



CURRICULUM VITAE

George ARAMPATZIS

**Associate Professor
School of Production Engineering and Management
Technical University of Crete**

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1 PERSONAL INFORMATION

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Home Address	Parodos Andronikou 6, 73136 Chania, Crete, Greece
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Phone	W: (+30) 2821037365, H: (+30) 2821050949, M: (+30) 6972550473
Place and Date of Birth	Nea Vyssa, Orestiadon, Greece; September 13 th , 1967
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2 EDUCATION

- 2000 Doctor Engineer**
National Technical University of Athens, School of Chemical Engineering
Thesis: "Simulation of Transport Phenomena in Solidification Processes"
- 1991 Diploma in Chemical Engineering**
National Technical University of Athens, School of Chemical Engineering
Thesis: "Numerical Diffusion in Atmospheric Pollution Problems"

3 LANGUAGES

Mother Tongue	Greek
Other language(s)	English (excellent)

4 PROFESSIONAL EXPERIENCE

4.1 Employment

Sep 2022–Today	Associate Professor <i>Discipline: "Heat Transfer and Process Engineering"</i> School of Production Engineering & Management, Technical University of Crete
April 2018– Sep 2022	Assistant Professor <i>Discipline: "Heat Transfer"</i> School of Production Engineering & Management, Technical University of Crete
2014–2018	Laboratory Teaching Staff <i>Discipline: "Heat & mass transfer and energy conversion processes"</i> School of Chemical Engineering, National Technical University of Athens
2000–2014	Chemical Engineer / Post-Doctoral Researcher Environmental and Energy Research Management Unit, School of Chemical Engineering, National Technical University of Athens

1992–1998 Chemical Engineer / Consultant
S.P.E.E.D. Development Consultants SA

4.2 Invited Positions

2018–Today Visiting Professor
Mediterranean Agronomic Institute of Chania (CIHEAM MAICh)

5 TEACHING ACTIVITIES

5.1 Lectures in Undergraduate and Postgraduate Courses in Tech. Univ. of Crete

2018–today Heat Transfer
7th Semester, School of Production Engineering and Management, Technical University of Crete

2018–today Fluid Mechanics
6th Semester, School of Production Engineering and Management, Technical University of Crete

2023 Transport Phenomena II
5th Semester, School of Chemical and Environmental Engineering, Technical University of Crete

2018–today Rational Energy Management of Production Systems
Postgraduate Programme, School of Production Engineering and Management, Technical University of Crete

5.2 Lectures in Postgraduate Courses in Mediterranean Agronomic Inst of Chania

2020–today ICT for Agriculture and Water Resources Management
MSc Programme in Geoinformation and Environmental Management

5.3 Lectures as Guest Lecturer

July 2024 Digitalization and cyberphysical systems for watersmart process industries
AquaSPICE Summer School: Achieving Water-Smart Management in the Process Industry – An Educational Perspective, Chania, Crete, Greece

July 2023 Introduction to Industry 4.0
BEST Course in Summer 2023, Industry 4.0: The path to digital (R)evolution, Chania, Crete, Greece

July 2023 Experience from Successful Innovation Research Projects: Recommendations and Good Practices
18th Annual Seminar on the Information Society and the Knowledge Economy, Ermoupolis, Syros, Greece

Sep 2022 Advances in Digital Twins Processes
MODENERLANDS COST Action Training School 1, Chania, Crete, Greece

- June 2022 Process Modelling and Simulation for Industrial Cognitive Digital Twins**
Hybrid Workshop, Twin Digital and Green Transition to a Resilient Economy, Chania, Crete, Greece
- Dec 2021 Accelerating Sustainable Production through Digital Transformation of Industry**
EURECA-PRO The European University on Responsible Consumption and Production, Online Lecture Series II
- Nov 2020 Cognitive Manufacturing – The role of process modelling and simulation**
DAAD-Online-School 2020, Smart Artificial Materials digitally engineered

5.4 Lectures in Postgraduate Courses in National Tech. Univ. of Athens

- 1999–2012 Computer Aided Data Analysis**
MSc Energy Management and Environmental Protection
School of Chemical Engineering of National Technical University of Athens and Department of Industrial Management at the University of Piraeus
- 2001–2002 Computational Methods in Decision Making**
MSc Energy Management and Environmental Protection
School of Chemical Engineering of National Technical University of Athens and Department of Industrial Management at the University of Piraeus

5.5 Participation in Undergraduate Courses in National Tech. Univ. of Athens

- 2000–2018 Transport Phenomena II: Heat and Mass Transfer**
5th Semester, School of Chemical Engineering, National Technical University of Athens
- 2013–2018 Rational and Sustainable Energy Management**
8th Semester, School of Chemical Engineering, National Technical University of Athens
- 2002–2012 Energy Analysis of Industrial Systems**
8th Semester, School of Chemical Engineering, National Technical University of Athens
- 1992–1998 Computational Methods in Transport Phenomena**
School of Chemical Engineering, National Technical University of Athens

5.6 Laboratory Teaching in National Tech. Univ. of Athens

- 2000–2018 Computational Lab in Transport Phenomena II, Heat and Mass Transfer**
5th Semester, School of Chemical Engineering, National Technical University of Athens
- 2002–2018 Computational Lab in Rational and Sustainable Energy Management**
8th Semester, School of Chemical Engineering, National Technical University of Athens

- 2015–2018 Design and Process Analysis Laboratory, Unit Operations I and II**
(i) Heat exchanges (ii) Product drying
5th and 6th Semesters, School of Chemical Engineering, National Technical University of Athens
- 2017–2018 Computational Lab in Unit Operations**
6th Semester, School of Chemical Eng, National Technical University Athens

5.7 Organisation of Educational Courses

- 2024 AquaSPICE Summer School**
Achieving Water-Smart Management in the Process Industry – An Educational Perspective, Chania, Crete, Greece
- 2023 BEST, Board of European Students of Technology**
Course in Summer 2023: Industry 4.0: The path to digital (R)evolution, Chania, Crete, Greece

5.8 Participation in Educational Projects

- 2023 Adrion Master On Circular Economy and Bioeconomy (AMOCEAB)**
Development of a Strategy and Action Plan to foster Circular and Bio-Economy key principles in the ADRION Area, with the creation of a Master's Degree Programme. Funded by the INTERREG ADRION Programme.
- 2006-2008 Building the Future of Transnational Cooperation in Water Resources in South East Europe (Educate!)"**
Establishment of an international postgraduate course in Water Resources and Environmental Management. Funded by the INTERREG III B CadSES Programme.
- 2004-2007 MSc Programme in Environmental Management, Engineering and Technology (EnvMed)**
Funded by the European Commission, DG Education and Culture, in the framework of the TEMPUS Programme.

5.9 Supervision of PhD and Diploma Theses

- 2019–today Supervision of 5 PhD Theses**
- 2019–today Member of advisory committee of 5 PhD Theses**
- 2019–today Supervision of 21 completed diploma Theses**

6 RESEARCH ACTIVITIES

6.1 Research Areas

- **Process and System Engineering**
 - Process Modelling
 - Simulation of Production Systems.
 - Analysis and Optimisation of Production Systems.
 - Computational Mechanics.
- **Information and Communication Technologies (ICT)**
 - Industry 4.0 and Industry 5.0.
 - Digital Twins and Cyber-Physical Systems.
 - Data Analytics and AI algorithms.
 - Product Digital Passports.
- **Circular Economy**
 - Resource Recycle & Reuse.
 - Industrial and Industrial-Urban Symbiosis.
 - Circular Cities and Regions.
- **Water Systems Engineering**
 - Water Demand Management and Forecasting.
 - Industrial Water Treatment and Management Technologies and Practices.
 - Water Desalination Systems Power by Renewable Energy.
- **Energy Systems Engineering**
 - Rational Energy Management in Industry, Transportation, Buildings and Agriculture.
 - Renewable and Hybrid Power Generation Systems.
 - Distributed Energy Systems.
 - Energy Market - Energy Communities.
 - Energy Demand Management and Forecasting.
- **Environmental Engineering**
 - Natural Resources Management.
 - Climate Change Adaptation Measures.
 - Nature Based Solutions.
 - Life Cycle and Eco-Efficiency Assessment.
- **Decision Making**
 - Decision Support Systems.
 - Multi-Criteria Decision Making.
 - Participatory Decision Making.

