

GEORGIOS K.D. SAHARIDIS

CURRICULUM VITAE

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Department of Mechanical Engineering,
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Email: saharidis@gmail.com
Place and Date of Birth: Athens, 01/01/1978

EDUCATIONAL BACKGROUND

January 2003 – November 2006

Ecole Centrale de Paris

Paris, France (EU)

Received PhD in Production Planning & Scheduling.

September 2001 – September 2002

Ecole Centrale de Paris

Paris, France (EU)

Received MS in Industrial Engineering & Logistics.

September 1999 – February 2000

University Paris Dauphine

Paris, France (EU)

Erasmus, Student Exchange Program

September 1996 – May 2001

Technical University of Crete

Crete, Greece (EU)

Received Diploma in Industrial Engineering

PROFESSIONAL EXPERIENCE

University of Thessaly

Volos, Greece (EU)

September 2010 – present

Associate Professor, Department of Mechanical Engineering

Conduct research in:

- Environmental Vehicle Routing
- Network Design and Transportation
- Modeling and Optimization
- Decomposition Techniques
- Carbone Footprint
- Freight Transportation and Supply Chain Management
- Production Planning and Scheduling
- Bi-level Optimization

Rutgers, The State University of New Jersey

Piscataway, NJ (USA)

November 2008 – August 2010

**Senior Associate Researcher, Center for Advanced Infrastructure and
Transportation, Civil and Environmental Engineering Department**

January 2007 – November 2008

Senior Associate Researcher, Department of Chemical & Biochemical Engineering

Conduct research in:

- Network Design and Transportation
- Modeling and Optimization
- Cross-Docking Scheduling
- Restoration Feasibility Study
- Port Planning
- Decomposition Methods
- Supply Chain Management
- Routing
- Production Planning and Scheduling
- Process Engineering
- Chemical and Biochemical Optimization
- Centralized vs Decentralized Optimization

Petrola-HELLAS

January 2003 – November 2006

Research Engineer

Conduct research in:

- Production Scheduling of crude oil

Aspropirgos, Greece (EU)

Technomedica

June 2000 – August 2000

Industrial Engineer

Domain:

- Production Process

Athens, Greece (EU)

Public Power Corporation, Greece

June 1999 – August 1999 & June 1998 – August 1998

Industrial Engineer

Domain:

- Operational Management

Athens, Greece (EU)

TEACHING EXPERIENCE

University of Thessaly

Academic Year 2010 - today

- Operations Management (Average Students' evaluation 4.4/5)

Academic Year 2011 - today

- Integer Programming and Combinatorial Optimization (Average Students' evaluation 4.5/5)

Academic Year 2018 - today

- Applications in supply chain and logistics (Average Students' evaluation 4.6/5)

Volos, Greece (EE)

Academic Year 2010 - 2018

- Applications in Operations Research (Average Students' evaluation 4.6/5)

Academic Year 2011 - 2012

- Project Management (Average Students' evaluation 4.5/5)

Academic Year 2010-2011

- Economics for Engineers (Average Students' evaluation N/A)
- Business Management and Strategy (Average Students' evaluation N/A)

Rutgers, The State University of New Jersey

Piscataway, NJ (HIIA)

Academic Year 2008-2009

- Port planning (Average Students' evaluation 4.6/5)

Ecole Centrale Paris Βοηθός

Paris, France (EE)

Academic Year 2005-2006

- Mathematical Programming and Production Planning (Average Students' evaluation 4.6/5)
- Supply Chain Management (Average Students' evaluation 4.6/5)

Technical University of Crete

Chania, Greece (EE)

Academic Year 2003-2004

- Production Planning (Average Students' evaluation 4.4/5)
- Fuzzy Systems (Average Students' evaluation 4.5/5)

Administrative Activities

	Position	Period
AA1.	Deputy president, Department of Mechanical Engineering, University of Thessaly	2022-2024
AA2.	Director of Computer Lab, Department of Mechanical Engineering, University of Thessaly	2023-2026
AA3.	Member (non-executive) of the national board for logistics and supply chain	2020-today
AA4.	Member (Representing the Department of Mechanical Engineering) of the administrative body of Special Account for Research Grants University of Thessaly	2019-today
AA5.	Director of the Division of Production Management & Industrial Administration.	2020-2021
AA6.	Member (Representing the Department of Mechanical Engineering) of the Accessibility Center for Students with Disabilities at the University of Thessaly	2017-today
AA7.	Vice-President, AI group IFIP Energy and Sustainability	2020-today
AA8.	Director of the International Conference on Energy, Sustainability and Climate Crisis	2015-today
AA9.	Director of 3rd International Symposium and 25th National Conference on Operational Research	2014

