

## **CURRICULUM VITAE**

**Athanassios A. Argiriou**  
**Physicist, D.E.A. (M.Sc.), Ph.D., FRMetS**

**Professor of Atmospheric & Environmental Physics**  
**Department of Physics, Laboratory of Atmospheric Physics, University**  
**of Patras, Greece**

**November 2025**

## GENERAL INFORMATION

### PERSONAL DATA

|                |                      |
|----------------|----------------------|
| NAME           | Athanassios ARGIRIOU |
| DATE OF BIRTH  | 27 December 1960     |
| PLACE OF BIRTH | Athens, Greece       |
| MARITAL STATUS | Married – 2 children |

### HOME ADDRESS

Aritis 36B, GR-264 42 Patras, Greece

### BUSINESS ADDRESS

University of Patras,  
Department of Physics, Section of Applied Physics,  
GR-265 00 Patras, Greece.  
tel: +30 261099 6078  
e-mail: [athanarg@upatras.gr](mailto:athanarg@upatras.gr),

### STUDIES

- 1983 Physics Diploma, University of Patras.
- 1984 D.E.A. en Energetique Physique, Institut National Polytechnique de Grenoble.
- 1987 Doctorat Transferts Thermiques Universite de Provence (Aix-Marseille I).

### PARTICIPATION TO ASSOCIATIONS

- Hellenic Meteorological Society
- European Geosciences Union
- Fellow Royal Meteorological Society

### LANGUAGES

- Greek (Mother language)
- French (Fluently)
- English (Proficiency Degree)

## PROFESSIONAL EXPERIENCE

1983 - 1984

Graduate student at Institut National Polytechnique de Grenoble.

1984 - 1987

Graduate Student at the Laboratory Systemes Energetiques et Transferts Thermiques (SETT),  
Universite de Provence.

1987 - 1992

Freelance consultant on energy building physics.

1990 - 1991

Professor of Fluid Mechanics Lab, Technical Institute of Piraeus.

1991

Contractor as an expert of the Centre for Renewable Energy Sources.

1992 - 2002

Research associate of the University of Athens - Dept. of Applied Physics.

1994 - 2003

Researcher at IMPAE-NOA.

2003 - today

Department of Physics – School of Natural Sciences – University of Patras

Assistant Professor of Atmospheric and Environmental Physics (2003), Assistant Professor with  
tenure (2007), Associate Professor (2009), Professor (2014).

### Awards

- RMetS International Journal of Climatology Editors' Award for 2023.

### Reviewer - Evaluator

- Reviewer for the evaluation of research proposals at the Greek Secretariat of Research and Technology.
- Reviewer for the journals "Aerosol and Air Quality Research", "Atmospheric Environment", "Atmospheric Research", "Climate Dynamics", "Energy & Buildings", "Energy – The International Journal", "Environmental Modelling and Software", "Environmental Technology", "Global Nest", "Hydrology Research", "International Journal of Green Energy", "International Journal of Systems Science", "Journal of Environmental Management", "Journal of Hydrology", "Journal of the Air & Waste Management Association", "Mathematical Problems in Engineering", "Meteorological Applications", "Renewable Energy", "Science of the Total Environment", "Simulation Modelling: Practice and Theory", "Solar Energy", "The Energy Journal", "Water, Air and Soil Pollution", "Theoretical and Applied Climatology", "Atmosphere", "Atmosfera", "Water", "Wind Energy".
- Reviewer for the international conference "Building Simulation '97" organized by the International Building Performance Simulation Association.
- Reviewer of research projects for the Ecole Polytechnique Federale de Lausanne.

- Representative of the Hellenic Standardisation Organisation to the Technical Committee 312 of the European Standardisation Organisation.
- Reviewer of research proposals for the 6<sup>th</sup> Framework program of the European Commission (Call Identifier FP6-2002-TREN-1 Area Sustainable Energy Systems), April 2003.
- Reviewer of research proposals for the for the Hellenic Ministry for Education (Heraklitos call) (2003).
- Evaluator of research proposals for the for the Hellenic Secretariat for Research & Technology (2003).
- Evaluator of research proposals for the for the Hellenic Ministry for Education (Pythagoras call) (2004).
- Evaluator of research proposals for the Research Promotion Foundation of the Republic of Cyprus (2009, 2011).
- Evaluator of research proposals for the 7th Framework program of the European Commission (Call Identifier FP7-ENERGY.2011.4.1-2 Low/Medium temperature solar thermal systems for industrial process heat) May 2011.
- Evaluator of research proposals for ENPI CBC MED Strategic Projects, in the field of Thermal Solar Power, October 2011.
- Evaluator of research proposals for the Executive Agency for Higher Education, Research, Development and Innovation Funding (UEFISCDI) of Romania, calls PN-II-ID-PCE-2012, PN-II-RU-TE-2012 and PN-II-RU-PD-2012 (2012).
- Evaluator of research proposal for the programs «Collaboration between Greece and China» and «Continuous Learning Program for the Universities» (2012).
- Evaluator of research proposals for the call H2020-LCE-2014-1 - Solar thermal technologies (contract #: CT-EX2002B019057-105).
- Certified as an Open and Distance Learning tutor, by the Hellenic Open University, July 2016.
- Evaluator of research proposals for the Executive Agency for Higher Education, Research, Development and Innovation Funding (UEFISCDI) of Romania, calls PN-III-P2-2.1-PED-2019 and PN-III-P1-1.1-TE-2019 (2019).
- Evaluator for the 1<sup>st</sup> Call for H.F.R.I. Research Projects to support Faculty Members and Researchers \2019 1<sup>st</sup> and 2<sup>nd</sup> Phases (2020).
- Evaluator for the 2<sup>nd</sup> Call for H.F.R.I. Research Projects to support Faculty Members and Researchers \2020-2ndFM-SA8-1<sup>st</sup> and 2<sup>nd</sup> Phases (2021).
- Evaluator EuroTechPostdoc2 fellowship programme (a Marie Skłodowska-Curie COFUND project under Horizon 2020) (2021).
- Evaluator EuroTechPostdoc2 fellowship programme (a Marie Skłodowska-Curie COFUND project under Horizon 2020) (2022).
- Associate Editor International Journal of Climatology (2021 - 2025)
- Deputy Editor International Journal of Climatology (2025 - )