6.2 Participation in EU or National Funded Research and Innovation Projects

European Research Projects as Coordinator and Principal Investigator

- 2024-2027** Boosting Circular Systemic Solutions through Virtual Regional Circular Economy Spaces (**CSSBoost**). **Horizon Europe**.
(Project Coordinator and Principal Investigator of Technical University of Crete)
Budget for indigo team: 1 196 250 €
- 2020-2025** Advancing Sustainability of Process Industries through Digital and Circular Water Use Innovations (**AquaSPICE**). **Horizon 2020**.
(Project Technical/Scientific Coordinator and Principal Investigator of Technical University of Crete)
Budget for indigo team: 570 000 €
- 2024-2027** Adriatic-Ionian Maritime Operational Efficiency and Sustainable Scheme (**AIMPRESS**), **INTERREG ADRION**
(Project Coordinator and Principal Investigator of Technical University of Crete)
Budget for indigo team: 316 .625 €

European Research Projects as Principal Investigator

- 2024-2029** A First of a kind Hub for circularity demonstrator for Attica and peripheral regions (**THESEUS**), **Horizon Europe**.
(Principal Investigator of Technical University of Crete)
Budget for indigo team: 428 750 €
- 2024-2028** Streamlining the optimisation of Sustainable Thermal Energy systems and Prototype technologies in process industries (**STREAMSTEP**), **Horizon Europe**.
(Principal Investigator of Technical University of Crete)
Budget for indigo team: 410 000 €
- 2023-2025** Product Passport through Twinning of Circular Value Chains (**Plooto**), **Horizon Europe**.
(Principal Investigator of Technical University of Crete)
Budget for indigo team: 571 875 €
- 2021-2025** A Holistic Fire Management Ecosystem for Prevention, Detection and Restoration of Environmental Disasters (**TREEADS**), **Horizon 2020**, **Green Deal**.
(Principal Investigator of Technical University of Crete)
Budget for indigo team: 545 625 €
- 2023-2026** A Sustainable Ecosystem for the Innovative Resource Recovery and Complex Ore Extraction (**XTRACT**), **Horizon Europe**.
(Principal Investigator of Technical University of Crete)
Budget for indigo team: 331 750 €
- 2019-2023** Energy-aware Factory Analytics for Process industries (**FACTLOG**), **Horizon 2020**.
(Principal Investigator of Technical University of Crete)
Budget for indigo team: 347 450 €

- 2020-2024** Smart integration of local energy sources and innovative storage for flexible, secure and cost-efficient energy supply on industrialized islands (**ROBINSON**), **Horizon 2020**.
(Principal Investigator of Technical University of Crete)
Budget for indigo team: 194 375 €
- 2023-2026** Space-Air-Ground Last Mile Infrastructure & Dynamic Programmable Distributed Environment for Edge Farming (**AGRARIAN**), **Horizon Europe**.
(Principal Investigator of CIHEAM-MAICh)
Budget for indigo team: 153 750 €
- 2022-2025** A Holistic Approach to Sustainable, Digital EU Agriculture, Forestry, Livestock and Rural Development based on Reconfigurable Aerial Enablers and Edge Artificial Intelligence-on-Demand Systems (**CHAMELEON**), **Horizon Europe**.
(Principal Investigator of CIHEAM-MAICh)
Budget for indigo team: 283 750 €
- 2021-2025** Dynamic Information Management Approach for the Implementation of Climate Resilient Adaptation Packages in European Regions (**IMPETUS**), **Horizon 2020, Green Deal**.
(Principal Investigator of CIHEAM-MAICh)
Budget for indigo team: 231 750 €
- 2023** Adrion Master On Circular Economy and Bioeconomy (**AMOCEAB**). **INTERREG ADRION**.
(Principal Investigator of Technical University of Crete)
Budget for indigo team: 94 120 €

National Research Projects as Coordinator and Principal Investigator

- 2023-2025** Air-Pollution Alleviation in urban areas through parking spaces Innovative exploitation towards climate change mitigation (**ParkIn**), **Greek Green Fund**.
(Project Coordinator and Principal Investigator of Technical University of Crete)
Budget for indigo team: 120 000 €

National Research Projects as Principal Investigator

- 2023-2025** Network of Excellence for the Development, Dissemination and Application of Digital Transformation Technologies in the Greek Manufacturing Industry (**Greece4.0**), **Flagship Actions of GSRI**.
(Principal Investigator of Technical University of Crete)
Budget for indigo team: 213 625 €

Research Projects as Senior Researcher of NTUA

- 2016–2019** Demonstrating synergies in combined natural and engineered processes for water treatment systems (**AquaNES**), **Horizon 2020**.
- 2017–2020** A digital solid waste reuse platform for Balkan (**SWAN**), **Interreg**, Balkan-Mediterranean.
- 2016-2019** Energy and Water Systems Integration and Management (**EdGeWiSE**), **ERANET-MED** Programme.

- 2011–2014** Meso-level eco-efficiency indicators to assess technologies and their uptake in water use sectors (**EcoWater**), **7th Framework Programme**.
- 2012–2015** Water Enhanced Resource Planning “Where water supply meets demand” (**WatERP**), **7th Framework Programme**.
- 2011–2015** Technologies for Water Recycling and Reuse in Latin America Content: Assessment, Decision Tools and Implementable Strategies Under an Uncertain Future (**Coroado**), **7th Framework Programme**.
- 2011–2014** Fostering European Drought Research and Science-Policy Interfacing (**DROUGHT-R&SPI**), **7th Framework Programme**.
- 2010–2012** Water availability and Security in Southern Europe and the Mediterranean (**WASSERMed**), **7th Framework Programme**.
- 2006–2011** Sustainable Water Management Improves Tomorrow’s Cities’ Health (**SWITCH**), **6th Framework Programme**.
- 2006–2009** Optimal Engineering Design for Dependable Water and Power Generation in Remote Areas Using Renewable Energies and Intelligent Automation (**OPEN GAIN**), **6th Framework Programme**.
- 2006–2009** Institutional and Economic Instruments for Sustainable Water Management in the Mediterranean Region (**INECO**), **6th Framework Programme**.
- 2005–2008** Mitigation of Water Stress Through New Approaches to Integrating Management, Technical Economic and Institutional Instruments (**AquaStress**), **6th Framework Programme**.
- 2004–2005** Developing Harmonized European Approaches for Transport Costing and Project Assessment (**HEATCO**), **6th Framework Programme**.
- 2004–2005** Improving Promotion of Electric Motor Systems (**Promot**), **SAVE Programme**.
- 2004** Implementation of Articles 5 & 6 of the Water Framework Directive 2000/60/EC in Cyprus, **Water Development Department of the Ministry of Agriculture, Natural Resources and Environment of Cyprus**.
- 2003–2006** Strengthening complementarity and exploitation of results related RTD projects dealing with water resources use and management in arid and semi-arid regions (**ARID**), **5th Framework Programme**.
- 2002–2005** Improving Competitiveness of SMEs through IT-Based Environmental Business Planning (**SMITE**), **MEDA Programme**.
- 2003–2005** Development of a Master Plan for the reduction of air pollution in the Greater Athens area, **Ministry of Environment**.
- 2002–2005** Developing Strategies for Regulating and Managing Water Resources and Demand in Water Deficient Regions (**WaterStrategyMan**), **5th Framework Programme**.
- 1998–2001** Optimization of processes in refineries developing and applying catalysts. Operational Programme in Research and Technology, **GGET/EPET II**.
- 2001** Upgrading the Geographical Information System in use by OASA, Athens Urban Transport Organisation - **OASA**.
- 1999–2000** Policy Evaluation for Public Transport, **SAVE Programme**.
- 1998–2000** Mediterranean cooperation for water desalination policies in the perspective of a sustainable development (**MedCoDesal**), **INCO-DC Program**.

- 1995-1996** External Cost of Transport (**ExternE**), **Joule III Programme**.
- 1995-1996** A decision support system for the integration of renewable energies into water system (**REDES**), **APAS Programme**.

6.3 Participation in EU Research Clusters/Initiatives

- 2021-today** **ICT4Water** Cluster for EU-funded research projects on ICT and Water Management (<https://ict4water.eu/>)
- 2020-today** **BRIDGE** European Commission initiative which unites Horizon 2020 and Horizon Europe Smart Grid, Energy Storage, Islands, and Digitalisation Projects (<https://bridge-smart-grid-storage-systems-digital-projects.ec.europa.eu/>)
- 2023-today** **LIAISE** COST Action CA22110 / Cooperation, development and cross-border transfer of Industrial Symbiosis among industry and stakeholders (<https://www.cost.eu/actions/CA22110/>)