SCIENTIFIC PUBLICATIONS

(last update 08/07/2023)

Total Citations, Excluding Self citations: Scopus: 963 - Web of Knowledge: 826 - Google Scholar: 1731
h-index: Scopus = 17 - Web of knowledge = 17 - Google Scholar: 22

Publications:

- SP1.** Saharidis G.K.D., Dallery Y. and Karaesmen F. "Centralized versus decentralized production planning" RAIRO Operational Research 2006; 40: 113-128.
- SP2.** Saharidis G.K.D., Kouikoglou V. and Dallery Y. "Centralized and decentralized control policies for a two-stage stochastic supply chain with subcontracting" International Journal of Production Economics 2009; 117(1): 117-126.
- SP3.** Foteinou P., Yang E., Saharidis G.K.D., Ierapetritou M.G. and Androulakis I.P. "A mixed-integer optimization framework for the synthesis and analysis of regulatory networks" Journal of Global Optimization 2009; 43(2-3): 263-276.
- SP4.** Saharidis G.K.D. and Ierapetritou M.G. "Scheduling of loading and unloading of crude oil in a refinery with optimal mixture preparation" Industrial and Engineering Chemistry Research 2009; 48(5): 2624-2633.
- SP5.** Saharidis G.K.D. and Ierapetritou M.G. "Resolution method for mixed integer bi-level linear problem based on decomposition technique" Journal of Global Optimization 2009; 44(1): 29-51.
- SP6.** Saharidis G.K.D., Minoux M. and Dallery Y. "Scheduling of loading and unloading of crude oil in a refinery using event-based discrete time formulation" Computer and Chemical Engineering 2009; 33(8): 1413-1426.
- SP7.** Golias M.M., Saharidis G.K.D., Boile M., Theofanis S. and Ierapetritou M.G. "The berth allocation problem: Optimizing vessel arrival time" Maritime Economics and Logistics 2009; 11(4): 358-377.
- SP8.** Shah N., Saharidis G.K.D., Jia Z. and Ierapetritou M.G. "Centralized-decentralized optimization for refinery scheduling" Computer and Chemical Engineering 2009; 33(12): 2091-2105.
- SP9.** Saharidis G.K.D., Golias M.M, Boile M., Theofanis S. and Ierapetritou M.G. "The berth scheduling problem with customer differentiation: A new methodological approach based on hierarchical optimization" International Journal of Advanced Manufacturing Technology 2010; 46(1-4): 377-393.
- SP10.** Saharidis G.K.D., Minoux M. and Ierapetritou M.G. "Accelerating Benders method using covering cut bundle generation" International Transaction in Operational Research 2010; 17(2): 221-237.
- SP11.** Zhang T., Saharidis G.K.D., Theofanis S. and Boile M. "Scheduling of inbound and outbound trucks at cross-docks:

Citations:

- Scopus: 19 - Web of Knowledge: 16
- Scopus: 23 - Web of Knowledge: 21
- Scopus: 5 - Web of Knowledge: 6
- Scopus: 14 - Web of Knowledge: 18
- Scopus: 91 - Web of Knowledge: 85
- Scopus: 70 - Web of Knowledge: 58
- Scopus: 98 - Web of Knowledge: 87
- Scopus: 29 - Web of Knowledge: 31
- Scopus: 16 - Web of Knowledge: 16
- Scopus: 72 - Web of knowledge: 77
- Scopus: 9 - Web of Knowledge: 8

modeling and analysis" *Transportation Research Record: Journal of the Transportation Research Board* 2010; 2162: 9-16.