#### **Member of Jurys abroad**

- Member of the jury for the evaluation of D.E.A. projects at the Ecole Nationale Supérieure des Travaux Publics de l'Etat, Lyon, France (1994).
- Member of the Ph.D. jury of Michael Kummert', Fondation Universitaire Luxembourgeoise, Belgium (1998).
- Member of the Ph.D. jury of Mr. Nikolaos Roukounakis, Ecole Normale Supérieure, Paris, France (2019).
- Member of the Ph.D. jury of Mrs Khanh-Ninh Nguyen, Université Paris Cité (2023).

### **Conference Organizing / Scientific Committees**

- Member of the scientific committee of the Conference “Renewable Energy & Environmental Technologies” organized by the Interuniversity Renewable Energies Network (RENES-net), Athens, 2000.
- Member of the Technical Committee of the International Conference on Space Technology, 24-26 August 2009, Thessaloniki, Greece.
- Organizer of the 10<sup>th</sup> International Conference on Meteorology – Climatology – Atmospheric Physics, Patras, Greece, 25 – 28 May 2010.
- Member of the scientific committee of the 11<sup>th</sup> International Conference on Meteorology, Climatology and Atmospheric Physics COMECAP 2012, Athens, Greece, 29 May – 1 June, 2012.
- Organizer of the International Workshop on the Impact of Maritime Activities on the Air Quality of Port Cities of Patras and Brindisi, Thessaloniki, Greece, January 30-31, 2014. Organized in the frame of the CESAPO project (ETCP GREECE – ITALY 2007-2013).
- Member of the scientific committee of the 12<sup>th</sup> International Conference on Meteorology, Climatology and Atmospheric Physics COMECAP 2014, Heraklion, Greece, 29 – 31 May, 2014.
- Chairman of the organizing committee of the Intelligent Transportation Systems and Smart Cities 2014 Conference, organized by the University of Patras, Department of Civil Engineering, in cooperation with ITS Hellas-Hellenic Intelligent Transport Systems, Patras, Greece, November 19 – 22, 2014.
- Member of the scientific committee of the 10<sup>th</sup> National Conference on Renewable Energy Sources, Thessaloniki, Greece, November 26 – 27, 2014.
- Member of the scientific committee of the 13<sup>th</sup> International Conference on Meteorology, Climatology and Atmospheric Physics COMECAP 2016, Thessaloniki, Greece, 19 – 21 September, 2016.
- Member of the scientific committee of the 15<sup>th</sup> International Conference on Environmental Science and Technology (CEST2017), August 31 – September 2, 2017, Rhodes, Greece.
- Member of the organizing committee of the International Conference on Smart Cities and Mobility as a Service, Patras, Greece, 7-8 December 2017.
- Member of the scientific committee of the 19<sup>th</sup> Educational Congress “Highlights in Oncology”, Patras, Greece, May 21-22, 2021.
- Chair of the Organizing Committee of the 13<sup>th</sup> EUMETNET Data Management, Laboratory of Atmospheric Physics of the University of Patras, Patras, Greece, October 25 – 27 2021.
- Evaluator ERC 2023 call.

### **Other Committees**

- Member of the Technical Committee 35 «Solar Energy» of the Hellenic Standardisation Organisation.
- Member of the working group on Higher Education of the New Democracy party (member of the European People’s Party), April 2016.
- National Representative of the General Secretariat for Research and Development of Greece at the National Network on Climate Change and its Consequences, February 2020.

### **Major administrative offices at the University of Patras**

- Head of the Laboratory of Atmospheric Physics, Department of Physics (2006 - 2016).
- Head of the Section of Applied Physics, Department of Physics (2010 – 2011, 2015-2016).

- Deputy Chair of the Department of Physics (2011 – 2013).
- Director of the Graduate Studies Program, Department of Physics (2012 – 2013, 2015 - 2019).
- Head of the Department of Physics (2013 - 2015)

## RESEARCH EXPERIENCE

I started my research activities during the year 1981 - 1982 with my diploma thesis at the Second Laboratory of Physics of the University of Patras, Greece. The subject of this thesis was the experimental study of underground heat storage, by means of earth-to-air heat exchangers.

