

# **CURRICULUM VITAE**

**EVANGELOS BELLOS**

**December 2024**

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## **CV SUMMARY**

### **Present Position**

**7/2024 – Today:** Assistant Professor in the Department of Mechanical Engineering at the School of Engineering, University of West Attica, specializing in "Thermodynamics – Thermal Power Plants."

### **Research Experience**

**2022 – 2023:** Postdoctoral Research Associate with CERTH/CPERI, participating in European HORIZON research projects (RINNO, REHOUSE, InCUBE, RE-WITCH).

**2017 – 2024:** Postdoctoral Researcher at the School of Mechanical Engineering, National Technical University of Athens (NTUA), Division of Thermal Engineering, in the Laboratory of Refrigeration, Air Conditioning, and Solar Energy, in collaboration with Prof. C. Tzivanidis. Funded by scholarships from the Bodossaki Foundation and the State Scholarships Foundation (IKY) and involved in the European HORIZON project TechUPGRADE.

**2017 – 2018:** Postdoctoral Visiting Researcher in the "Solar and other energy systems laboratory" of NCSR "DEMOKRITOS", Greece.

### **Teaching Experience**

**2024 – Today:** Teaching as Assistant Professor at the University of West Attica.

**2020 – 2023:** Three years of independent teaching in the Department of Mechanical Engineering Educators at ASPETE (School of Pedagogical and Technological Education).

**2014 – 2021:** Teaching assistant in the School of Mechanical Engineering, National Technical University of Athens (NTUA) as a Ph.D. candidate (2014 – 2016) and as a Postdoctoral researcher (2017 – 2021).

### **Education**

**2012 – 2016:** Ph.D. in Thermal Department, School of Mechanical Engineering National Technical University of Athens (NTUA), Greece. Funded by Bodossakis Foundation and State Scholarships Foundation (IKY).

**2007 – 2012:** Integrated Master (five years) in Mechanical Engineering National Technical University of Athens (NTUA), Greece. Grade: 9.61 / 10 (2<sup>nd</sup> from 202 students in 2012).

### **Participation in scientific journal editorial boards**

**2023 – Today:** Associate Editor in the journal "Thermal Science and Engineering Progress" of Elsevier.

**2020 – Today:** Associate Editor in the journal "Sustainable Energy Technologies and Assessments" of Elsevier.

### **Published scientific work, impact metrics, and distinctions**

- 230 Journal Publications.
- 50 publications in conference proceedings.
- 6 chapters in scientific books and 2 contributions to book translation editing.
- h-index = 64 (SCOPUS) and h-index = 74 (Google Scholar).
- Top 2% of the scientists with the most influential work for 2019, 2020, 2021, 2022 and 2023.
- Numerous awards and scholarships throughout the entire career.

### **Research Interests**

Thermodynamics, Thermodynamic Cycles, Organic Rankine Cycle, Exergy Analysis, Thermal Behavior of Buildings, Refrigeration Cycles, Absorption Refrigeration Machines, Solar Energy, Thermal Solar Collectors, Concentrating Solar Collectors, Optical Analysis, Energy Storage Systems, Waste Heat Recovery, Polygeneration, Nanofluids.

## 1. GENERAL DATA

### EVANGELOS BELLOS

**Ph.D. and Integrated Master in Mechanical Engineering, NTUA**

#### Personal Information

**Surname:** Bellos  
**Name:** Evangelos  
**Father's name:** Antonios  
**Nationality:** Greek  
**Marital Status:** Married  
**Military services:** Completed  
**Date of Birth:** 02/06/1989, Athens, Greece  
**e-mail:** [bellose@uniwa.gr](mailto:bellose@uniwa.gr)  
**Scopus ID:** 36612834400 (h-index = 64)  
**ORCID ID:** [orcid.org/0000-0002-5876-6549](https://orcid.org/0000-0002-5876-6549)



#### Present Position

**7/2024 – Today:** Assistant Professor in the Department of Mechanical Engineering at the School of Engineering, University of West Attica, specializing in "Thermodynamics – Thermal Power Plants."

## 2. EDUCATION

#### December 2012 – December 2016

Ph.D. in Thermal Department, School of Mechanical Engineering  
 National Technical University of Athens (NTUA), Greece  
 Ph.D. thesis title: "Utilization and optimization of solar thermal systems in Buildings"  
 Supervisor: Prof. Kimon A. Antonopoulos

#### November 2007 – August 2012

Integrated Master (five years) in Mechanical Engineering  
 National Technical University of Athens (NTUA), Greece  
 Grade: 9.61 / 10 (2<sup>nd</sup> from 202 students in 2012)  
 Diploma thesis title: "Waste heat recovery from industrial processes for electricity production". Grade 10/10.

#### September 2004 – June 2007

1<sup>st</sup> High School of Peristeri, Athens, Greece **Grade:** 19.5/20

## Seminars

January 2018 - May 2018:

Certificate of completion “Pilot course on solar field operator in concentrated solar power plants”, (300 hours), CRES-Centre for Renewable Energy Sources and Saving (Greece).

## Languages

**English – Level C2:** Certificate of Proficiency in English, University of Michigan, 2011

**French – Level B2:** Diplôme d’études en Langue Française (DEL F 1<sup>er</sup> Degré), 2005

**Greek – Native Speaker**

## Software knowledge

- Excellent knowledge of **TRNSYS** for dynamic simulation of systems with solar thermal collectors, storage tanks, heat pumps, HVAC systems, PV and buildings.
- Excellent knowledge of **Engineering Equation Solver (EES)** for modeling and optimizing energy systems and components.
- Excellent knowledge of **Dymola & Modelica** language for dynamic simulations of energy systems and building’s thermal behavior.
- Excellent knowledge of the programming languages **FORTRAN** and **Matlab**.
- Excellent knowledge of **SolidWorks** for design and **SolidWorks Flow Simulation** for CFD simulations in heat transfer and flow phenomena.
- Excellent knowledge of **REFPROP** for determining fluid thermodynamic properties.
- Excellent knowledge of **TEE-KENAK** software for energy simulations in buildings (official software of Greece).
- Excellent knowledge of **SolTrace** for optical studies for solar collectors.
- Excellent knowledge of **Microsoft Office** (Word, Excel, Power Point, Visio).

## Research Interests

### Energy Systems and Thermodynamics

- Multi-criteria analysis and Multi-objective optimization of energy systems with energy, exergy and financial criteria.
- Dynamic investigation of solar thermal systems with various applications for power production, refrigeration, or polygeneration.
- Life cycle cost analysis, environmental analysis and exergy analysis of energy applications.
- Waste heat recovery from industrial heat for electricity production.
- Investigation of CO<sub>2</sub> refrigeration systems with an emphasis on supermarket systems.
- Investigation of environmentally friendly working fluids for refrigeration and power cycles.
- Investigation of Organic Rankine Cycles with an emphasis on solar ORC.
- Investigation of absorption heat pumps, mainly with LiBr-H<sub>2</sub>O working pair.
- Investigation of solar-assisted heat pumps for the building sector.

### **Solar thermal collectors**

- Thermal, optical and exergy investigation of solar collectors with an emphasis on the concentrating collectors (PTC, LFR, Solar Dishes).
- Thermal enhancement techniques for solar thermal collectors (nanofluids and flow augmentation techniques).
- CFD analysis of energy systems with an emphasis on internal flow for applications such as solar thermal collectors.
- Investigation of storage systems with sensible and latent techniques.

### **Building thermal behavior**

- Incorporation of renewable energy sources (solar, geothermal, biomass) in the building sector and in the industrial sector.
- Investigation of building heating and cooling loads.
- Incorporation of phase change materials (PCM) in the building envelope.
- Energy analysis of buildings and investigation of building thermal behavior.

## **3. RESEARCH EXPERIENCE**

### **3.1 Research Associate in CERTH, Greece**

**January 2022 – Today: Research Associate (up to June 2024) and external cooperative Professor (from June 2024 up to Today) in Chemical Process & Energy Resources Institute (CPERI), Center of Research & Technology Hellas (CERTH)**

Work in the EU HORIZON2020 projects:

“**RINNO**” (An augmented intelligence-enabled stimulating framework for deep energy renovation delivering occupant-centered innovations), (<https://rinno-h2020.eu/>). Simulation of energy systems coupled to buildings and development of code for new components. Evaluation of baseline and renovation scenarios in the buildings.

