Vlachos,  
Grade: 6.97/10.0 (Very Good)

2003 - 2008 **Doctor of Philosophy in Mechanical Engineering**  
Faculty of Engineering, Aristotle University of Thessaloniki, Greece  
Ph.D. Thesis: "Theoretical and Experimental Approach of Ground Heat Exchanger"  
Supervisor: Prof. Nikolas Kyriakis  
Grade: Excellent

2007 - 2012 **Master in Science in Project Management,**  
Hellenic Open University, Greece  
M.Sc. Thesis: "Evaluation and Optimization of the Energy Saving Interventions on the Hellenic Buildings"  
Supervisor: Ass. Prof. Serafim Polyzos  
Grade: Excellent (9.5/10.0)

### 3. PROFESSIONAL ACTIVITY - ACADEMIC POSITIONS

1999 - 2000 **Research Assistant**  
Aristotle University of Thessaloniki, Faculty of Engineering, General Department, Thessaloniki, Greece.

2003 - 2008 **Research Associate**  
Aristotle University of Thessaloniki, Faculty of Engineering, School of Mechanical Engineering, Thessaloniki, Greece.

2004 - 2013	<b>Freelance Engineer</b> Founder and Owner of an Engineering and Consulting Company, Thessaloniki, Greece.
2004 - 2008	<b>Part-time Instructor</b> 14 <sup>th</sup> Technical Professional Lyceum (TEE), Thessaloniki, Greece.
2004 - 2007	<b>Part-time Instructor</b> Vocational Training Institute of Evosmos (IEK), Thessaloniki, Greece.
2009 - 2013	<b>Senior Researcher</b> Aristotle University of Thessaloniki, Faculty of Engineering, School of Mechanical Engineering, Thessaloniki, Greece.
2011	<b>Visiting Lecturer</b> Cyprus University of Technology, Department of Environmental Science and Technology, Limassol, Cyprus.
2012 - 2018	<b>Scientist Expert</b> Cyprus University of Technology, Department of Environmental Science and Technology, Limassol, Cyprus.
2012 - 2015	<b>Post-Doctoral Research Associate</b> Cyprus University of Technology, Department of Environmental Science and Technology, Limassol, Cyprus.
2015 - 2018	<b>Senior Researcher</b> Cyprus University of Technology, Department of Environmental Science and Technology, Limassol, Cyprus.
2018 - now	<b>Special Scientist (Teaching)</b> University of Cyprus, Faculty of Engineering, Nicosia, Cyprus.
2019 - now	<b>Senior Researcher</b> University of Cyprus, Department of Architecture, Nicosia, Cyprus.
2019 - now	<b>Deputy Director</b> Energy and Environmental Design of Buildings Research Lab. University of Cyprus, Department of Architecture, Nicosia, Cyprus.

## 4. SKILLS

### A. Languages

Greek: Native

English: Fluent

### B. IT skills

Programming (Matlab), Processing (Microsoft Office, Adobe Acrobat), Statistics (Minitab), Energy simulation (EnergyPlus), Graphics editor (Paint), Graphic design (Autocad), HVAC simulation (PVsyst, EED, Pilesim, GHLEPRO).

### C. Methods and Techniques

Excellent knowledge on carrying out a wide range of measurements, in situ or in laboratory, such as:

1. Temperature (thermocouples, RTDs, thermistors, infrared detectors);
2. Humidity (analogue psychometers and electronic sensors);
3. Pressure (analogue manometers and electronic sensors);
4. Mass (weighting technics from micro-scale up to mega-scale);
5. Air flow (mechanical and hot-wire anemometer);

6. Combustion gas analysis (NDIR, NDUV, CLD, FID, paramagnetic, Orsat gas analyzers);
7. Smoke number (Bacharach, Bosch and Hertridge methods);
8. Volume flow rate (pitot, venture, coriolis, electromagnetic, vortex, turbine, paddle wheel, Doppler, ultrasonic, vortice shedding meter, fluidic, coanda, mechanical and digital capture hoods, etc.);
9. Electric voltage, current and resistance;
10. Indoor air quality measurements;
11. Calorific values (bomb-calorimeter).

Adequate experience in:

1. Data-logging and data-loggers;
2. Thermography.

## 5. GRANTS - SCHOLARSHIPS - AWARDS

- |             |   |
|-------------|---|
| 2010 - 2011 | Scholarship from the Greek State Scholarships Foundation for Postdoctoral Research in Engineering Science (Energy Systems). Amount granted: 7,200 €.    |
| 2012 - 2013 | Scholarship from the Republic of Cyprus for Research. Amount granted: 5,500 €.  |
| 2013 - 2015 | Grant from the Research Promotion Foundation of Cyprus for Postdoctoral Research in Sustainable Development (Energy Systems). Amount granted: 97,520 €. |

## 6. RESEARCH ACTIVITY

### A. Participation in Research Projects

1. Title: **Transport - Storage - Distribution of products and materials**  
Coordinator (PI): Professor Gr. Tsagas, Aristotle University of Thessaloniki (AUTH), Greece  
Involvement: Research Assistant  
Period: 1999-2006  
Funding agent: Hellenic Ministry of Development, Greece.
2. Title: **Training instructors on entrepreneurship - Establishment, organization, management, and development of SMEs**  
Coordinator (PI): Professor Gr. Tsagas, Aristotle University of Thessaloniki (AUTH), Greece  
Involvement: Research Assistant  
Period: 1999  
Funding agent: Hellenic Ministry of Development, Greece
3. Title: **Legal, tax and financial advice for the establishment operation and expansion of Greek companies in countries of Central and Eastern Europe and Balkans**  
Coordinator (PI): Professor Gr. Tsagas, Aristotle University of Thessaloniki (AUTH), Greece  
Involvement: Research Assistant  
Period: 1999  
Funding agent: Hellenic Ministry of Development, Greece
4. Title: **Multimedia software assessment for general needs of ODL**  
Coordinator (PI): Professor Gr. Tsagas, Aristotle University of Thessaloniki (AUTH), Greece  
Involvement: Research Assistant  
Period: 1999-2000  
Funding agent: European Commission
5. Title: **Citizenship: European and/or national in EU and associated countries**  
Coordinator (PI): Professor Gr. Tsagas, Aristotle University of Thessaloniki (AUTH), Greece  
Involvement: Research Assistant  
Period: 1999-2000  
Funding agent: European Commission

6. Title: **Hesiodos: Self-employment and rural youth**  
Coordinator (PI): Professor Gr. Tsagas, Aristotle University of Thessaloniki (AUTH), Greece  
Involvement: Research Assistant  
Period: 2000  
Funding agent: Hellenic Ministry of Employment, Greece
7. Title: **Combating social exclusion of autistic individuals from the labor market - Autism - Hope III**  
Coordinator (PI): Professor Gr. Tsagas, Aristotle University of Thessaloniki (AUTH), Greece  
Involvement: Research Assistant  
Period: 2000  
Funding agent: Prefecture of Central Macedonia, Greece
8. Title: **Applied differential geometry – General relativity**  
Coordinator (PI): Professor Gr. Tsagas, Aristotle University of Thessaloniki (AUTH), Greece  
Involvement: Research Assistant  
Period: 2000-2001  
Funding agent: European Commission
9. Title: **Characterization of exhaust particulate emissions from road vehicles**  
Coordinator (PI): Professor Z. Samaras, Aristotle University of Thessaloniki (AUTH), Greece  
Involvement: Research Assistant  
Period: 2000-2003  
Funding agent: European Commission
10. Title: **Integration of solar thermals in buildings - New high efficiency solar collectors, solar air conditioning, seasonal thermal storage, optimal design, and integrated energy management**  
Coordinator (PI): Professor N. Kyriakis, Aristotle University of Thessaloniki (AUTH), Greece  
Involvement: Researcher  
Period: 2003-2007  
Funding agent: Hellenic Ministry of Development, Greece
11. Title: **Reforming of the undergraduate studies' program of the Faculty of Mechanical Engineering of AUTH**  
Coordinator (PI): Professor N. Moussiopoulos, Aristotle University of Thessaloniki (AUTH), Greece  
Involvement: Researcher  
Period: 2003-2008  
Funding agent: Hellenic Ministry of Education, Greece.
12. Title: **Evaluation of energy audits – Part B**  
Coordinator (PI): Professor N. Kyriakis, Aristotle University of Thessaloniki (AUTH), Greece  
Involvement: Researcher  
Period: 2004-2005  
Funding agent: Business and Cultural Development Centre – Development Association of Macedonia, Greece.
13. Title: **Energy audits of medium and large industrial installations**  
Coordinator (PI): Professor N. Kyriakis, Aristotle University of Thessaloniki (AUTH), Greece  
Involvement: Researcher  
Period: 2004-2009  
Funding agent: Business and Cultural Development Centre – Development Association of Macedonia, Greece.
14. Title: **Higher calorific value determination of biomass and cotton-pie**  
Coordinator (PI): Professor N. Kyriakis, Aristotle University of Thessaloniki (AUTH), Greece  
Involvement: Researcher  
Period: 2005  
Funding agent: Epilektos Textiles S.A., Greece.

15. Title: **Innovative methods for the building management using network services**  
Coordinator (PI): Assistant Professor K. Karatzas, Aristotle University of Thessaloniki (AUTH), Greece  
Involvement: Researcher  
Period: 2005-2007  
Funding agent: Hellenic Ministry of Education, Greece.
16. Title: **Cerium effect on emissions and efficiency of hot water boilers**  
Coordinator (PI): Professor N. Kyriakis, Aristotle University of Thessaloniki (AUTH), Greece  
Involvement: Researcher  
Period: 2008  
Funding agent: BIOCEL S.A., Greece.
17. Title: **Heating and cooling loads estimation of the AUTH campus buildings**  
Coordinator (PI): Professor N. Kyriakis, Aristotle University of Thessaloniki (AUTH), Greece  
Involvement: Senior Researcher  
Period: 2008-2010  
Funding agent: Thessaloniki's Natural Gas Corporation S.A., Greece.
18. Title: **Full scale A/C system design for the teaching rooms of Engineering School, based on absorption units**  
Coordinator (PI): Professor N. Kyriakis, Aristotle University of Thessaloniki (AUTH), Greece  
Involvement: Senior Researcher  
Period: 2009-2010  
Funding agent: Engineering Retirement Fund, Greece
19. Title: **Study of the energy performance of public buildings and open spaces in the Municipality of Servia, Prefecture of Kozani and proposals for the enhancement of their energy behavior**  
Coordinator (PI): Lecturer A. Tsikaloudaki, Aristotle University of Thessaloniki (AUTH), Greece  
Involvement: Senior Researcher  
Period: 2009-2010  
Funding agent: Municipality of Servia, Greece.
20. Title: **Heating and cooling loads estimation of AHEPA complex**  
Coordinator (PI): Professor N. Kyriakis, Aristotle University of Thessaloniki (AUTH), Greece  
Involvement: Senior Researcher  
Period: 2009-2010  
Funding agent: AHEPA University Hospital, Thessaloniki, Greece.
21. Title: **Research results exploitation in the field of thermal and physical process**  
Coordinator (PI): Professor N. Kyriakis, Aristotle University of Thessaloniki (AUTH), Greece  
Involvement: Senior Researcher  
Period: 2011-2012  
Funding agent: Research Committee of AUTH, Thessaloniki, Greece
22. Title: **Improve skills and qualifications in the building workforce in Cyprus**  
Coordinator (PI): Mrs. Anthi Charalambous, Cyprus Energy Agency (CEA), Cyprus  
Involvement: Senior Expert (under: Cyprus Energy Agency)  
Period: 2013-2016  
Funding agent: European Commission.
23. Title: **Nearly zero-energy sports facilities**  
Coordinator (PI): Ms. Miriam Siciliano, Agenzia Fiorentina per l'Energia Srl (AFE), Italy  
Involvement: Senior Expert (under: Cyprus Energy Agency)  
Period: 2014-2016  
Funding agent: European Commission.

