



Dr. Eleftherios Siskos

CURRICULUM VITAE

Date of Birth: October 7, 1988, Chania Crete, Greece

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Present Position: Postdoctoral Researcher (September 2019 -)
Paul Scherrer Institute
Laboratory for Energy Systems Analysis
Technology Assessment Group



EDUCATION

Degree	Institution - Title	Year
MSc in Chemical Engineering	School of Chemical Engineering, National Technical University of Athens.	2011
Diploma thesis	Modelling of uncertainty in simulating managerial decisions based on mathematical programming models. <i>School of Chemical Engineering, NTUA</i>	2011
PhD thesis	Robust evaluation of e-government in Europe using a multicriteria decision support methodological framework <i>School of Electrical and Computer Engineering, NTUA</i>	2018

LANGUAGE SKILLS: Competence on a scale of 1 to 5 (1 - excellent; 5 - basic)

Language	Reading	Speaking	Writing
Greek (mother language)	1	1	1
English	1	1	1
French	2	2	2
German	5	5	5

MEMBERSHIP

- Member of the Hellenic Operational Research Society (HELORS) since 2013
 - Member of the administrative council of HELORS (2014-2019).

- Member of the European Working Group EWG on Multicriteria Decision Aid (MCDA) since 2013
- Member of the Hellenic Working Group on Multicriteria Decision Making (MCDM) since 2012
- Member of the Technical Chamber of Greece (TCG) since 2012
- Member of the Energy Policy Unit (EPU) of the National Technical University of Athens since 2011

SOFTWARE

- Software packages: MS-Office, LATEX, Mathcad, Statistica, Mathematica
- Modeling languages: GAMS, Matlab, LP Solve IDE
- Programming languages: Fortran, R, VB
- Engineering software: Aspen Plus, Comsol Multiphysics, Gepasi, Pymol, MS Visio
- Graphistic suites: Adobe InDesign, Photoshop, MS Publisher

RESEARCH INTERESTS

- Multicriteria decision support and decision support systems
- Multiobjective mathematical programming
- Modeling of real-world large-scale decision problems
- Robustness analysis of decision models, systems and results
- Portfolio Analysis
- E-government evaluation and benchmarking
- Application of MCDM on sustainable energy planning, energy policy making and environmental resources management, business administration, pharmaceuticals, risk management, etc.
- Environmental/Energy Project portfolio selection/optimization

KEY QUALIFICATIONS

- Energy policy and planning in Local, National and EU Level
- Energy savings in the building sector and sustainable development
- Expertise in Cost-Benefit Analysis/ Risk Assessment and Management
- Expertise in modelling real life decision problems and analysing and managing robustness of the model and the results
- High capacity in cooperating and communicating with stakeholders and decision makers aiding them expressing their preferences and supporting their decisions
- Experience in running the editorial manager platform of scientific journals
- Expertise on the PCM/LFA monitoring methodology as applied by the EU. Experience in implementing it for the Greek government
- Good capacity of cooperating with Governmental and EC services, bodies and stakeholders
- High communicational level and inter-personal skills

ACADEMIC - EDUCATIONAL EXPERIENCE

- Participation in teaching the course “Decision support systems”, 9th semester of the School of Electrical and Computer Engineering of NTUA, since 2012.

- Close involvement in the composition of the teaching notes and paradigms and in the preparation of the examination topics of the course “Decision support systems”, 9th semester of the School of Electrical and Computer Engineering of NTUA, since 2012.
- Participation in teaching the course “Multicriteria Decision Systems”, for the PhD candidates of the School of Electrical and Computer Engineering of NTUA, since 2016.
- Participation in teaching the course “Multicriteria Decision Support Systems”, 2nd semester of the Engineering-Economic Systems Programme of NTUA, in 2016-2017.
- Participation in teaching the course “Decision Analysis”, 3rd semester of the MBA programme of the Piraeus University of Applied Sciences, since 2016.
- Teaching at the Summer School of EURO for PhD candidates on Multicriteria Decision Analysis, in 2018.
- Supervision of over 15 undergraduate and postgraduate diploma theses.