“**InCUBE**” (An INCIUsive toolBox for accElerating and smartening deep renovation), (<https://incubeproject.eu/>). Simulation of energy systems coupled to buildings and development of code for new components. Evaluation of baseline and renovation scenarios in the buildings. Also, the development of data-driven models and optimization codes.

“**REHOUSE**” (Renovation packagEs for HOlistic improvement of EU’s bUildingS Efficiency, maximizing RES generation and cost-effectiveness), HORIZON 2020 (<https://rehouse-project.eu/>). Simulation of energy systems coupled to buildings and development of code for new components. Evaluation of baseline and renovation scenarios in the buildings.

“**RE-WITCH**” (Renewable and Waste heat valorisation in Industries via Technologies for Cooling production and energy Harvesting) HORIZON 2020 (<https://ieecp.org/projects/re-witch/>). Simulation of advanced absorption chiller models driven by waste heat and solar thermal energy.

### **3.2 Postdoctoral Researcher in NTUA, Greece**

**January 2017 – June 2024: Postdoctoral Researcher in the Laboratory of Refrigeration, Air-Conditioning and Solar Energy of Thermal Department, School of Mechanical Engineering, National Technical University of Athens**

During my research in this laboratory, I have been funded by two scholarships and I have worked on two research projects.

#### **1<sup>st</sup> Research Project**

**Time duration:** 1/9/2017 to 31/8/2019

**Funding Source:** Bodossaki Foundation

**Title of Postdoctoral Research:** “Solar energy utilization in various applications for cogeneration and trigeneration with an emphasis on the building sector”

**Supervisor:** Prof. Christos Tzivanidis

#### **2<sup>nd</sup> Research Project**

**Time duration:** 16/11/2019 to 15/11/2021

**Funding Source:** State Scholarships Foundation (IKY), Co-financed by Greece and the European Union (European Social Fund – ESF) through the Operational Programme «Human Resources Development, Education and Lifelong Learning» in the context of the project “Reinforcement of Postdoctoral Researchers – 2nd Cycle” (MIS-5033021), implemented by the State Scholarships Foundation (IKY).

**Title of Postdoctoral Research:** “Energy, Exergy and Financial investigation of advanced systems for heating, cooling and electricity by exploiting solar energy”

**Supervisor:** Prof. Christos Tzivanidis

#### **3<sup>rd</sup> Research Project**

**Time duration:** 3/2023 to 11/2023

**Funding Source:** ELKE NTUA – ESPA

**Title of Postdoctoral Research:** “Integrated Blockchain Platform and 'Smart' Mobile App in the Fight Against Food Waste to Benefit Food Insecure Citizens” (MIS 5150906).

**Supervisor:** Prof. Stavros Ponis

#### **4<sup>th</sup> Research Project**

**Time duration:** 11/2023 to 5/2024

**Funding Source:** HORIZON 2020, European Union,

<https://cordis.europa.eu/project/id/101103966>, <https://techupgrade.eu/>

**Title of Postdoctoral Research:** “Thermochemical Heat Recovery and Upgrade for Industrial Processes (TechUPGRADE)”.

**Supervisor:** Prof. Christos Tzivanidis

**Research topics:** Solar energy, Solar thermal collectors, Solar concentrating collectors, Refrigeration systems, Nanofluids, Power Systems, Polygeneration, Optimization of energy systems, Heat pumps



### **3.3 Postdoctoral visiting researcher in the NCSR “DEMOKRITOS”, Greece September 2017 – February 2018: Postdoctoral visiting researcher in the “Solar and other energy systems laboratory” of NCSR “DEMOKRITOS”**

During my research in this Institute, I performed experimental research about solar concentrating collectors coupled to thermal storage tanks. More specifically, my research was devoted to a Linear Fresnel Reflector and to a Parabolic Trough Collector.

## **4. TEACHING EXPERIENCE**

### **4.1 2020-2021 & 2021-2022 & 2022-2023: Adjunct Lecturer in the Department of Mechanical Engineering Educators, in the School of Pedagogical and Technological Education, Greece**

**Courses:** Energy Audits and Inspections, Refrigeration II (Theory and Laboratory)

**Energy Audits and Inspections:** Policy about the Energy in Buildings, Basic Energy Calculations, Primary Energy, Life cycle cost analysis, Cooling loads calculations (CLTD/CLF), Energy systems in Buildings

**Air-Conditioning II (Theory and Laboratory):** Refrigeration cycles, Psychometric, Natural working fluids, Air ducts, Water tubes, Fan coils, Advanced HVAC systems, Absorption Chillers

Supervision of 11 theses and examiner in the other 10 theses.

The codes of the respective jobs are: **MIS: 5063731, MIS: 5130670, MIS: 5183875.**

### **4.2 2013-2021: Teaching Assistance, School of Mechanical Engineering, National Technical University of Athens, Greece**

**Courses:** Basic Refrigeration Principles, Building Thermal Behavior, Solar Energy, Solar Energy – Geothermal Energy

#### **4.2.1 As Ph.D. candidate (2013-2016)**

**Basic Refrigeration Principles** (Undergraduate), for the academic years 2012-2013, 2013-2014, 2014-2015, 2015-2016: Absorption chillers, Adsorption chillers and desiccant wheels.

**Building Thermal Behavior** (Undergraduate), for the academic years 2013-2014, 2014-2015, 2015-2016, 2016-2017: Heat transfer problems in the building envelope, energy balance equations, one-dimension finite element methods, TRSNYS software, SolidWorks Flow Simulation software

**Solar Energy** (Undergraduate), for the academic years 2013-2014, 2014-2015, 2015-2016, 2016-2017: Solar concentrating collectors, Parabolic trough collectors, SolidWorks Flow Simulation software

**Solar Energy – Geothermal Energy** (Postgraduate), for the academic years 2013-2014, 2014-2015, 2015-2016: Solar flat plate collectors, f-chart method.

Moreover, I participated in the laboratory exercises of courses “Solar Energy” and “Air Conditioning”.

#### **4.2.2 As a postdoctoral researcher (2017-2020)**

**Basic Refrigeration Principles** (Undergraduate), for the academic years 2016-2017, 2017-2018, 2018-2019, 2019-2020: Absorption chillers, Mechanical compression systems, CO<sub>2</sub> refrigeration.

**Building Thermal Behavior** (Undergraduate), for the academic years 2017-2018, 2018-2019, 2019-2020: Heat transfer problems in the building envelope, energy balance equations, one-dimension finite element methods, TRSNYS software, SolidWorks Flow Simulation software

**Solar Energy** (Undergraduate), for the academic years 2017-2018, 2018-2019: Solar concentrating collectors, Parabolic trough collectors, SolidWorks Flow Simulation software

**Solar Energy – Geothermal Energy** (Postgraduate), for the academic years 2016-2017, 2017-2018, 2018-2019, 2019-2020: Solar flat plate collectors, f-chart method.

#### **4.2.3 Assistance in the supervision of diploma thesis**

During my research activity (2014-2022), I assisted Prof. C. Tzivanidis in the supervision of 46 diploma theses in the energy domain. Moreover, I have assisted Prof. C. Tzivanidis in the supervision of 5 Ph.D. candidates.

### **4.3 2024 - Today: Assistant Professor in the Department of Mechanical Engineering, University of West Attica, Greece**

**Courses:** Thermodynamics I, Thermodynamics II, Thermal Power Stations, Thermal Turbomachines

**Thermodynamics I:** Thermodynamic laws, Thermodynamic cycles, Ideal gas, water/steam properties

**Thermodynamics II:** Exergy, Ideal Mixtures, Non-Idean Mixtures

**Thermal Power Stations:** Water/steam Rankine cycle, Combined Cycle, ORC, Energy situation

**Thermal Turbomachines:** Gas turbines, Combined cycle, Compressors, Turbines, Compressed flow

Supervision of diploma theses.

## 5. WORK EXPERIENCE

### **May 2012 – July 2012:**

Internship in PPC Renewables, Solar Energy Department

### **September 2012 – September 2020:**

Cooperation as Engineering and Researcher with the Energy & Environmental Research Lab, University of Athens. The cooperation regards consulting about research projects and preparation of research proposals. More specifically, the cooperation regards 9 projects about the exploitation of solar energy, geothermal energy and energy savings in the building sector.

### **January 2017 – January 2020:**

Consulting cooperation with the “N&K Goliopoulos ATE” about energy and mechanical engineering projects. Totally, the cooperation regards 3 projects.

### **January 2018 – December 2019:**

Cooperation with the technical office of I. Kauka about energy studies in buildings, solar thermal collectors and photovoltaics. Totally, the cooperation regards 3 projects.