24. Title: **Support for the formulation of a comprehensive medium and long-term energy efficiency strategy for Cyprus**  
Coordinator (PI): Ass. Professor Th. Zachariadis, Cyprus University of Technology (CUT), Cyprus  
Involvement: Senior Researcher  
Period: 2016-2017  
Funding agent: Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH, Germany.
25. Title: **Evaluation of the effectiveness of possible climate change mitigation policies and measures**  
Coordinator (PI): Ass. Professor Th. Zachariadis, Cyprus University of Technology (CUT), Cyprus  
Involvement: Senior Researcher  
Period: 2017-2018  
Funding agent: European Commission.
26. Title: **Transferring energy efficiency in Mediterranean schools (TEESCHOOLS)**  
Coordinator (PI): Ms. Rovena Preka, Italian National Agency for New Technologies, Energy and Sustainable Economic Development (ENEA), Italy  
Involvement: Senior Expert (under: Cyprus Energy Agency)  
Period: 2017-2019  
Funding agent: European Commission – Interreg MED.
27. Title: **Autonomous smart zero energy buildings interconnected with sustainable transport systems (AUTONOMO)**  
Coordinator (PI): Ms. Katerina Pantazi, Department of Public Works, Ministry of Transport, Communications and Works, Republic of Cyprus, Cyprus  
Involvement: Senior Researcher (under: University of Cyprus)  
Period: 2018-2022  
Funding agent: European Commission – Interreg VA, Greece – Cyprus Program “2014-2020”.
28. Title: **Methodology for the assessment of the energy performance of buildings**  
Coordinator (PI): Assist. Prof. Aimilios Michael, University of Cyprus (UCY), Cyprus  
Involvement: Co-Investigator; Lead Researcher  
Period: 2019-2020  
Funding agent: Ministry of Energy, Commerce and Industry, Energy Service, Cyprus.
29. Title: **Smart eco-districts: Formulation of design and development parameters (SmEcoDis)**  
Coordinator (PI): Ass. Prof. Andreas Savvides, University of Cyprus (UCY), Cyprus  
Involvement: Co-Investigator; Lead Researcher  
Period: 2020-2021  
Funding agent: Cyprus Land Development Corporation, Cyprus.
30. Title: **BIM for Energy Efficiency in the Public sector (BEEP)**  
Coordinator (PI): Elena Gigliarelli, Consiglio Nazionale delle Ricerche (CNR), Italy  
Involvement: External Expert (under: The Cyprus Institute (CYI), Cyprus)  
Period: 2020-2022  
Funding agent: European Commission - ENI CBC MED Programme.
31. Title: **Educational Programmes on the Traditional Handicraft Techniques of Cyprus (EducaTe)**  
Coordinator (PI): Ass. Prof. Andreas Savvides, University of Cyprus (UCY), Cyprus  
Involvement: Co-Investigator; Lead Researcher  
Period: 2021-2022  
Funding agent: Cyprus Handicraft Service, Cyprus.
32. Title: **Energy Intervention of the Historic Buildings of Presidential Palace of the Republic of Cyprus and Lotzia City Hall of Heraklion (ANAVATHMEZO)**  
Coordinator (PI): Assist. Prof. Aimilios Michael, University of Cyprus (UCY), Cyprus  
Involvement: Co-Investigator; Lead Researcher  
Period: 2021-2023  
Funding agent: European Commission – Interreg VA, Greece – Cyprus Program “2014-2020”.

33. Title: **Cooperative Intelligent education & electromobility Zero Energy Buildings (C-IZEBs)**  
Coordinator (PI): Andreas Marangos, Ministry of Education, Culture, Youth and Sports, Republic of Cyprus, Cyprus  
Involvement: Co-Investigator; Lead Researcher (under: University of Cyprus (UCY), Cyprus)  
Period: 2021-2023  
Funding agent: European Commission – Interreg VA, Greece – Cyprus Program “2014-2020”.
34. Title: **Technical support for the formulation of specifications of a pilot subsidize scheme for the Embroidery CRAFTworkers of Cyprus (TECRAFT)**  
Coordinator (PI): Dr. Apostolos Michopoulos, University of Cyprus (UCY), Cyprus  
Involvement: Principal Investigator  
Period: 2021-2022  
Funding agent: Cyprus Handicraft Service, Cyprus.
35. Title: **Development of a novel eco-friendly and sustainable masonry brick (EcoSuBrick)**  
Coordinator (PI): Dr. Apostolos Michopoulos, University of Cyprus (UCY), Cyprus  
Involvement: Principal Investigator  
Period: 2023-2025  
Funding agent: Research and Innovation Foundation (RIF), Cyprus.
36. Title: **Innovative Activities and Mobility Planning for the Amathos Linear Park - (AMATHOS-I)**  
Coordinator (PI): Assist. Prof. Loukas Dimitriou, University of Cyprus (UCY), Cyprus  
Involvement: Co-Investigator; Lead Researcher  
Period: 2022-2023  
Funding agent: Municipality of Yermasoyia, Cyprus.
37. Title: **Green Block: Product of sustainable industrial symbiosis - (GreenBlock)**  
Coordinator (PI): Georgios Phylactou, Domika Ylika Ledra Ltd, Cyprus  
Involvement: Co-Investigator; Coordinator for the UCY activities  
Period: 2023-2025  
Funding agent: Research and Innovation Foundation (RIF), Cyprus.

## **B. Participation in COST Actions**

Title: **European network for shallow geothermal energy applications in buildings and infrastructures (GABI) – TU1405**

Role: Member of the management committee and national representative of Cyprus; Vice-Leader of Working Group 2 (Energy performance assessment).

Period: 2015-2019

Funding agent: European Union.

Title: **Research network for including geothermal technologies into decarbonized heating and cooling grids – CA18219**

Role: Substitute of the management committee and national representative of Cyprus; Technical Expert.

Period: 2019-2024

Funding agent: European Union.

Title: **European network for fostering large-scale implementation of energy geostructure (FOLIAGE) – CA21156**

Role: Member of the management committee and national representative of Cyprus.

Period: 2022-2026

Funding agent: European Union.

Title: **Cooperation, development, and cross-border transfer of Industrial Symbiosis among industry and stakeholders (LIAISE) – CA22110**

Role: Member of the management committee and national representative of Cyprus; Vice-Leader of Working Group 4 (Dissemination and Exploitation).

Period: 2023-2027

Funding agent: European Union.

## C. Scientific Collaborations (past, ongoing and near future)

### C1. External

#### **Professor Nikolaos Kyriakis (2002-2013)**

*Department of Mechanical Engineering, Aristotle University of Thessaloniki (AUTH), Greece*

- Energy analysis of electromechanical systems;
- Energy analysis of buildings and industrial process;
- Thermal modelling;
- Thermal drying and dryers;
- Implementation of RES based technologies in building sector.

#### **Professor Nikolaos Andritsos (2010-present)**

*Department of Mechanical Engineering, University of Thessaly (UTh), Greece*

- Analysis of ground source heat pump systems.

#### **Professor Konstantinos Georgiadis (2015-present)**

*School of Civil Engineering, Aristotle University of Thessaloniki (AUTH), Greece*

- Thermal analysis of geostructures.

#### **Professor Aikaterini Tsikaloudaki (2009-present)**

*School of Civil Engineering, Aristotle University of Thessaloniki (AUTH), Greece*

- Energy and Environmental analysis of buildings;
- Low energy building;
- Implementation of RES based technologies in building sector.

#### **Professor Dimitrios Al. Katsaprakakis (2016-present)**

*Department of Mechanical Engineering, Hellenic Mediterranean University (HMU), Greece.*

- Analysis of energy systems and technologies;
- Regional and rational energy use;
- Energy transition action plans.

#### **Assistant Professor Marco Barla (2015-2019)**

*Department of Structural, Geotechnical and Building Engineering, Politecnico di Torino, Italy*

- Energy and Environmental analysis of geostructures (Working group 2 in COST Action TU1405).

#### **Lecturer Vasiliki Skoulou (2011-present)**

*Department of Chemical Engineering, Hull University, United Kingdom*

- Biomass combustion;
- Implementation of biomass and bioenergy technologies in building and industrial sector.

#### **Dr. Xavier Rachez (2015-2018)**

*Bureau de Recherches Géologiques et Minières (BRGM), France*

- Energy and Environmental analysis of geostructures (Working group 2 in COST Action TU1405).

#### **Dr. Polycarpus Polycarpou (2015-2020)**

*Agricultural Research Institute, Cyprus*

- Analysis of energy behaviour on greenhouses;
- Implementation of RES-based technologies in greenhouses;
- Parametric analysis of agricultural products drying;
- Biomass combustion.

#### **Associate Professor Theodoros Zachariadis (2011-2018)**

*Department of Environmental Science and Technology, Cyprus University of Technology, Cyprus*

- Energy and Environmental analysis of technologies and sectors;
- Implementation of RES-based technologies in buildings and industries;
- Energy performance analysis of technologies and sectors.



## C2. Internal

**Assistant Professor Aimilios Michael** (2018-present)

*Department of Architectural Engineering, University of Cyprus, Cyprus*

- Low energy buildings;
- Energy efficient design of buildings.

**Associate Professor Andreas Savvides** (2019-present)

*Department of Architectural Engineering, University of Cyprus, Cyprus*

- Energy positive districts;
- Smart, eco-districts;
- Net-carbon districts.

## 7. EXTENSION ACTIVITIES - COLLABORATION WITH LOCAL AND INTERNATIONAL BUSINESS

Upon my permanent residence in Cyprus I have started and expanded collaborations with following local and international institutions:

- European Commission, Directorate General for Translation, Brussels and Luxemburg, Belgium;
- International Organization for Standardization (ISO);
- Energy Service, Ministry of Energy, Commerce, and Industry, Cyprus;
- Industry and Technology Service, Ministry of Energy, Commerce, and Industry, Cyprus;
- Cyprus Organization for Standardization, Cyprus;
- Cyprus Certification Company, Cyprus;
- Cyprus Energy Agency, Cyprus;
- Urban Europe Research Alliance (UERA), Vienna, Austria;
- Clean energy for EU islands secretariat, Brussels, Belgium.

