



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 1ⁿ 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, 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

4/4/2018–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.

5 TEACHING EXPERIENCE**5.1 Lectures in undergraduate and postgraduate courses in Tech. Univ. of Crete****2018 Heat Transfer**

7th Semester, School of Production Engineering and Management, Technical University of Crete.

2018 Fluid Mechanics

6th Semester, School of Production Engineering and Management, Technical University of Crete.

2018 Rational Energy Management of Production Systems

Postgraduate Programme, School of Production Engineering and Management, Technical University of Crete.

5.2 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.

5.3 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

5.4 Lectures in and postgraduate courses in 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 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 Cades 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.

5.6 Development and management of educational sites

- 2018–today** **Heat Transfer**
(<https://www.eclass.tuc.gr/courses/MPD188>)
- 2000–2018** **Transport Phenomena II: Heat and Mass Transfer**
(<http://environ.chemeng.ntua.gr/elearning/Default.aspx?t=192>)
- 2002–2018** **Rational and Sustainable Energy Management**
(<http://environ.chemeng.ntua.gr/elearning/Default.aspx?t=223>)
- 1999–2012** **Computer Aided Data Analysis**
(<http://environ.chemeng.ntua.gr/elearning/Default.aspx?t=214>)

6 RESEARCH EXPERIENCE

6.1 Research Areas

▪ 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:

- 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 and System Analysis & Design**

Main topics:

- Process Modelling and Simulation.
- Analysis, Simulation and Optimisation of Production Systems.
- Development and Application of Computational Methods.
- Emphasis on Heat & Mass Transfer, Fluid Flow and Chemical Processes.

- **Decision Making – Information Technology**

Main topics:

- Design and Development of Decision Support Tools.
- Multi-Criteria Decision Making.
- Participatory Decision Making.
- Application of Machine Learning Methodologies.
- Development of Algorithms - Data Structures.

6.2 Participation in research projects

- 2017–2019** A digital Solid Waste reuse pLatform for BalkaN (**SWAN**). **Interreg**, Balkan-Mediterranean.
- 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".
- 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 Electric Motor Systems (**Promot**). EC, DG Research, **SAVE Programme**.
- 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**.
- 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**.
- 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**.

7 PARTICIPATION IN STUDIES AND CONSULTING SERVICES

- 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 ADMINISTRATIVE EXPERIENCE – COMMITTEES

- 2015–2017** **Undergraduate curriculum committee**
School of Chemical Engineering of National Technical University of Athens
- 2014–2017** **Επιτροπή για τη διενέργεια διαγωνισμών εκμίσθωσης ακινήτων εκ των κληροδοτημάτων που διαχειρίζεται το Ε.Μ.Π.**
National Technical University of Athens
- 2010–2011** **Continuing Education Committee**
School of Chemical Engineering of National Technical University of Athens

9 PUBLISHING WORK

9.1 Publications in peer-reviewed scientific journals

- A.22** 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.** Submitted to International Journal of Decision Support Systems (Special Issue: Information & Communications Technology in Agriculture and Tourism), **2019.**
- 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.** Submitted to Desalination and Water Treatment, **2019.**
- 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

9.2 Publications in peer-reviewed conference proceedings

- 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).

9.3 Published books

- 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**. 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)

9.4 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)

9.5 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)

9.6 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)

9.7 Presentations in conferences and 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**.

10 EXPERIENCE IN ICT PROJECTS

10.1 Skills

- Εμπειρία στην ανάλυση συστημάτων και στο σχεδιασμό εφαρμογών.
- Excellent programming skills in many environments (web application, windows application, mobile applications) and programming languages (C++, C#, Visual Basic, Java, JavaScript, Python).
- Excellent experience in various Database Management Systems (MS SQL Server, MS Access, My SQL) and Geographical Information Systems (ArcGIS, MapInfo).

10.1 Development of scientific software tools

- **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.