## 6. EXPERIENCE WITH EXPERIMENTAL INSTALLATIONS

During my research, I have worked in various experimental installations as below:

- **Solar Flat plate collectors coupled to storage tank**

School of Mechanical Engineering, National Technical University of Athens, Greece  
Thermal efficiency measurement, useful heat production measurement, daily performance analysis, temperature measurements, and flow rate measurement.

- **Linear Fresnel Reflector coupled to storage tank**

Solar and other energy systems laboratory of NCSR “DEMOKRITOS”  
Thermal efficiency measurement, optical efficiency measurement (IAM), useful heat production measurement, daily performance analysis, temperature measurements, and flow rate measurement.

- **Parabolic trough solar collector coupled to storage tank**

Solar and other energy systems laboratory of NCSR “DEMOKRITOS”  
Thermal efficiency measurement, optical efficiency measurement (IAM), useful heat production measurement, temperature measurements, and flow rate measurement.

- **Thermal conductivity measurements of building structural materials**

School of Mechanical Engineering, National Technical University of Athens, Greece

## 7. COOPERATIONS WITH UNIVERSITIES AND LABORATORIES

**A) Laboratory of Refrigeration, Air-Conditioning and Solar Energy of Thermal Department, School of Mechanical Engineering, National Technical University of Athens:** Research from 2012 to 2016 as a Ph.D. candidate and from 2017 up to 2024 as a Postdoctoral Researcher.

**B) Research associate in chemical Process & Energy Resources Institute (CPERI), Center of Research & Technology Hellas (CERTH):** Research Associate in EU Projects implementation (2022 – Today).

**C) Solar and other energy systems laboratory of NCSR “DEMOKRITOS”:** Researcher as Ph.D. Candidate (Academic year: 2015-2016) and Postdoctoral visiting researcher (Academic year: 2017-2018).

**D) Laboratory of Heating-Cooling-Air Conditioning & Renewables, Department of Mechanical Engineering Educators, in School of Pedagogical and Technological Education, Greece:** Adjunct Lecturer and Laboratory Exercises (Academic years: 2020-2021, 2021-2022 & 2021-2022).

**E) Energy & Environmental Research Lab, University of Athens, Greece:** Research Associate for Projects from 2012 to Today.

**F) Department of Sustainable and Renewable Energy Engineering, University of Sharjah, United Arab Emirates:** Cooperation on cooperative research regarding solar thermal collectors with nanofluids from 2018 to Today.

**G) Department of Energetics and Process Technique, Faculty of Mechanical Engineering, University in Nis, Serbia:** Cooperation on cooperative research regarding solar dish concentrators and applications from 2016 to Today.

**H) Laboratory “Intelligent Energy Systems and Flexible Markets”, The Faculty of Engineering and Science, Aalborg Universitet, Denmark:** Cooperation regarding EU projects and preparing proposals for EU projects (2022 – Today).

## 8. DISTINCTIONS

### 8.1 Scholarships

2019-2021: Scholarship for postdoctoral research, State Scholarships Foundation (IKY), Greece.

2017-2019: Scholarship for post-doctoral research from Bodossaki foundation, Greece.

2014-2016: Scholarship for Ph.D. studies from Onassis foundation, Greece.

2013-2014: Scholarship for Ph.D. studies from Eugenides Foundation, Greece.

## 8.2 Awards

- 2019: Top 1% of reviewers in Cross-Field on Publons global reviewer database.
- 2019: Top 1% of reviewers in Engineering on Publons global reviewer database.
- 2019: Top five in “Fourth USERN Congress and Prize Awarding Festival”.
- 2018: Top 1% of reviewers in Engineering on Publons global reviewer database.
- 2018: Best Reviewer Award, Applied Energy, Elsevier.
- 2017: Award from the Technical Chamber of Greece for undergraduate studies.
- 2017: Dimitrios Chorafas Prize for the best Ph.D. in year 2016 at NTUA, Greece.
- 2017: Thomaidio Award for Journal Publication (NTUA):  
“Parametric analysis and optimization of a solar driven trigeneration system based on ORC and absorption heat pump”
- 2016: Thomaidio Award for Journal Publication (NTUA):  
“Exergetic, energetic and financial evaluation of a solar driven absorption cooling system with various collector types”.
- 2015: Thomaidio Award for Journal Publication (NTUA):  
“Thermal and optical efficiency investigation of a parabolic trough collector”.
- 2011-2012: Thomaidio Award 2<sup>nd</sup> place among all the students, NTUA.
- 2010-2011: Thomaidio Award 3<sup>rd</sup> place among all the students, NTUA.
- 2009-2010: Thomaidio Award 1<sup>st</sup> place among all the students, NTUA.
- 2008-2009: Mathematic award Ch. Papakyriakopoylos, NTUA.
- 2007-2008: Mathematic award Ch. Papakyriakopoylos, NTUA.
- 2007-2008: Mathematic award, I. Kritikos, NTUA
- 2006-2007: Eurobank EFG Award And Scholarship (1<sup>st</sup> place in High School).

## 9. BRIEF DESCRIPTION OF SCIENTIFIC PUBLICATIONS

More than 250 publications in Scientific Journals, Conference Proceedings and in Books. Below, the publications are briefly described.

- **230 publications** in Scientific Journals; 119 of them as the first author.
- **48 publications** in Conference Proceedings; 19 of them as the first author.
- **6 publications in book chapters**; in the 3 of them as the first author.
- **2 participations in book translation.**

The analytical publication list is given in **Appendix I**, while **Appendix II** gives the list of the Conferences where I have presented my work myself.

## 10. SCIENTIFIC REPUTATION INDEXES

The Scopus base ([www.scopus.com](http://www.scopus.com)), the basis includes 236 documents with 11979 citations and an h-index of 64.

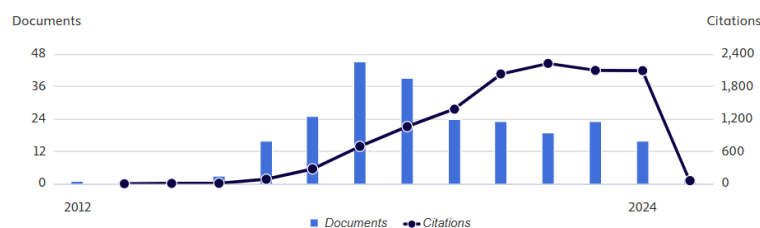
### Bellos, Evangelos A.

[University of West Attica, Athens, Greece](#)
[57203254936](#)
<https://orcid.org/0000-0002-5876-6549>
[View more](#)

12,021 Citations by 6,685 documents |
 237 Documents |
 64 h-index [View h-graph](#) |
 [View more metrics >](#)

[Set alert](#)
[Save to list](#)
[Edit profile](#)
[More](#)

#### Document & citation trends

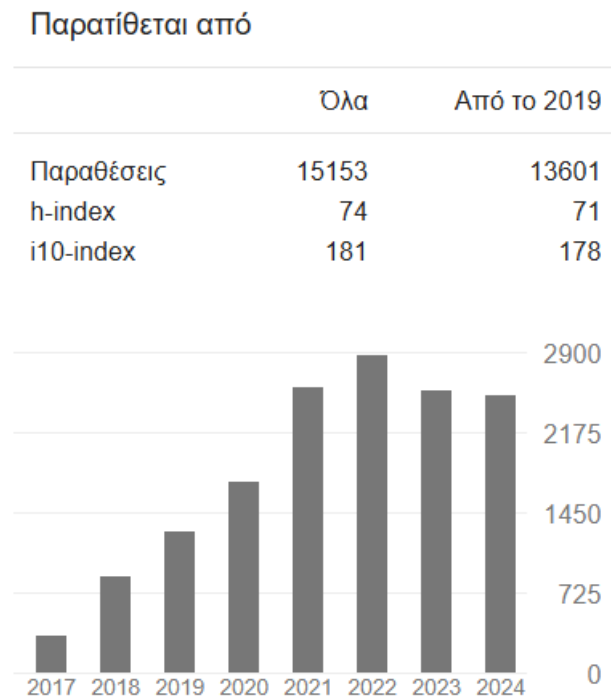


#### Most contributed Topics 2019–2023

**Exergy; Rankine; Hydrogen Production**  
 21 documents  
**Solar Collector; Parabolic Trough Collector; Nanofluidics**  
 16 documents  
**Organic Rankine Cycle; Waste Heat; Working Fluid**  
 12 documents

Figure 1. Documents and Citations per year [Scopus]

According to Google Scholar (<https://scholar.google.gr/>), the basis includes 257 documents with 15153 citations, an h-index at 74 and an i10-index at 181.