7 PUBLISHED WORK

7.1 Peer-Reviewed Scientific Journals

- A.50** S. Plitsos, N. Sarantinoudis, G. Tsinarakis, J.M. Rozanec and G. Arampatzis. **Efficient process operations via digital twins in the petrochemical industry: a case-study on LPG purification**. Computers in Industry (submitted for publication), **2025**.
- A.49** A. Phillis, S. Manoudakis, V. Kouloumpis, N. Savvakis and G. Arampatzis. **Understanding and Managing Wildfire Regimes in Europe: A Holistic Approach to Prevention, Preparedness, Response, Restoration, and Adaptation**. Climate Risk Management (submitted for publication), **2024**.
- A.48** A Papadaki, N. Savvakis, N. Sifakis and G. Arampatzis. **Analysis of Hybrid Renewable Energy Systems for European Islands: Market Dynamics, Opportunities and Challenges**. Energy Research & Social Science (submitted for publication), **2024**.
- A.47** A. Vyrkou, M. Aryblia, N. Savvakis, I. Nicacio, O. Siddique, G. Arampatzis and A. Angelis-Dimakis. **Dynamic and Real Time Life Cycle Assessment: A Sectoral Systematic Review**. Open Research Europe (submitted for publication), **2024**.
- A.46** E. Karkou, A. Angelis-Dimakis, M. Parlapiano, N. Savvakis, O. Siddique, A. Vyrkou, M. Sgroi, F. Fatone and G. Arampatzis. **Process innovations and circular strategies for closing the water loop in a process industry**. Journal of Environmental Management 370, **2024**. DOI: [10.1016/j.jenvman.2024.122748](https://doi.org/10.1016/j.jenvman.2024.122748)
- A.45** T. Terlouw, N. Savvakis, C. Bauer, R. McKenna and G. Arampatzis. **Designing multi-energy systems in Mediterranean regions**. Applied Energy, 377, **2024**. DOI: [10.1016/j.apenergy.2024.124458](https://doi.org/10.1016/j.apenergy.2024.124458)
- A.44** E. Karkou, C.J. Teo, N. Savvakis, J. Poinapen and G. Arampatzis. **Industrial Circular Water Use Practices through the Application of a Conceptual Water Efficiency Framework in the Process Industry**. Journal of Environmental Management, 370, **2024**. DOI: [10.1016/j.jenvman.2024.122596](https://doi.org/10.1016/j.jenvman.2024.122596)
- A.43** N. Sifakis, N. Savvakis, M. Petropoulou and G. Arampatzis. **Techno-econ accepted omic optimization of a novel industrial Hybrid Renewable Energy System based on the waste-to-X principle**. Energy Conversion and Management, 313, 118613, **2024**. DOI: [10.1016/j.enconman.2024.118613](https://doi.org/10.1016/j.enconman.2024.118613)

- A.42** J. Lua, G. Tsinarakis, N. Sarantinoudis, G. Arampatzis, X. Zheng and D. Kiritsis. **A Semantic Model-based Systems Engineering Approach for Assessing the Operational Performance of Metal Forming Process**. Computers & Industrial Engineering, 190, 110042, **2024**. DOI: [10.1016/j.cie.2024.110042](https://doi.org/10.1016/j.cie.2024.110042)
- A.41** E. Gerampinis, G. Arampatzis, F. Kalafati and N. Matsatsinis. **Towards a multi-criteria decision support system for heating and cooling equipment selection in residential buildings**. International Journal of Decision Support Systems, 5, 1, **2024**. DOI: [10.1504/IJDSS.2024.137240](https://doi.org/10.1504/IJDSS.2024.137240)
- A.40** C.J. Teo, E. Karkou, N. Savvakis, O. Vlad, A. Vyrkou, G. Arampatzis and A. Angelis Dimakis. **Life cycle environmental impact assessment of slaughterhouse wastewater treatment**. Chemical Engineering Research and Design, 200, **2023**. DOI: [10.1016/j.cherd.2023.11.016](https://doi.org/10.1016/j.cherd.2023.11.016)
- A.39** N. Sarantinoudis, G. Tsinarakis, P. Dedousis and G. Arampatzis. **Model-Based Simulation Framework for Digital Twins in the Process Industry**. IEEE Access, 11, **2023**. DOI: [10.1109/ACCESS.2023.3322926](https://doi.org/10.1109/ACCESS.2023.3322926)
- A.38** N. Savvakis, N. Sifakis, X. Kotakidis and G. Arampatzis. **Multiple energy resources integration in the food industry: A Technoeconomic analysis**. Journal of Cleaner Production, 426, **2023**. DOI: [10.1016/j.jclepro.2023.139055](https://doi.org/10.1016/j.jclepro.2023.139055)
- A.37** P. Dedousis, G. Stergiopoulos, C. Konstantinou, G. Arampatzis, D. Gritzalis. **Enhancing Operational Resilience of Critical Infrastructure Processes through Chaos**. IEEE Access, 11, **2023**. DOI: [10.1109/ACCESS.2023.3316028](https://doi.org/10.1109/ACCESS.2023.3316028)
- A.36** N. Sifakis, N. Sarantinoudis, G. Tsinarakis, C. Politis and G. Arampatzis. **Soft sensing of LPG processes using deep learning**. Sensors, 23, 7858, **2023**. DOI: [10.3390/s23187858](https://doi.org/10.3390/s23187858)
- A.35** G. Tsinarakis, V. Kouloumpis, A. Pavlidou and G. Arampatzis. **Data for the project management, life cycle inventory, costings and energy production of a ground-mounted photovoltaic farm in Greece**. Data in Brief, 48, **2023**. DOI: [10.1016/j.dib.2023.109260](https://doi.org/10.1016/j.dib.2023.109260)
- A.34** K. Kalaboukas, D. Kiritsis and G. Arampatzis. **Governance Framework for Autonomous and Cognitive Digital Twins in Agile Supply chains**. Computers in Industry, 146, **2023**. DOI: [10.1016/j.compind.2023.103857](https://doi.org/10.1016/j.compind.2023.103857)
- A.33** A. Angelis-Dimakis, G. Arampatzis, A. Alexopoulos, A. Vyrkou, A. Pantazopoulos and Vasilis Angelis. **Industrial Symbiosis in the Balkan-Mediterranean Region: The Case of Solid Waste**. Environments, 12, 870. **2023**. DOI: [10.3390/environments10010001](https://doi.org/10.3390/environments10010001)
- A.32** G. Tsinarakis, N. Sarantinoudis and G. Arampatzis. **A Discrete Process Modelling and Simulation methodology for Industrial Systems within the Concept of Digital Twins**. Applied Sciences, 10, 1. **2022**. DOI: [10.3390/app12020870](https://doi.org/10.3390/app12020870)
- A.31** A. Angelis-Dimakis, G. Arampatzis, A. Alexopoulos, A. Pantazopoulos, I. Vyrides, N. Chourdakis and V. Angelis. **Waste Management and Circular Economy in Cyprus - The Case of the SWAN Project**. Environments, 9, 16. **2022**. DOI: [10.3390/environments9020016](https://doi.org/10.3390/environments9020016)
- A.30** P. Eirinakis, S. Lounis, S. Plitsos, G. Arampatzis, K. Kalaboukas, K. Kenda, J. Lu, J.M. Rožanec and N. Stojanovic. **Cognitive Digital Twins for Resilience in Production**. Information, 13, 33. **2022**. DOI: [10.3390/info13010033](https://doi.org/10.3390/info13010033)
- A.29** P. Dedousis, G. Stergiopoulos, G. Arampatzis, D. Gritzalis. **A security-aware framework for designing industrial engineering processes**. In IEEE Access, **2021**, DOI: [10.1109/ACCESS.2021.3134759](https://doi.org/10.1109/ACCESS.2021.3134759)
- A.28** J.M. Rožanec, E. Trajkova, J. Lu, N. Sarantinoudis, G. Arampatzis, P. Eirinakis, I. Mourtos, M.K. Onat, D.A. Yilmaz, A. Košmerlj, K. Kenda; B. Fortuna, D. Mladenčić. **Cyber-Physical LPG debutanizer distillation columns: machine learning-based soft sensors for product quality monitoring**. Applied Sciences, 11(24):11790, **2021**. DOI: [10.3390/app112411790](https://doi.org/10.3390/app112411790)
- A.27** W. Belgacem, K. Mattas, G. Arampatzis and G. Baourakis. **Changing Dietary Behavior for Better Biodiversity Preservation: A Preliminary Study**. Nutrients, 13, 2076. **2021**. DOI: [10.3390/nu13062076](https://doi.org/10.3390/nu13062076)