After that I participated to the research projects listed below:

1. Perspectives of the development of the renewable energy sources in Greece.

|                    |                                                       |
|--------------------|-------------------------------------------------------|
| Period             | 1982 – 1983                                           |
| Collaboration with | Laboratory Physics II - University of Patras (Greece) |
| Financed by        | Hellenic Ministry of National Economy                 |
| Position           | Researcher                                            |

2. Experimental study of the isothermal diffusion of humidity in concrete.

|                    |                                              |
|--------------------|----------------------------------------------|
| Period             | 1983 – 1984                                  |
| Collaboration with | Institut de Mecanique de Grenoble (France)   |
| Financed by        | Centre National de la Recherche Scientifique |
| Position           | Researcher                                   |

3. Measurements using infrared thermography - Calibration and signal processing. Application to the validation of a numerical model describing the thermal behaviour of the absorber of a concentrating solar collector.

|                    |                                              |
|--------------------|----------------------------------------------|
| Period             | 1984 – 1987                                  |
| Collaboration with | Universite de Provence (France)              |
| Financed by        | Centre National de la Recherche Scientifique |
| Position           | Researcher                                   |

4. Potential of using solar energy in the brick manufacturing process.

|                    |                               |
|--------------------|-------------------------------|
| Period             | 1987 – 1988                   |
| Collaboration with | PROTECHNA LTD                 |
| Financed by        | PYRAMOS BRICK MANUF. – CYPRUS |
| Position           | Researcher                    |

5. Thermal analysis of an appartments building in Athens.

|                    |                                       |
|--------------------|---------------------------------------|
| Period             | 1988                                  |
| Collaboration with | EKTENEPOL                             |
| Financed by        | European Union (EU) - CAMUR PROGRAMME |
| Position           | Researcher                            |

6. Thermal analysis, daylighting and passive cooling of a hotel complex in Crete.  
 Period 1988  
 Collaboration with MELETITIKI LTD – ALEX TOMBAZIS & ASSOCIATES  
 Financed by E.U. DG XII - JOULE PROGRAMME - PROJECT BUILDING 2000  
 Position Researcher
7. Investigation of the Greek energy market.  
 Period 1988 – 1992  
 Collaboration with Hellenic Productivity Center  
 Financed by Hellenic Ministry for Industry, Research and Technology  
 Position Researcher
8. Thermal and daylight analysis of the atrium of the atrium of the Medical School of the University of Ioannina.  
 Period 1988  
 Collaboration with University of Ioannina  
 Financed by E.U. DG XII - JOULE PROGRAMME - PROJECT BUILDING 2000  
 Position Researcher
9. Daylight analysis of the atrium of the atrium of the Medical School of the University of Ioannina.  
 Period 1988  
 Collaboration with University of Ioannina  
 Financed by E.U. DG XVII, DEMONSTRATION PROJECT SE 537/83.  
 Position Researcher
10. Energy savings in public and commercial buildings.  
 Period 1988 – 1992  
 Collaboration with Greek Productivity Centre  
 Financed by Hellenic Ministry for Industry, Research and Technology  
 Position Researcher
11. Thermal analysis of a passive solar kindergarten in Pedini - Ioannina.  
 Period 1990  
 Collaboration with E. Stournas Triantis Architecture Cabinet  
 Financed by EU, DG XVII, Demonstration project SE 127/88.
12. The European building simulation code E.S.P. and comparison of it's results to other simulation tools.  
 Period 1990  
 Collaboration with Technical Institute of Piraeus.  
 Financed by Technical Institute of Piraeus.  
 Position Researcher
13. PASSYS Project - Model Validation and Development sub-group.  
 Period 1989 – 1992  
 Collaboration with PROTECHNA LTD  
 Financed by EU, DG XII JOULE PROGRAMME, Contract no. JOUE-0022-C (GDF)  
 Position Researcher
14. PASSYS - Test Site Management.

|                    |                                                            |
|--------------------|------------------------------------------------------------|
| Period             | 1991 – 1992                                                |
| Collaboration with | IMPAE – NOA / CRES                                         |
| Financed by        | EU, DG XII JOULE PROGRAMME, Contract no. JOUE-0022-C (GDF) |
| Position           | Researcher                                                 |

15. Technical and economical evaluation of the passive solar systems and hybrid technologies available today in the European Union for passive cooling of buildings.

|                    |                              |
|--------------------|------------------------------|
| Period             | 1990 – 1991                  |
| Collaboration with | CRES                         |
| Financed by        | CRES - EU, VALORIN PROGRAMME |
| Position           | Researcher                   |

16. Passive cooling for buildings - PASCOOL.

|                    |                                                            |
|--------------------|------------------------------------------------------------|
| Period             | 1992 – 1994                                                |
| Collaboration with | University of Athens - Dept. of Applied Physics            |
| Financed by        | EU-DG XII, JOULE II programme (Contract No JOU2-CT92-0013) |
| Position           | Researcher                                                 |

17. Monitoring of the atrium of the Philosophical School of the University of Ioannina.

|                    |                                                    |
|--------------------|----------------------------------------------------|
| Period             | 1992 – 1994                                        |
| Collaboration with | Technical Service of the University of Ioannina    |
| Financed by        | EU-DG XVII (Demonstration project no : SE 537/83). |
| Position           | Researcher                                         |