**Figure 2. Citations per year [Google Scholar]**

- Top 2% of the scientists with the most influential work for 2019. Position 130 in the subsection “Energy”.  
(<https://journals.plos.org/plosbiology/article?id=10.1371/journal.pbio.3000918>)
- Top 2% of the scientists with the most influential work for 2020. Position 72 in the subsection “Energy”.  
(<https://elsevier.digitalcommonsdata.com/datasets/btchxktzyw/2>)
- Top 2% of the scientists with the most influential work for 2021. Position 59 in the subsection “Energy”.  
(<https://elsevier.digitalcommonsdata.com/datasets/btchxktzyw/4>)
- Top 2% of the scientists with the most influential work for 2022. Position 82 in the subsection “Energy”.  
(<https://elsevier.digitalcommonsdata.com/datasets/btchxktzyw/6>)
- Top 2% of the scientists with the most influential work for 2023. Position 94 in the subsection “Energy”.  
(<https://elsevier.digitalcommonsdata.com/datasets/btchxktzyw/7>)
- Classification of Top Engineering and Technology Scientists in Greece according to Research.com (position 14 in Greece).  
(<https://research.com/scientists-rankings/engineering-and-technology/gr>)

## 11. MEMBER OF SCIENTIFIC BOARDS

### 11.1 Editorial positions in Journals

- **Associate Editor** in the Journal “Sustainable Energy Technologies and Assessments” of Elsevier from July 2020 up to today. During my editorial work, I handled over 500 submissions. Journal Impact factor: 7.1 (2023).

<https://www.journals.elsevier.com/sustainable-energy-technologies-and-assessments/editorial-board/evangelos-bellos-phd>

- **Associate Editor** in the Journal “Thermal Science and Engineering Progress” of Elsevier from June 2023 up to today. During my editorial work, I handled over 200 submissions. Journal Impact factor: 5.1 (2023).

<https://www.sciencedirect.com/journal/thermal-science-and-engineering-progress/about/editorial-board>

- **Advisory board member** in the Journal “Thermal Science and Engineering Progress” of Elsevier from November 2021 up to June 2023.

Journal Impact factor: 5.1 (2023).

<https://www.sciencedirect.com/journal/thermal-science-and-engineering-progress/about/editorial-board>

- **Managing Editor** in the Special Issue “Renewable Energy Sources in trigeneration and polygeneration systems” of the Journal “Sustainable Energy Technologies and Assessments” of Elsevier. During my editorial work, I have handled over 40 submissions. Journal Impact factor: 7.1 (2023).

<https://www.sciencedirect.com/journal/sustainable-energy-technologies-and-assessments/special-issue/I0DC0RCD1H2>

- **Guest Editor** in the Special Issue “Solar Energy Systems: Harvesting, Energy storage and Applications” of the Journal “Sustainable Energy Technologies and Assessments” of Elsevier. Journal Impact factor: 7.1 (2023).

<https://www.sciencedirect.com/journal/sustainable-energy-technologies-and-assessments/special-issue/I03DS9WBZCL>

- **Advisory board member** in the Journal “Solar Energy Advances” of Elsevier from January 2023 up to today.

<https://www.sciencedirect.com/journal/solar-energy-advances/about/editorial-board>

- **Assistant Editor** in Journal “International Journal of Energy and Environmental Engineering” of Springer from January 2020 up to today. The scientific field that I cover is described below: “Solar energy, Concentrating solar collectors, Thermal enhancement techniques in solar Systems; Organic Rankine cycle, Trigeneration, Polygeneration; Absorption chillers, Refrigeration, CO<sub>2</sub> refrigeration Systems; Building thermal behavior, Heat pumps, Heating/cooling Systems”.

Journal Impact factor: 1.9 (2023).

<https://www.springer.com/journal/40095/editors>



- **Advisory board member** in the Special Issue “The challenge-led special issue series: Enhancement of heat transfer processes and energy applications with nanofluids, turbulators, and novel working fluids” of the Journal “Applied Thermal Engineering” of “Elsevier”.  
Journal Impact factor 6.1 (2023).  
<https://www.journals.elsevier.com/applied-thermal-engineering/call-for-papers/special-issue-on-the-challenge-led-special-issue-series-enhancement-of-heat-transfer-processes-and-energy-applications-with-nanofluids-turbulators-and-novel-working-fluids>
- **Guest Editor** in the Special Issue "Advances in Solar Thermal Energy Harvesting, Storage and Conversion" of the Journal “Energies” of “MDPI”.  
Journal Impact factor: 3.0 (2023).  
[https://www.mdpi.com/journal/energies/special\\_issues/L7428MG65A](https://www.mdpi.com/journal/energies/special_issues/L7428MG65A)
- **Guest Editor** in the Special Issue "Advances in Nanofluids and Turbulators for Heat Transfer Enhancement" of the Journal “Energies” of “MDPI”.  
Journal Impact factor: 3.0 (2023).  
[https://www.mdpi.com/journal/energies/special\\_issues/advances\\_nanofluids\\_turbulators\\_heat\\_transfer\\_enhancement](https://www.mdpi.com/journal/energies/special_issues/advances_nanofluids_turbulators_heat_transfer_enhancement)
- **Advisory board member** in the Journal “Applied System Innovation” of MDPI from December 2017 up to today. The scientific field that I cover is described below: “solar energy, solar concentrating power, nanofluids, thermal enhancement techniques, ORC, heat pumps, polygeneration, energy in buildings”.  
Journal Impact factor: 3.8 (2023).  
<https://www.mdpi.com/journal/asi/editors>
- **Guest Editor** in the Special Issue “Solar Energy Systems and Applications” of the Journal “Applied System Innovation” of MDPI.  
Journal Impact factor: 3.8 (2023).  
[https://www.mdpi.com/journal/asi/special\\_issues/solar\\_energy\\_systems](https://www.mdpi.com/journal/asi/special_issues/solar_energy_systems)
- **Guest Editor** in the Special Issue “Applied System Innovation: 5<sup>th</sup> Anniversary” of the Journal “Applied System Innovation” of MDPI.  
Journal Impact factor: 3.8 (2023).  
[https://www.mdpi.com/journal/asi/special\\_issues/4H449935S1](https://www.mdpi.com/journal/asi/special_issues/4H449935S1)
- **Advisory board member** in the Journal “Sci” of MDPI from December 2017 up to today.  
<https://www.mdpi.com/journal/sci/editors>

## 11.2 Advisory Board Member in Conferences

- January 2019 – October 2019: 14<sup>th</sup> SDEWES.
- May 2019 – February 2020: 2<sup>nd</sup> LA SDEWES.
- June 2019 – April 2020: 1<sup>st</sup> AP SDEWES.
- July 2019 – July 2020: 4<sup>th</sup> SEE SDEWES.
- October 2019 – September 2020: 15<sup>th</sup> SDEWES.
- September 2020 – October 2021: 16<sup>th</sup> SDEWES.

- September 2021 – May 2022: 5<sup>th</sup> SEE SDEWES.
- December 2021 – July 2022: 3<sup>rd</sup> LA SDEWES.
- January 2022 – November 2022: 17<sup>th</sup> SDEWES.
- November 2022 – September 2023: 18<sup>th</sup> SDEWES.
- February 2023 – January 2024: 4<sup>th</sup> LA SDEWES.
- March 2023 – April 2024: 2<sup>nd</sup> AP SDEWES.
- June 2023 – June 2024: 1<sup>st</sup> NA SDEWES.
- August 2023 – September 2024: 19<sup>th</sup> SDEWES.
- September 2023 – May 2024: ICEME 2024
- November 2024 – May 2025: 1<sup>st</sup> AF.SDEWES2025

### 11.3 Conference session chair

- 4-6 October 2021, Zaragoza, Spain, “6<sup>th</sup> International Conference on Polygeneration”

### 11.4 Keynote Speaker in Conferences

- 30-31 October 2023, Selangor, Malaysia, “1<sup>st</sup> International Conference on Advanced Materials & Sustainable Energy Technologies 2023”

(<https://sunwayuniversity.edu.my/amset2023>)

## 12. REVIEWER OF SCIENTIFIC WORKS

### 12.1 Reviewer in Scientific Journals

Reviewer in at least 100 Journals with approximately 2500 reviews. Indicatively, I am a reviewer in Journal like the following: Applied Energy, Energy Conversion and Management, Energy, Solar Energy, Renewable Energy, Applied Thermal Engineering, Thermal Science and Engineering Progress, Sustainable Energy Technologies and Assessments, International Journal of Refrigeration, Energies, Applied Sciences, etc.