- SP12.** Saharidis G.K.D. and Ierapetritou M.G. "Improving Benders decomposition using maximum feasible subsystem (MFS) cut generation strategy" *Computers and Chemical Engineering* 2010; 34(8-9): 1237-1245. Scopus: 51 - Web of Knowledge: 53
- SP13.** Saharidis G.K.D., Androulakis I.P. and Ierapetritou M.G. "Model building using bi-level optimization" *Journal of Global Optimization* 2011; 49(1): 49-67. Scopus: 2 - Web of Knowledge: 1
- SP14.** Saharidis G.K.D., Boile M. and Theofanis S. "Initialization of the Benders master problem using valid inequalities applied to fixed-charge network problems" *Expert Systems With Applications* 2011; 38(6): 6627-6636. Scopus: 38 - Web of Knowledge: 44
- SP15.** Golias M.M., Saharidis G.K.D., Boile M. and Theofanis S. "Scheduling of inbound trucks at a cross-docking facility: bi-objective vs bi-level modeling approaches" *International Journal of Information Systems and Supply Chain Management*, 2012; 5(1): 20-37. Scopus: 10 - Web of Knowledge: N/A
- SP16.** Karafa J., Golias M.M., Ivey S., Saharidis G.K.D. and Leonardos N. "The berth allocation problem with stochastic vessel handling times" *International Journal of Advanced Manufacturing Technology*, 2013; 65(1-4): 473-484. Scopus: 34 - Web of Knowledge: 28
- SP17.** Saharidis G.K.D. and Ierapetritou M.G. "Speed-up Benders decomposition using maximization density cut (MDC) generation" *Annals of Operations Research*, 2013; 210(1): 101-123. Scopus: 21 - Web of Knowledge: 22
- SP18.** Tang L., Jiang W. and Saharidis G.K.D. "An improved Benders decomposition algorithm for the logistics network design problem with capacity expansions of existing warehouses" *Annals of Operations Research*, 2013; 210(1): 165-190. Scopus: 51 - Web of Knowledge: 50
- SP19.** Azad N., Saharidis G.K.D., Davoudpour H., Malekly H. and Yektamaram S.A. "Strategies for protecting supply chain networks against facility and transportation disruptions: An improved Benders decomposition approach" *Annals of Operations Research*, 2013; 210(1): 125-163. Scopus 90 - Web of Knowledge: 77
- SP20.** Azad N., Davoudpour H., Saharidis G.K.D. and Shiripour M. "A new model to mitigating random disruption risks of facility and transportation in supply chain network design" *International Journal of Advanced Manufacturing Technology*, 2014; 70: 1757-1774. Scopus: 55 - Web of Knowledge: 45
- SP21.** Golias M.M., Saharidis G.K.D., Ivey S., Haralambides H.E. and Ji K. "Advances in truck scheduling at a cross-dock facility" *International Journal of Information Systems and Supply Chain Management*, 6(3): 40-62, 2013. Scopus: 10 - Web of Knowledge: N/A
- SP22.** Saharidis G.K.D., Dimitropoulos C. and Skordilis E. "Minimizing waiting times at transitional nodes for public bus Scopus: 27 - Web of Knowledge: 25

transportation in Greece" *Operational Research: An International Journal*, 14(3): 341-359, 2014.