## 8. EDUCATIONAL ACTIVITY

### A. Teaching in Universities

#### A1. School of Mechanical Engineering, Aristotle University of Thessaloniki (AUTH)

As research associate and senior researcher at School of Mechanical Engineering of Aristotle University of Thessaloniki, I was a teaching assistant of the following courses:

##### A1.1. Undergraduate courses

Academic year	Course	Topics	Semesters
2006-2007 2007-2008 2008-2009 2009-2010 2010-2011 2011-2012 2012-2013	Environmental Protection Technology (318), Lecturer: Prof. N. Kyriakis	1. Environmental pollution 2. Natural and anthropogenic air pollution 3. Mechanics of particulates 4. Air-cleaning technologies	7
2007-2008 2008-2009 2009-2010 2010-2011 2011-2012 2012-2013	Mechanics Laboratory (127), Lecturer: Prof. N. Kyriakis	1. Boilers and burners 2. Combustion 3. Combustion efficiency 4. Heat exchangers 5. Heat exchanger efficiency	6

## A2. Department of Environmental Science and Technology (EST), Cyprus University of Technology (CUT)

As visiting lecturer and scientist expert at Department of Environmental Science and Technology of Cyprus University of Technology, I taught the following courses:

### A2.1 Undergraduate courses

Academic year	Course	Topics	Semesters
2015-2016 2016-2017	Physics (EST-111)	<ol style="list-style-type: none"> <li>1. Motion in one, two and three dimensions</li> <li>2. Newton's laws of motion</li> <li>3. Work, kinetic and dynamic energy</li> <li>4. Atomic structure and interatomic bonding</li> <li>5. Structure of crystalline solids</li> <li>6. Mechanical properties of metals</li> <li>7. Statics of particles</li> <li>8. Analysis of structures</li> </ol>	2
2010-2011 2012-2013	Principles of Engineering (EST-223)	<ol style="list-style-type: none"> <li>1. Heat transfer, conduction, convection and radiation</li> <li>2. Heat exchangers</li> <li>3. Fluid mechanics, pressure, kinematic and dynamic flow, pressure drop</li> </ol>	2
2012-2013 2013-2014a 2013-2014b 2014-2015 2015-2016	Design of Energy Systems (EST-451)	<ol style="list-style-type: none"> <li>1. Process design development</li> <li>2. General design considerations</li> <li>3. Flowsheet diagram</li> <li>4. Cost estimation and analysis</li> <li>5. Interest and taxes</li> <li>6. Investment cost</li> <li>7. Depreciation</li> <li>8. Investment evaluation, NPV, IRR, BCR, DPB methods</li> </ol>	5

### A2.2. Postgraduate courses

Academic year	Course	Topics	Semesters
2010-2011 2015-2016 2016-2017 2017-2018	Energy Resource Management (EST-533)	<ol style="list-style-type: none"> <li>1. Energy and sustainability</li> <li>2. Energy production, transformation, and use</li> <li>3. Energy indexes</li> <li>4. Renewable energy sources</li> <li>5. Coal</li> <li>6. Nuclear energy</li> <li>7. Energy storage</li> <li>8. Natural resources and development</li> <li>9. Investment evaluation</li> </ol>	4
2015-2016 2016-2017 2017-2018	Energy Production Technologies (EST-505)	<ol style="list-style-type: none"> <li>1. Principles of thermodynamics and heat transfer</li> <li>2. Heat pumps</li> <li>3. Combustion and fuels</li> <li>4. Combined heat and power technologies</li> </ol>	3

		<ol style="list-style-type: none"> <li>5. Internal combustion engines</li> <li>6. Fuel cells</li> <li>7. Steam and gas turbines</li> </ol>	
2012-2013	Thermofluid Dynamics (EST-505)	<ol style="list-style-type: none"> <li>1. Principles of fluid mechanics</li> <li>2. Hydrostatic</li> <li>3. Kinematic fluid flow</li> <li>4. Dynamics fluid flow</li> <li>5. Compressed flow</li> <li>6. Energy losses</li> <li>7. Hardy-Cross method</li> <li>8. Design of pipeline networks</li> </ol>	1
2015-2016 2016-2017 2017-2018	Energy Audit – Energy Management (EST-534)	<ol style="list-style-type: none"> <li>1. Energy audit methodology, EN 16247-X, ISO 50002</li> <li>2. Heating systems</li> <li>3. Cooling systems</li> <li>4. Hot-water production systems</li> <li>5. Ventilation and air-conditioning systems</li> <li>6. Measurements and verification</li> <li>7. Energy management systems, ISO 50001</li> </ol>	3
2015-2016 2016-2017 2017-2018	Energy Efficiency of Buildings (EST-538)	<ol style="list-style-type: none"> <li>1. Insulation and thermal bridges</li> <li>2. Openings and shading systems</li> <li>3. HVAC systems</li> <li>4. Thermal comfort</li> <li>5. Indoor air quality</li> <li>6. Energy performance certificate</li> <li>7. Methodology on the energy performance of buildings, ISO 13790</li> <li>8. ISBEM-CY software</li> </ol>	3
2013-2014	Oil and Gas Storage and Transportation Systems (EST-537) [co-teaching]	<ol style="list-style-type: none"> <li>1. Oil and gas storage</li> <li>2. Onshore transportation systems</li> <li>3. Offshore transportation systems</li> </ol>	1

### A3. Faculty of Engineering, University of Cyprus (UCY)

As special scientist at the Faculty of Engineering of University of Cyprus (POL), the Department of Mechanical and Manufacturing Engineering (MME), the Department of Civil and Environmental Engineering (PPM), and the Department of Electrical and Computer Engineering (ECE), I taught the following courses:

#### A3.1 Undergraduate courses

Academic year	Course	Topics	Semesters
2020-2021 2021-2022	Heating, Cooling, Air-Conditioning (MME-416)	<ol style="list-style-type: none"> <li>1. Introduction to heating technology</li> <li>2. Introduction to cooling and air-conditioning technology</li> <li>3. Methodology for calculation of the design heat load (EN 12831)</li> </ol>	2

		<ol style="list-style-type: none"> <li>4. Methodology for calculation of the design cooling load (CLTD/CLF)</li> <li>5. Sizing of the heating/ cooling emission system</li> <li>6. Sizing of the hydronic space distribution systems (heating, cooling)</li> <li>7. Sizing of the circulation pumps</li> <li>8. Heat pumps</li> <li>9. Burners and Boilers</li> <li>10. Automation and control systems for heating and cooling applications</li> </ol>	
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### A3.2 Postgraduate courses

Academic year	Course	Topics	Semesters
2018-2019 2019-2020 2020-2021 2021-2022 2022-2023	Advanced Project: Capstone Design and Research Project I (POL-604.I) <i>(co-teaching with Dr. Stavroula Thravalou (SV))</i>	Fundamentals of: <ol style="list-style-type: none"> <li>1. Heat Transfer (AM)</li> <li>2. Thermal Comfort (AM)</li> <li>3. Microclimate and Solar Geometry (SV)</li> <li>4. Passive Solar Systems (SV)</li> <li>5. Ventilation (AM/ SV)</li> <li>6. Lighting (AM/ SV)</li> <li>7. Double skin facades (SV)</li> <li>8. Green roofs (SV/ AM)</li> <li>9. RES systems (AM)</li> <li>10. Design Builder software (SV)</li> </ol>	5
2018-2019 2019-2020 2020-2021 2021-2022 2022-2023	Advanced Project: Capstone Design and Research Project II (POL-704.II) <i>(co-teaching with Dr. Stavroula Thravalou (SV))</i>	<ol style="list-style-type: none"> <li>1. Indoor air quality (AM)</li> <li>2. Calculation of the design heating load (AM)</li> <li>3. Calculation of the design cooling load (AM)</li> <li>4. Calculation of the pressure drop in distribution networks (AM)</li> <li>5. Technoeconomic analysis (AM)</li> <li>6. Design Builder software (AM/ SV)</li> </ol>	5
2018-2019 2019-2020 2020-2021 2021-2022 2022-2023	Advanced Project: Capstone Design and Research Project III (POL-804.III) <i>(co-teaching with Dr. Stavroula Thravalou (SV))</i>	Within the framework of this course supervisor activities for the preparation and presentation of the annual project report are foreseen.	5
2020-2021 2021-2022 2022-2023	Research Methodology (POL-800)	<ol style="list-style-type: none"> <li>1. Introduction to research methodology (EE)</li> <li>2. Literature review and methods of carrying it out (AM)</li> <li>3. Data collection methods and evaluation of their quality (AM)</li> </ol>	3

	<i>(co-teaching with external experts (EE))</i>	<ol style="list-style-type: none"> <li>4. Basic data analysis methods (AM)</li> <li>5. Field research design (EE)</li> <li>6. Design of laboratory experiments and experimental layouts (EE)</li> <li>7. Design of computational experiments (EE)</li> <li>8. Research through design (EE)</li> <li>9. Social and human-centered approaches to research (EE)</li> <li>10. Ethical issues in research and publications (EE)</li> <li>11. Oral presentation and presentation of research projects in poster format (AM)</li> <li>12. Authorship of articles in International Journals (AM).</li> </ol>	
<p>2018-2019 2020-2021 2021-2022 2022-2023</p>	<p>Energy Efficiency of Buildings (CEE-536)</p>	<ol style="list-style-type: none"> <li>1. European and National legislation</li> <li>2. Heat transfer</li> <li>3. Insulation and thermal bridges</li> <li>4. Openings and shading systems</li> <li>5. HVAC systems</li> <li>6. Thermal comfort</li> <li>7. Indoor air quality</li> <li>8. Methodology on the energy performance of buildings, ISO 13790/ 52016</li> <li>9. Case studies</li> </ol>	4
<p>2022-2023 2023-2024</p>	<p>Master in Engineering Capstone Design Study (ECE 723/724)</p>	<ol style="list-style-type: none"> <li>1. Literature review and methods of carrying it out.</li> <li>2. Data collection methods and evaluation of their quality</li> <li>3. Basic data analysis methods</li> <li>4. Oral presentation</li> <li>5. Technical report</li> <li>6. Special topics</li> </ol>	2

## B. Invited lectures

### B1. Undergraduate courses

Academic year	Course	School (Department) / University	Topic
<p>2012-2013 2013-2014</p>	<p>Energy Efficient Design of Buildings, Lecturers: Ass. Prof. T. Theodosiou, Ass. Prof. A. Tsikaloudaki</p>	<p>School of Civil Engineering/ Aristotle University of Thessaloniki, Greece</p>	<p>HVAC Inspection</p>

## C. Teaching in Vocational Training Institutes

As part-time instructor at the public training institute of Evosmos Thessaloniki, I had full responsibility for the following courses.

Academic year	Course	Expertise	Semesters
2004-2005	Air-conditioning	Technicians of HVAC installations	3

2005-2006			
2006-2007			
2006-2007	Compressors	Technicians of HVAC installations	1

#### D. Teaching in Secondary Education

From 2004-2005 to 2007-2008 academic years, I was working as part-time instructor at 14<sup>th</sup> Technical Professional Lyceum of Thessaloniki, Greece.

#### E. Teaching in Training Courses and Seminars

Starting from 2009, I have participated as leader trainer and trainer in 80 training courses and seminars organized by scientific institutes, professional chambers, private companies, and governmental organizations. The following table summarizes the more indicative ones while a complete list is available upon request.