### 12.2 Reviewer in Scientific Conferences

**1 review in the following conferences:** EEEP 2018, IEEE ICIT 2018, ICAE 2018, SEE.SDEWES 2022

**2 reviews in the following conferences:** ICEREGA’18, SDEWES 2019, L.A.SDEWES 2020, ECOS 2024

**3 reviews in the following conferences:** SDEWES 2022

**5 reviews in the following conferences:** EUROSUN 2024

**Total:** 20 reviews for scientific conferences.

### 12.3 Reviewer for Books/Book Chapters

1 review for a book chapter in a book of CRC Press publishing house

18 reviews for book proposals of Elsevier publishing house

**Total:** 19 reviews for books/book chapters

## 12.4 Reviewer for Ph.D. Dissertations

May 2019: External Reviewer in the Dissertation thesis of Luis González-Portillo, supervision of Prof. Javier Muñoz Antón, Universidad Politécnica de Madrid. Title: “A new concept in thermal engineering optimization: the pericritical cycle with multi-heating and its application to concentrating solar power”.

**Total:** 1 review for Ph.D. dissertations

## 13. INVITATIONS FOR PRESENTATIONS AND PUBLICATION

- 24/9/2016: Invited Speaker for a presentation about “Solidworks Flow Simulation” at ELECTRA PALACE ATHENS for an organized conference by ALFASOLID. The presentation was devoted to heat transfer problems, flow problems and solar collectors.
- 19/3/2022: Invited speaker in a panel (workshop) under the title “The Perspectives of Environmental Market Research” organized by envinow.gr in Verde.Tech 2022  
(<https://www.envinow.gr/post/ekdilosi-envinow-gr-gia-tin-symvoli-tis-erevnas-stin-prostasia-tou-perivallontos>)
- 19/5/2022: Publication of an article in the site envi.now under the title “Concentrating solar thermal collectors: An alternative answer in the energy problem”  
(<https://www.envinow.gr/post/iliakoi-thermikoi-sygkentrotikoi-syllektes-mia-enallaktiki-apantisi-sto-energeiako-adiexodo>)
- Participation in a video of ALFASOLID about the usability of the software SolidWorks Flow Simulation in solar thermal applications.  
(<https://www.youtube.com/watch?v=QHadezVTcfY&feature=youtu.be>)
- 2 Invited publications in the platform Science Trends:  
<https://sciencetrends.com/multi-objective-optimization-of-a-solar-driven-trigeneration-system/>  
<https://sciencetrends.com/enhancing-the-performance-of-parabolic-trough-collectors-using-nanofluids-and-turbulators/>
- Invitations for republication of studies in Greek Journals as below:  
<https://www.technicalreview.gr/index.php/dummy-category-4/item/661-2018-07-18-16-06-30>  
<https://www.technicalreview.gr/index.php/dummy-category-4/item/830-2020-01-19-18-18-47>  
<https://www.thermoydravlikos.gr/paravolikos-epimikis-iliakos-thermikos-syllektis/>

## 14. PARTICIPATION IN ORGANIZATIONS

- Member of ASHRAE – ID: 8286349
- Member of ISES (International Solar Energy Society)
- Member of Greek Technical Chamber (T.E.E.) from 2013
- Member of the Association of the Onassis Foundation Scholars

## 15. APPENDIX I – PUBLICATION LIST

### 15.1 Publications in Scientific Journals (230 documents)

- J1) S. Karellas, A.D. Leontaritis, G. Panousis, **E. Bellos**, E. Kakaras, Energetic and exergetic analysis of waste heat recovery systems in the cement industry, *Energy* 2013;58:147-156  
<https://doi.org/10.1016/j.energy.2013.03.097>
- J2) C. Tzivanidis, **E. Bellos**, D. Korres, K.A. Antonopoulos, G. Mitsopoulos, Thermal and optical efficiency investigation of a parabolic trough collector, *Case Studies in Thermal Engineering* 2015;6:226-237  
<https://doi.org/10.1016/j.csite.2015.10.005>
- J3) C. Tzivanidis, **E. Bellos**, G. Mitsopoulos, I. Alexopoulos, K.A. Antonopoulos, The Impact of Insulation Layer in Various Solar Heating Systems: An Energetic and Financial Evaluation, *International Journal of Mechanical Systems Engineering* 2015;1(2):110  
<http://dx.doi.org/10.15344/2455-7412/2015/110>
- J4) E.D. Kravvaritis, K.A. Antonopoulos, C. Tzivanidis, **E. Bellos**, Solar Energy Management Using Phase Change Materials Passive Systems in the Athens Area Buildings, *International Journal of Mechanical Systems Engineering* 2015;1(1):102  
<http://dx.doi.org/10.15344/2455-7412/2015/102>
- J5) **E. Bellos**, C. Tzivanidis, K.A. Antonopoulos, Design and Simulation of a New Solar Paraboloid Dish Collector, *Journal of solar energy research updates* 2015;2:40-46  
<http://www.avantipublishers.com/downloads/jseruv2n2a4/>
- J6) **E. Bellos**, C. Tzivanidis, K.A. Antonopoulos, G. Gkinis, Thermal enhancement of solar parabolic trough collectors by using nanofluids and converging-diverging absorber tube, *Renewable Energy* 2016;94:213-222  
<https://doi.org/10.1016/j.renene.2016.03.062>
- J7) **E. Bellos**, D. Korres, C. Tzivanidis, K.A. Antonopoulos, Design, simulation and optimization of a compound parabolic collector, *Sustainable Energy Technologies and Assessments* 2016;16:53-63  
<https://doi.org/10.1016/j.seta.2016.04.005>
- J8) C. Tzivanidis, **E. Bellos**, The use of parabolic trough collectors for solar cooling – A case study for Athens climate, *Case Studies in Thermal Engineering* 2016;8:403-413  
<https://doi.org/10.1016/j.csite.2016.10.003>
- J9) S.R. Pavlovic, **E. Bellos**, V.P. Stefanovic, C. Tzivanidis, Z.M. Stamenkovic, Design, simulation, and optimization of a solar dish collector spiral-coil thermal absorber, *Thermal science* 2016;20(4):1387-1397  
<https://doi.org/10.2298/TSCI160213104P>

- J10) S.R. Pavlovic, D.M. Vasiljevic, V.P. Stefanovic, Z.M. Stamenkovic, **E. Bellos**, Optical analysis and performance evaluation of a solar parabolic dish concentrator, *Thermal Science* 2016;20(S5):1237-1249  
(<https://doi.org/10.2298/TSCI16S5237P>)
- J11) **E. Bellos**, C. Tzivanidis, K.A. Antonopoulos, Exergetic, energetic and financial evaluation of a solar driven absorption cooling system with various collector types, *Applied Thermal Engineering* 2016;102:749-759  
(<https://doi.org/10.1016/j.applthermaleng.2016.04.032>)
- J12) C. Tzivanidis, **E. Bellos**, G. Mitsopoulos, K.A. Antonopoulos, A. Delis, Energetic and financial evaluation of a solar assisted heat pump heating system with other usual heating systems in Athens, *Applied Thermal Engineering* 2016;106:87-97  
(<https://doi.org/10.1016/j.applthermaleng.2016.06.004>)
- J13) **E. Bellos**, C. Tzivanidis, K.A. Antonopoulos, I. Daniil, The use of gas working fluids in parabolic trough collectors – An energetic and exergetic analysis, *Applied Thermal Engineering* 2016;109(A):1-14  
(<https://doi.org/10.1016/j.applthermaleng.2016.08.043>)
- J14) **E. Bellos**, C. Tzivanidis, K. Moschos, K.A. Antonopoulos, Energetic and financial evaluation of solar assisted heat pump space heating systems, *Energy Conversion and Management* 2016;120:306-319  
(<https://doi.org/10.1016/j.enconman.2016.05.004>)
- J15) **E. Bellos**, C. Tzivanidis, K.A. Antonopoulos, Exergetic and energetic comparison of LiCl-H<sub>2</sub>O and LiBr-H<sub>2</sub>O working pairs in a solar absorption cooling system, *Energy Conversion and Management* 2016;123:453-461  
(<https://doi.org/10.1016/j.enconman.2016.06.068>)
- J16) C. Tzivanidis, **E. Bellos**, K.A. Antonopoulos, Energetic and financial investigation of a stand-alone solar-thermal Organic Rankine Cycle Power plant, *Energy conversion and management* 2016;126C:421-433  
(<https://doi.org/10.1016/j.enconman.2016.08.033>)
- J17) **E. Bellos**, C. Tzivanidis, K.A. Antonopoulos, Parametric investigation and optimization of an innovative trigeneration system, *Energy Conversion and Management* 2016;127:515-525  
(<https://doi.org/10.1016/j.enconman.2016.09.044>)
- J18) **E. Bellos**, C. Tzivanidis, I. Daniil, Energetic and exergetic investigation of a parabolic trough collector with internal fins operating with carbon dioxide, *International Journal of Energy and Environmental Engineering* 2017;8(2):109-122  
(<https://doi.org/10.1007/s40095-017-0229-5>)