- SP23.** Saharidis G.K.D., Kolomvos G., Liberopoulos G. "Modeling and Solution Approach for the Environmental Traveling Salesman Problem" *Engineering Letters*, 22(2): 70-74, 2014. Scopus: 1 - Web of Knowledge: N/A
- SP24.** Saharidis G.K.D. "Review of solution approaches for the symmetric traveling salesman problem" *International Journal of Information Systems and Supply Chain Management*, 7(1), 2014 Scopus: 4 - Web of Knowledge: N/A
- SP25.** Saharidis G.K.D. " Environmental Externalities Score: a new emission factor to model green vehicle routing problem" *Energy Systems*, 8(4):673-691, 2017. Scopus: 4 - Web of Knowledge: 3
- SP26.** Konstantzos G.E., Saharidis G.K.D., Loizidou M. "Development of a model for assessing Greenhouse Gas emissions from terminal and drayage operations" *Operational Research: An International Journal*, 17: 807-819, 2017. Scopus: 6 - Web of Knowledge: 3
- SP27.** Kolomvos G. & Saharidis G.K.D. "Accelerating techniques on nested decomposition" *Optimization Methods and Software*, 32(3): 455-469, 2017. Scopus: 1 - Web of Knowledge: 0
- SP28.** Saharidis, G.K.D., Rizopoulos, D., Fragkogios, A. & Chatzigeorgiou, C. "A hybrid approach to the problem of journey planning with the use of mathematical programming and modern techniques" *Transportation Research Procedia*, 24: 401-409, 2017. Scopus: 4 - Web of Knowledge: N/A
- SP29.** Fakhri A., Mehdi G., Fragkogios A., & Saharidis G.K.D., "Benders Decomposition with integer subproblem", *Expert Systems With Applications*, 89:20-30, 2017. Scopus: 8 - Web of Knowledge: 6
- SP30.** Zissis D., Saharidis G.K.D., Aktas E., & Iaoannou G., "Emission reduction via supply chain coordination", *Transportation Research Part D: Transport and Environment*, 62:36-46, 2018. Scopus: 30 - Web of Knowledge: 33
- SP31.** Saharidis G.K.D, & Konstantzos G.E. "Critical overview of emission calculation models in order to evaluate their potential use in estimation of Greenhouse Gas emissions from in port truck operations" *Journal of Cleaner Production* 185: 1024-1031, 2018. Scopus: 22 - Web of Knowledge: 20
- SP32** Kastori, G. E., Papadimitriou, G., Katsis, P., Kouridis, C., & Saharidis G.K.D. "Development of a novel model for co-modal emission calculation and inventory methodology" *Energy Systems*, *Energy Systems*, 2019, DOI: 10.1007/s12667-019-00371-x. Scopus: 1 - Web of Knowledge: 1
- SP33** Rizopoulos D. & Saharidis G.K.D. "Generic approaches for the rescheduling of public transport services" *Energy Systems*, 2020, DOI: 10.1007/s12667-020-00393-w. Scopus: 2 - Web of Knowledge: 2
- SP34.** A. Fakhri, A. Fragogios, G.K.D. Saharidis "An Accelerated Benders Decomposition Algorithm for Solving a Double-type Double-standard Maximal Covering Location Problem" *Operations Research Forum*, 2(1): 882-896, 2021. Scopus: 0 - Web of Knowledge: 1

- SP35** Kotsiou O.S., Pantazopoulos I., Papagiannis D., Fradelos E.C., Kanellopoulos N., Siachpazidou D., Kirgou P., Mouliou D.S., Kyritsis A., Kalantzis G., Saharidis G.K.D., Tzounis E., Gourgoulialis K.I. "Repeated antigen-based rapid diagnostic testing for estimating the coronavirus disease 2019 prevalence from the perspective of the workers' vulnerability before and during the lockdown" *International Journal of Environmental Research and Public Health*, 18 (4):1-12, 2021. Scopus: **8** - Web of Knowledge: **10**
- SP36** Kanellopoulos N, Pantazopoulos I, Mermiri M, Mavrovounis G, Kalantzis G, Saharidis G, Gourgoulialis K. 2021. Effect of PM2.5 Levels on Respiratory Pediatric ED Visits in a Semi-Urban Greek Peninsula. *Int J Environ Res Public Health*. 18(12):6384, 2021. Scopus: **4** - Web of Knowledge: **4**
- SP37** Kotsiou OS, Saharidis GKD, Kalantzis G, Fradelos EC, Gourgoulialis KI. 2021. The Impact of the Lockdown Caused by the COVID-19 Pandemic on the Fine Particulate Matter (PM2.5) Air Pollution: The Greek Paradigm. *Int. J of Environ. Res Public Health*. 2021; 18(13):6748. Scopus: **4** - Web of Knowledge: **3**
- SP38** Mermiri M., Mavrovounis G., Kanellopoulos N., Papageorgiou K., Spanos M., Kalantzis G., Saharidis G., Gourgoulialis K., Pantazopoulos I. "Effect of PM2.5 Levels on ED Visits for Respiratory Causes in a Greek Semi-Urban Area" *Journal of Personalized Medicine*, 12 (11): 1849, 2022. Scopus: **0** - Web of Knowledge: **1**

SCIENTIFIC PUBLICATIONS under review

- SPR1.** Fragogios A. Zoi Moza & **Saharidis G.K.D.** "Benders Decomposition applied on Traveling Salesman Problem"
- SPR2** Fragogios A. Pardalos P., & **Saharidis G.K.D.** "An Accelerated Benders Decomposition algorithm for the solution of the Multi-Trip Time-Dependent Vehicle Routing Problem with Time Windows"
- SPR3** Kaltis T. & Saharidis G.K.D. " An Analysis on Benders Decomposition Method and a Greedy Multiple Cut Generation Algorithm"

