CURRICULUM VITAE

Georgios ARAMPATZIS

Assistant Professor
School of Production Engineering and Management
Technical University of Crete

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1 PERSONAL INFORMATION

Name	Georgios ARAMPATZIS
Home Address	1η Parodos Manousou Koundourou 4, 73133 Chania, Crete, Greece
Work Address	School of Production Engineering and Management, University Campus, 73100 Chania, Crete, Greece
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Place and Date of Birth	Nea Vyssa, Orestiados, Greece; Sep 13, 1967
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2 EDUCATION

2000 **Doctor Engineer**

National Technical University of Athens, School of Chemical Engineering.

Thesis Tile: "Simulation of Transport Phenomena in Solidification Processes".

1991 **Diploma in Chemical Engineering**

National Technical University of Athens, School of Chemical Engineering.

Thesis Tile: "Numerical Diffusion in Atmospheric Pollution Problems".

3 LANGUAGES

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

4 WORK EXPERIENCE

4.1 Employment

4/4/2018–Today **Assistant Professor**

Discipline: "**Heat Transfer**".

School of Production Engineering and Management, Technical University of Crete

Duties:

- Providing lectures in undergraduate and postgraduate programmes.
- Supervising undergraduate and postgraduate theses.
- Participating in European and National research projects.

2014–2018 **Laboratory Teaching Staff**

Discipline: "**Heat & mass transfer and energy conversion processes**".

School of Chemical Engineering, National Technical University of Athens.

Duties:

- Teaching in undergraduate and postgraduate programmes.
- Supervising undergraduate and postgraduate theses.
- Participating in European and National research projects.
- Proposal writing for research projects.

2000–2014 **Chemical Engineer / Post-Doctoral Researcher**

Environmental and Energy Research Management Unit, School of Chemical Engineering, National Technical University of Athens.

Duties:

- Participating in European and National research projects.
- Providing lectures in postgraduate programmes.
- Participating in post-graduate lectures.
- Proposal writing for research projects.
- Designing and developing software tools.
- Administration and supervision of software and hardware.
- Training of personnel in information technology.

1992–1998 **Chemical Engineer / Consultant**

S.P.E.E.D. Development Consultants SA.

Duties:

- Participating in studies and consulting services.
- Designing and developing information systems for project and programme management.
- General administration and supervision of software and hardware.
- Training of personnel in information technology.

4.2 Invited positions

2018–Today **Visiting Professor**

Mediterranean Agronomic Institute of Chania – CIHEAM MAICh

Duties:

- Providing lectures in undergraduate programmes.
- Supervising undergraduate theses.
- Participating in European and National research projects.

5 TEACHING EXPERIENCE

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.

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 Mediterranean Agronomic Institute of Chania

2020–today **ICT for Agriculture and Water Resources Management**

MSc Programme in Geoinformation in Environmental Management.

5.3 Lectures as guest lecturer

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 and 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 Engineering, National Technical University of Athens

5.7 Participation in educational projects

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. The course is organised by four leading Universities in the South-Eastern European region, and its first year is 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 (Contract No: CD_JEP-31055-2003). Responsible for the development of a web-based platform for supporting the MSc Programme, which is implemented at the University of Mansoura, Egypt.

5.7 Development and management of educational sites

2018–today **Heat Transfer (TUC)**
(https://www.eclass.tuc.gr/courses/MPD188**)**

2018–today **Fluid Mechanics (TUC)**
(https://www.eclass.tuc.gr/courses/MPD151)

2000–2018 **Transport Phenomena II: Heat and Mass Transfer (NTUA)**
(http://environ.chemeng.ntua.gr/elearning/Default.aspx?t=192)

2002–2018 **Rational and Sustainable Energy Management (NTUA)**
(http://environ.chemeng.ntua.gr/elearning/Default.aspx?t=223)

1999–2012 **Computer Aided Data Analysis (NTUA)**
(http://environ.chemeng.ntua.gr/elearning/Default.aspx?t=214)