Academic year	Course	Organized by	Overall hours
2009-2010 2013-2014 2014-2015 2015-2016	European Energy Manager (EUREM)	Hellenic-German Chamber of Commerce and Industry (AHK) Cyprus Energy Agency (CEA)	205
2011-2012 2012-2013	Training of the Energy Inspectors of Buildings	Institute of Education and Vocational Training of the Technical Chamber of Greece DIAVLOS Vocational Training Institute DYNAMIKI Vocational Training Institute	460
2012-2013 2013-2014 2014-2015 2015-2016 2017-2018 2020-2021 2021-2022	Training of the Energy Auditors	University of Nicosia & Cyprus Energy Agency (CEA)	850
2013-2014 2022-2023	Renewable Energy Sources (RES): Current technologies and the E.U. legislative framework	European Commission, Directorate General for Translation (EU-DGT)	15
2014-2015 2015-2016	Energy Interventions in Building Sector	Cyprus Energy Agency (CEA)	36
2021-2022 2022-2023	Green Construction and Synchronous Design Approaches	Oikodemos Training Center (KEPO)	206

#### F. Responsible assistant of bachelor theses

##### F1. School of Mechanical Engineering, Aristotle University of Thessaloniki (AUTH)

As senior researcher of School of Mechanical Engineering, I was responsible assistant of the following bachelor thesis:

1. Tskindikou, M., (2010). Combined heat and power systems (Supervisor: Prof. N. Kyriakis).

## **F2. Department of Environmental Science and Technology (EST), Cyprus University of Technology (CUT)**

As post-doctoral research associate and senior researcher at Department of Environmental Science and Technology of Cyprus University of Technology, I was responsible assistant of the following bachelor thesis:

1. Georgiou, C., (2015). Determination of water consumption indexes for the pumping stations of Water Development Department (Supervisor: Ass. Prof. T. Zachariadis).

## **G. Responsible assistant of diploma theses**

### **G1. School of Mechanical Engineering, Aristotle University of Thessaloniki (ATh)**

As research associate and senior researcher of School of Mechanical Engineering, I was responsible assistant of the following diploma theses:

1. Zissakis, K., (2004). Operation of ground heat exchanger on city hall of Pylaia – One-year experience (Supervisor: Prof. N. Kyriakis).
2. Sioziopkos, I., Terzidis D., (2005). Energy audit of the air-conditioning system on new city hall of Pylaia, (Supervisors: Prof. N. Kyriakis, Lecturer K. Papakostas).
3. Kepesidis, K., (2006). Software development for sizing vertical ground heat exchangers based on ASHRAE's approach (Supervisor: Prof. N. Kyriakis).
4. Vassiliadis, P., Zografidis K., (2006). Assessment of analytical algorithms predicting the ground temperature (Supervisor: Prof. N. Kyriakis).
5. Michailidis, M., (2006). Software development on Lab-view environment for on-line calculation of efficiency of a hot water boiler (Supervisor: Prof. N. Kyriakis).
6. Vassiliou, Ch., Ellinas, N., (2007). Reconstruction of an experimental dryer and validation of the operation (Supervisor: Prof. N. Kyriakis).
7. Karipidis, P., (2008). Energy and environmental assessment of atomized natural gas boilers in Thessaloniki area (Supervisor: Prof. N. Kyriakis).
8. Kolios, P., (2008). Design of a ground source heat systems on different climate conditions in Greece – Residential building case study (Supervisors: Prof. N. Kyriakis, Lecturer K. Papakostas).
9. Tsopouridou, M., Pana, A., (2008). Cerium effect on emissions and efficiency of hot water boilers (Supervisor: Prof. N. Kyriakis).
10. Kyratzoglou, A.-Chr., (2009). Drying conditions for nuts production (Supervisor: Prof. N. Kyriakis).
11. Konstandinidis, M., (2010). Design of a ground source heat systems on different climate conditions in Greece – Office building case study (Supervisors: Prof. N. Kyriakis, Lecturer K. Papakostas).
12. Matsota A., (2010). Design of a vertical ground source heat pump system (Supervisor: Prof. N. Kyriakis).
13. Deligiannis, N., (2010). Assessment of the design methodologies of vertical ground source heat pump systems – Energy assessment (Supervisor: Prof. N. Kyriakis).
14. Fragopoulos, Z., (2012). Models for the prediction of the soil's temperature: A review (Supervisor: Prof. N. Kyriakis).
15. Papagiannis, E., (2012). Design of a fluidized bed dryer and energy analysis of the drying process (Supervisor: Prof. N. Kyriakis).
16. Gianniou, P., (2012). Energy, economic and environmental evaluation of a conjugated air-source heat pump system for space heating on Hellenic buildings (Supervisor: Prof. N. Kyriakis).
17. Tsikintikou, M., (2013). The usage of olive-oil kernel on combined heat and power systems. The Crete's case study (Supervisor: Prof. N. Kyriakis).

18. Papadopoulos, D., (2013). Energy evaluation of a ground source heat pump system for greenhouse heating (Supervisors: Prof. N. Kyriakis, Assist. Prof. A. Kalfas).

## H. Responsible assistant of M.Sc. theses

### H1. Department of Environmental Science and Technology (EST), Cyprus University of Technology (CUT)

As post-doctoral research associate and senior researcher at Department of Environmental Science and Technology of Cyprus University of Technology, I was responsible assistant of the following master in science theses:

1. Kerimis, M., (2014). The use of water in tourism sector in Cyprus: Energy and environmental consequences (Supervisor: Ass. Prof. T. Zachariadis).  
*Thesis of Mr. Marios Kerimis received the best graduate thesis award by the Research Promotion Foundation of Cyprus in 2014.*
2. Taki, M., (2015). Characteristic typologies of the building stock in Cyprus (Supervisor: Ass. Prof. T. Zachariadis).
3. Loukaidou, K., (2015). Nearly zero energy buildings: Techno-economic analysis of the building envelope (Supervisor: Ass. Prof. T. Zachariadis).
4. Drakou, G., (2017). Energy demand estimation for the residential building sector of Cyprus using the bottom-up approach (Supervisor: Ass. Prof. T. Zachariadis).
5. Papaefstathiou, A., (2018). Energy, environmental and economic evaluation of the heating and cooling technologies in nearly zero energy buildings in Cyprus (Supervisor: Ass. Prof. T. Zachariadis).
6. Kareklas, G., (2019). Analysis of the energy consumption and greenhouse gas emissions on tourism sector of Cyprus (Supervisor: Ass. Prof. T. Zachariadis).
7. Sialis, K., (2019). Low-carbon buildings: Techno-economic analysis of energy measures and interventions (Supervisor: Ass. Prof. T. Zachariadis).

### H2. Faculty of Engineering, University of Cyprus (UCY)

As senior researcher at Faculty of Engineering of University of Cyprus, I was responsible assistant of the following master in science theses:

1. Kozakos, D., (2023). Holistic assessment of natural lighting and shading technologies in educational buildings (Supervisor: Ass. Prof. A. Michael).
2. Agathokleous, I., (2023). Forecast of the future energy demand of buildings under different climate scenarios (Supervisor: Ass. Prof. A. Michael).

## I. Examining committee member of M.Sc. theses

As senior researcher at Faculty of Engineering of University of Cyprus, I was member of the examining committee of the following master in science theses:

1. Theochare, A., (2019). Dehumidification through a bioclimatic envelope (Supervisor: Assist. Prof. A. Michael).
2. Charalambous, A., (2019). Analysis of the bioclimatic concept of the modern era office buildings in Cyprus with emphasis on natural lighting aspects. (Supervisor: Assist. Prof. A. Michael)
3. Kozakos, D., (2023). Holistic assessment of natural lighting and shading technologies in educational buildings (Supervisor: Ass. Prof. A. Michael).

## 9. ADMINISTRATIVE ACTIVITY

### A. Member in Scientific Societies

1. Institute of Solar Technology (IST) (2005-present)



2. American Society of Heating Refrigerating and Air-Conditioning Engineers (ASHRAE) (2007-present)
3. International Institute of Refrigeration (IIR) (2009-2012)
4. European Technology Platform on Renewable Heating & Cooling, (RHC-Platform) – Geothermal Panel (2010-present)

#### B. Administrative positions in Scientific Societies

1. Auditing Committee of Institute of Solar Technology (IST) (2007-2009)
2. Treasurer of Institute of Solar Technology (IST) (2009-2014)
3. Administrative Board Member of Institute of Solar Technology (IST) (2014-2020)

#### C. Member in Scientific Committees/Workgroups

1. Organizing Committee of 8<sup>th</sup> National Conference of Renewable Energy Sources of Institute of Solar Technology, Thessaloniki, Greece. (2005-2006)
2. Working Group of Technical Chamber of Greece – Central Macedonia Section on the field of “Geothermy” (2011-2012)
3. Colleague of the Editorial Board of the Technical Journal “KTIRIO” (2012-present)
4. Scientific Editorial Board of the Electronic Journal “e-Technologia” (2012-2014)
5. Scientific Committee of 10<sup>th</sup> National Conference of Renewable Energy Sources of Institute of Solar Technology, Thessaloniki, Greece. (2014)
6. Mirror Committee on “Heating Cooling & Ventilation” (MC/CYS 5) of Cyprus Organisation for Standardisation (CYS) (2014-present)
7. Mirror Committee on “Gas” (MC/CYS 10) of Cyprus Organisation for Standardisation (CYS) (2014-present)
8. Mirror Committee on “Services” (MC/CYS 12) of Cyprus Organisation for Standardisation (CYS) (2016-present)
9. Scientific Committee of International Conference Sustainable Synergies from Buildings to the Urban Scale “SBE-16 Thessaloniki”, Thessaloniki, Greece. (2015-2016)
10. Scientific Committee of Hellenic Terminology Network (EDO) (2016-present)
11. Committee Member of ISO/TC 301 “Energy Management and Energy Savings” (Representative of Cyprus Organisation for Standardisation (CYS)) (2017-present)
12. Observer of ISO/TC 268 “Sustainable cities and communities” (Nominated by Cyprus Organisation for Standardisation (CYS)) (2019-present)
13. Scientific Committee of 11<sup>th</sup> National Conference of Renewable Energy Sources of Institute of Solar Technology, Thessaloniki, Greece. (2017-2018)
14. Scientific Committee of International Conference Sustainability in the built environment for climate change mitigation “SBE-19 Thessaloniki”, Thessaloniki, Greece. (2018-2019)
15. Scientific Committee of 12<sup>th</sup> National Conference of Renewable Energy Sources of Institute of Solar Technology, Thessaloniki, Greece. (2020-2021)
16. Scientific Committee of 1<sup>st</sup> International Conference on Construction, Energy, Environment and Sustainability (CEES 2021), Coimbra, Portugal. (2020-2021)
17. Scientific Committee of 2<sup>nd</sup> International Conference on Construction, Energy, Environment and Sustainability (CEES 2023), Funchal, Portugal. (2022-2023)

18. Scientific Committee of International Conference Sustainable built environments, Paving the way for achieving the targets of 2030 and beyond (2022-2023)  
“SBE23 Thessaloniki”, Thessaloniki, Greece.
19. Scientific Committee of 13<sup>th</sup> National Conference of Renewable Energy Sources of Institute of Solar Technology, Athens, Greece. (2023-2024)

#### D. Member in Professional Chambers/Societies/Unions

1. Technical Chamber of Greece (TCG) (2004-present)
2. Union of Mechanical and Electrical Engineers of Northern Greece (2005-present)
3. Hellenic Union of Mechanical and Electrical Engineers (2006-present)

#### E. Member in Advisory Committees

1. National Scientific Committee of the EU funded project: “Improve skills and qualifications in the building workforce in Cyprus” (Contract No: IEE/12/BWI/355/SI2.659664) (2013-2016)
2. National Scientific Committee of the EU funded project: “Nearly zero-energy sports facilities – n0e-sport” (Contract No: IEE/12/017/SI2.66718-n0e-sport) (2014-2016)

#### F. Guest Editor in Refereed Scientific Journals

1. **A. Michopoulos**, (2021). Emerging Energy Technologies and Energy Savings, in: Sustainability (ISSN 2071-1050),  
[https://www.mdpi.com/journal/sustainability/special\\_issues/EmergingEnergyTech\\_EnergySavings](https://www.mdpi.com/journal/sustainability/special_issues/EmergingEnergyTech_EnergySavings)
2. Ch. Argyropoulos, **A. Michopoulos**, D. Saraga, (2021). Advances in Chemical Contaminants and Biological Droplets Dispersion into Indoor Environment, in: Atmosphere (ISSN 2073-4433),  
[https://www.mdpi.com/journal/atmosphere/special\\_issues/indoor\\_dispersion](https://www.mdpi.com/journal/atmosphere/special_issues/indoor_dispersion)
3. **A. Michopoulos** and V. Skoulou, (2021). Renewable Energy (RES) Technologies in Building and Built Environment, in Energy Efficiency (ISSN 1570-6478).