SCIENTIFIC BOOK Chapters

- BC1.** **Saharidis G.K.D.** "Centralized-Decentralized optimization of the Supply Chain" In *Supply Chain Coordination and Management* book, 2011 INTECH publisher ISBN 978-9-53307-184-8.
- BC2.** Karafa J., Golias M.M., Ivey S., **Saharidis G.K.D.** and Leonardos N. "Scheduling at a cross dock facility with stochastic truck arrival times". In: Ed. Khodr H.M, *Scheduling Problems and Solutions*. Nova Publishing, 2011 ISBN 978-1-61470-689-2.
- BC3.** **Saharidis G.K.D.**, Conejo A.J. and Kozanidis G. "Exact Solution Methodologies for Linear and (Mixed) Integer Bilevel Programming". *Metaheuristics for Bi-level Optimization, Studies in Computational Intelligence*, Springer, 2013, 482:221-245 (Scopus: **6** - Web of Knowledge: **Δ/A**).
- BC4.** **Saharidis G.K.D.** (2012) "Benders Decomposition". *Encyclopedia of Business Analytics and Optimization*. IGI Global publisher, 2014, 292-303, ISBN13: 9781466652026 | ISBN10: 1466652020 | EISBN13: 9781466652033 | DOI: 10.4018/978-1-4666-5202-6.

- BC5.** Kostarelou E. and **Saharidis G.K.D.** (2012) "Centralize vs Decentralize Supply Chain Analysis". Encyclopedia of Business Analytics and Optimization. IGI Global publisher, 2014, 229-240, ISBN13: 9781466652026 | ISBN10: 1466652020 | EISBN13: 9781466652033 | DOI: 10.4018/978-1-4666-5202-6.
- BC6.** Fragkogios A., **Saharidis G. K.D.**, "Latest Advances on Benders Decomposition", Encyclopedia of Information Science and Technology, Fourth Edition, IGI Global, p. 5411-5421, 2018, DOI: 10.4018/978-1-5225-2255-3.ch470
- BC7.** Fragkogios A., **Saharidis G. K.D.**, "Modeling and Solution Approaches for Crude Oil Scheduling in a Refinery", Energy Management-Collective and Computational Intelligence with Theory and Applications, Springer, Studies in Systems, Decision and Control, Vol. 149, p. 251-275, 2018.

SCIENTIFIC BOOK in preparation

SBP1. **Saharidis G.K.D.**, "Benders Decomposition".

**Coordination of Research Projects
(Primal Investigator and Coordinator of the projects)
(Total Budget: 7,353,394)**

- PC1.** Life programme (LIFE-2022-SAP-ENV-ENVIRONMENT) "LIFE GreenYourFreight".
Budget: 3,662,887.56 Euro.
From 01/10/2023 until 30/07/2027.
- PC2.** Research in Operational Research and Environmental Engineering: GreenYourAir.
Budget: 32,300 Euro.
From 28/07/2020 until 31/03/2026.
- PC3.** Development and implementation of computer center for City buses of Volos
Budget: 18,600 Euro.
From 01/01/2019 until 31/07/2024.
- PC4.** Maintenance of computer center for City buses of Volos
Budget: 10,000 Euro.
From 01/01/2019 until 31/07/2024.
- PC5.** GEGET "Life GreenYourMove: Development and promotion of a co-modal journey planning platform to minimize GHG emission in Europe".
Budget: 28,375 Euro.
From 12/03/2021 until 31/12/2022.
- PC6.** GEGET "LIFE GreenYourRoute: A European innovative logistic platform for last mile delivery of goods in urban environment".
Budget: 124,243 Euro.
From 12/03/2021 until 31/12/2022.
- PC7.** Life programme (LIFE17 ENV/GR/000215) "LIFE GreenYourRoute: A European innovative logistic platform for last mile delivery of goods in urban environment".
Budget: 2,191,237 Euro.
From 01/09/2018 until 28/02/2022.
- PC8.** Life programme (LIFE14 ENV/GR/000611) "Life GreenYourMove: Development and promotion of a co-modal journey planning platform to minimize GHG emission in Europe".
Budget: 1,245,052 Euro.
From 15/09/2015 until 14/09/2019.
- PC9.** Development of geo-information system.
Budget: 37,200 Euro.
From 06/10/2015 until 31/12/2018.
- PC10.** Development of traveling planning platform.
Budget: 3,500 Euro.
From 01/07/2015 until 31/12/2017.

