



# **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** 1<sup>n</sup> 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  
**Email** [garampatzis@pem.tuc.gr](mailto:garampatzis@pem.tuc.gr)  
**Personal Web Page** [www.arampatzis.tuc.gr](http://www.arampatzis.tuc.gr)

## 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****c Heat Transfer**

7<sup>th</sup> Semester, School of Production Engineering and Management, Technical University of Crete.

**2018–today Fluid Mechanics**

6<sup>th</sup> 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**  
5<sup>th</sup> Semester, School of Chemical Engineering, National Technical University of Athens.
- 2013–2018** **Rational and Sustainable Energy Management**  
8<sup>th</sup> Semester, School of Chemical Engineering, National Technical University of Athens.
- 2002–2012** **Energy Analysis of Industrial Systems**  
8<sup>th</sup> 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**  
5<sup>th</sup> Semester, School of Chemical Engineering, National Technical University of Athens.
- 2002–2018** **Computational Lab in Rational and Sustainable Energy Management**  
8<sup>th</sup> 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.  
5<sup>th</sup> and 6<sup>th</sup> Semesters, School of Chemical Engineering, National Technical University of Athens.
- 2017–2018** **Computational Lab in Unit Operations**  
6<sup>th</sup> 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 (**FATLOG**). 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, **7<sup>th</sup> Framework Programme**.
- 2012–2015** Water Enhanced Resource Planning “Where water supply meets demand” (**WatERP**). EC, DG Research, **7<sup>th</sup> 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, **7<sup>th</sup> Framework Programme**.
- 2011–2014** Fostering European Drought Research and Science-Policy Interfacing (**DROUGHT-R&SPI**). EC, DG Research, **7<sup>th</sup> Framework Programme**.
- 2010–2012** Water availability and Security in Southern Europe and the Mediterranean (**WASSERMed**). EC, DG Research, **7<sup>th</sup> Framework Programme**.
- 2006-2011** Sustainable Water Management Improves Tomorrow’s Cities’ Health (**SWITCH**). EC, DG Research, **6<sup>th</sup> 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, **6<sup>th</sup> Framework Programme**.
- 2006–2009** Institutional and Economic Instruments for Sustainable Water Management in the Mediterranean Region (**INECO**). EC, DG Research, **6<sup>th</sup> Framework Programme**.
- 2005–2008** Mitigation of Water Stress Through New Approaches to Integrating Management, Technical Economic and Institutional Instruments (**AquaStress**). EC, DG Research, **6<sup>th</sup> Framework Programme**.
- 2004–2005** Developing Harmonized European Approaches for Transport Costing and Project Assessment (**HEATCO**). EC, **6<sup>th</sup> Framework Programme**.
- 2004–2005** Improving Promotion of Electric 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, **5<sup>th</sup> 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.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**.
- 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**. 28<sup>th</sup> 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**. 16<sup>th</sup> 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**. 16<sup>th</sup> 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**. 8<sup>th</sup> International Symposium and 30<sup>th</sup> 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**. 5<sup>th</sup> 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**. 6<sup>th</sup> 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**. 7<sup>th</sup> International Symposium & 29<sup>th</sup> 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**. 3<sup>rd</sup> HAAE 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**. 6<sup>th</sup> 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**. 16<sup>th</sup> 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**. 36<sup>th</sup> 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**. 17<sup>th</sup> 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**. 17<sup>th</sup> 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**. 12<sup>th</sup> 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**. 12<sup>th</sup> 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**. 12<sup>th</sup> 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**. 12<sup>th</sup> 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**, 12<sup>th</sup> 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**. 8<sup>th</sup> 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**. 22<sup>nd</sup> European Modeling & Simulation Symposium, Fes, Morocco, October 2010.
- B.17** A. Angelis-Dimakis and G. Arampatzis. **Energy indicators for sustainable development**. 24<sup>th</sup> 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**. 9<sup>th</sup> 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**. 4<sup>th</sup> International Conference on Energy Efficiency in Motor Driven Systems (EEMODS), Heidelberg, Germany, September 2005.
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- C.3** D. Assimacopoulos, V. Lygerou and G. Arampatzis. **Heat Transfer**. Papatotiriou, Athens, Greece, **2009**. ISBN: 978-960-7182-57-9. (in Greek)
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## 9 DEVELOPMENT OF SCIENTIFIC ICT TOOLS

- **SmartSyRENA**  
Smart System for Remote Energy Analysis. Visual representation of energy and water consumptions, temperatures, CO<sub>2</sub> 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.