- J19) **E. Bellos**, C. Tzivanidis, E. Zisopoulou, G. Mitsopoulos, K.A. Antonopoulos, An innovative Trombe wall as a passive heating system for a building in Athens—A comparison with the conventional Trombe wall and the insulated wall, *Energy and Buildings* 2016;133:754-769  
(<https://doi.org/10.1016/j.enbuild.2016.10.035>)
- J20) S. Pavlovic, A.M. Daabo, **E. Bellos**, V. Stefanovic, S. Mahmoud, R.K. Al-Dadah, Experimental and numerical investigation on the optical and thermal performance of solar parabolic dish and corrugated spiral cavity receiver, *Journal of Cleaner Production* 2017;150:75-92  
(<https://doi.org/10.1016/j.jclepro.2017.02.201>)
- J21) **E. Bellos**, E. Mathioulakis, C. Tzivanidis, V. Belessiotis, K.A. Antonopoulos, Experimental and numerical investigation of a linear Fresnel solar collector with flat plate receiver, *Energy Conversion and Management* 2016;130:44-59  
(<https://doi.org/10.1016/j.enconman.2016.10.041>)
- J22) **E. Bellos**, C. Tzivanidis, I. Daniil, K.A. Antonopoulos, The impact of internal longitudinal fins in parabolic trough collectors operating with gases, *Energy Conversion and Management* 2017;135:35–54  
(<https://doi.org/10.1016/j.enconman.2016.12.057>)
- J23) **E. Bellos**, C. Tzivanidis, C. Symeou, K.A. Antonopoulos, Energetic, exergetic and financial evaluation of a solar driven absorption chiller – A dynamic approach, *Energy Conversion and Management* 2017;137:34-48  
(<https://doi.org/10.1016/j.enconman.2017.01.041>)
- J24) **E. Bellos**, C. Tzivanidis, K.A. Antonopoulos, A detailed working fluid investigation for solar parabolic trough collectors, *Applied Thermal Engineering* 2017;114:374-386  
(<https://doi.org/10.1016/j.applthermaleng.2016.11.201>)
- J25) S. Pavlovic, **E. Bellos**, W.G. Le Roux, V. Stefanovic, C. Tzivanidis, Experimental investigation and parametric analysis of a solar thermal dish collector with spiral absorber, *Applied Thermal Engineering* 2017;121:126-135  
(<https://doi.org/10.1016/j.applthermaleng.2017.04.068>)
- J26) **E. Bellos**, C. Tzivanidis, Parametric investigation of nanofluids utilization in parabolic trough collectors, *Thermal Science and Engineering Progress* 2017;2:71-79  
(<https://doi.org/10.1016/j.tsep.2017.05.001>)
- J27) **E. Bellos**, C. Tzivanidis, Assessment of the thermal enhancement methods in parabolic trough collectors, *International Journal of Energy and Environmental Engineering* 2017;9(1):59-70

<https://doi.org/10.1007/s40095-017-0255-3>)

J28) **E. Bellos**, C. Tzivanidis, I. Daniil, Thermal and exergetic evaluation of parabolic trough collectors with finned absorbers operating with air, Proceedings of the Institution of Mechanical Engineers, Part A: Journal of Power and Energy 2017;231(7):631-644

<https://doi.org/10.1177/0957650917712403>)

J29) **E. Bellos**, C. Tzivanidis, K.A. Antonopoulos, Parametric analysis and optimization of a solar assisted gas turbine, Energy Conversion and Management 2017;139:151-165

<https://doi.org/10.1016/j.enconman.2017.02.042>)

J30) **E. Bellos**, M.Gr. Vrachopoulos, C. Tzivanidis, Energetic and exergetic investigation of a novel solar assisted mechanical compression refrigeration system, Energy Conversion and Management 2017;147:1-18

<https://doi.org/10.1016/j.enconman.2017.05.040>)

J31) **E. Bellos**, C. Tzivanidis, G. Tsifis, Energetic, Exergetic, Economic and Environmental (4E) analysis of a solar assisted refrigeration system for various operating scenarios, Energy Conversion and Management 2017;148:1055-106

<https://doi.org/10.1016/j.enconman.2017.06.063>)

J32) **E. Bellos**, C. Tzivanidis, A detailed exergetic analysis of parabolic trough collectors, Energy Conversion and Management 2017;149:275-292

<https://doi.org/10.1016/j.enconman.2017.07.035>)

J33) **E. Bellos**, C. Tzivanidis, Optimum design of a solar ejector refrigeration system for various operating scenarios, Energy Conversion and Management 2017;154:11-24

<https://doi.org/10.1016/j.enconman.2017.10.057>)

J34) **E. Bellos**, C. Tzivanidis, Energetic and financial sustainability of solar assisted heat pump heating systems in Europe, Sustainable Cities and Society 2017;33:70-84

<https://doi.org/10.1016/j.scs.2017.05.020>)

J35) **E. Bellos**, C. Tzivanidis, Optimization of a Solar-Driven Trigeration System with Nanofluid-Based Parabolic Trough Collectors, Energies 2017;10:848

<https://doi.org/10.3390/en10070848>)

J36) **E. Bellos**, C. Tzivanidis, S. Pavlovic, V. Stefanovic, Thermodynamic investigation of LiCl-H<sub>2</sub>O working pair in a double effect absorption chiller driven by parabolic trough collectors, Thermal Science and Engineering Progress 2017;3C:75-87

<https://doi.org/10.1016/j.tsep.2017.06.005>)



- J37) S. Pavlovic, **E. Bellos**, V. Stefanovic, C. Tzivanidis, Optimum geometry of parabolic trough collector with optical and thermal criteria, *International Review of Applied Sciences and Engineering* 2017;8(1):45-50  
(<https://doi.org/10.1556/1848.2017.8.1.7>)
- J38) **E. Bellos**, C. Tzivanidis, Parametric analysis and optimization of an Organic Rankine Cycle with nanofluid based solar parabolic trough collectors, *Renewable Energy* 2017;114B:1376-1393  
(<https://doi.org/10.1016/j.renene.2017.06.055>)
- J39) **E. Bellos**, C. Tzivanidis, Parametric analysis and optimization of a solar driven trigeneration system based on ORC and absorption heat pump, *Journal of Cleaner Production* 2017;161:493-509  
(<https://doi.org/10.1016/j.jclepro.2017.05.159>)
- J40) **E. Bellos**, C. Tzivanidis, D. Tsimpoukis, Multi-criteria evaluation of parabolic trough collector with internally finned absorbers, *Applied Energy* 2017;205:540-561  
(<https://doi.org/10.1016/j.apenergy.2017.07.141>)
- J41) **E. Bellos**, C. Tzivanidis, Energetic and financial analysis of solar cooling systems with single effect absorption chiller in various climates, *Applied Thermal Engineering* 2017;126:809-821  
(<https://doi.org/10.1016/j.applthermaleng.2017.08.005>)
- J42) **E. Bellos**, C. Tzivanidis, Parametric investigation of supercritical carbon dioxide utilization in parabolic trough collectors, *Applied Thermal Engineering* 2017;127:736-747  
(<https://doi.org/10.1016/j.applthermaleng.2017.08.032>)
- J43) **E. Bellos**, C. Tzivanidis, D. Tsimpoukis, Thermal enhancement of parabolic trough collector with internally finned absorbers, *Solar Energy* 2017;157C:514-531  
(<https://doi.org/10.1016/j.solener.2017.08.067>)
- J44) **E. Bellos**, C. Tzivanidis, V. Belessiotis, Daily performance of parabolic trough solar collectors, *Solar Energy* 2017;158:663-678  
(<https://doi.org/10.1016/j.solener.2017.10.038>)
- J45) S. Pavlovic, **E. Bellos**, R. Loni, Exergetic investigation of a solar dish collector with smooth and corrugated spiral absorber operating with various nanofluids, *Journal of Cleaner Production* 2018;174:1147-1160  
(<https://doi.org/10.1016/j.jclepro.2017.11.004>)
- J46) **E. Bellos**, C. Tzivanidis, Performance analysis and optimization of an absorption chiller driven by nanofluid based solar flat plate collector, *Journal of Cleaner Production* 2018;174:256-272