5.8 Supervision of PhD and Diploma Theses

2019–σήμερα Supervision of four PhD Theses

2019–σήμερα Supervision of eleven completed diploma Theses

2018–σήμερα Member of advisory committee of two PhD Theses

6 RESEARCH EXPERIENCE

6.1 Research Areas

- **Process, System and Service Engineering**
  Main topics:
  - Process Modelling and Simulation.
  - Analysis, Simulation and Optimisation of Production Systems.
  - Business Process Management and Integration
  - Event-Driven and Context-Aware Business Processes
- **Smart ICT Technologies**
  Main topics:
  - Industry 4.0 and Industry 5.0.
  - Agriculture 4.0, Smart Greenhouses.
  - Smart Buildings.
  - Digital Twins and Cyber-Physical Systems.
- **Energy Systems Management**
  Main topics:
  - Energy Conservation in Industry, Transportation and Buildings.
  - Energy Recovery and Waste Heat Reuse.
  - Energy Harvesting.
  - Integration of Renewable Energy into the Energy System.
  - Hybrid Power Generation Systems.
  - Policies and Measures for Rational Energy Management.
  - Energy Market and Energy Communities.
  - Energy Planning.
  - Energy Demand Forecasting.

- **Environmental Systems Management**

  Main topics:
  - Natural Resources Management.
  - Energy Innovation and Green Technologies.
  - Life-Cycle Assessment and Environmental Footprint.
  - Systemic Eco-Efficiency Assessment.
  - Development of Environmental Performance Assessment Tools.
  - Environmental Management and Analysis of Energy Systems.
  - Air Pollution and Protection.

- **Water Resources Management**

  Main topics:
  - Water Treatment in Industry
  - Eco-Efficiency Assessment of Water Value Chains.
  - Water Supply in Stressed Areas.
  - Water Demand Management and Forecasting.
  - Assessment of Natural and Engineered Water Treatment Systems.
  - Water Desalination Systems Integrated with Renewable Energy.

- **Decision Making**

  Main topics:
  - Design and Development of Decision Support Tools.
  - Multi-Criteria Decision Making.
  - Participatory Decision Making.
  - Application of Machine Learning Methodologies.

6.2 Participation in EU or National funded research projects

Research Projects in Progress

2020-2024 Advancing Sustainability of Process Industries through Digital and Circular Water Use Innovations (**AquaSPICE**). EC, CE-SPIRE-07-2020, **Horizon 2020**.
(as Project Technical/Scientific Coordinator & Principal Investigator of Technical University of Crete)

2020-2024 Smart integration of local energy sources and innovative storage for flexible, secure and cost-efficIent energy supply on industrialized islands (**ROBINSON**). EC, LC-SC3-ES-4-2018-2020, **Horizon 2020**.
(as Principal Investigator of Technical University of Crete)

2019-2022 Energy-aware Factory Analytics for Process industries (**FACTLOG**). EC, DT-SPIRE-06-2019, **Horizon 2020**.
(as Principal Investigator of Technical University of Crete)

2021 A Holistic Fire Management Ecosystem for Prevention, Detection and Restoration of Environmental Disasters (**DRYADS**), **Horizon 2020, Green Deal**.
(as Principal Investigator of Technical University of Crete)
Grant Agreement Preparation phase

2021 Dynamic Information Management Approach for the Implementation of Climate Resilient Adaptation Packages in European Regions (**IMPETUS**), **Horizon 2020, Green Deal**.
(as Principal Investigator of CIHEAM-MAICh)
Grant Agreement Preparation phase

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 (**HAMELEON**), **Horizon Europe**.
(ως Επιστημονικά Υπεύθυνος του CIHEAM-MAICh)

2020-2023 Development of smart and sustainable greenhouse units using of innovative ICT technologies (**SmartGreen**). **RIS3 Crete**.