- A.26** K. Kalaboukas, J. Rožanec, A. Košmerlj, D. Kiritsis and G. Arampatzis. **Implementation of Cognitive Digital Twins in Connected and Agile Supply Networks – an Operational model**. Applied Science, **2021**. DOI: [10.3390/app11094103](https://doi.org/10.3390/app11094103)
- A.25** A. Angelis-Dimakis, G. Arampatzis, T. Pieri, K. Solomou, P. Dedousis and G. Apostolopoulos. **SWAN platform: A web-based tool to support the development of industrial solid waste reuse business models**. Waste Management & Research, **2021**. DOI: [10.1177/0734242X21989413](https://doi.org/10.1177/0734242X21989413)
- A.24** V. Kouloumpis, A. Kalogerakis, A. Pavlidou, G. Tsinarakis and G. Arampatzis. **Should Photovoltaics Stay at Home? Comparative Life Cycle Environmental Assessment on Roof-Mounted and Ground-Mounted Photovoltaics**. Sustainability, Vol. 12, Issue 21, **2020**. DOI: [10.3390/su12219120](https://doi.org/10.3390/su12219120)
- A.23** G. Arampatzis, P.-M. Stathatou, P. Scaloubakas and D. Assimacopoulos. **Supporting decisions for the application of combined natural and engineered systems for water treatment and reuse**. International Journal of Decision Support Systems, Vol 4, No 2, **2019**. DOI: [10.1504/IJDSS.2019.104566](https://doi.org/10.1504/IJDSS.2019.104566)
- A.22** M. Milousi, M. Souliotis, G. Arampatzis and S. Papaefthimiou. **Evaluating the Environmental Performance of Solar Energy Systems Through a Combined Life Cycle Assessment and Cost Analysis**. Sustainability, Vol 11, pp. 1-23, **2019**. DOI: [10.3390/su11092539](https://doi.org/10.3390/su11092539)
- A.21** P.-M. Stathatou, P. Dedousis, G. Arampatzis, H. Grigoropoulou and D. Assimacopoulos. **Energy Savings & Reduced Emissions in Combined Natural & Engineered Systems for Wastewater Treatment & Reuse: The WWTP of Antiparos Island**. Desalination and Water Treatment, Vol. 159, pp. 13-23, **2019**. DOI: [10.5004/dwt.2019.23995](https://doi.org/10.5004/dwt.2019.23995)
- A.20** A. Mehmeti, A. Angelis-Dimakis, G. Arampatzis, S.J. McPhail and S. Ulgiati. **Life Cycle Assessment and Water Footprint of Hydrogen Production Methods: From Conventional to Emerging Technologies**. Environments, Vol 5, Issue 24, pp. 1-19, **2018**. DOI: [10.3390/environments5020024](https://doi.org/10.3390/environments5020024)
- A.19** A. Georgopoulou, A. Angelis-Dimakis, G. Arampatzis and D. Assimacopoulos. **Systemic eco-efficiency assessment of industrial water use systems**. Desalination and Water Treatment, Vol 63, pp. 343-350, **2017**. DOI: [10.5004/dwt.2017.0523](https://doi.org/10.5004/dwt.2017.0523)
- A.18** G. Arampatzis, A. Angelis-Dimakis, M. Blind and D. Assimacopoulos. **A web-based toolbox to support the systemic eco-efficiency assessment in water use systems**. Journal of Cleaner Production, Vol 138, pp 181–194, **2016**. DOI: [10.1016/j.jclepro.2016.02.065](https://doi.org/10.1016/j.jclepro.2016.02.065)
- A.17** A. Angelis-Dimakis, G. Arampatzis and D. Assimacopoulos. **Systemic eco-efficiency assessment of meso-level water use systems**. Journal of Cleaner Production, Vol 138, pp 195–207, **2016**. DOI: [10.1016/j.jclepro.2016.02.136](https://doi.org/10.1016/j.jclepro.2016.02.136)
- A.16** G. Arampatzis, E. Kampragou, P. Scaloubakas and D. Assimacopoulos. **Using accurate demand forecasting to improve the efficiency of water supply distribution chains**. Desalination and Water Treatment, Vol. 57, Issue 25, pp. 11494-11505, **2016**. DOI: [10.1080/19443994.2015.1065447](https://doi.org/10.1080/19443994.2015.1065447)
- A.15** A. Georgopoulou, A. Angelis-Dimakis, G. Arampatzis and D. Assimacopoulos. **Improving the eco-efficiency of an agricultural water use system**. Desalination and Water Treatment, Vol. 57, Issue 25, pp. 11484-11493, **2016**. DOI: [10.1080/19443994.2015.1058727](https://doi.org/10.1080/19443994.2015.1058727)
- A.14** A. Angelis-Dimakis, G. Arampatzis and D. Assimacopoulos. **Monitoring the sustainability of the Greek energy system**. Energy for Sustainable Development Journal, Vol 16, Num 1, pp 51–56, **2012**. DOI: [10.1016/j.esd.2011.10.003](https://doi.org/10.1016/j.esd.2011.10.003)

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- A.9** G.M. Bolas, S. Papadokonstandakis, J. Michalopoulos, G. Arampatzis, A.A. Lappas, I.A. Vasalos and A. Lygeros. **A computer aided tool for the simulation and optimization of the combined HDS–FCC processes**. Chemical Engineering Research and Design, Vol 82, Num 7, pp 881–894, **2004**. DOI: [10.1205/0263876041596706](https://doi.org/10.1205/0263876041596706)
- A.8** D. Voivodas, G. Arampatzis, E. Manoli, C. Karavitis and D. Assimacopoulos. **Water supply modelling towards sustainable environmental management in small islands: the case of Paros, Greece**. Desalination, Vol 156, pp 127–135, **2003**. DOI: [10.1016/S0011-9164\(03\)00335-7](https://doi.org/10.1016/S0011-9164(03)00335-7)
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- A.6** E. Manoli, G. Arampatzis, E. Pissias, D. Xenos and D. Assimacopoulos. **Water demand and supply analysis using a spatial decision support system**. Global Nest Journal, Vol 3, Num 3, pp 199–209, **2001**. DOI: [10.30955/gnj.000227](https://doi.org/10.30955/gnj.000227)
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7.2 Scientific Conferences

- B.87** M. Grillakis, G. Arampatzis, A. Phillis, S. Manoudakis and A. Voulgarakis. **Advancing Wildfire Management in Mediterranean: The TREEADS (H2020) project**. 18th LINIUS Conference on Mediterranean Risks, Chania, Greece, 30 September–3 October **2024**.
- B.86** A. Martínez-Gutiérrez, J. Díez-González¹, R. Ferrero Guillén, G. Arampatzis and M. Araújo. **Impact of the Metaverse on Humans: Physical Exertion and Perception Shifts**. 6th ICOPEV – International Conference on Production Economics and Project Evaluation, Guimarães, Portugal, November **2024**.
- B.85** A. Angelis-Dimakis, S. Earnshaw, P. Dedousis, M. Aryblia, A. Vyrkou and G. Arampatzis. **The AquaSPICE Symbiosis Enabling Platform**. LIAISE G1 Workshop September 2024. Brussels, Belgium, September **2024**.
- B.84** M. Gllilakis, G. Arampatzis, A. Phillis, S. Manoudakis and A. Voulgarakis. **Advancing Wildfire Management in Mediterranean: The TREEADS (H2020) project**. 18th PLINIUS Conference on Mediterranean Risks. Chania, Crete, Greece, September **2024**.
- B.83** E. Karkou and G. Arampatzis. **Towards Sustainable Water Management Through Systemic Modelling**. 14th Hellenic Scientific Conference on Chemical Engineering. Thessaloniki, Greece, May **2024**.
- B.82** M. Aryblia, N. Sarantinoudis, N. Sifakis, G. Tsinarakis and G. Arampatzis. **Advancing Industry 4.0 by Enabling Sustainability and Circularity in Process Industrial Environments**. 14th Hellenic Scientific Conference on Chemical Engineering. Thessaloniki, Greece, May **2024**.
- B.81** N. Tsourveloudis, G. Arampatzis, L. Doitsidis, M. Aryblia, G. Livanos. **Manufacturing Resilience and Flexibility: Enablers for the industrial future**. The 32nd Mediterranean Conference on Control and Automation (MED2024). Chania, Crete, Greece, June **2024**.
- B.80** G. Arampatzis, N. Tsourveloudis, L. Doitsidis, M. Aryblia, G. Livanos. **Empowering Manufacturing Sustainability through Process Simulation Modelling, Integrated Digital Product Passports and Sustainability Balanced Scorecards**. The 32nd Mediterranean Conference on Control and Automation (MED2024). Chania, Crete, Greece, June **2024**.
- B.79** N. Sarantinoudis, N. Vitzilaios and G. Arampatzis. **Applications of Digital Twins in UAV**. International Conference on Unmanned Aircraft Systems (ICUAS). Chania, Crete, Greece, June **2024**.
- B78** N. Savvakis, N. Sifakis and G. Arampatzis. **Development and Techno-Economic Assessment of Multi-Energy Systems in Mediterranean Island Communities (Case Study: Platanos Kissamou, Crete)**. 13th National Conference for Renewable Energy Sources. Athens, Greece, May 2024. (in Greek)
- B.77** S. Manoudakis, C. kalaitzidis, A. Phillis and G. Arampatzis. **Predicting Post-Wildfire Soil Characteristics Using Remote Sensing and AI: A Case Study in Central Greece**. International Symposium on Applied Geoinformatics (ISAG-2022), Wroclaw, Poland, May **2024**.
- B.76** S. Manoudakis, V. Skevakis, P. Dedousis and G. Arampatzis. **Utilizing Remote Sensing and Artificial Intelligence for Effective Monitoring of Deforestation: A Case Study in the Attica Region, Greece**. International Symposium on Applied Geoinformatics (ISAG-2022), Wroclaw, Poland, May **2024**.
- B.75** E. Karkou, N. Savvakis and G. Arampatzis. **Digital Intelligent Services in Industrial Wastewater Treatment to Mitigate Climate Change**. International Symposium on Applied Geoinformatics (ISAG-2022), Wroclaw, Poland, May **2024**.
- B.74** N. Sifakis, E. Fakotakis, A. Siouras, S. Moustakidis and G. Arampatzis. **Advancing Livestock Management through ICT: Insights from the CHAMELEON Project in Greece**. International Symposium on Applied Geoinformatics (ISAG-2022), Wroclaw, Poland, May **2024**.