18. Installation of low energy consuming agricultural greenhouses.

|                    |                                                  |
|--------------------|--------------------------------------------------|
| Period             | 1992 – 1994                                      |
| Collaboration with | ARCHIMEDES-GEFOSAT-PROTECHNA LTD                 |
| Financed by        | DG XVII THERMIE PROJECT (Contract No SE 434/92). |
| Position           | Researcher                                       |

19. PAPAGEORGIOU Hospital.

|                    |                                                          |
|--------------------|----------------------------------------------------------|
| Period             | 1992 – 1995                                              |
| Collaboration with | MELETITIKI LTD - Alex Tombazis & Associates.             |
| Financed by        | DG XII Solar House project (Contract no JOU2-CT92-0024). |
| Position           | Researcher                                               |

20. Contribution to the authoring of the bioclimatic guide of CRES.

|                    |             |
|--------------------|-------------|
| Period             | 1992 – 1993 |
| Collaboration with | CRES        |
| Financed by        | CRES        |
| Position           | Researcher  |

21. In situ study of passive solar components COMPASS - PASLINK project.

|                    |                                     |
|--------------------|-------------------------------------|
| Period             | 1993 – 1994                         |
| Collaboration with | BBRI Belgium, IMPAE - NOA           |
| Financed by        | EU-DG XII (Contract JOU2-CT92-0216) |
| Position           | Researcher                          |

22. Creation of an educational structure for energy efficiency in buildings.

|        |             |
|--------|-------------|
| Period | 1993 – 1994 |
|--------|-------------|

- |                    |                                                         |
|--------------------|---------------------------------------------------------|
| Collaboration with | University of Athens - Dept. of Applied Physics         |
| Financed by        | EU-DG XVII SAVE programme (Contract SAVE 4.1031/92-052) |
| Position           | Researcher                                              |
23. Creation of an electronic database for the calculation of thermal bridges in buildings.
- |                    |                                                               |
|--------------------|---------------------------------------------------------------|
| Period             | 1993 – 1995                                                   |
| Collaboration with | BBRI Belgium, University of Athens - Dept. of Applied Physics |
| Financed by        | EU-DG XVII SAVE programme (Contract SAVE 4.1031/93-12)        |
| Position           | Researcher                                                    |
24. Creation of a software for the calculation of the optical and thermal properties of window systems (the WIS project).
- |                    |                                                                   |
|--------------------|-------------------------------------------------------------------|
| Period             | 1993 – 1995                                                       |
| Collaboration with | TNO Netherlands - University of Athens - Dept. of Applied Physics |
| Financed by        | EU-DG XII JOULE programme (Contract JOU2-CT94-0373)               |
| Position           | Researcher                                                        |
25. Large Scale Solar Heating
- |                    |                                                                                                                 |
|--------------------|-----------------------------------------------------------------------------------------------------------------|
| Period             | 1995 – 1996                                                                                                     |
| Collaboration with | Stenbeis - Transferzentrum Rationelle Energienutzung und Solartechnik – Stuttgart - National Observatory Athens |
| Financed by        | E.U., DG XII APAS Programme, Contract RENA CT94-0057                                                            |
| Position           | Researcher                                                                                                      |
26. Cooling potential of natural heat sinks of the southern European Countries (SINK project).
- |                    |                                                                          |
|--------------------|--------------------------------------------------------------------------|
| Period             | 1995 – 1997                                                              |
| Collaboration with | University of Seville - University of Athens - Dept. of Applied Physics. |
| Financed by        | E.U., DG XVII, ALTENER programme Contract 4.1030/A/94-88                 |
| Position           | Researcher                                                               |
27. Creation of educational material for the use of daylighting techniques in buildings.
- |                    |                                                           |
|--------------------|-----------------------------------------------------------|
| Period             | 1995-1997                                                 |
| Collaboration with | National Observatory of Athens                            |
| Financed by        | E.E., DG XVII, ALTENER programme Contract 4.1030/Z/95-094 |
| Position           | Scientist in Charge                                       |
28. Set up of a laboratory for calibration of meteorological instrumentation
- |                    |                                                 |
|--------------------|-------------------------------------------------|
| Period             | 1995-1998                                       |
| Collaboration with | National Observatory of Athens                  |
| Financed by        | Hellenic Secretariat of Research and Technology |
| Position           | Scientist in Charge                             |
29. Solar Control - Integrated Approach to Solar Control Techniques
- |                    |                                                      |
|--------------------|------------------------------------------------------|
| Period             | 1996-1999                                            |
| Collaboration with | CONPHOEBUS, (IT) - National Observatory Athens       |
| Financed by        | E.E., DG XV, JOULE programme Contract JOR3-CT96-0113 |
| Position           | Scientist in Charge                                  |
30. Development of the dynamic simulation in solar bioclimatic architecture to the climates of Southern Europe by a network of conceptors and teachers.
- |        |           |
|--------|-----------|
| Period | 1996-1998 |
|--------|-----------|