## 10. ACADEMIC ACTIVITY

### A. Invited Speaker

1. **A. Michopoulos**, N. Kyriakis, (2005). Ground source heat pump systems for heating and cooling. Energy and Sustainable Development Conference, Organizer: Technical Chamber of Greece - East Thessaly Section, 4 November, Volos, Greece.
2. **A. Michopoulos**, (2010). Efficient HVAC systems: Design and technical specifications. Conference on: Energy efficiency study and inspection of buildings, Organizer: Technical Chamber of Greece - West Macedonia Section, 18 November, Kozani, Greece.
3. **A. Michopoulos**, N. Kyriakis, (2011). Ground source heat pumps systems. Conference on Heat pump applications. Organizer: Union of Mechanical and Electrical Engineers of Northern Greece, 22 October, Thessaloniki, Greece.
4. **A. Michopoulos**, (2013). Low-energy buildings: Systems and technologies. Intermediate conference under the INTERREG project: “SERPENTE: Surpassing energy targets through efficient public building”. Organizer: Cyprus Energy Agency, 17 October, Nicosia, Cyprus.
5. **A. Michopoulos**, (2014). Public buildings: Energy intervention solutions. Conference on: Energy performance and local authorities: Challenges for economic growth. Organizer: Nicosia Municipality and Cyprus Energy Agency, 5 June, Nicosia, Cyprus.

6. **A. Michopoulos**, (2014). Public buildings: Energy upgrade technologies. Training workshop with local stakeholders under the INTERREG project: "SERPENTE: surpassing energy targets through efficient public building". Organizer: Cyprus Energy Agency, 3 October, Skarinou, Cyprus.
7. **A. Michopoulos**, V. Voulgari, T. Zachariadis, (2015). Conventional and nearly zero energy building: Energy, environmental and economic benefits. Final conference under the ERACOBUILD project: "Countdown to low carbon homes". Organizer: Cyprus Energy Agency, 18 February, Nicosia, Cyprus.
8. **A. Michopoulos**, (2015). Energy audits in sport facility centers and intervention solutions based on RES technologies. Launch workshop under the Intelligent Energy project: "Nearly zero-energy sports facilities - n0e-sport". Organizer: Cyprus Energy Agency, 4 March, Nicosia, Cyprus.
9. **A. Michopoulos**, (2015). Terminology needs in everyday life. Workshop of Hellenic Terminology Network. Organizer: European Commission, Directorate-General for Translation, Nicosia's Office, 11 September, Nicosia, Cyprus.
10. **A. Michopoulos**, (2015). Energy audit and energy savings. Final conference under the European territorial cooperation programme "GREECE-CYPRUS" project: "ENERGEIN". Organizer: Ministry of Energy, Commerce, Industry and Tourism, Republic of Cyprus, 14 October, Nicosia, Cyprus.
11. **A. Michopoulos**, (2016). Energy audit in swimming pool facilities of Nicosia Municipality and Aglantzia Municipality. Workshop under the Intelligent Energy project: "Nearly zero-energy sports facilities - n0e-sport". Organizer: Cyprus Energy Agency, 7 June, Nicosia, Cyprus.
12. **A. Michopoulos**, (2016). Energy manager: The impact on the implementation of sustainable energy plans. Workshop with municipal servants under Sustainable Energy Week 2016. Organizer: Nicosia Municipality and Strovolos Municipality, 28 June, Strovolos, Cyprus.
13. **A. Michopoulos**, (2017). Introduction to the international standard ISO 50001 and energy audits. Organizer: Employers and Industrialists Federation, 10 May, Nicosia, Cyprus.
14. **A. Michopoulos**, (2017). Inspection and maintenance of HVAC systems. Organizer: Employers and Industrialists Federation, 15 November, Nicosia, Cyprus.
15. **A. Michopoulos**, (2018). Heat pumps. Organizer: Democritus University of Thrace in the framework of COST ACTION TU 1405, 8 March, Alexandroupolis, Greece.
16. **A. Michopoulos**, (2018). Building energy demand. Organizer: Democritus University of Thrace in the framework of COST ACTION TU 1405, 8 March, Alexandroupolis, Greece.
17. **A. Michopoulos**, (2018). Heat pump design and selection. Organizer: École Polytechnique Fédérale de Lausanne (EPFL) in the framework of International Symposium on Energy Geotechnics (ESG-2018), 24 September, Lausanne, Switzerland.
18. **A. Michopoulos**, (2018). Energy Demand of Buildings. Organizer: École Polytechnique Fédérale de Lausanne (EPFL) in the framework of International Symposium on Energy Geotechnics (ESG-2018), 24 September, Lausanne, Switzerland.
19. **A. Michopoulos**, (2019). New requirements of the standard EN ISO 50001:2018. Organizer: Cyprus Organization for Standardization (CYS), 9 April, Nicosia, Cyprus.
20. **A. Michopoulos**, (2019). Introduction to Energy Analysis and Technoeconomic Evaluation. Organizer: B<sup>3</sup> Biomass waste- Bioenergy- Biochars Challenge Group, 15 August, University of Hull, Hull, UK.
21. **A. Michopoulos**, (2022). Shallow geothermal systems. Organizer: Technical University of Crete in the framework of COST ACTION CA 18219, 27 May, Chania, Greece.
22. **A. Michopoulos**, (2022). Introduction to Technoeconomic Evaluation. Organizer: Technical University of Crete in the framework of COST ACTION CA 18219, 27 May, Chania, Greece.
23. **A. Michopoulos**, (2023). The role of DHC networks in future energy systems. Organizer: European Geothermal PhD Days 2023, 5 April, University of Glasgow, Glasgow, UK.

24. **A. Michopoulos**, (2023). The role of Engineering disciplines on the improvement of energy efficiency and performance. Organizer: School of Engineering – University of Hull, 19 April, University of Hull, Hull, UK.
25. **A. Michopoulos**, (2024). Operation characteristics and experience of a ground source heat pump system in Northern Greece. Organizer: Cyprus University of Technology in the framework of COST ACTION CA 18219, 12 March, Limassol, Cyprus.

## **B. Editor/Guest Editor [ad-hoc]**

### **B1. Scientific Journals**

1. Energy Efficiency (Springer; ISSN: 1570-6478; 7 manuscripts);
2. Sustainability (Multidisciplinary Digital Publishing Institute (MDPI); ISSN: 2071-1050; 2 manuscripts);

## **C. Referee/Reviewer [ad-hoc]**

### **C1. Scientific Journals**

1. AgriEngineering (Multidisciplinary Digital Publishing Institute (MDPI); ISSN: ISSN: 2624-7402; 1 manuscript);
2. ASME Letters in Dynamic Systems and Control (American Society of Mechanical Engineers (ASME); ISSN: 2689-6125; 1 manuscript);
3. Atmosphere (Multidisciplinary Digital Publishing Institute (MDPI); ISSN: 2073-4433; 1 manuscript);
4. Applied Energy (Elsevier; ISSN: 0306-2619; 29 manuscripts);
5. Applied Sciences (Multidisciplinary Digital Publishing Institute (MDPI); ISSN: 2076-3417; 3 manuscripts);
6. Applied Thermal Engineering (Elsevier; ISSN: 1359-4311; 2 manuscripts);
7. Bulgarian Chemical Communications (Institute of Chemical Engineering-BAS; ISSN: 0324-1130; 3 manuscripts);
8. Clean Technologies (Multidisciplinary Digital Publishing Institute (MDPI); ISSN: 2571-8797; 2 manuscripts);
9. Energies (Multidisciplinary Digital Publishing Institute (MDPI); ISSN: 1996-1073; 42 manuscripts);
10. Energy (Elsevier; ISSN: 0360-5442; 59 manuscripts);
11. Energy and Buildings (Elsevier; ISSN: 0378-7788; 7 manuscripts);
12. Energy Conversion and Management (Elsevier; ISSN: 0196-8904; 11 manuscripts);
13. Energy Conversion and Management X (Elsevier; ISSN: 2590-1745; 5 manuscripts);
14. Energy Efficiency (Springer; ISSN: 1570-6478; 18 manuscripts);
15. Energy for Sustainable Development (Elsevier; ISSN: 0973-0826; 5 manuscripts);
16. Energy, Sustainability and Society (Springer; ISSN: 2192-0567; 2 manuscripts);
17. Environment, Development and Sustainability (Springer; ISSN: 1573-2975; 2 manuscripts);
18. Gases (Multidisciplinary Digital Publishing Institute (MDPI); ISSN: 2673-5628; 2 manuscripts);
19. Geothermal Energy (Springer; ISSN: 2195-9706; 1 manuscript);
20. Geothermics (Elsevier; ISSN: 0375-6505; 1 manuscript);
21. International Journal of Heat and Mass Transfer (Elsevier; ISSN: 0017-9310; 1 manuscript);
22. International Journal of Sustainable Energy (Taylor & Francis; ISSN: 1478-6451; 3 manuscripts);
23. Journal of Architectural Engineering Technology (Omics; ISSN: 2168-9717; 1 manuscript);
24. Journal of Cleaner Production (Elsevier; ISSN: 0959-6526; 7 manuscripts);
25. Renewable Energy (Elsevier; ISSN: 0960-1481; 46 manuscripts);

26. Scientific Research and Essays (Academic Journals; ISSN: 1992-2248; 1 manuscript);
27. Sustainable Cities and Society (Elsevier; ISSN 2210-6707; 23 manuscripts);
28. Sustainability (Multidisciplinary Digital Publishing Institute (MDPI); ISSN: 2071-1050; 13 manuscripts);
29. Thermal Science (Society of Thermal Engineers of Serbia; ISSN: 2334-7163; 1 manuscript).
30. Water (Multidisciplinary Digital Publishing Institute (MDPI); ISSN: 2073-4441; 1 manuscript);

## C2. International Conferences

1. Sustainable Synergies from Buildings to the Urban Scale (SBE-16), Thessaloniki, Greece, 17-19 October 2016 (5 manuscripts).
2. Sustainability in the Built Environment for Climate Change Mitigation (SBE-19), Thessaloniki, Greece, 23-25 October 2019 (2 manuscripts).
3. 1<sup>st</sup> International Conference on Construction, Energy, Environment and Sustainability (CEES 2021), Coimbra, Portugal, 12-15 October 2021 (8 manuscripts).
4. Sustainable built environments, Paving the way for achieving the targets of 2030 and beyond (SBE23), Thessaloniki, Greece, 22-24 March 2023 (3 manuscripts).
5. 2<sup>nd</sup> International Conference on Construction, Energy, Environment and Sustainability (CEES 2023), Funchal, Portugal, 27-30 June 2023 (6 manuscripts).