- B.73** M. Aryblia, N. Sarantinoudis, N. Sifakis, G. Tsinarakis and G. Arampatzis. **Enhancing Manufacturing Sustainability through Integrated Digital Product Passports and the Sustainability Balanced Scorecard.** International Symposium on Applied Geoinformatics (ISAG-2022), Wroclaw, Poland, May **2024**.
- B.72** N. Sifakis, G. Tsinarakis, M. Aryblia and G. Arampatzis. **Empowering Sustainable Manufacturing with Process Simulation Modelling Tool: A Leap Towards Circular Economy Integration** International Symposium on Applied Geoinformatics (ISAG-2022), Wroclaw, Poland, May **2024**.
- B.71** M. Aryblia, N. Sarantinoudis, G. Tsinarakis and G. Arampatzis. **Advancing sustainability in industrial supply chains by embracing circular approaches & digital transformation.** International Conference of the International Ecological Engineering Society, Chania, Greece, October 1 – 5, **2023**.
- B.70** G. Arampatzis. **Sustainability of Process Industries through Digital and Circular Water Use Innovations – Experience from AquaSPICE project.** International Conference of the International Ecological Engineering Society, Chania, Greece, October 1 – 5, **2023**.
- B.69** J.M. Rozanec, B.Sircelj, M.K. Onat, N. Sarantinoudis, G. Arampatzis, B. Fortuna and D. Mladenec. **Machine-Learning-Based Soft Sensors for LPG Distillation Columns Quality Monitoring: Comparing Strategies for Zero-Inflated Data.** III. International Conference on Electrical, Computer and Energy Technologies (ICECET 2023), Cape Town-South Africa. November **2023**.
- B.68** G. Arampatzis. **AquaSPICE – Advancing Sustainability of Process Industries through Digital and Circular Water Use Innovations.** 18th International Conference on Environmental Science and Technology. Athens, Greece. September **2023**.
- B.67** S. Earnshaw, P. Dedousis, A. Vyrkou, T. Pieri, G. Arampatzis and A. Angelis-Dimakis. **The AquaSPICE Industrial Symbiosis Enabling Platform.** 18th International Conference on Environmental Science and Technology. Athens, Greece. September **2023**.
- B.66** M. Aryblia, N. Sarantinoudis, G. Tsinarakis and G. Arampatzis. **Enabling sustainability and resilience in industries through the value chains' circularity and digitalization.** 18th International Conference on Environmental Science and Technology. Athens, Greece. September **2023**.
- B.65** E. Karkou, N. Savvakis, M. Aryblia, A. Angelis-Dimakis and G. Arampatzis. **Modelling Closed-Water Loops in the Process Industries.** 18th International Conference on Environmental Science and Technology. Athens, Greece. September **2023**.
- B.64** G. Arampatzis. **Water management in process industries.** International Conference Leading and Managing in the Digital Era: Shaping the Future of Work and Business Education (LMDE 2023), Syros, Greece, June **2023**.
- B.63** G. Arampatzis. **AquaSPICE Project: The Projects' Experience: Knowledge Exchange and Capacity Development.** Water Innovation and Circularity Conference (WICC), Athens, Greece, June **2023**.
- B.62** E. Karkou, N. Savvakis and G. Arampatzis. **The impact of innovative fit-for-purpose modelling on the industrial wastewater treatment: Application to case studies.** Water Innovation and Circularity Conference (WICC), Athens, Greece, June **2023**.
- B.61** N. Sarantinoudis, G. Tsinarakis, L. Doitsidis, S. Chatzichristofis and G. Arampatzis. **A ROS-based Autonomous Vehicle testbed for the Internet of Vehicles.** 2023 International Conference on Distributed Computing in Smart Systems and the Internet of Things (DCOSS-IoT), Coral Bay, Pafos, Cyprus, **2023**.

- B.60** N. Sarantinoudis, G. Tsinarakis, G. Arampatzis, E. Doitsidis and N. Tsourveloudis. **Bibliometric Analysis on Applications of Digital Twins in Autonomous Vehicles**. The 31st Mediterranean Conference on Control and Automation (MED2023), Limasol, Cyprus, June **2023**.
- B.59** N. Sarantinoudis, G. Arampatzis, K.P. Valavanis and N. Tsourveloudis. **Unmanned Aerial Vehicles and Livestock Management: an application in Western Crete**. International Conference on Unmanned Aircraft Systems, ICUAS 2023, Warsaw, Poland, June **2023**.
- B.58** K. Kalaboukas and G. Arampatzis. **Cognitive Digital Twins for Optimized Manufacturing Operations**. IoT Week, Dublin, June **2022**.
- B.57** K. Kalaboukas and G. Arampatzis. **Process Industry Digital Transformation Using Cognitive Digital Twins**. European Big Data Value Forum, Prague, November **2022**.
- B.56** M. Aryblia, G. Arampatzis, P. Velanas, K. Margariti and C. Kalaitzidis. **A holistic scheme to sustainable and digital agriculture, forestry, livestock, and rural development utilizing reconfigurable aerial enablers - The approach of Horizon Europe CHAMELEON Project**. International Symposium on Applied Geoinformatics (ISAG-2022), Chania, Crete, Greece, Oct **2022**.
- B.55** A. Philis, S. Manoudakis, V. Kouloumpis, G. Arampatzis, P. Velanas and K. Margariti. **Applying geoinformatics in a Holistic Fire Management Ecosystem for Prevention, Detection and Restoration of Environmental Disasters in theTREEADS project**. International Symposium on Applied Geoinformatics (ISAG-2022), Chania, Crete, Greece, Oct **2022**.
- B.54** G. Arampatzis. **Experience from Successful Innovation Projects**. International Symposium on Applied Geoinformatics (ISAG-2022), Chania, Crete, Greece, Oct **2022**.
- B.53** S. Manoudakis, C. Kalaitzidis, G. Arampatzis, Dimitrios and D. Alexakis. **Assessing post-fire soil properties using Machine Learning on satellite remote sensing data**. International Symposium on Applied Geoinformatics (ISAG-2022), Chania, Crete, Greece, Oct **2022**.
- B.52** E. Karkou, N. Savvakis and G. Arampatzis. **Critical insights to drive sustainable water management**. 1st International Conference on Sustainable Chemical and Environmental Engineering, Rethymno, Crete, Greece, Aug-Sep **2022**.
- B.51** J.M. Rozanec, E. Trajkova, M.K. Onat, N. Sarantinoudis and G. Arampatzis, B. Fortuna and D. Mladenec. **Machine-Learning-Based Soft Sensors for Energy Efficient Operation of Crude Distillation Units**. International Conference on Electrical, Computer and Energy Technologies (ICECET 2022), Prague-Czech Republic. July **2022**.
- B.50** A. Corchero Rodriguez, H. Arpke, S. Munaretto, L. Vamvakeridou-Lyroudia, C. Makropoulos, G. Arampatzis, H. Schwarzmüller and A. Marioni. **A resilient knowledge boosters for elaborating adaptation and mitigation measures to minimize the effects of climate change**. 3rd International Symposium Climate Change & Water 2022. Tours, France. May-June **2022**.
- B.49** A. Marinoni, A Corchero Rodriguez, H. Arpke, S. Munaretto, L. Vamvakeridou-Lyroudia, C. Makropoulos, G. Arampatzis, H. Schwarzmüller and C. Jaeger. **Leveraging the power of remote sensing for the implementation of climate change adaptation and mitigation in Europe**. European Space Agency's 2022 Living Planet Symposium. Bonn, Germany. May **2022**.
- B.48** I. Bouhamed, C. Kalaitzidis, I. Gitas, and G. Arampatzis. **Mapping abandoned olive groves using Landsat/Sentinel2 imagery and Google Earth Engine**. International Symposium on Applied Geoinformatics (ISAG2021). Riga, Latvia, Dec **2021**.
- B.47** N. Sarantinoudis, G. Tsinarakis, K. Kalaboukas, P. Eirnakis and G. Arampatzis. **Cognitive Manufacturing: The role of process modelling and optimisation**. 31st European Conference on Operational Research. Athens, Greece. July **2021**.