- |                    |                                                               |
|--------------------|---------------------------------------------------------------|
| Collaboration with | GEFOSAT, FR - National Observatory Athens                     |
| Financed by        | E.E., DG XVII, ALTENER programme Contract (Not available yet) |
| Position           | Scientist in Charge                                           |
31. Design, realisation, tests, comparative analysis of low electric consumption PV cooling systems.
- |                    |                                                           |
|--------------------|-----------------------------------------------------------|
| Period             | 1996-1999                                                 |
| Collaboration with | COSTIC, FR – National & Kapodistrian University of Athens |
| Financed by        | E.E., DG XII, JOULE programme Contract (JOR3-CT96-0100)   |
| Position           | Researcher                                                |
32. European Large Scale Heating Network.
- |                    |                                                                     |
|--------------------|---------------------------------------------------------------------|
| Period             | 1997-1999                                                           |
| Collaboration with | Chalmers Technical University, Sweden - National Observatory Athens |
| Financed by        | E.E., DG XVII, THERMIE programme Contract (DIS-1164-97-SE)          |
| Position           | Scientist in Charge                                                 |
33. Laboratory for Calibration of Meteorological Instrumentation
- |                    |                                                                                      |
|--------------------|--------------------------------------------------------------------------------------|
| Period             | 1997-1999                                                                            |
| Collaboration with | National Observatory Athens                                                          |
| Financed by        | Hellenic Secretariat for Research and Technology. (Contract 96EIIY 46 <sup>E</sup> ) |
| Position           | Scientist in Charge                                                                  |
34. Development and test of modern control techniques applied to solar buildings.
- |                    |                                                         |
|--------------------|---------------------------------------------------------|
| Period             | 1998-1999                                               |
| Collaboration with | I.S.F.H., Germany - National Observatory Athens         |
| Financed by        | E.E., DG XII, JOULE programme Contract (JOE3-CT97-0076) |
| Position           | Scientist in Charge                                     |
36. Study and development of heating / cooling systems using renewable energy.
- |                    |                                                         |
|--------------------|---------------------------------------------------------|
| Period             | 1998-2000                                               |
| Collaboration with | National Observatory of Athens                          |
| Financed by        | E.E., DG XII, JOULE programme Contract (JOR3-CT97-0181) |
| Position           | Scientist in Charge                                     |
37. International obligations of the Hellenic Republic deriving from the protocols related to the conventions for transboundary air pollution and preparation of the survey infrastructure.
- |                    |                                                                      |
|--------------------|----------------------------------------------------------------------|
| Period             | 1999                                                                 |
| Collaboration with | National & Kapodistrian University of Athens – Dept. of Physics      |
| Financed by        | Hellenic Ministry for the Environment, Public Works & Urban Planning |
| Position           | Researcher                                                           |
38. Design of an integrated system for continuous monitoring of VOC's emissions due to the use of organic solvents and from gasoline storage and measures for their reduction in Bulgaria.
- |                    |                                                                      |
|--------------------|----------------------------------------------------------------------|
| Period             | 2000                                                                 |
| Collaboration with | National & Kapodistrian University of Athens – Dept. of Physics      |
| Financed by        | Hellenic Ministry for the Environment, Public Works & Urban Planning |

- |          |            |
|----------|------------|
| Position | Researcher |
|----------|------------|
39. Isotopic composition of precipitation in the Mediterranean Basin in relation to air circulation patterns and climate.
- |                    |                                                       |
|--------------------|-------------------------------------------------------|
| Period             | 2000-2003                                             |
| Collaboration with | National Observatory of Athens                        |
| Financed by        | International Atomic Energy Agency (Contract # 11319) |
| Position           | Scientist in Charge                                   |
40. Investigation and definition of a reference methodology for the creation of Typical Meteorological Years for Hellenic cities.
- |                    |                                              |
|--------------------|----------------------------------------------|
| Period             | 2000                                         |
| Collaboration with | National Observatory of Athens               |
| Financed by        | Center for Renewable Energy Sources – Greece |
| Position           | Scientist in Charge                          |
41. Study of indoor air quality and thermal comfort at the Athens Hellenicon Air Terminal.
- |                    |                                                                 |
|--------------------|-----------------------------------------------------------------|
| Period             | 2001                                                            |
| Collaboration with | National Observatory of Athens                                  |
| Financed by        | National & Kapodistrian University of Athens – Dept. of Physics |
| Position           | Scientist in Charge                                             |
42. Isotopic composition of precipitation in the Mediterranean Basin in relation to air circulation patterns and climate.
- |                    |                                                       |
|--------------------|-------------------------------------------------------|
| Period             | 2003-2004                                             |
| Collaboration with | University of Patras                                  |
| Financed by        | International Atomic Energy Agency (Contract # 11319) |
| Position           | Scientist in Charge                                   |
43. Intelligent technologies for energy efficiency and comfort in buildings
- |                    |                                                      |
|--------------------|------------------------------------------------------|
| Period             | 01/01/2005 – 31/12/2005                              |
| Collaboration with | Higher Technical Educational Institute of Piraeus    |
| Financed by        | Hellenic Ministry for Education – ARCHIMEDES Program |
| Position           | Researcher                                           |
44. Development of an expert system for the automatic classification of weather maps
- |                    |                                                                |
|--------------------|----------------------------------------------------------------|
| Period             | 01/10/2005 – 30/09/2008                                        |
| Collaboration with | University of Patras                                           |
| Financed by        | Hellenic General Secretariat for Research – PENED Program 2003 |
| Position           | Scientist in charge                                            |
45. Solar air conditioning of buildings using a continuous operation absorption cooler
- |                    |                                                                |
|--------------------|----------------------------------------------------------------|
| Period             | 01/10/2005 – 30/09/2008                                        |
| Collaboration with | National Technical University of Athens                        |
| Financed by        | Hellenic General Secretariat for Research – PENED Program 2003 |
| Position           | Researcher                                                     |
46. Pilot study on the development and application of geostatistical tools to map the variability of the isotopic composition of water in the Mediterranean.
- |        |                         |
|--------|-------------------------|
| Period | 15/09/2006 – 14/09/2008 |
|--------|-------------------------|