Grants
(Total budget of Grants 225,000 Euro)

- G1.** Grant for post-doctoral research under the Action 'Support of Postdoctoral Researchers' of the Fourth Strategic Objective of the Operational Programme (OP) 'Education and Lifelong Learning (EdLL)'. Title: "Environmentally friendly vehicle routing". Grant: 150,000 EUR
Department of Mechanical Engineering - University of Thessaly.
- G2.** "Marie-Curie Career Integration" Grant under the "FP7 People Marie Curie Actions" for the integration of experienced EU researchers active in third countries into research projects in Europe. Title: "GreenRoute: A web based platform which help individuals and companies move commodities with the most environmental friendly way, minimizing emissions and transport costs". Grant: 75,000 EUR.
Department of Mechanical Engineering - University of Thessaly.
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Awards

- GA1.** Annual teaching award, academic year 2011-2012, for teaching the course of Integer Programming and Combinatorial Optimization. Score 4,83/5.
Department of Mechanical Engineering - University of Thessaly.
- GA2.** Best scientific paper Award in Industrial Engineering at the International Conference on Industrial Engineering and System Management 2009, Montreal, Canada. Title of paper: "Scheduling Inbound Trucks at a Cross-Docking Facility: A Multi-objective and a Hierarchical Approach".
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PROJECT PARTICIPATIONS

- PP1.** NSF (CBET 0625515) funded project on "Systematic Mathematical Strategies for Stochastic Modeling and Uncertainty in Production Planning and Scheduling" working on developing efficient decomposition-based solution procedures for the solution of stochastic planning and scheduling problems of chemical plants.
Senior Associate Researcher – Rutgers University - Chemical & Biochemical Engineering Department.
- PP2.** NSF funded ERC (NSF-ECC 0540855) (Engineering Research Center for Structured Organic Particulate Systems) working on developing "The methodologies for efficient optimization of integrated manufacturing systems with main applications on pharmaceutical industry".
Senior Associate Researcher – Rutgers University - Chemical & Biochemical Engineering Department.
- PP3.** USEPA-funded Environmental Bioinformatics and Computational Toxicology Center (GAD R 832721-010) working on developing "Modeling and optimization framework for the synthesis and analysis of regulatory networks related to toxicological effects of toxins on liver".
Senior Associate Researcher – Rutgers University - Chemical & Biochemical Engineering Department.
- PP4.** New York Metropolitan Transportation Council (NYMTC) funded project (Z-04-01) on "Best Practice Model Support Project Evaluation and Testing of Regional Models-Phase I". The goal of this project was to assist NYMTC to develop, test, revise, and use regional transportation models in support of its planning and public policy activities.
Senior Associate Researcher – Rutgers University - Civil & Environmental Engineering Department - Center for Advanced Infrastructure and Transportation.
- PP5.** NYMTC funded project (AN 428490) on "Feasibility of Freight Villages in the NYMTC Region". The proposed project seeks to determine the feasibility of developing freight villages in the NYMTC region and to determine how they would mitigate the deficiencies challenging their development.
Senior Associate Researcher – Rutgers University - Civil & Environmental Engineering Department - Center for Advanced Infrastructure and Transportation.
- PP6.** NSF funded project (NSF-6484626) on "Partnership to Maximize Port Industry Performance". The goal of this project is the improvement of freight movements, reduction of traffic congestion, an

increase in the competitiveness of the New York-New Jersey Port and, thereby, improvement of the overall regional economy.

Senior Associate Researcher – Rutgers University - Civil & Environmental Engineering Department - Center for Advanced Infrastructure and Transportation.

- PP7.** IFTI-G1: A GIS Framework for the Evaluation of Truck Restrictions on State Highways. The purpose of this project is to propose a geographic information system (GIS) framework that may assist in the evaluation of truck related accident risk on state highways.

External Consultant – Memphis University – Civil & Environmental Engineering Department – Center for Intermodal Freight Transportation Studies.

- PP8.** IFTI-G2: Variability of travel times on Tennessee highways. The purpose of this project is to survey and evaluate existing truck related accident risk minimization models, combined with static traffic assignment models relating the accident risk and the performance measures of the highways for freight transportation at the macro-level.

External Consultant - Memphis University – Civil & Environmental Engineering Department – Center for Intermodal Freight Transportation Studies.