## C3. National Conferences

1. 10<sup>th</sup> National Conference on Renewable Energy Sources, Thessaloniki, Greece, 26-28 November 2014 (11 manuscripts).
2. 11<sup>th</sup> National Conference on Renewable Energy Sources, Thessaloniki, Greece, 14-16 March 2018 (4 manuscripts).
3. 12<sup>th</sup> National Conference on Renewable Energy Sources, Thessaloniki, Greece, 7-9 April 2021 (4 manuscripts).
4. 13<sup>th</sup> National Conference on Renewable Energy Sources, Athens, Greece, 13-15 May 2024 (3 manuscripts).

## C4. Technical Journals

1. Ktirio Technical Journal (ISSN: 1106-6598; 8 manuscripts).

# 11. CONTINUOUS PROFESSIONAL DEVELOPMENT

## A. Seminars/Workshops

1. Systems thinking deep dive, Hosting & facilitating meaningful conversations, Teambuilding through gamification. Climate KIC, April 18-20, 2018, Berlin, Germany. Facilitator: *Javier De Vicente, Factory for change, ES.*
2. Systems Innovation, Mindset development & harvesting. Climate KIC, October 31, 2018, Edinburgh, UK. Facilitator: *Richard Bubb, Symeco, UK.*
3. Coaching, Mentoring and Team Based Learning of students. Centre for Teaching and Learning (KE.DI.MA.), University of Cyprus, November 6-7, 2018, Nicosia, Cyprus. Facilitator: *Dr. Lisa Hayes, Plymouth University, UK.*
4. Learning Theories & Teaching Approaches, Developing Lessons and Schemes of Work, Presentation Skills and Technology Use to support Learning. Centre for Teaching and Learning (KE.DI.MA.), University of Cyprus, August 28, 2019, Nicosia, Cyprus. Facilitator: *Dr. Lisa Hayes, Plymouth University, UK.*
5. The Missing Course: Effective Teaching in Any Discipline. Centre for Teaching and Learning (KE.DI.MA.), University of Cyprus, December 1, 2021, Nicosia, Cyprus. Facilitator: *Assist. Prof. David Gooblar, University of Iowa, USA.*

## 12. PROFESSIONAL SKILLS and COMPETENCES

### A. Certified Instructor/Trainer/Examiner

1. Certified instructor for energy auditors. Certification body: Energy Service, Ministry of Energy, Commerce Industry and Tourism, Republic of Cyprus, under the implementation of 2012/27/EC Directive, (Leader Trainer on 7 courses).
2. Certified instructor for small-scale biomass boilers and stoves installers. Certification body: Energy Service, Ministry of Energy, Commerce Industry and Tourism, Republic of Cyprus, under the implementation of 2009/28/EC Directive, (Leader Trainer on 1 course).
3. Certified examiner for inspectors of boilers and heating systems. Certification body: Energy Service, Ministry of Energy, Commerce Industry and Tourism, Republic of Cyprus, under the implementation of 2010/31/EC Directive.
4. Certified examiner for the energy performance certificate experts. Certification body: Energy Service, Ministry of Energy, Commerce Industry and Tourism, Republic of Cyprus, under the implementation of 2010/31/EC Directive.
5. Certified instructor for energy managers. Certification body: Nuremberg Chamber of Commerce and Industry, Germany, under the EUREM standardized training and certification scheme. (Leader Trainer on 4 courses).
6. Pre-certified trainer for vocational training and lifelong learning. Certification body: National Organization for the Certification of Qualifications & Vocational Guidance (EOPPEP), Greece. Trainer ID: EA 22963.
7. Certified trainer for continuing education and training. Certification body: Greek Manpower Employment Organization (OAED), Greece. Trainer ID: 37689 (LAEK fund).
8. Certified trainer for vocational training. Certification body: Human Resource Development Authority of Cyprus (HRDAUTH), Cyprus. (Certification field: Energy).
9. Certified auditor/ lead auditor according to the ISO 50001:2011. Certification body: TUV AUSTRIA ACADEMY, Certificate No. 2016|3898.
10. Certified measurement and verification professional according to the International Measurement and Verification Protocol (IPMVP). Certification body: Association of Energy Engineers, Certificate No. 4821.
11. Certified auditor/ lead auditor according to the EN ISO 14001:2015. Certification body: Paratus Europe Limited, Certificate No. 14820.

## 13. PUBLICATIONS

### A. Overview of published material

Theses: **3**

Technical guidelines: **1**

Book chapters: **9**

Publications in peer-reviewed international journals: **28**

Publications in peer-reviewed national journals: **2**

Invited publications in reviewed national journals: **1**

Working papers in energy and environmental economics: **2**

Manuscripts under review: **3**

Peer-reviewed papers in international conferences' proceedings: **23**

Peer-reviewed extended abstracts in international conferences/ symposia: **6**

Poster presentations in international conferences: **4**

Peer-reviewed papers in national conferences' proceedings: **13**

Publications in specialized technical journals: **32**

Training manuals: **2**

Citations: **1092**; h-index = **18** (Google Scholar; 13/05/2024)

Citations: **643**; h-index = **15** (Web of Science; 13/05/2024)

Citations: **709**; h-index = **15** (Scopus; 13/05/2024)

## B. Theses

1. E. Giannoula, **A. Michopoulos**, (2001). The effects of the environmental policies on the products' reverse logistic chain using dynamic analysis. Diploma Thesis. Aristotle University of Thessaloniki, Greece, pp. 93.
2. **A. Michopoulos**, (2008). Theoretical and experimental approach of ground heat exchanger. Ph.D. Thesis. Aristotle University of Thessaloniki, Greece, ISBN: 978-960-930655-3, pp. 114.
3. **A. Michopoulos**, (2012). Evaluation and optimization of the energy saving interventions on the Hellenic buildings. M.Sc. Thesis. Hellenic Open University, Greece, pp. 178.

## C. Technical guidelines

1. **A. Michopoulos**, V. Voulgari, Th. Zachariadis (2015). A guide to ground source heat pump installation and design, Cyprus, ISBN: 978-9963-2224-1-4 (printed edition), 978-9963-2224-0-7 (e-book), pp. 44.

## D. Book chapters (peer reviewed)

1. **A. Michopoulos**, (2012). Calculation methods of HVAC load and energy consumption, in: System Design Guidebook, P.C. Papaioannou (Ed.), pp. 26-39, Ktirio Publications Ltd., ISBN: 978-960-6803-12-3.
2. **A. Michopoulos**, (2012). Space heating generation systems, in: System Design Guidebook, P.C. Papaioannou (Ed.), pp. 40-69, Ktirio Publications Ltd., ISBN: 978-960-6803-12-3.
3. **A. Michopoulos**, (2012). Space cooling generation systems, in: System Design Guidebook, P.C. Papaioannou (Ed.), pp. 70-77, Ktirio Publications Ltd., ISBN: 978-960-6803-12-3.
4. **A. Michopoulos**, (2012). Space HVAC distribution systems, in: System Design Guidebook, P.C. Papaioannou (Ed.), pp. 78-85, Ktirio Publications Ltd., ISBN: 978-960-6803-12-3.
5. **A. Michopoulos**, (2012). Space heating and cooling emission systems, in: System Design Guidebook, P.C. Papaioannou (Ed.), pp. 86-93, Ktirio Publications Ltd., ISBN: 978-960-6803-12-3.
6. **A. Michopoulos**, (2012). Auxiliary space heating and cooling systems, in: System Design Guidebook, P.C. Papaioannou (Ed.), pp. 94-95, Ktirio Publications Ltd., ISBN: 978-960-6803-12-3.
7. **A. Michopoulos**, (2012). Ventilation and air-conditioning systems, in: System Design Guidebook, P.C. Papaioannou (Ed.), pp. 96-103, Ktirio Publications Ltd., ISBN: 978-960-6803-12-3.
8. **A. Michopoulos**, (2013). Facades and energy production, in: Facades, P.C. Papaioannou (Ed.), pp. 134-145, Ktirio Publications Ltd., ISBN: 978-960-6803-13-0.
9. **A. Michopoulos**, (2020). Maintenance and upgrade of the heating, cooling, and air-conditioning systems, in: Guidelines for Building Renovations, P.C. Papaioannou (Ed.), pp. 178-191, Ktirio Publications Ltd., ISBN: 978-960-6803-21-5.

## E. Publications in peer-reviewed international journals

1. N. Kyriakis, **A. Michopoulos**, K. Pattas, (2006). On the maximum thermal load of ground heat exchangers. Energy and Buildings, Volume 38, Issue 1, pp. 25-29.
2. **A. Michopoulos**, D. Bozis, P. Kikidis, K. Papakostas, N.A. Kyriakis, (2007). Three-years operation experience of a ground source heat pump system in northern Greece. Energy and Buildings, Volume 39, Issue 3, pp. 328-334.