|                    |                                  |
|--------------------|----------------------------------|
| Collaboration with | University of Patras             |
| Financed by        | IAEA (Contract # 13931)          |
| Position           | Scientist in Charge & Researcher |

47. Advances in homogenization methods of climate series: an integrated approach (HOME).

|                    |                                                          |
|--------------------|----------------------------------------------------------|
| Period             | 1/5/2007 – 30/4/2011                                     |
| Collaboration with | University of Patras                                     |
| Financed by        | European Commission (COST – European Science Foundation) |
| Position           | Researcher                                               |

48. Stable isotopes in biospheric – atmospheric – earth system research (COST Action ES0806 - SIBAE).

|                    |                                                          |
|--------------------|----------------------------------------------------------|
| Period             | 5/2009 – 4/2013                                          |
| Collaboration with | University of Patras                                     |
| Financed by        | European Commission (COST – European Science Foundation) |
| Position           | Scientist in Charge & Researcher                         |

49. Methods for extraction and digital processing of environmental signals and images – Application on the automated classification of weather maps.

|                    |                                                                               |
|--------------------|-------------------------------------------------------------------------------|
| Period             | 2/2010 – 1/2013                                                               |
| Collaboration with | University of Patras (Scientist in charge)                                    |
| Financed by        | Research Committee of the University of Patras – Karatheodori grants program. |

50. Contribution of Emission Sources on the Air quality of the Port-cities in Greece and Italy (ETCP GREECE – ITALY 2007-2013).

|                    |                                                                                                                          |
|--------------------|--------------------------------------------------------------------------------------------------------------------------|
| Period             | 11/2011 – 05/2014                                                                                                        |
| Collaboration with | University of Patras (Scientist in charge & Coordinator)                                                                 |
| Financed by        | European Commission (European Territorial Cooperation Program Greece - Italy 2007 – 2013) & Hellenic Ministry of Finance |

51. Pollution monitoring of ship emissions: an integrated approach for harbors of the Adriatic basin - Poseidon (ETC 2007-2013, MED Maritime Integrated Projects).

|                    |                                                                       |
|--------------------|-----------------------------------------------------------------------|
| Period             | 06/2014 – 05/2015                                                     |
| Collaboration with | University of Patras (Scientist in charge)                            |
| Financed by        | European Commission – ERDF MED Program & Hellenic Ministry of Finance |

52. Solar Collectors with Static Concentrators, for solar thermal applications at intermediate to medium temperatures - SCoSCo (Bilateral cooperation between Greece and Germany).

|                    |                                                   |
|--------------------|---------------------------------------------------|
| Period             | 05/2018 – 04/2022                                 |
| Collaboration with | University of Patras (Scientist in charge)        |
| Financed by        | Hellenic Secretariat for Research and Development |

53. Global Monitoring of Nitrogen Isotopes in Atmospheric Waters (International Atomic Energy Agency Coordinated Research Project F32008 – Contract #22879/R0).

|                    |                                            |
|--------------------|--------------------------------------------|
| Period             | 06/2018 – 05/2021                          |
| Collaboration with | University of Patras (Scientist in charge) |

54. Comparative study of changing climate indexes between China and Greece based on daily homogenized daily observations – CLIMEX (Bilateral Research & Technology Cooperation Program between Greece and China – Hellenic General Secretariat for Research and Development).

Period 01/2019 – 07/2022

Collaboration with University of Patras (Scientist in charge)

55. Adaptive Learning Management Platform for STEM – ALEMP (Erasmus+ KA220-HED - Cooperation partnerships in higher education Contract # 2021-1-IT02-KA220-HED-000029370).

Period 11/2021 – 11/2024

Collaboration with University of Patras (Member of the research team)

56. Germ of Life (INTERREG EURO-MED Contract # Euro-MED0200878).

Period 01/2024 – 06/2026

Collaboration with University of Patras (Project Coordinator)

57. Project 101236788 — EMPOANDES

Period 2025-12-01 to 2028-11-30

Collaboration with University of Patras

## SCIENTIFIC PUBLICATIONS

(Number of citations (self-citations excluded): > 4,957, h-index 36, source: [www.scopus.com](http://www.scopus.com) as of August 1<sup>st</sup>, 2025)

### Theses

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2. A. Argiriou, *La mesure en thermographie infrarouge, calibration et traitement du signal: application a la validation d'une modelisation numerique, en regime instationnaire, d'un convertisseur thermique de l'energie solaire sous concentration de type THEK2*, These de Doctorat de l'Universite de Provence, 1987.