- B.46** G. Arampatzis, P. Eiriniakis, A. Košmerlj, J. Rožanec and N. Sarantinoudis. **Utilizing an enhanced digital twin to optimize on-specs LPG recovery**. 31st European Conference on Operational Research. Athens, Greece. July **2021**.
- B.45** A. Soukoulis, A. Kalogerakis, A. Angelis-Dimakis and G. Arampatzis. **Energy Renovation of Conference Center Towards Nearly Zero-Energy Building in Accordance with the Standards of the European Green Deal**. 17th International Conference on Environmental Science and Technology, Athens, Greece. September 2021.
- B.44** C. Dima, Angelis-Dimakis and G. Arampatzis. **Industrial symbiosis: A methodology for the development and evaluation of symbiotic actions for CO2 capture and utilization**. 17th International Conference on Environmental Science and Technology. Athens, Greece. September **2021**.
- B.43** V. Angelis, G. Arampatzis, A. Alexopoulos and A. Angelis-Dimakis. **Solid Waste Reuse in the Balkan-Mediterranean Region**. 17th International Conference on Environmental Science and Technology. Athens, Greece. September **2021**.
- B.42** A. Angelis-Dimakis, T. Pieri, I. Nicacio, G. Arampatzis, P. Dedousis, ZB. Liew, CY. SIM and S. Yusup. **Carbon Capture Utilization Potential in Malaysia**. 17th International Conference on Environmental Science and Technology. Athens, Greece. September **2021**.
- B.41** P. Dedousis, G. Stergiopoulos, G. Arampatzis and D. Gritzalis. **Towards integrating security-by-design in industrial engineering practices**. 18th International Conference on Security and Cryptography. Lieusaint - Paris, France. July **2021**.
- B.40** G.J. Tsinarakis, P.S. Spanoudakis, G. Arampatzis, N.C. Tsourveloudis and L. Doitsidis. **Implementation of a Petri-net based Digital Twin for the development procedure of an Electric Vehicle**. 28th Mediterranean Conference on Control and Automation (MED 2020). Saint-Raphaël, France. June **2020**.
- B.39** A. Angelis-Dimakis, G. Arampatzis, P. Dedousis and G. Apostolopoulos. **SWAN Platform - A web-based tool to support the development of industrial solid waste reuse business models**. 16th International Conference on Environmental Science and Technology. Rhodes, Greece. September **2019**.
- B.38** K. Solomou, G. Arampatzis, P. Dedousis, A. Angelis-Dimakis. **A database of existing solid industrial waste reuse schemes as the basis for an industry matching algorithm**. 16th International Conference on Environmental Science and Technology. Rhodes, Greece. September **2019**.
- B.37** A. Kavga, M. Souliotis, G. Arampatzis and S. Papaefthimiou. **Intelligent Greenhouses to Reduce Environmental Imprint**. XXXVIII CIOSTA & CIGR V International Conference, Sustainable Decisions in Bio-Economy. Rhodes, Greece. June **2019**.
- B.36** E. Gerampinis, F. Kalafati, G. Arampatzis and N. Matsatsinis. **Development of Decision Support System in Energy**. 8th International Symposium and 30th National Conference on Operational Research, OR in public and private services. Patras, Greece. May **2019**.
- B.35** T. Pieri, A. Nikitas, G. Arampatzis and A. Angelis-Dimakis. **A methodological framework for the holistic assessment of carbon capture and utilization value chains**. 5th International Symposium on Green Chemistry, Sustainable Development and Circular Economy. Skiathos, Greece. October **2018**.
- B.34** D.S. Tsoukeris, I. Nydrioti, P.-M. Stathatou, P. Dedousis, G. Arampatzis and D. Assimacopoulos. **Environmental Impact Assessment of Combined Natural & Engineered Systems for Wastewater Treatment & Reuse: The Case Of Antiparos WWTP**. 6th International Conference on Industrial and Hazardous Waste Management. Chania, Crete, Greece. September **2018**.

- B.33** G. Arampatzis, P.-M. Stathatou, P. Scaloubakas and D. Assimacopoulos. **A User-Oriented Approach to Provide Online Decision Support Services: The AquaNES DSS Experience**. 7th International Symposium & 29th National Conference on Operational Research. Chania, Crete, Greece. June **2018**.
- B.32** G. Arampatzis, A. Kartalidis, S. Papaefthimiou and D. Assimacopoulos. **A Decision Support System for Design, Assessment and Evaluation of Integrated Water and Energy Production Systems**. 3rd HAEE Conference: Energy Transition: European and Global Perspectives, Athens, Greece, May **2018**.
- B.31** P.M. Stathatou, P. Dedousis, G. Arampatzis, H. Grigoropoulou and D. Assimacopoulos. **Energy Savings & Reduced Emissions in Combined Natural & Engineered Systems for Wastewater Treatment & Reuse: The WWTP of Antiparos Island, Greece**. 6th International Conference on Sustainable Solid Waste Management, Naxos Island, Greece, June **2018**.
- B.30** P.M. Stathatou, G. Arampatzis, E. Christoffels and D. Assimacopoulos. **Decision Support System for the implementation of Combined Natural and Engineered Water Treatment Systems: The Case of Retention Soil Filters**. 16th International Conference of the IWA Specialist Group on Wetland Systems for Water Pollution Control, Valencia, September **2018**.
- B.29** G. Arampatzis, E. Kampragou, P. Scaloubakas, and D. Assimacopoulos. **Balancing water supply and demand under different demand management options: a water system perspective**. 36th IAHR World Congress, The Hague, The Netherlands, June-July **2015**.
- B.28** A. Georgopoulou, A. Angelis-Dimakis, G. Arampatzis and D. Assimacopoulos. **Assessing and improving the eco-efficiency of a bottling plant using a systemic approach**. CEMEPE/SECOTOX 2015 Conference, Mykonos, Greece, July **2015**.
- B.27** G. Arampatzis, E. Kampragou, N. Perdikeas, P. Scaloubakas, and D. Assimacopoulos. **A system-based approach for the assessment of water demand management instruments**. IWA Waterideas 2014 Conference, Bologna, Italy, October **2014**.
- B.26** A. Angelis-Dimakis, G. Arampatzis and D. Assimacopoulos. **Systemic eco-efficiency assessment in water use systems**. 17th European Roundtable on Sustainable Consumption and Production, Portoroz, Slovenia, October **2014**.
- B.25** G. Arampatzis, A. Angelis-Dimakis, M. Blind and D. Assimacopoulos. **An online suite of tools to support the systemic eco-efficiency assessment in water use systems**. 17th European Roundtable on Sustainable Consumption and Production, Portoroz, Slovenia, October **2014**.
- B.24** G. Arampatzis, N. Perdikeas, E. Kampragou, P. Scaloubakas and D. Assimacopoulos. **A water demand forecasting methodology for supporting day-to-day management of water distribution systems**. 12th International Conference "Protection & Restoration of the Environment", Skiathos, Greece, June **2014**.
- B.23** A. Georgopoulou, A. Angelis-Dimakis, G. Arampatzis and D. Assimacopoulos. **Eco-efficiency assessment in the agricultural sector: The case of fresh form tomato crop in Phthiotida**. 12th International Conference "Protection & Restoration of the Environment", Skiathos, Greece, June **2014**.
- B.22** C. Xiouras, A. Angelis-Dimakis, G. Arampatzis and D. Assimacopoulos. **Environmental and energy assessment of new vehicle technologies in the greater Athens area**. 12th International Conference on Environmental Science and Technology, Rhodes, Greece, September **2011**.
- B.21** A. Kartalidis, M. Georgopoulou, G. Arampatzis and D. Assimacopoulos. **Desalination in Greek island by using RES**. 12th International Conference on Environmental Science and Technology, Rhodes, Greece, September **2011**.