3. **A. Michopoulos**, G. Martinopoulos, K. Papakostas, N. Kyriakis, (2009). Energy consumption of a residential building - Comparison of conventional and RES-based systems. *International Journal of Sustainable Energy*, Volume 28, Issue 1-3, pp. 19-27.
4. K.T. Papakostas **A.K. Michopoulos**, N.A. Kyriakis, (2009). Equivalent full load hours for estimating heating and cooling energy requirements in buildings: Greece case study. *Applied Energy*, Volume 86, Issue 5, pp. 757-761.
5. **A. Michopoulos**, N. Kyriakis, (2009). Predicting the fluid temperature at the exit of the vertical ground heat exchangers. *Applied Energy*, Volume 86, Issue 10, pp. 2065-2070.
6. **A. Michopoulos**, N. Kyriakis, (2009). A new energy analysis tool for ground source heat pump systems. *Energy and Buildings*, Volume 41, Issue 9, pp. 937-941.
7. **A. Michopoulos**, N. Kyriakis, (2010). The influence of a vertical ground heat exchanger length on the electricity consumption of the heat pumps. *Renewable Energy*, Volume 35, Issue 7, pp. 1403-1407.
8. **A. Michopoulos**, K.T. Papakostas, Th. Mavrommatis, N. Kyriakis, (2010). Comparative assessment of eight models predicting the ground temperature. *JP Journal of Heat and Mass Transfer*, Volume 4, Issue 2, pp. 119-135.
9. **A. Michopoulos**, K.T. Papakostas N. Kyriakis, (2011). Potential of autonomous ground-coupled heat pump system installations in Greece. *Applied Energy*, Volume 88, Issue 6, pp. 2122-2129.
10. **A. Michopoulos**, V. Voulgari, K. Papakostas, N. Kyriakis, (2012). Evaluation of different weather files on energy analysis of buildings. *International Journal of Energy and Environment*, Volume 3, Issue 2, pp. 195-208.
11. K.T. Papakostas, **A. Michopoulos**, Th. Mavrommatis, N. Kyriakis, (2013). Changes of temperature data for energy studies over time and their impact on energy consumption and CO<sub>2</sub> emissions. The case of Athens and Thessaloniki – Greece. *International Journal of Energy and Environment*, Volume 4, Issue 1, pp. 59-72.
12. **A. Michopoulos**, T. Zachariadis, N. Kyriakis, (2013). Operation characteristics and experience of a ground source heat pump system with a vertical ground heat exchanger. *Energy*, Volume 51, pp. 349-357.
13. **A. Michopoulos**, V. Voulgari, N. Kyriakis, (2013). University buildings in Greece. Energy analysis of heating and cooling demand. *International Journal of Energy and Environment*, Volume 4, Issue 3, pp. 399-408.
14. **A. Michopoulos**, V. Skoulou, V. Voulgari, A. Tsikaloudaki, N.A. Kyriakis, (2014). The exploitation of biomass for building space heating in Greece: Energy, environmental and economic considerations. *Energy Conversion and Management*, Volume 78, pp. 276-285.
15. **A. Michopoulos**, V. Voulgari, A. Tsikaloudaki, Th. Zachariadis, (2016). Evaluation of ground source heat pump systems for residential buildings in warm Mediterranean regions: The example of Cyprus. *Energy Efficiency*, Volume 9, Issue 6, pp. 1421-1436.
16. **A. Michopoulos**, I. Ziogou, M. Kerimis, T. Zachariadis, (2017). A study on hot-water production of hotels in Cyprus: Energy and environmental considerations. *Energy and Buildings*, Volume 150, pp. 1-12.
17. D.A. Katsaprakakis, K. Georgila, G. Zidianakis, **A. Michopoulos**, N. Psarras, D.G. Christakis, C. Condaxakis, S. Kanouras, (2017). Energy upgrading of buildings. A holistic approach for the natural history museum of Crete, Greece. *Renewable Energy*, Volume 114, pp. 1306-1336.
18. I. Ziogou, **A. Michopoulos**, V. Voulgari, T. Zachariadis, (2017). Energy, environmental and economic assessment of electricity savings from the operation of green roofs in urban office buildings of a warm Mediterranean region. *Journal of Cleaner Production*, Volume 168, pp. 346-356.



19. T. Zachariadis, **A. Michopoulos**, Y. Vougiouklakis, K. Piripitsi, C. Ellinopoulos, B. Struss, (2018). Determination of cost-effective energy efficiency measures in buildings with the aid of multiple indices. *Energies*, Volume 11, Issue 1, paper No. 191.
20. I. Ziogou, **A. Michopoulos**, V. Voulgari, T. Zachariadis, (2018). Implementation of green roof technology in residential buildings and neighborhoods of Cyprus. *Sustainable Cities and Society*, Volume 40, pp. 233-243.
21. Ch. Sotiriou, **A. Michopoulos**, Th. Zachariadis, (2019). On the cost-effectiveness of national economy-wide greenhouse gas emissions abatement measures. *Energy Policy*, Volume 128, pp. 519-529.
22. A. Klimek, I. Ziogou, **A. Michopoulos**, Th. Zachariadis, S. Gulma, D. Suhanova, M. Agbonlahor, S. Jung-Waclik, (2019). Green roofs dissemination regarding their potential contribution in addressing the UHI effect. *Acta Innovations*, Vol. 31, pp. 71-85.
23. K.P. Tsagarakis, L. Efthymiou, **A. Michopoulos**, A. Mavragani, A.S. Anelkovic, F. Antolini, M. Bacic, D. Bajare, M. Baralis, W. Bogusz, S. Burlon, J. Figueira, M.S. Genc, S. Javed, A. Jurelionis, K. Koca, G. Ryżyński, J. Urchueguia, B. Žlender, (2020). A review of the legal framework in shallow geothermal energy in selected European countries: Need for guidelines. *Renewable Energy*, Volume 147, Part 2, pp. 2556-2571.
24. M.J. Taylor, H.A. Alabdrabalameer, **A.K. Michopoulos**, R. Volpe, V. Skoulou, (2020). Augmented leaching pretreatments for forest wood waste and their effect on ash composition and the lignocellulosic network. *ACS Sustainable Chemistry & Engineering*, Volume 8, Issue 14, pp. 5674-5682.
25. M.J. Taylor, **A.K. Michopoulos**, A.A. Zabaniotou, V. Skoulou, (2020). Probing synergies between lignin-rich and cellulose compounds for gasification. *Energies*, Volume 13, paper No. 2590.
26. D.A. Katsaprakakis, **A. Michopoulos**, V. Skoulou, I. Dakanali, S. Pappa, I. Antonakakis, D. Christakis, C. Condaxakis, (2022). A multidisciplinary approach for an effective and rational energy transition in Crete Island, Greece. *Energies*, Volume 13(9), paper No. 3010.
27. D.A. Katsaprakakis, Th. Moschovos, **A. Michopoulos**, I. Kargas, O. Flabouri, G. Zidianakis, (2022). Feasibility for the introduction of decentralised Combined Heat and Power cogeneration plants in agricultural processes. A case study for the heating of algae cultivation ponds. *Sustainable Energy Technologies and Assessments*, Volume 53, Part D, 102757.
28. C. Argyropoulos, V. Skoulou, G. Efthimiou, **A. Michopoulos**, (2022). Airborne transmission of biological agents within the indoor built environment: A multidisciplinary review. *Air Quality, Atmosphere and Health*, Volume 16, pp.477-533.

#### **F. Publications in peer-reviewed national journals**

1. N. Kyriakis, **A. Michopoulos**, K. Pattas, (2002). Ground heat exchanger of Pylaia. Energy evaluation after the first year of operation. *Technika Chronika, Scientific Journal of the TCG*, Volume IV, Issue 1-2, pp. 41-48.
2. **A. Michopoulos**, D. Bozis, P. Kikidis, K. Papakostas, N.A. Kyriakis, (2011). Ground source heat pump system of Pylaia's new city hall - Operation results. *Technika Chronika, Scientific Journal of the TCG*, Issue 1, pp. 1-8.

#### **G. Invited publications in reviewed national journals**

1. T. Zachariadis, **A. Michopoulos**, Y. Vougiouklakis, B. Struss, K. Piripitsi, C. Ellinopoulos, (2017). In-depth assessment of the energy efficiency potential in Cyprus. *Cyprus Economic Policy Review*, Volume 11, No. 2, pp. 86-112.

#### **H. Working papers in energy and environmental economics**

1. T. Zachariadis, **A. Michopoulos**, Y. Vougiouklakis, B. Struss, K. Piripitsi, C. Ellinopoulos, (2017). In-depth assessment of the energy efficiency potential in Cyprus. Economic Policy Paper 06-17, Economics Research Centre, University of Cyprus, October 2017.
2. Chr. Sotiriou, **A. Michopoulos**, Th. Zachariadis, (2018). On the cost effectiveness of national economy - Wide greenhouse gas emissions abatement measures. Economic Policy Paper 05-18, Economics Research Centre, University of Cyprus, November 2018.

#### I. Manuscripts under review

1. D.M. Papadakis, A. Savvides, A. Michael, **A. Michopoulos**, (2023). Best practices in sustainable mobility: A Systematic literature review. Fuel Communications.
2. E. Kyritsi, D. Katsaprakakis, E. Dakanali, Y. Yiannakoudakis, G. Zidianakis, A. Michael, **A. Michopoulos**, (2023). Energy refurbishment of two historical buildings in Mediterranean area. Journal of Cultural Heritage.
3. J.S. Figueira, A.G. Gil, A. Vieira, **A.K. Michopoulos**, D.P. Boon, F. Loveridge, F. Cecinato, G. Götzl, J. Epting, K. Zosseder, M. Bloemendal, M. Woods, P. Christodoulides, P.J. Vardon, S.P. Borg, S.E. Poulsen, Th.R. Andersen, (2024). Shallow geothermal energy systems for district heating and cooling networks. Renewable Energy.

#### J. Peer-reviewed papers in international conferences' proceedings

1. **A. Michopoulos**, D. Bozis, P. Kikidis, K. Papakostas and N. Kyriakis, (2005). Ground source heat pump system in a public building of northern Greece - Operation experience and results. 36<sup>th</sup> International Congress on Air-Conditioning, Heating and Refrigerating, (HVAC & R), Belgrade, Serbia, November 30 - December 2.
2. **A. Michopoulos**, N. Kyriakis, Th. Mavrommatis, (2006). Comparative assessment of three models for predicting ground temperature. Renewable Energy 2006, Makuhari Messe, Chiba, Japan, October 9-13.
3. **A. Michopoulos**, G. Martinopoulos, K. Papakostas, N. Kyriakis, (2007). Energy consumption of a residential building - Comparison of conventional and RES-based systems. 38<sup>th</sup> International Congress on Air-Conditioning, Heating and Refrigerating, (HVAC & R), Belgrade, Serbia, December 5-7.
4. **A. Michopoulos**, N. Kyriakis, (2008). A new energy analysis tool for ground source heat pump systems. 39<sup>th</sup> International Congress on Air-Conditioning, Heating and Refrigerating, (HVAC & R), Belgrade, Serbia, December 3-5.
5. K.G. Tsikaloudaki, T.G. Theodosiou, **A.K. Michopoulos**, (2013). Comparative assessment of the Greek and the Cypriot regulation for thermal insulation by their implementation in a typical building. 4<sup>th</sup> International Conference on Renewable Energy Sources and Energy Efficiency - New Challenges, Nicosia, Cyprus, June 6-7, Paper No. 1312, pp. 79-88.
6. **A. Michopoulos**, K. Tsikaloudaki, V. Voulgari, T. Zachariadis, (2014). Ground source heat pump systems for residential buildings in warm climates: Energy, environmental and economic considerations. The First International ASHRAE Conference on Efficient Building Design - Materials and HVAC Equipment Technologies, Beirut, Lebanon, October 2-3, Paper No. 14790.
7. **A. Michopoulos**, A. Tsikaloudaki, V. Voulgari, Th. Zachariadis, (2015). Analysis of ground source heat pump systems in residential buildings. World Geothermal Congress (WGC2015), April 19-24, Australia - New Zealand, Paper No. 29014.
8. **A. Michopoulos**, Th. Zachariadis, (2016). Geothermal energy use, country update for Cyprus. European Geothermal Congress (EGS2016), September 19-24, Strasbourg, France, (invited paper).
9. K. Loukaidou, **A. Michopoulos**, Th. Zachariadis, (2016). Nearly zero energy buildings: Cost-optimal analysis of building envelope characteristics. SBE16 Thessaloniki "Sustainable Synergies from