### Publications in peer reviewed journals

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## Communications in peer reviewed national conferences

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11. A. Tsangrassoulis, M. Cakouri, M. Santamouris, A. Argiriou, D. Asimakopoulos, *Energy savings in office buildings through natural and artificial lighting*, Seminar on Energy Retrofit of Office Buildings, University of Athens, Athens, Greece, May 1995.
12. M. Santamouris, D. Asimakopoulos, C. Helmis, E. Dascalaki, A. Argiriou, C.A. Balaras, M. Petrakis, *Progress in the topic of passive cooling and building physics – Results of recent research*, 7th Common Conference of the Union of Greek Physicists and the Union of Cypriot Physicists, Heraklion, Grece, 5 - 7 April 1996.
13. A.A. Argiriou, C.A. Balaras, D.N. Asimakopoulos, *Activities of IMPAE-NOA regarding the calibration of meteorological instrumentation*, 3<sup>rd</sup> Hellenic Conference of Meteorology – Climatology and Atmospheric Physics, Athens, Greece, 1996.
14. M. Santamouris, A. Argiriou, D. Asimakopoulos, *Passive Cooling of Buildings PASCOOL project – Results and perspectives*, 5<sup>th</sup> National Conference of Renewable Energy Sources, Athens, Greece, November 1996.
15. A. Argiriou, D. Asimakopoulos, V. Geros, E. Dascalaki, N. Klitsikas, C. Balaras, M. Santamouris. *Potential for energy savings of building cooling using earth to air heat exchangers, radiative coolers and evaporative coolers*. 5<sup>th</sup> National Conference of Renewable Energy Sources, Athens, Greece, November 1996.
16. A. Tsangrassoulis, M. Santamouris, A. Argiriou, D. Asimakopoulos, *Creation of an educational package on the use of innovative lighting techniques for buildings*, 5<sup>th</sup> National Conference of Renewable Energy Sources, Athens, Greece, November 1996.

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22. I. Livada, S. Lykoudis, A.A. Argiriou, *Study of relative humidity time series of Athens for the period 1901-1997.* Proc. 5<sup>th</sup> Hellenic Conference of Meteorology – Climatology and Atmospheric Physics, pp. 59-64, Thessaloniki, Greece, September 2000.
23. A. Argiriou, S. Lykoudis, E. Flokas, I. Keramitsoglou, P. Yiannoulis, *Isotopic composition of rainfall in Greece*, Proc. 6<sup>th</sup> Hellenic Conference of Meteorology – Climatology and Atmospheric Physics, Ioannina, Greece, September 2002.
24. A.A. Argiriou and S.P. Lykoudis, *Spatial and temporal distribution of stable isotopes in rainfall over Greece*, 7<sup>th</sup> Hellenic Conference on Meteorology – Climatology and Atmospheric Physics, Nicosia, Cyprus, September 2004.
25. **A.A. Argiriou**, MC Kotti, *Assessment of shadowband correction models for Athens, Greece.* 8<sup>th</sup> Panhellenic Conference of Meteorology, Climatology and Atmospheric Physics, Athens, Greece, 24-26 May 2006.
26. **A. A. Argiriou**, N. Ioannou, D. Skourellos, V. Kotroni, K. Lagouvardos, *Correction of temperature and wind velocity BOLAM model forecasts at mean sea level using neural networks*, 8<sup>th</sup> Panhellenic Conference of Meteorology, Climatology and Atmospheric Physics, Athens, Greece, 24-26 May 2006.
27. D. Katsanos, K. Lagouvardos, V. Kotroni, **A. A. Argiriou**, *Correlation of electrical activity with brightness temperature and radar reflectivity profiles in the Mediterranean*, 8<sup>th</sup> Panhellenic Conference of Meteorology, Climatology and Atmospheric Physics, Athens, Greece, 24-26 May 2006.
28. Zagouras A., **Argiriou A.**, Aloizos G., Fotopoulos S., Oikonomou G., Flokas H.A., *Development of a chain code based artificial intelligence system for automatic classification of weather maps*, 9<sup>th</sup> Panhellenic Conference of Meteorology, Climatology and Atmospheric Physics, Thessaloniki, Greece, 28-30 May 2008.
29. Mazarakis N., Kotroni V., Lagouvardos K., **Argiriou A.**, *Investigation of the forecast ability of convective parametrization schemes during summer storms, Διερεύνηση της προγνωστικής ικανότητας σχημάτων παραμετροποίησης των κατακόρυφων ανοδικών κινήσεων μεταφοράς, σε περιπτώσεις θερινών καταιγίδων.* 9<sup>th</sup> Panhellenic Conference of Meteorology, Climatology and Atmospheric Physics, Thessaloniki, Greece, 28-30 May 2008.
30. **A. Argiriou**, A. Gaglia, E. Dialynas, E. Kostopoulou, *Degree days in Greece – Classification as a function of the building use type.* Proceedings of the 11<sup>th</sup> National Conference on Renewable Energy Sources, Thessaloniki, Greece, March 14-16, 2018.
31. S. Alexopoulos, O. Panagopoulos, **A. Argiriou**, *Simulation of the optical behavior of thermal solar collectors with static concentrator.* 12<sup>th</sup> National Conference on Renewable Energy Sources, Thessaloniki, Greece, April 9-9, 2021.