- B.20** G. Arampatzis, A. Panagiotakis, E. Kampragou, E. Manoli and D. Assimacopoulos. **A GIS-based tool for assessing climate change impacts on tourism**, 12th International Conference on Environmental Science and Technology, Rhodes, Greece, September **2011**
- B.19** I. Michalopoulos, A. Angelis-Dimakis, G. Arampatzis and D. Assimacopoulos. **Evaluation of energy saving measures in the residential sector**. 8th Hellenic Scientific Conference on Chemical Engineering, Thessaloniki, Greece, May **2011**. (in Greek)
- B.18** A. Kartalidis, G. Arampatzis and D. Assimacopoulos. **A decision support system for design and assessment of hybrid systems for cogeneration of electricity and water**. 22nd European Modeling & Simulation Symposium, Fes, Morocco, October 2010.
- B.17** A. Angelis-Dimakis and G. Arampatzis. **Energy indicators for sustainable development**. 24th European Conference on Operational Research, Lisbon, Portugal, July **2010**. (Book of Abstracts)
- B.16** A. Angelis-Dimakis, G. Arampatzis and D. Assimacopoulos. **Cost-effectiveness analysis for the exploitation of renewable energy sources in isolated systems under uncertainty**. 9th National Conference on Soft Energy Sources, Paphos, Cyprus, March **2009**. (in Greek)
- B.15** A. Kartalidis, G. Arampatzis and D. Assimacopoulos. **Rapid sizing of renewable energy power components in hybrid power plants for reverse osmosis desalination process**. International Congress on Environmental Software and Modeling, Barcelona, Spain, July **2008**.
- B.14** A. Angelis-Dimakis, P. Trogadas, G. Arampatzis and D. Assimacopoulos. **Cost effectiveness analysis for renewable energy sources integration in the island of Lemnos, Greece**. International Congress on Environmental Software and Modeling, Barcelona, Spain, July **2008**.
- B.13** I. Sofronis, G. Arampatzis, D. Assimacopoulos and Th. Oikonomou. **Promot: A decision support tool for the promotion of energy efficient motor systems**. 4th International Conference on Energy Efficiency in Motor Driven Systems (EEMODS), Heidelberg, Germany, September **2005**.
- B.12** E. Manoli, P. Katsiardi, G. Arampatzis and D. Assimacopoulos. **Comprehensive water management scenarios for strategic planning**. 9th International Conference on Environmental Science and Technology, Rhodes, Greece, September **2005**.
- B.11** D. Voivontas, E. Manoli, G. Arampatzis and D. Assimacopoulos. **Water management in small islands: an optimization model for Paros**. HYDROTOP 2003, Marseille, France, October **2003**.
- B.10** D. Voivontas, G. Arampatzis, E. Manoli, C. Karavitis and D. Assimacopoulos. **Water supply modeling towards sustainable environmental management in small islands: the case of Paros**. European Conference on Desalination and the Environment: Fresh Water for All, Malta, May **2003**.
- B.9** E. Manoli, G. Arampatzis, E. Pissias and D. Assimacopoulos. **A spatial decision support system for the evaluation of water demand and supply management schemes**. 3rd International Forum on Integrated Water Management "Hydrorama 2002", Athens, Greece, March **2002**.
- B.8** G. Goulas, G. Arampatzis, C.T. Kiranoudis, P. Scaloubacas and D. Assimacopoulos. **Evaluation of transport policies in Athens**. 7th International Conference on Environmental Science and Technology, Syros, Greece, September **2001**.
- B.7** J. Michalopoulos, S. Papadokonstantakis, G. Arampatzis and A. Lygeros. **Comparison of neural networks and statistical models in the modelling of the fluid catalytic cracking process**. 3rd National Conference of Chemical Engineering. Athens, Greece, June **2001**. (in Greek)
- B.6** J. Michalopoulos, S. Papadokonstantakis, G. Arampatzis and A. Lygeros. **Modeling and optimization of an FCC unit using neural networks**. 3rd National Conference of Chemical Engineering, Athens, Greece, June **2001**. (in Greek)

- B.5** G. Arampatzis, C.T. Kiranoudis, P. Scaloubacas and D. Assimacopoulos. **A GIS-based decision support system for planning urban transportation policies**. 13th National Conference of Hellenic Operational Research Society “Transport & New Technologies”, Pireaus, Greece, December **2000**.
- B.4** K. Missirlis, E. Manoli, G. Arampatzis and D. Assimacopoulos. **The design of a desalination plant powered by renewable energies**. 5th International Water Technology Conference, Alexandria, Egypt, March **2000**.
- B.3** G. Arampatzis and D. Assimacopoulos. **Numerical modeling of convection-diffusion phase change problems**. 2nd National Congress of Computational Mechanics, Chania, Greece, June **1996**.
- B.2** D. Papadopoulos, G. Arampatzis and D. Assimacopoulos. **Air quality predictions under conditions of variable wind and diffusivity profiles**. 4th Conference on Environmental Science and Technology, Mitilini, Greece, September **1995**. (in Greek)
- B.1** G. Arampatzis, P. Dimitriou and D. Assimacopoulos. **Treatment of numerical diffusion in atmospheric diffusion problems**. 2nd Conference on Environmental Science and Technology, Mitilini, Greece, September **1991**. (in Greek).

7.3 Published Books

- C.6** G. Arampatzis, D. Assimacopoulos and V. Lygerou. **Heat and Mass Transfer**. Tziolas, Greece, **2020**. ISBN: 978-960-418-840-6. (in Greek)
- C.5** D. Assimacopoulos, G. Arampatzis, A. Agelis-Dimakis, A. Kartalidis and G. Tsiligridis. **Renewable Energy Sources – Potential and Technologies**. Sofia, Thessaloniki, Greece, **2nd Edition 2023**, B’ **Edition 2023**. ISBN: 978-960-633-044-5. (in Greek)
- C.4** D. Assimacopoulos, V. Lygerou and G. Arampatzis. **Heat and Mass Transfer**. Papasotiriou, Athens, Greece, **2012**. ISBN: 978-960-491-064-9. (in Greek)
- C.3** D. Assimacopoulos, V. Lygerou and G. Arampatzis. **Heat Transfer**. Papasotiriou, Athens, Greece, **2009**. ISBN: 978-960-7182-57-9. (in Greek)
- C.2** V. Lygerou, D. Assimacopoulos and G. Arampatzis. **Mass Transfer**. Papasotiriou, Athens, Greece, **2005**. ISBN 960-7530-66-7. (in Greek)
- C.1** D. Assimacopoulos and G. Arampatzis. **Data Analysis and Decision Making Methods**. Papasotiriou, Athens, Greece, **2002**. ISBN: 960-7530-25-X. (in Greek)

7.4 Chapters in Edited Books

- D.5** J. M. Rožanec, P. Eirinakis, G. Arampatzis, N. Stojanović, K. Kalaboukas, J. Lu, X. Zheng and D. Kiritsis. **Cognitive Digital Twins in the Process Industries**. Chapter in “**Handbook of Digital Twins**”, Edited by Z. Lyu, **2024**. ISBN: 9781032546070. [DOI: 10.1201/9781003425724](https://doi.org/10.1201/9781003425724)
- D.4** A. Angelis-Dimakis, V. Kouloumpis, A. Vyrkou and G. Arampatzis. **A Review of Water Related LCA Indicators**. Chapter in “**Elgar Encyclopedia of Water Policy, Economics and Management**”, Edited by P. Koundouri, Edward Elgar Publishing, **2024**. ISBN: 978 1 80220 2939. [DOI: 10.4337/9781802202946](https://doi.org/10.4337/9781802202946)
- D.3** I. Poulis and G. Arampatzis. **Developmental and Energy Infrastructures in Proximity to Historic Environments: The Investor, and the State**. Chapter in book “**Culture and Perspective at Times of Crisis**”, Edited by S. Antoniadou, G. Vavouranakis, I. Poulis and P. Raouzaou, Oxbow Books, **2018**. [ISBN: 9781785708596](https://doi.org/10.1017/9781785708596)

- D.2** G. Arampatzis, A. Kartalidis and D. Assimacopoulos. **Responding to Water Challenges Through Desalination: Energy Considerations**. Chapter in Book “**Desalination**”, Edited by T. Yonar, Intech, **2017**. ISBN: 978-953-51-3364-3, [DOI: 10.5772/65209](https://doi.org/10.5772/65209)
- D.1** G. Poullos and G. Arampatzis. **Developmental Energy Projects, Cultural Environment, Local Society and Sustainable Development**. Chapter in book “**Cultural Management, Local Society and Sustainable Development**”, Edited by G. Poullos, M. Alivizatou, G. Arampatzis, A. Giannakidis, N.G. Karachalis, E. Mascha, M. Mouliou, M. Papadaki, X. Prosilis and S. Touloupa. Hellenic Academic Ebooks, Athens, **2015**. ISBN: 978-960-603-444-2. Electronic book available at <http://hdl.handle.net/11419/2394> (in Greek)

7.5 Theses

- E.2** G. Arampatzis. **Simulation of Transport Phenomena in Solidification Processes**. PhD Thesis, National Technical University of Athens, School of Chemical Engineering, **2000**. (in Greek)
- E.1** G. Arampatzis. **Numerical Diffusion in Atmospheric Pollution Problems**. Diploma Thesis, National Technical University of Athens, School of Chemical Engineering, **1991**. (in Greek)

7.6 Educational Material

- F.6** G. Arampatzis. **Heat Transfer Notes**. Technical University of Crete, Chania, **2018-2024**. (in Greek)
- F.5** G. Arampatzis. **Fluid Mechanics Notes**. Technical University of Crete, Chania, **2019-2025**. (in Greek)
- F.4** D. Assimacopoulos, G. Arampatzis, A. Angelis-Dimakis and A. Kartalidis. **Rational and Sustainable Energy Management**. National Technical University of Athens, Athens, Greece, **2009-2016**. (in Greek)
- F.3** D. Assimacopoulos and G. Arampatzis. **Energy Analysis of Industrial Systems**. National Technical University of Athens, Athens, Greece, **2002-2008**. (in Greek)
- F.2** D. Assimacopoulos and G. Arampatzis. **Computational Laboratory in Rational and Sustainable Energy Management (electronic form)**. National Technical University of Athens, Athens, Greece, **2002-2016**. (in Greek)
- F.1** D. Assimacopoulos and G. Arampatzis. **Computational Laboratory in Heat and Mass Transfer (electronic form)**. National Technical University of Athens, Athens, Greece, **2000-2016**. (in Greek)

7.7 Presentations in Scientific Events/Workshops

- G.19** G. Arampatzis. **AquaSPICE – Advancing Sustainability of Process Industries through Digital and Circular Water Use Innovation**. Knowledge Exchange Event. Organized by Water Reuse Europe. Brussels, Belgium, October **2023**.
- G.18** Γ. Αραμπατζής. **Προκλήσεις και προοπτικές για την Κυκλική Οικονομία στο πλαίσιο της Διττής Πράσινης & Ψηφιακή Μετάβασης**. Ημερίδα «Η κυκλική οικονομία σε περιοχές δίκαιης μετάβασης». Οργάνωση Πολυτεχνείο Κρήτης, Χανιά, Οκτώβριος **2023**.
- G.17** G. Arampatzis **Advancing Sustainability of Process Industries through Digital and Circular Water Use Innovation – focus on Terneuzen and Rosignano petrochemical areas**. WATER PROJECTS EUROPE @ ECOMONDO: clusters, synergies and interface with market players and problem owners Event. Ecomondo the Green Technology Expo. Rimini, Italy. November **2023**.