- Buildings to the Urban Scale”, October 17-19, Thessaloniki, Greece, Paper No. A13, *Published also in: Procedia Environmental Sciences, Volume 38, pp. 20-27, 2017.*
10. **A. Michopoulos**, M. Petrakkas, A. Charalambous, (2016). Swimming sport centers: Energy and environmental analysis. SBE16 Thessaloniki “Sustainable Synergies from Buildings to the Urban Scale”, October 17-19, Thessaloniki, Greece, Paper No. G28.
  11. T. Zachariadis, **A. Michopoulos**, Y. Vougiouklakis, K. Piripitsi, C. Ellinopoulos, B. Struss, (2017). In-depth assessment of the energy efficiency potential in Cyprus. 15<sup>th</sup> IAEE European Conference 2017 “heading towards sustainable energy systems: Evolution or revolution?”, September 3-6, Vienna, Austria, Paper No. 435.
  12. I. Ziogou, **A. Michopoulos**, V. Voulgari, Th. Zachariadis, (2017). Analysis of the implementation of green roof technology in the residential building sector of Cyprus. NTNU Sustainability Science Conference 2017, October 18-20, Trondheim, Norway, Paper No. 131.
  13. **A. Michopoulos**, (2019). Geothermal energy use, country update for Cyprus. European Geothermal Congress (EGS2019), June 11-14, De Haag, The Netherlands, (invited paper).
  14. A. Michael, A. Kyriakidis, **A. Michopoulos**, E. Kyritsi, D. Stimoniaris, D. Tsiमितros, T. Kottas, (2019). A case study of the energy refurbishment of a public building: Assessment of the current situation and evaluation of retrofit solutions. 12<sup>th</sup> International Scientific Conference on Energy and Climate Change, October 9-11, Athens, Greece.
  15. **A. Michopoulos**, (2020). Geothermal developments in Cyprus - Country update 2019. World Geothermal Congress (WGC2020), May 21-26, 2021, Reykjavik, Iceland, Paper No. 1050, (invited paper).
  16. A. Panagidis, A. Savvides, **A. Michopoulos**, (2021). Smart Eco-districts: Concepts and Perspectives from Cyprus. Nordic Edge/UiS Research Symposium on Smart Cities, September 22, Stavanger, Norway, Paper No. 47.
  17. M. Englezou, C. Heracleous, A. Kyriakidis, E. Kyritsi, **A. Michopoulos**, A. Michael, (2022). Evaluation of indoor comfort and visual conditions and analysis of energy intervention solutions in a public building in Cyprus. 17<sup>th</sup> Conference on Sustainable Development of Energy, Water and Environment Systems (SDEWES), November 6-10, Paphos, Cyprus, Paper No. 160.
  18. E. Kyritsi, A. Kyriakides, A. Michael, M. Philokyprou, A. Savvides, **A. Michopoulos**, (2022). Environmentally responsive design in British colonial architecture within the Mediterranean basin: the case of the presidential palace of Cyprus. 16<sup>th</sup> International Conference on Urban Regeneration and Sustainability, October 10-12, Rome, Italy, Paper No. 28048, *Published also in: WIT Transactions on Ecology and the Environment, Volume 260, pp.451-464, 2022.*
  19. E. Kyritsi, M. Philokyprou, A. Kyriakidis, A. Michael, **A. Michopoulos**, (2023). Energy retrofitting of heritage buildings: An integrated methodology. SBE23 Thessaloniki “Sustainable built environments: Paving the way for achieving the targets of 2030 and beyond”, March 12-24, Thessaloniki, Greece, Paper No. 151, *Published also in: IOP Conference Series: Earth and Environmental Science, Volume 1196, 012108, 2023.*
  20. S. Thravalou, **A. Michopoulos**, K. Alexandrou, G. Artopoulos, (2023). Energy retrofit strategies of built heritage: Using Building Information Modelling tools for streamlined energy and economic analysis. SBE23 Thessaloniki “Sustainable built environments: Paving the way for achieving the targets of 2030 and beyond”, March 12-24, Thessaloniki, Greece, Paper No. 150, *Published also in: IOP Conference Series: Earth and Environmental Science, Volume 1196, 012115, 2023.*
  21. C. Heracleous, **A. Michopoulos**, A. Michael, A. Savvides, (2023). Comprehensive energy, technoeconomic and thermal comfort assessment of school premises in Cyprus and their proposed retrofit interventions. 18<sup>th</sup> Healthy Buildings Europe Conference, June 11-14, Aachen, Germany, Paper No. 1118.
  22. C. Heracleous, A. Michael, I. Ioannou, G. Stavrakakis, D. Tziritas, D. Bakirtzis, Z. Drosou, N. Zografakis, **A. Michopoulos**, (2023). Promotion of sustainable educational buildings in association

with sustainable mobility schemes: Case studies in Cyprus and Greece. 2<sup>nd</sup> International Conference on Construction, Energy, Environment and Sustainability (CEES 2023), June 27-30, Funchal, Madeira, Portugal, Paper No. 304.

23. V. Skoulou, H.A. Alabdrabalamer, **A.K. Michopoulos**, (2023). Latest advancements on optimised solid biofuels production for utilisation in residential buildings. 2<sup>nd</sup> International Conference on Construction, Energy, Environment and Sustainability (CEES 2023), June 27-30, Funchal, Madeira, Portugal, Paper No. 305.

#### **K. Peer-reviewed extended abstracts in international conferences/ symposia**

1. C. Heracleous, G.M. Stavrakakis, D. Tziritas, D. Bakirtzis, N. Zografakis, G. Pantelakis, Z. Drosou, E. Petrakis, P. Savvaki, Z. Vitorou, **A. Michopoulos**, (2023). Transforming a School of Crete into Intelligent Nearly Zero Energy Building. 4<sup>th</sup> Symposium on Circular Economy and Sustainability, June 19-21, Heraklion, Greece, Paper No. 1249.
2. V. Skoulou, A. Kyriakidis, **A. Michopoulos**, (2024). Mapping the relationship between Industrial Symbiosis and Circular Economy. Symposium on Industrial Symbiosis from a technical perspective: challenges and opportunities, September 10, Brussels, Belgium.
3. V. Skoulou, and **A. Michopoulos**, (2024). Understanding the Industrial Symbiosis through a waste-to-energy approach. Symposium on Industrial Symbiosis from a technical perspective: challenges and opportunities, September 10, Brussels, Belgium.
4. A. Kyriakidis, and **A. Michopoulos**, (2024). Industrial Symbiosis on the production sectors of Cyprus: Lessons learnt. Symposium on Industrial Symbiosis from a technical perspective: challenges and opportunities, September 10, Brussels, Belgium.
5. A. Kyriakidis, H. Jaber, A. Georgiou, R. Panagiotou, I. Ioannou, **A. Michopoulos**, (2024). Novel design of cementitious composites with the use of limestone quarry waste and silica fume. EMI 2024 International Conference - ASCE Engineering Mechanics Institute 2024, September 11-13, Vienna, Austria, Paper No. 250.
6. A. Kyriakidis, H. Jaber, A. Georgiou, R. Panagiotou, I. Ioannou, **A. Michopoulos**, (2024). Enhancing the sustainability of cementitious composites with the use of industrial by-products as cement and aggregate replacements. SUBLime Conference 2024 – Towards the next generation of sustainable masonry systems: Mortars, renders, plasters, and other challenges, November 11-12, Funchal, Madeira, Portugal, Paper No. 261.

#### **L. Poster presentations in international conferences**

1. **A. Michopoulos**, V. Voulgari, Th. Zachariadis, (2015). From current construction practice to nearly zero energy buildings. Energy, environmental and economic benefits for residential buildings in Cyprus. World Sustainable Energy Days 2015, February 25-27, Wels Austria.
2. C. Sotiriou, **A. Michopoulos**, Th. Zachariadis, (2018). Development of marginal greenhouse gas emissions abatement cost curves for Cyprus. 41<sup>st</sup> IAEE International Conference, Transforming Energy Markets, Jun 10-13, Groningen, Netherlands.
3. S. Thravalou, G. Antoniou, C. Christoforou, C. Euthyvolou, D. Georgiou, K. Ioannou, K. Kekkou, P.R. Kontonis, C. Koufopavlou, D. Kozakos, A. Koufexis, M. Kynigos, A. Spyrou, A. Symeou, **A. Michopoulos**, (2018). Capstone design project: A methodology approach towards sustainable energy retrofit solutions in Cyprus. 6<sup>th</sup> International Conference on Renewable Energy Sources & Energy Efficiency, November 1-2, Nicosia, Cyprus.
4. H.A. Alabdrabalameer, **A.K. Michopoulos**, V. Skoulou, (2022). From mining to cultivating our next generation solid fuels: How agriculture can tackle hunger, energy poverty and polluted indoor air. Sustainable Development Goals Conference 2022. July 6-7, Hull UK.

#### **M. Peer-reviewed papers in national conferences' proceedings**

1. P. Georgiadis, D. Vlachos, **A. Michopoulos**, (2001). The effect of environmental parameters on product recovery using system dynamic analysis. In proceedings of 14<sup>th</sup> International Conference on Operational Research, Xanthi, Greece.
2. **A. Michopoulos**, D. Bozis, N. Kyriakis, (2006). Ground source heat pump system of Pylaia's new city hall. Operation results of 2003 - 2005. In proceedings of 8<sup>th</sup> National Conference on Renewable Energy Sources, pp. 511-518, Thessaloniki, Greece.
3. **A. Michopoulos**, K. Pattas, N. Kyriakis, (2006). The maximum thermal load of a ground heat exchanger as a function of soil temperature. In proceedings of 8<sup>th</sup> National Conference on Renewable Energy Sources, pp. 519-523, Thessaloniki, Greece.
4. **A. Michopoulos**, N. Kyriakis, (2009). The influence of a vertical ground heat exchanger length on the electricity consumption of the heat pumps. In proceedings of 9<sup>th</sup> National Conference on Renewable Energy Sources, pp. 573-580, Geroskipou, Paphos, Cyprus.
5. K. Papakostas, **A. Michopoulos**, Th. Mavrommatis, N. Kyriakis, (2009). Temperature data of Athens and Thessaloniki for energy studies of buildings – Comparison between the decades 1983-1992 and 1993-2002. In proceedings of 3<sup>rd</sup> Hellenic Conference of Environment Council of AUTH, pp. 433-440, Thessaloniki, Greece.
6. **A. Michopoulos**, K. Papakostas, P. Kollios, N. Kyriakis, (2009). Potential of hybrid ground-coupled heat pump system installations in Greece. International Forum "Geothermal Energy in the Spotlight", GES-2009, Thessaloniki, Greece, ISBN 978-960-6746-07-9.
7. D. Bozis, **A. Michopoulos**, G. Kotsou, K. Papakostas, N. Kyriakis, (2009). Energy piles: A case study in Greece. International Forum "Geothermal Energy in the Spotlight", GES-2009, Thessaloniki, Greece, ISBN 978-960-6746-07-9.
8. **A. Michopoulos**, V. Voulgari, K. Tsikaloudaki, T. Zachariadis, (2014). Energy, environmental and economic benefits of the installation of ground source heat pumps systems on commercial buildings of Cyprus. In proceedings of 10<sup>th</sup> National Conference on Renewable Energy Sources, Thessaloniki, Greece, November 26-28, Volume A, pp. 447-457, Paper No: 80.
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