2020-2023 Development of Intelligent and Energy-autonomous Greenhouse using innovative technologies to improve productivity and product quality (**IEnGreen**). **RIS3 West Greece**.

2018 – 2021 Development, design, production and environmental analysis of advanced solar thermal collectors and heat storage systems using vacuum and phase change materials (**ASVaCS**). **EPAnEK**, Action "Research – Create – Innovate".

Completed Projects

2016–2019 Demonstrating synergies in combined natural and engineered processes for water treatment systems (**AquaNES**). EC, EASME, **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**). EC, DG Research, **7th Framework Programme**.

2012–2015 Water Enhanced Resource Planning "Where water supply meets demand" (**WatERP**). EC, DG Research, **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**). EC, DG Research, **7th Framework Programme**.

2011–2014 Fostering European Drought Research and Science-Policy Interfacing (**DROUGHT-R&SPI**). EC, DG Research, **7th Framework Programme**.

2010–2012 Water availability and Security in Southern Europe and the Mediterranean (**WASSERMed**). EC, DG Research, **7th Framework Programme**.

2006-2011 Sustainable Water Management Improves Tomorrow's Cities' Health (**SWITCH**). EC, DG Research, **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**). EC, DG Research, **6th Framework Programme**.

2006–2009 Institutional and Economic Instruments for Sustainable Water Management in the Mediterranean Region (**INECO**). EC, DG Research, **6th Framework Programme**.

2005–2008	Mitigation of Water Stress Through New Approaches to Integrating Management, Technical Economic and Institutional Instruments (**AquaStress**). EC, DG Research, **6th Framework Programme**.
2004–2005	Developing Harmonized European Approaches for Transport Costing and Project Assessment (**HEATCO**). EC, **6th Framework Programme**.
2004–2005	Improving Promotion of Eelectric Motor Systems (**Promot**). EC, DG Research, **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**). EC, DG Research, **5th Framework Programme.**
2002–2005	Improving Competitiveness of SMEs through IT-Based Environmental Business Planning (**SMITE**). EU, DG AIDCO, **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**). EC, DG Research, **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. EC, DG XVII, **SAVE Programme**.
1998–2000	Mediterranean cooperation for water desalination policies in the perspective of a sustainable development (**MedCoDesal**). EC, DG XII, **INCO-DC Program**.
1995-1996	External Cost of Transport (**ExternE**). EC, DG XII, **Joule III Programme**.
1995-1996	A decision support system for the integration of renewable energies into water system. (**REDES**). EC, DG XII, **APAS** Programme

6.3 participation in European Research Clusters

2021- today	ICT4Water Cluster (https://ict4water.eu/)
2020- today	BRIDGE European Commission initiative (https://www.h2020-bridge.eu/)

6.4 Guest Editor in Scientific Journals

- Water Resources and Industry – Special Issue on **Digitalisation in Industrial Water Systems**
- Resources – Special Issue on **Recovery of Metals from Alternative and Urban Ores**
- Sustainability – Special Issue on **"Sustainable Industrial Ecology" (Sustainability)**

7 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.**

8 PUBLISHING WORK

8.1 Publications in peer-reviewed scientific journals

A.34 K. Kalaboukas, D. Kiritsis and *G.* Arampatzis. **Governance Framework for Autonomous and Cognitive Digital Twins in Agile Supply chains**. Submitted for publication in Computers in Industry, Special Issue “Autonomous, Context-Aware, Adaptive Digital Twins”, **2022**.

A.33 N. Sarantinoudis, G. Tsinarakis, P. Dedousis and *G.* Arampatzis. **Model-Based Simulation Framework for Digital Twins in the Process Industry**. Submitted for publication in Computers & Electrical Engineering, **2022**.

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**. Appl. Sci., 12, 870. **2022**. DOI: 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

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

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

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. Mladenić. **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

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.