- G.16** G. Arampatzis. **Challenges and Opportunities to the Green & Digital Transition and Adaptation to the Climate Crisis – European Strategies and Research Activities**. Advancing Utterly Green Environments, Event organized by Orthodox Academy of Crete, March **2023**.
- G.15** G. Arampatzis. **Innovation Alliance for Circular Economy in Crete and Mediterranean**. 1st Event of “In-Crete” Alliance “: Strengthening the Circular Economy in Crete and the Mediterranean”, Chania, Crete, December **2022**.
- G.14** G. Arampatzis. **Digital Twin and Cyber-Physical Framework in Water Smart Industries in H2020 AquaSPICE**. Digitalization and cyber-physical systems for water-smart cities and industries: demos and showcase Event. Ecomondo the Green Technology Expo. Rimini Italy. November **2022**.
- G.13** G. Arampatzis. **Process Modelling and Simulation for Industrial Cognitive Digital Twins**. Hybrid Workshop “Twin Digital and Green Transition” to a Resilient Economy, Chania, Crete, June **2022**.
- G.12** G. Arampatzis. **Digital Technologies and the Digital Industry: Home Research Perspectives and Success Stories**. Online event “Horizon Europe: Opportunities for the Future of Smart Industry & Digital Technologies”, Organized by National Documentation Center, March **2022**. (in Greek)
- G.11** G. Arampatzis. **Advancing Sustainability of Process Industries through Digital and Circular Water Use Innovations**. Clustering event on preserving water- Integrated water-smart strategies for industrial processes. Organized by Water Europe, December **2021**.
- G.10** G. Arampatzis. **Challenges and Prospects for Energy Transition and Adaptation to Climate Change**. Energy Day in the context of the European Sustainable Energy Week. Organized by Hellenic Mediterranean University, Herecleion, October **2021**. (in Greek)
- G.9** G. Arampatzis. **Digital Water and Energy Management Services in Municipal Utilities**. Networking Event in European Trend and Good practices. Organized by EuroConnect, Athens, December **2019**. (in Greek)
- G.8** D. Assimacopoulos, A. Kartalidis and G. Arampatzis. **RES-powered desalination in arid islands**. Conference on “Renewable Energy Sources and Desalination Technologies: Technical Advancements – Legal Framework – Funding”, Organized by the Centre for Renewable Energy Sources and Saving (CRES), Athens, Greece, September **2010**. (in Greek)
- G.7** G. Arampatzis, A. Kartalidis and D. Assimacopoulos. **Design, Assessment and Optimization of Hybrid Systems for Cogeneration of Electricity and Water using Desalination**. Conference on “Renewable Energy Sources and Desalination Technologies: Technical Advancements – Legal Framework – Funding”, Organized by the Centre for Renewable Energy Sources and Saving (CRES), Athens, Greece, September **2010**. (in Greek)
- G.6** G. Arampatzis, A. Angelis-Dimakis and D. Assimacopoulos. **A web based decision support system for selecting energy efficient heat pumps**. Conference on “Improving energy efficiency of industrial motor systems”, Organized by the Centre for Renewable Energy Sources and Saving (CRES), Athens, Greece, January **2007**. (in Greek)
- G.5** G. Arampatzis, A. Angelis-Dimakis and D. Assimacopoulos. **A web based decision support system for selecting energy efficient heat pumps**. Conference on “Energy efficient motor systems”, Organized by the Centre for Renewable Energy Sources and Saving (CRES), Athens, Greece, February **2006**. (in Greek)
- G.4** G. Arampatzis, A. Koutsantoni and D. Assimacopoulos. **HEATCO Case Studies: Skarfia, Greece**. Conference on Harmonised European Approaches for Transport Costing and Project Assessment, Brussels, Belgium, May **2006**.

- G.3** G. Goulas, G. Arampatzis and D. Assimacopoulos. **Urban Transport Policies Evaluation**. Conference for the Automobile, Environment and Economy. Athens, Greece, April **2002**.
- G.2** G. Arampatzis, N. Diakoulakis, N. Lavdaki, P. Mountzouris and C. Smirnis. **Management of development projects and programs**. 11th National Conference of Hellenic Operational Research Society, Athens, June **1997**. (in Greek)
- G.1** G. Arampatzis, N. Diakoulakis and M. Kaliorakis. **Digital support of general Shut-Down of Hellenic Refineries of Aspropyrgos**. Conference of Primavera users, Athens, November **1996**. (in Greek)

8 EDITORIAL AND CONFERENCE/WORKSHOP ORGANIZATION ACTIVITIES

8.1 Editorial Board and Guest Editor in Scientific Journals

- Applied Sciences – Special Issue on “**Digital Twins: Technologies and Applications**” 2025
- Energies – Special Issue on “**Renewable Energy and Nearly-Zero Emissions Energy Systems**” 2025
- Photogrammetric Engineering and Remote Sensing – Special Issue on “**Innovative Methods for Geospatial Data using Remote Sensing and GIS**” 2023
- Resources – Special Issue on “**Recovery of Metals from Alternative and Urban Ores**” 2020.
- Sustainability – Special Issue on “**Sustainable Industrial Ecology**” 2020

8.2 Organization of International Conferences

2024 **International Symposium of Applied Geoinformatics** (ISAG2024), Wrocław, Poland. *Jointly organized by Yildiz Technical University/Turkey, Wrocław University of Technology/Poland and Technical University of Crete/Greece.*

8.3 Organization of Scientific Workshops

2022 **Twin Digital and Green Transition to a Resilient Economy**, Hybrid Workshop, Chania, Greece. *Organized by the Industrial and Digital Innovations Research Group of Technical University of Crete.*

8.4 Member of Conference Scientific Committees

- 2024** **International Conference on Unmanned Aircraft Systems**, ICUAS 2023, Chania, Greece.
- 2021** **13th National Conference on Renewable Energy**, Athens, Greece.
- 2023** **18th International Conference on Environmental Science & Technology**, CEST 2023, Athens, Greece.
- 2023** **International Conference “Closed cycles and the Circular Society 2023: The power of ecological engineering”** of the International Ecological Engineering Society (IEES), Chania, Greece.
- 2022** **International Symposium of Applied Geoinformatics** (ISAG2022), Chania, Greece.
- 2022** **3rd Symposium on Circular Economy and Sustainability**, Chania, Greece.

- 2021** **17th International Conference on Environmental Science & Technology**, CEST 2021, Athens, Greece.
- 2021** **12th National Conference on Renewable Energy**, Thessaloniki, Greece.
- 2019** **16th International Conference on Environmental Science & Technology**, CEST2019, Rhodes, Greece.
- 2019** **4th HAEE Annual Symposium - International Event**, Athens, Greece.
- 2018** **3rd HAEE Annual Conf.: Energy Transition: European and Global Perspectives**, Athens, Greece.

9 PARTICIPATION IN STUDIES AND CONSULTING SERVICES

- 2020** Study of pollutants transfer and diffusion in steel industry using Computational Fluid Dynamics. **TUC**
- 2004-2005** Environmental management and protection of agricultural and animal husbandry areas of the Pamvotida lake region (Ministry of Agriculture). **NTUA.**
- 2003-2005** Development of a Master Plan for the reduction of air pollution in the Greater Athens area (Ministry of Environment). **NTUA.**
- 2001** Upgrading the Geographical Information System in use by OASA (Athens Urban Transport Organisation). **NTUA.**
- 1997-1998** Assessment Consultant of European Programme LEADER II.. **S.P.E.E.D.**
- 1997-1998** Management Consultant of Programme PAFOS. Services. **S.P.E.E.D.**
- 1995** Computerized project management services during the master shut-down of Hellenic Refineries of Aspropyrgos
- 1995-1998** Management Consultant of Operational Programme for Northern Aegean (PEP) North Aegean. **S.P.E.E.D.**
- 1992-1993** Project management services for the construction of district heating plant in Kozani. **S.P.E.E.D.**
- 1992-1993** Development of an expert system for the industrial water management (MOPPIT). **S.P.E.E.D.**