32. K. Droutsas, C.A. Balaras, S. Kontoyiannidis, S. Lykoudis, E. Dascalaki, **A. Argiriou**, Building performance indexes for buildings of the Hellenic tertiary sector, based on brief and detailed energy certificates and surveys. 12<sup>th</sup> National Conference on Renewable Energy Sources, Thessaloniki, Greece, April 9-9, 2021.
33. K. Droutsas, S. Kontoyiannidis, C.A. Balaras, E. Dascalaki, **A. Argiriou**, Representative typologies of for buildings of the Hellenic tertiary sector. 12<sup>th</sup> National Conference on Renewable Energy Sources, Thessaloniki, Greece, April 9-9, 2021.

### Other publications

A.A. Argiriou, *Energy-efficient hospital design: Thessaloniki project*, Invited contribution to the European Directory of Energy Efficient Building 1994, James & James Publishers, London, 1994.

Salamalikis V., Argiriou A., Dotsika E., *Spatial distribution of  $\delta^{18}O$  due to evapotranspiration over Greece*, Volume in memoriam of Professor Apostolos Flocas, Chelmis K. & Nastos P. (Eds), National and Kapodistrian University of Athens, Athens, Greece, 2014.

### Invited Talks

- “Modern weather and climate research trends: information from the atmospheric water”, World Meteorology Day 2016 event, organized by the Section of Meteorology – Climatology, Geology Department, Aristotle University of Thessaloniki, March 23, 2016, Thessaloniki, Greece.
- “Exploitation of the EU COPERNICUS programme in preventing and managing extreme weather events”. World Meteorology Day 2019 event, organized by the Hellenic National Meteorological Service, March 23, 2019, Athens, Greece.
- “Climate Change and Health”, 19<sup>th</sup> Educational Conference “Highlights in Oncology”, May 21 – 22 2021, Patras, Greece.

## Textbooks

1. *Heat gain control and passive cooling*, Booklet prepared collaboration with the Architectural Association School of Architecture (Prof. Simos Yannas ed.) in the frame of the C.E.C. TEMPUS program. Co-author M. Santamouris. 1993.
2. *Natural light in buildings*, Lecture in the Proceedings of the Seminar *Energy Savings in Buildings*, organised by the Central Institution of Energy Efficiency Education (CIENE) of the University of Athens, in the frame of the SAVE programme of the E.U.(Contract SAVE 4.1031/92-052).
3. Authoring of *Chapters 11: Ground Cooling, 12: Evaporative Cooling and 13: Radiative Cooling* of the book *Passive Cooling in Buildings*. James & James, London.
4. *Natural Cooling Techniques*, Book edited by the Central Institution of Energy Efficiency Education (CIENE) of the University of Athens, in the frame of the SAVE programme of the E.U. (Contract SAVE 4.1031/93-071).
5. Co-Editor & Co-author of the book: *Daylight Techniques in Buildings – Reference Handbook*, Edited in the frame of the Altener project 4.1030/Z/95-094 by the National Observatory of Athens, Athens, Greece, 1997.
6. *Daylight Techniques in Buildings - Reference Handbook* (1997) Eds A. Αργυρίου, Κ. Μπαλαράς, Δ. Ασημακόπουλος. Author of Chapters 1 & 6 (In collaboration with A. Tsangrassoulis). Published by the National Observatory of Athens in the frame of the European Commission ALTENER Programme (Contract XVII/4.1030/Z/95-094).
7. *Integrated Approach to Solar Control – Design Guidelines* (1999) Ed. D. N. Asimakopoulos. Co-author of chapters 7.2 & 7.4. Published by the National Observatory of Athens in the frame of the European Commission JOULE programme (Contract JOR3-CT96-00113).
8. *Energy storage & Energy Savings* (1999) Author of Chapter 1 “Solar Ponds – Interseasonal Heat Storage” and Chapter 2 “Earth-to-air heat exchangers”. Published by the Technological Educational Institute of Piraeus in the frame of the graduate course “Energy Systems Management”.
9. *Conventional and Renewable Energy Sources* (1999) Author of Chapter 4 “Nuclear Fusion and Fission” and Chapter 7 “Wind Energy”. Published by the Technological Educational Institute of Piraeus in the frame of the graduate course “Energy Systems Management”.
10. *The UNESCO Encyclopedia of Life Support Systems*. Author of Chapter 3.17.3.2 “Temperature and Humidity Balance of Premises”.
11. **Argiriou A.A.**, Lykoudis S, Chapter 11: Improving the Spatial Coverage of Stable Isotope Data; pp. 335-348 *New Topics in Water Resources Research and Management*, Henrik M. Andreassen (Editor), Nova Publishers, NY, ISBN: 1-60021-974-8, (2008).
12. *University Physics with Modern Physics*, 14th Edition, Hugh D. Young, Roger A. Freedman: Member of the translation team of the Hellenic edition. Papazisis Publishers, Athens, Greece, ISBN: 978-960-02-3535-7 (Vol A) 978-960-02-3536-4 (Vol B) (2019).
13. *Differential Equations*, R. Kent Nagle, Edward B. Saff, Arthur David Snider. Co-editor of the Hellenic edition. Kritiki Publishers, Athens, Greece, 9789605863791(2021).