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: 10.20944/preprints202103.0005.v1

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

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

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.2019.10026324

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

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

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

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

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

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

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

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

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

A.13 C. Xiouras, A. Angelis-Dimakis, G. Arampatzis and D. Assimacopoulos. **Environmental and energy assessment of new vehicle technologies in the greater Athens area**. Global Nest Journal, Vol 14, Num 2, Special Issue: Clean Energy and Sustainability, pp 210–217, **2012**.

A.12 D. Inman, M. Blind, I. Ribarova, A. Krause, O. Roosenschoon, A. Kassahun, H. Scholten, G. Arampatzis, G. Abrami, B. McIntosh and P. Jeffrey. **Perceived effectiveness of environmental decision support systems in participatory planning: Evidence from small groups of end-users**. Environmental Modelling & Software, Vol 26, pp 302–309, **2011**. DOI: 10.1016/j.envsoft.2010.08.005

A.11 E. Manoli, P. Katsiardi, G. Arampatzis and D. Assimacopoulos**. Comprehensive water management scenarios for strategic planning**. Global Nest Journal, Vol 7, Num 3, pp 369–378, **2005**.

A.10 G. Arampatzis, C.T. Kiranoudis, P. Scaloubacas and D. Assimacopoulos. **A GIS-based decision support system for planning urban transportation policies**. European Journal of Operational Research, Vol 152, pp 465–475, **2004**. DOI: 10.1016/S0377-2217(03)00037-7

A.9 G.M. Bollas, 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

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

A.7 G.M. Bollas, S. Papadokonstandakis, J. Michalopoulos, G. Arampatzis, A.A. Lappas, I.A. Vasalos and A. Lygeros. **Using hybrid neural networks in scaling up an FCC model from a pilot plant to an industrial unit**. Chemical Engineering & Processing, Vol 42, pp 697–713, **2003**. DOI: 10.1016/S0255-2701(02)00206-4

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**.

A.5 D. Voivodas, K. Misirlis, E. Manoli, G. Arampatzis, D. Assimacopoulos and A. Zervos. **A tool for the design of desalination plants powered by renewable energies**. Desalination, Vol 133, pp 175–198, **2001**. DOI:10.1016/S0011-9164(01)00096-0

A.4 J. Michalopoulos, S. Papadokonstandakis, G. Arampatzis and A. Lygeros. **Modelling of an industrial fluid catalytic cracking unit using neural networks**. Trans ICheme, Vol 79, Part A, pp 137–142, **2001**. DOI:10.1205/02638760151095944

A.3 J. Papageorgakopoulos, G. Arampatzis, D Assimacopoulos and N.C. Markatos. **Enhancement of the momentum interpolation method on non-staggered grids**. International Journal of Numerical Methods in Fluids, Vol 33, pp 1–22, **2000**. DOI: 10.1002/(SICI)1097-0363(20000515)33:1

A.2 G. Arampatzis and D. Assimacopoulos. **Numerical modelling of convection-diffusion phase change problems**. Computational Mechanics Journal, Vol 21, pp 409–415, **1998**. DOI: 10.1007/s004660050319

A.1 G. Arampatzis, D. Assimacopoulos and E. Mitsoulis. **Treatment of numerical diffusion in strong convective flows**. International Journal of Numerical Methods in Fluids, Vol 18, pp 313–331, **1994**. DOI: 10.1002/fld.1650180306

8.2 Publications in peer-reviewed conference proceedings

B.50 A. Corchero Rodriguez, H. Arpke, S. Munaretto, L. Vamvakeridou-Lyroudia2, 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, G. Arampatzis. **Mapping abandoned olive groves using Landsat/Sentinel2 imagery and Google Earth Engine. I**nternational Symposium on Applied Geoinformatics (ISAG2021). Riga, Latvia, Dec **2021**.

B.47 N. Sarantinoudis, G. Tsinarakis, K. Kalaboukas, P. Eirinakis 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. Eirinakis, 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. Soukouli, 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 Interntional Conference on Security and Cryptograaphy. Lieusaint - Paris, Fance. 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**.

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