PROFESSIONAL EXPERIENCE

Date (from – to)	Location	Company	Position	Description
July 2018 – November 2018	Athens, GR	NTUA	Key member of the research team	Supporting Greek Energy and Renewable Energy policy making for the 2030 Energy Roadmap for the Ministry of Energy
August 2015 – November 2018	Athens, GR	EPU NTUA	Key member of the research team	TRANSrisk – Transitions Pathways and Risk Analysis for Climate Mitigation and Adaptation Strategies
March 2018 – June 2018	Athens, GR	NTUA	Key member of the research team	Support for a National Energy Efficiency Action Plan (NEEAP) for the Ministry of Energy , entitled "Evaluation of an Optimal Portfolio of Energy Efficiency Measures "
September 2016 – September 2017	Athens, GR	EPU NTUA	Scientific support	SET-Nav – Navigating the Roadmap for Clean, Secure and Efficient Energy Innovation
September 2014 – August 2017	Athens, GR	EPU NTUA	Key member of the research and technical team	BUILD UP Skills – UPSWING , Upgrading the construction sector workforce training and qualification in Greece
September 2015	Athens, GR	NTUA	Development of educational material	SUSTAIN - Learning for the cities of tomorrow
March 2012 – August 2015	Athens, GR	EPU NTUA	Member of the research team	THALIS , Methodological approaches for studying robustness in multiple criteria decision making problems, Synergy Research Programme (EC)
March 2014 – May 2014	Athens, GR	University of Piraeus	Member of the research team	ENSPOL , Energy Saving Policies and Energy Efficiency Obligation Schemes (EE)
December 2013 – February 2014	Athens, GR	EPU NTUA	Technical support	Erenet , Rural Web Energy Learning Network for Action (EC)

October 2012 - February 2014	Athens, GR	EPU NTUA	Key member of the research team	Build Up Skills - Greece , Greek platform and Roadmap for the building workforce qualification on energy efficiency and renewable energy (EC)
November 2012 - February 2013	Athens, GR	EPU NTUA	Technical services consultant	Advisor at the General Secretariat of the Prime Minister , for the development and implementation of a platform monitoring the actions of all national ministries and general secretariats
September 2010 - January 2011	Athens, GR	National Centre of Research on Cement (EKET)	Chemical analyst	Practical exercise at the National Centre of Research on Cement , at the laboratory of organic chemistry. Analysis of the physicochemical properties of samples of cement and concrete

SCIENTIFIC PUBLICATIONS IN INTERNATIONAL JOURNALS

1. Forouli, A., Gkonis, N., Nikas, A., Siskos, E., Doukas H., Tourkolias C. (2019). Energy efficiency promotion in Greece in light of risk: Evaluating policies as portfolio assets, *Energy*, 170, pp. 818-831.
2. Demesouka, O.E., Anagnostopoulos, K.P., Siskos, E. (2019). Spatial multicriteria decision support for robust land-use suitability: The case of landfill site selection in Northeastern Greece, *European Journal of Operational Research*, 272 (2), pp. 574-586.
3. Matsatsinis, N.F., Grigoroudis, E., Siskos, E. (2018). Disaggregation approach to value elicitation, *International Series in Operations Research and Management Science*, 261, pp. 313-348.
4. Stavrou, D.I., Siskos, E.Y., Ventikos, N.P., Psarras, J.E. (2018). Robust Evaluation of Risks in Ship-to-Ship Transfer Operations: Application of the STOCHASTIC UTA Multicriteria Decision Support Method, *International Series in Operations Research and Management Science*, 260, pp. 175-218
5. Tsotsolas, N., Spyridakos, A., Siskos, E., Salmon, I. (2019). Criteria weights assessment through prioritizations (WAP) using linear programming techniques and visualizations, *Operational Research*, 19(1), pp. 135-150.
6. Doukas, H., Siskos, E., Psarras, J., Malamatenios, C., Tournaki, S., Tsoutsos, T. (2016). Qualification roadmap empowering the Greek building sector workforce in the field of energy, *Renewable and Sustainable Energy Reviews*, 65, pp. 992-1004
7. Makarouni, I., Siskos, E., Psarras, J. (2016). Multiobjective large scale job sequencing optimization based on a synergy of compensatory and non-compensatory methods, *Operational Research*, 16(2), pp. 223-244.
8. Mastorakis, K., Siskos, E. (2016), Value focused pharmaceutical strategy determination with multicriteria decision analysis techniques, *Omega*, 59(A), pp. 84-96.
9. Siskos, E., Tsotsolas, N. (2015), Elicitation of criteria importance weights through the Simos method: A robustness concern, *European Journal of Operational Research*, 246(2), pp. 543-553.