<https://doi.org/10.1016/j.jclepro.2017.10.313>)

J47) **E. Bellos**, C. Tzivanidis, Thermal analysis of parabolic trough collector operating with mono and hybrid nanofluids, Sustainable Energy Technologies and Assessments 2018;26:105-115

<https://doi.org/10.1016/j.seta.2017.10.005>)

J48) V.P. Stefanovic, S.R. Pavlovic, **E. Bellos**, C. Tzivanidis, A detailed parametric analysis of a solar dish collector, Sustainable Energy Technologies and Assessments 2018;25:99-110

<https://doi.org/10.1016/j.seta.2017.12.005>)

J49) **E. Bellos**, C. Tzivanidis, A Realistic Approach of the Maximum Work Extraction from Solar Thermal Collectors, Applied System Innovation 2018;1:6

<https://doi.org/10.3390/asi1010006>)

J50) **E. Bellos**, C. Tzivanidis, Investigation of a hybrid ORC driven by waste heat and solar energy, Energy Conversion and Management 2018;156:427-439

<https://doi.org/10.1016/j.enconman.2017.11.058>)

J51) **E. Bellos**, C. Tzivanidis, D. Tsimpanis, Thermal, hydraulic and exergetic evaluation of a parabolic trough collector operating with thermal oil and molten salt based nanofluids, Energy Conversion and Management 2018;156:388-402

<https://doi.org/10.1016/j.enconman.2017.11.051>)

J52) **E. Bellos**, C. Tzivanidis, A. Papadopoulos, Optical and thermal analysis of a linear Fresnel reflector operating with thermal oil, molten salt and liquid sodium, Applied Thermal Engineering 2018;133:70-80

<https://doi.org/10.1016/j.applthermaleng.2018.01.038>)

J53) **E. Bellos**, C. Tzivanidis, Multi-criteria evaluation of a nanofluid-based linear Fresnel solar collector, Solar Energy 2018;163:200-214

<https://doi.org/10.1016/j.solener.2018.02.007>)

J54) **E. Bellos**, C. Tzivanidis, Analytical Expression of Parabolic Trough Solar Collector Performance, Designs 2018;2(1):9

<https://doi.org/10.3390/designs2010009>)

J55) **E. Bellos**, S. Pavlovic, D. Vasiljevic, V. Stefanovic, C. Tzivanidis, Experimental and numerical investigation of a triple-dish solar concentrator - A thermal and exergy study, International Journal of Exergy 2018;26(4):581-501

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- J56) R. Loni, S. Pavlovic, **E. Bellos**, C. Tzivanidis, E.A. Asli-Ardeh, Thermal and exergy performance of a nanofluid-based solar dish collector with spiral cavity receiver, Applied Thermal Engineering 2018;135:206-217  
(<https://doi.org/10.1016/j.applthermaleng.2018.02.070>)
- J57) **E. Bellos**, C. Tzivanidis, Multi-objective optimization of a solar driven trigeneration system, Energy 2018;149:47-62  
(<https://doi.org/10.1016/j.energy.2018.02.054>)
- J58) **E. Bellos**, C. Tzivanidis, Energetic and exergetic evaluation of a novel trigeneration system driven by parabolic trough solar collectors, Thermal Science and Engineering Progress 2018;6:41-47  
(<https://doi.org/10.1016/j.tsep.2018.03.008>)
- J59) **E. Bellos**, C. Tzivanidis, D. Tsimpoukis, Optimum number of internal fins in parabolic trough collectors, Applied Thermal Engineering 2018;137:669-677  
(<https://doi.org/10.1016/j.applthermaleng.2018.04.037>)
- J60) **E. Bellos**, C. Tzivanidis, D. Tsimpoukis, Enhancing the performance of parabolic trough collectors using nanofluids and turbulators, Renewable and Sustainable Energy Reviews 2018;91:358-375  
(<https://doi.org/10.1016/j.rser.2018.03.091>)
- J61) **E. Bellos**, C. Tzivanidis, Enhancing the Performance of Evacuated and Non-Evacuated Parabolic Trough Collectors Using Twisted Tape Inserts, Perforated Plate Inserts and Internally Finned Absorber, Energies 2018;11:1129  
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- J62) **E. Bellos**, E. Mathioulakis, E. Papanicolaou, V. Belessiotis, Experimental investigation of the daily performance of an integrated linear Fresnel reflector system, Solar Energy 2018;167:220-230  
(<https://doi.org/10.1016/j.solener.2018.04.019>)
- J63) **E. Bellos**, C. Tzivanidis, Investigation of a star flow insert in a parabolic trough solar collector, Applied Energy 2018;224:86-102  
(<https://doi.org/10.1016/j.apenergy.2018.04.099>)
- J64) **E. Bellos**, C. Tzivanidis, Development of an analytical model for the daily performance of solar thermal systems with experimental validation, Sustainable Energy Technologies and Assessments 2018;28:22-29  
(<https://doi.org/10.1016/j.seta.2018.05.003>)

- J65) Z. Said, S. Arora, **E. Bellos**, A review on performance and environmental effects of conventional and nanofluid-based thermal photovoltaics, *Renewable and Sustainable Energy Reviews* 2018;94:302-316  
(<https://doi.org/10.1016/j.rser.2018.06.010>)
- J66) **E. Bellos**, C. Tzivanidis, K. Torosian, Energetic, exergetic and financial evaluation of a solar driven trigeneration system, *Thermal Science and Engineering Progress* 2018;7:99-106  
(<https://doi.org/10.1016/j.tsep.2018.06.001>)
- J67) **E. Bellos**, C. Tzivanidis, Parametric analysis and optimization of a cooling system with ejector-absorption chiller powered by solar parabolic trough collectors, *Energy Conversion and Management* 2018;168:329-342  
(<https://doi.org/10.1016/j.enconman.2018.05.024>)
- J68) **E. Bellos**, Z. Said, C. Tzivanidis, The use of nanofluids in solar concentrating technologies: A comprehensive review, *Journal of Cleaner Production* 2018;196:84-99  
(<https://doi.org/10.1016/j.jclepro.2018.06.048>)
- J69) R. Loni, E. Askari Asli-Ardeh, B. Ghobadian, A.B. Kasaeian, **E. Bellos**, Thermal performance comparison between Al<sub>2</sub>O<sub>3</sub>/oil and SiO<sub>2</sub>/oil nanofluids in cylindrical cavity receiver based on experimental study, *Renewable Energy* 2018;129A:652-665  
(<https://doi.org/10.1016/j.renene.2018.06.029>)
- J70) **E. Bellos**, C. Tzivanidis, Evaluation of a solar driven trigeneration system with conventional and new criteria, *International Journal of Sustainable Energy* 2019;38(3):238-252  
(<https://doi.org/10.1080/14786451.2018.1494173>)
- J71) **E. Bellos**, I. Daniil, C. Tzivanidis, Energetic and Financial Optimization of Solar Heat Industry Process with Parabolic Trough Collectors, *Designs* 2018;2:24  
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C23) G. Mitsopoulos, **E. Bellos**, C. Tzivanidis, The insulation thickness as a design parameter in Greek climate, In Proceedings of “EinB2017 – 6<sup>th</sup> International Conference ENERGY in BUILDINGS 2017”, 99-108, 12 October 2017, Athens, Greece

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C35) S. Pavlovic, V. Stefanovic, **E. Bellos**, C. Tzivanidis, Solar Thermal Collector Efficiency Map: A New Evaluation Tool, In Proceedings of “The 5<sup>th</sup> International conference mechanical engineering in XXI century - (MASING)”, 43-46, 9-10 December 2020, Faculty of Mechanical Engineering in Nis, Serbia

