



CURRICULUM VITAE

Georgios ARAMPATZIS

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

October 2020

1 PERSONAL INFORMATION

Name	Georgios ARAMPATZIS
Home Address	1 ⁿ Parodos Manousou Koundourou 4, 73133 Chania, Crete, Greece
Work Address	School of Production Engineering and Management, University Campus, 73100 Chania, Crete, Greece
Phone	W: (+30) 2821037365, H: (+30) 2821050949, M: (+30) 6972550473
Place and Date of Birth	Nea Vyssa, Orestiadou, Greece; Sep 13, 1967
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2 EDUCATION

2000 Doctor Engineer

National Technical University of Athens, School of Chemical Engineering.

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

1991 Diploma in Chemical Engineering

National Technical University of Athens, School of Chemical Engineering.

Thesis Title: "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.
- Proposal writing for 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 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.

5.4 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

5.5 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

5.6 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.

6 RESEARCH EXPERIENCE

6.1 Research Areas

▪ Smart ICT Technologies

Main topics:

- Industry 4.0.
- 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.
- **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
- **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 TUC)*
- 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 TUC)*

- 2019-2022** Energy-aware Factory Analytics for Process industries (**FACTLOG**). EC, DT-SPIRE-06-2019, **Horizon 2020**.
(as Principal Investigator of TUC)
- 2017–2020** A digital Solid Waste reuse pLAtform for BalkaN (**SWAN**). **Interreg**, Balkan-Mediterranean.
- 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**.
- 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**

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.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/flid.1650180306

8.2 Publications in peer-reviewed conference proceedings

- 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, Myconos, 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. Papadokostantakis, 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. Papadokostantakis, 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).

8.3 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. Tsiligiridis. **Renewable Energy Sources – Potential and Technologies**. Sofia, Thessaloniki, Greece, **2015**. ISBN: 978-960-6706-76-9. (in Greek)
- C.4** D. Assimacopoulos, V. Lygerou and G. Arampatzis. **Heat and Mass Transfer**. Papatotiriou, Athens, Greece, **2012**. ISBN: 978-960-491-064-9. (in Greek)
- C.3** D. Assimacopoulos, V. Lygerou and G. Arampatzis. **Heat Transfer**. Papatotiriou, Athens, Greece, **2009**. ISBN: 978-960-7182-57-9. (in Greek)
- C.2** V. Lygerou, D. Assimacopoulos and G. Arampatzis. **Mass Transfer**. Papatotiriou, Athens, Greece, **2005**. ISBN 960-7530-66-7. (in Greek)
- C.1** D. Assimacopoulos and G. Arampatzis. **Data Analysis and Decision Making Methods**. Papatotiriou, Athens, Greece, **2002**. ISBN: 960-7530-25-X. (in Greek)

8.4 Chapters in edited books

- D.3** I. Poullos 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. Poullos and P. Raouzaïou, Oxbow Books, 2018.
- 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**. DOI: 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)

8.5 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)

8.6 Educational material

- F.4** D. Assimacopoulos, G. Arampatzis, A. Angelis-Dimakis and A. Kartalidis. **Rational and Sustainable Energy Management**. National Technical University of Athens, Athens, Greece, **2016**. (in Greek)
- F.3** D. Assimacopoulos and G. Arampatzis. **Energy Analysis of Industrial Systems**. National Technical University of Athens, Athens, Greece, **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)

8.7 Presentations in scientific workshops

- 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**.

9 DEVELOPMENT OF SCIENTIFIC ICT TOOLS

- **SmartSyRENA**
Smart System for Remote Energy Analysis. Visual representation of energy and water consumptions, temperatures, CO2 and other measurements. Optimization of building’s operational costs. Monitoring of real-time systems operation.
- **Utility Bill Manage**
Provides comprehensive controls, energy and water utility bill management, reporting and payment features for greater control of utility costs and invoice management.
- **AquaNES DSS**
Decision Support System for natural and engineered water treatment systems.
- **WATERP**
Tool for water demand forecasting and management.
- **Systemic Environmental Analysis Tool – SEAT**
Tool for modelling complex water use systems and assessment of environmental impacts.
- **Economic Value Assessment Tool – EVAT**
Tool for the estimation of the economic efficiency of complex water use systems.
- **EcoWater Toolbox**
Integrated suite of on-line tools and resources for assessing the eco-efficiency improvements from innovative technologies in meso-level water use systems.
- **WaterStrategyMan Decision Support System**
GIS-based DSS for the development of natural resources management strategies.

- **Climate Change Impacts on Tourism**
GIS-based system for analysis of climatic data and climate change assessment in tourism sector.
- **OPEN-GAIN DSS**
Decision Support System for design and assessment of hybrid power systems for cogeneration of electricity and water.
- **Chiller Selector and Energy Saving Analysis**
Web-based application for support in selecting energy effective heat pumps.
- **DSS for Planning Urban Transportation Policies**
GIS-based decision support tool for the assessment of transport policies.
- **DSS for Development Plan Assessment**
GIS-based system for the assessment of development plans and activities.
- **AquaDT**
Web-based application to support stakeholders in participatory complex decision making processes.