10. Mavrotas, G. Figueira, J. R., Siskos, E. (2015), Robustness analysis methodology for multi-objective combinatorial optimization problems and application to project selection, *Omega*, 52, pp. 142-155.
11. Mavrotas, G., Pechak, O., Siskos, E., Doukas, H., Psarras, J. (2015), Robustness analysis in Multi-Objective Mathematical Programming using Monte Carlo simulation, *European journal of Operational Research*, 240(1), pp. 193-201.
12. Siskos, E., Askounis, D., Psarras, J. (2014), Multicriteria decision support for global e-government evaluation, *Omega*, 46, pp. 51-63.
13. Makarouni, I., Psarras, J., Siskos, E. (2015), Interactive bicriterion decision support for a large scale industrial scheduling system, *Annals of Operations Research*, 227(1), pp. 45-61.
14. Siskos, E., Malafekas, M., Askounis, D., Psarras, J. (2013), E-government benchmarking in European Union : A multicriteria extreme ranking approach, Douligeris, C., Polemi, N., Karantjias, A., Lamersdorf, W. (Eds), Proceedings of the 12th IFIP Conference on e-Business, e-Services, and e-Society, Springer, Athens, pp. 338-348.

OTHER PUBLICATIONS

- Member of the scientific team and authorship of the **Energy Efficiency Actions Assessment Report**, in the frame of the National Energy Efficiency Action Plan (NEEAP) for the Ministry of Energy, entitled "Evaluation of an Optimal Portfolio of Energy Efficiency Measures", Athens, November 2017.
- Key author and editor of the training manual "**Energy Efficiency and Energy Saving in Aluminum and Metal Constructions**", which addresses the continuous vocational and educational training of the Greek Aluminum Manufacturers, as part of the BUILD UP Skills - UPSWING project (ISBN: 9786185153045), Athens 2016.
- Key author and editor of the **National Qualification Roadmap**, Athens 2013, ISBN: 978-960-89956-5-9, Greek Edition (ISBN: 978-960-89956-6-6, English Edition), CRES editions, in the frame of the project BUILD UP Skills - GREECE.

National Qualification Roadmap ("BUILD UP Skills – Greece" more info on the project's website <http://greece.buildupskills.eu>)

The National Qualification Roadmap of Greece dictates the general strategy that should be followed by Greece to meet the national needs, concerning the constructions sector labour force continuous vocational training in the areas of Renewable Energy Sources (RES) and Energy Efficiency (EE). The National Qualification Roadmap is in absolute coherence with the the "Analysis of the Current Situation (Status Quo)", which raised and listed the skills gaps, barriers and quantitative needs for qualified workforce of the construction sector in Greece till 2020.

The objectives of the Roadmap are: (i) the development of a comprehensive and thorough National Action Plan towards the confrontation of the recorded barriers, to attain the national targets of 2020 as regards the construction of energy efficient buildings, (ii) the identification of the appropriate measures for the enhancement of the building workforce skills on the special issues of RES and Energy Saving/Energy Efficiency (ES/EE), and (iii) the proposition of a feasible

action plan for its implementation. Over 40 key actors endorsed the National Qualification Roadmap, signing a relevant letter, including MINEDU, EOPPEP, GSEVEE, TCG, ESYD, OAED etc.

- Authorship to the Greek monthly magazine «SCIENTIFIC MARKETING & MANAGEMENT» in the issue of August 2013 of a survey titled “**E-government in Europe - A multicriteria Evaluation**”.
- Authorship with Prof. Haris Doukas to the “European Infonet Adult Education” of the paper “**Barriers, drivers and strategic priorities for lifelong learning**”. <http://www.infonet-ae.eu/articles-national-affairs/2136-barriers-drivers-and-strategic-priorities-for-lifelong-learning>

HONORS & AWARDS

- **XVII ELAVIO 2013 Scholarship**

The candidature of Eleftherios Siskos titled "Robust e-government evaluation based on multiple criteria decision analysis" **was ranked 1st among** others by EURO & IFORS and received a scholarship for presentation at the XVII ELAVIO summer school at Valencia, 8-12 September 2013.

- **3rd best paper reward at the 10th Greek MCDA meeting at Thessaloniki 2013**

The paper of Eleftherios Siskos, Irene Matazakou, Dimitris Kalogeros and Dimitris Askounis titled "Towards An Extended Multicriteria Decision Support System for e-Government Benchmarking of the European Countries" received **the prize of the 3rd best paper** of the 10th conference on Multicriteria Decision Analysis at Thessaloniki, 21-23 November 2013, among over 40 candidate papers.