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- C42) A.M. Daabo, S.S. Ibrahim, S. Pavlovic, **E. Bellos**, M. Grozdanovic, M.N. Ilic, A new Methodology for Enhancing Solar Flux in Solar Thermal Receiver Using Ray Tracing Techniques, In Proceedings of “The 6<sup>th</sup> International Conference Mechanical Engineering in XXI Century”, 283-287, 14-15 December 2023, Niš, Serbia
- C43) M. Brborić, B. Nakomčić-Smaragdakis, S. Pavlović, **E. Bellos**, M. Gvozdenović, M.T. Sakulića, Tracking brominated flame retardant patterns in danube bottom sediment: multivariate statistical approach, In Proceedings of “The 6<sup>th</sup> International Conference Mechanical Engineering in XXI Century”, 295-298, 14-15 December 2023, Niš, Serbia
- C44) P. Tzouganakis<sup>1</sup>, **E. Bellos**, D. Rakopoulos, A. Skembris, N. Rogkas, Thermodynamic analysis of a solar-fed heat upgrade system using the reverse air Brayton cycle, In Proceedings of “Alternative Energy Sources, Materials & Technologies (AESMT’24)”, 13-15 May 2024, Sofia, Bulgaria
- \*C45) **E. Bellos**, P. Iliadis, A. Kitsopoulou, N. Ziozas, I. Lampropoulos, N. Nikolopoulos, Energy investigation of upgrading a student dormitory building exploiting solar and geothermal energy sources using the detailed dynamic simulation software INTEMA.BUILDING, In Proceedings of “13<sup>th</sup> National Conference of soft energy sources”, 15-17 May 2024, Athens, Greece
- C46) A. Kitsopoulou, **E. Bellos**, P. Lykas, C. Sammoutos, M. Gr. Vrachopoulos, C. Tzivanidis, A systematic analysis of pcm and optically advanced roof coatings integration for Athenian climatic conditions, In Proceedings of “13<sup>th</sup> National Conference of soft energy sources”, 15-17 May 2024, Athens, Greece
- C47) C. Sammoutos, P. Lykas, A. Kitsopoulou, **E. Bellos**, C. Tzivanidis, Dynamic modeling of a solar central receiver coupled to a supercritical brayton power cycle, In Proceedings of “13<sup>th</sup> National Conference of soft energy sources”, 15-17 May 2024, Athens, Greece
- C48) M. Brboric, B. Nakomčić-Smaragdakis, D. Šljivac, S. Pavlović, **E. Bellos**, M. Ilić M, Assessment of indoor environmental quality in modern office spaces: impacts on health and productivity, In Proceedings of “2<sup>nd</sup> EUROSA Conference 2024”, 15-18 May 2024, Vrnjačka Banja, Serbia
- C49) **E. Bellos**, C. Sammoutos, P. Lykas, A. Kitsopoulou, I. Alexopoulos, A. Arabkoohsar, C. Tzivanidis, A mini-review of industrial waste sources, efficiency enhancement techniques, and heat upgrade solutions with an emphasis on thermochemical processes, In Proceedings of “The 37<sup>th</sup> International Conference on Efficiency, Cost, Optimization, Simulation and Environmental Impact of Energy Systems”, 2066 – 2077, 30 June - 5 July, 2024, Rhodes, Greece (<https://doi.org/10.52202/077185-0177>)

C50) **E. Bellos**, C. Sammoutos, P. Lykas, A. Kitsopoulou, I. Alexopoulos, A. Arabkoohsar, C. Tzivanidis, Thermodynamic analysis of a solar-driven absorption heat transformer for industrial process heat, In Proceedings of “The 37<sup>th</sup> International Conference on Efficiency, Cost, Optimization, Simulation and Environmental Impact of Energy Systems”, 2078 – 2089, 30 June - 5 July, 2024, Rhodes, Greece (<https://doi.org/10.52202/077185-0178>)

### 15.3 Publications in Book Chapters / Books (8 documents)

B1) **E. Bellos**, C. Tzivanidis, A. Kouvari, K.A. Antonopoulos, Comparison of Heating and Cooling Loads of a Typical Building with TRNSYS and eQUEST, Energy, Transportation and Global Warming, Springer, January 2016, 327-338

(ISBN: 978-3-319-30126-6)

(DOI:10.1007/978-3-319-30127-3\_25)

B2) **E. Bellos**, C. Tzivanidis, A. Prassas, K.A. Antonopoulos, Modelling of a Solar Assisted Floor Heating System with TRNSYS, Energy, Transportation and Global Warming, Springer, January 2016, 355-369

(ISBN: 978-3-319-30126-6)

(DOI:10.1007/978-3-319-30127-3\_28)

B3) C. Tzivanidis, **E. Bellos**, Solar Energy Utilization in Buildings, In book: Renewable Energy Engineering: Solar, Wind, Biomass, Hydrogen and Geothermal Energy Systems, Bentham Science, Chapter 3, 2018;119-165

(ISBN: 978-1-68108-720-7)

(DOI:10.2174/9781681087191118030005)

B4) Participation in the editing of the translation in Greek of the book: I. Dincer, Refrigeration Systems and Applications, Tziolas, 2020

(ISBN: 978-960-418-750-8)

B5) Participation in the editing of the translation in Greek of the book: D.Y. Goswami, Principles of solar engineering, Tziolas, 2020

(ISBN: 978-960-418-881-9)

B6) A. Seitaridis, I. Mamounakis, N. Tagkoulis, P. Iliadis, **E. Bellos**, C. Papalexis, V. Sougakis, N. Nikolopoulos, An Innovative Software Platform for Efficient Energy, Environmental and Cost Planning in Buildings Retrofitting, Artificial Intelligence Applications and Innovations, AIAI 2022 IFIP WG 12.5 International Workshops, Springer 2022;217-228

(ISBN 978-3-031-08340-2)

([https://doi.org/10.1007/978-3-031-08341-9\\_18](https://doi.org/10.1007/978-3-031-08341-9_18))

B7) Z. Said, M.A. Sohail, **E. Bellos**, Nanotechnology for Heat Transfer. In Nanotechnology Applications for Solar Energy Systems, M. Sheikholeslami (Ed.), 2023:71-96

(Print ISBN:9781119791140) (Online ISBN:9781119791232)

(<https://doi.org/10.1002/9781119791232.ch4>)

B8) **E. Bellos**, Z. Said, C. Tzivanidis, Nanofluids in Linear Fresnel Reflector. In Nanotechnology Applications for Solar Energy Systems, M. Sheikholeslami (Ed.), 2023:99-124 (Print ISBN:9781119791140) (Online ISBN:9781119791232)

(<https://doi.org/10.1002/9781119791232.ch5>)

## 16. APPENDIX II – LIST OF ATTENDANCE AT CONFERENCES

I have presented my work at the following conferences:

**“Material and Renewable Energy Conference – (MRE)”**

1-3 July 2013, Athens, Greece

**“6<sup>th</sup> International Conference from Scientific Computing to Computational Engineering”**

9-12 July 2014, Athens, Greece

**“Global Conference on Global Warming GCGW-15”**

24-27 May 2015, Athens, Greece

**“The 28<sup>th</sup> International Conference on Efficiency, Cost, Optimization, Simulation and Environmental Impact of Energy Systems”**

30 June - 3 July 2015, Pau, France

**“6<sup>th</sup> International Conference on Experiments/Process/System Modelling/Simulation/Optimization”**

8-11 July 2015, Athens, Greece

**“World Congress on Momentum, Heat and Mass Transfer (MHMT’16)”**

4-5 April 2016, Prague, Czech Republic

**“7<sup>th</sup> International Conference from Scientific Computing to Computational Engineering”**

6-9 July 2016, Athens, Greece

**“EinB2016 - 5<sup>th</sup> International Conference ENERGY in BUILDINGS 2016”**

12 November 2016, Athens, Greece

**“7<sup>th</sup> International Conference on Experiments/Process/System Modelling/Simulation/Optimization”**

5-8 July 2017, Athens, Greece

**“EinB2017 – 6<sup>th</sup> International Conference ENERGY in BUILDINGS 2017”**

12 October 2017, Athens, Greece

**“11<sup>th</sup> National Conference of Soft Energy Sources”**

14-16 March 2018, Thessaloniki, Greece

**“EinB2018 - 7<sup>th</sup> International Conference ENERGY in BUILDINGS 2018”**

3 November 2018, Athens, Greece

**“6<sup>th</sup> International Conference on Polygeneration”**

4-6 October 2021 Zaragoza, Spain

**“13<sup>th</sup> National Conference of Soft Energy Sources”**

15-17 May 2024, Athens, Greece