- PP9.** IFTI-G3: Real time data information for truck drayage operations: Proof-of-Concept. The purpose of this project is to survey and evaluate truck drayage operations.

External Consultant – Memphis University – Civil & Environmental Engineering Department – Center for Intermodal Freight Transportation Studies.

- PP10.** General Secretary of Research and Technology of Greece. COMPETE - Development of an optimization-based simulation platform for modeling and analysis of freight transport operations through marine container terminals, with the objective of improving productivity and measuring environmental and economic implications. The project aims to develop the necessary tools to be used by stakeholders in freight transportation and terminal operations, including policy and decision makers on freight transport related issues, which will enable them to analyse and evaluate proposed improvements and assess their potential to improve port and port drayage operations, addressing economic, environmental and quality of life issues.

External Consultant – Hellenic Institute of Transport – Centre for Research and Technology Hellas.

- PP11.** General Secretary of Research and Technology of Greece. ODYSSEAS - A Holistic approach for managing variability in contemporary global supply chain networks. The proposed research project aims to study the phenomenon of supply chain variability, identify the physical points of its creation, analyze its causes and evaluate its negative impact on supply chain performance.

Senior Associate Researcher – University of Thessaly – Department of Mechanical Engineering.

CONFERENCE PARTICIPATIONS

- CP1.** Saharidis G.K.D. and Ierapetritou M.G. "Decomposition method for the mixed integer bi-level linear problem" INFORMS, 2007, November 4th-7th, Washington, Seattle, USA.
- CP2.** Saharidis G.K.D. and Ierapetritou M.G. "Cross validation-Decomposition method for the mixed integer bi-level linear problem" AIChE 2007, November 4th-9th, Salk Lake City, Utah, USA.
- CP3.** Saharidis G.K.D., Minoux M. and Ierapetritou M.G. "Accelerate Benders algorithm producing high density cuts" MOSIM 2008, March 31st – April 2nd, Paris, France.
- CP4.** Saharidis G.K.D., Jia Z., Shah N. and Ierapetritou M.G. "Centralized versus decentralized optimization for refinery planning and scheduling" FOCAPO 2008, June 29th - July 2nd, Boston, Massachusetts, USA.
- CP5.** Saharidis G.K.D. and Ierapetritou M. "Decomposition methods applied in refinery scheduling" INFORMS 2008, October 12th-15th, Washington D.C., USA.

- CP6. **Saharidis G.K.D.**, Boile M., Golias M., Ierapetritou M. and Theofanis S. "The Multi-objective berth scheduling problem with customer differentiation: Single-level vs bi-level" INFORMS 2008, October 12th-15th, Washington D.C., USA.
- CP7. **Saharidis G.K.D.**, Shah N., Jia Z. and Ierapetritou M.G. "Centralized versus decentralized optimization for refinery scheduling" AIChE 2008, November 16th-21st, Pennsylvania, Philadelphia, USA.
- CP8. Golias M., **Saharidis G.K.D.**, Boile M., Theofanis S. and Zhang T. "Scheduling inbound trucks at a cross-docking facility: A Multi-objective and a hierarchical approach" International Conference on Industrial Engineering and System Management 2009, Mai 13th-15th, Montreal, Canada.
- CP9. Leonardos N., Golias M. and **Saharidis G.K.D.** "A New heuristic solution approach for the bi-level problem" INFORMS 2009, October 11th-14th, San Diego, California, USA.
- CP10. **Saharidis G.K.D.**, Ierapetritou M.G. and Minoux M. "Accelerate Benders method using multiple constraints generation" INFORMS 2009, October 11th-14th, San Diego, California, USA (**Invited Speaker**).
- CP11. **Saharidis G.K.D.**, Boile M. and Theofanis S. "New mathematical formulations for the scheduling of inbound trucks at a cross-docking facility" INFORMS 2009, October 11th-14th, San Diego, California, USA.
- CP12. Golias M. and **Saharidis G.K.D.** "Solving hierarchical problems via multi-objective optimization" INFORMS 2009, October 11th-14th, San Diego, California, USA.
- CP13. Golias M., **Saharidis G.K.D.**, Zhang T., Boile M. and Theofanis S. "Modeling and analysis of door layouts at cross-dock facilities" 3rd METRANS National Urban Freight Conference 2009, October 21st-23rd, Long Beach, California, USA.
- CP14. Golias M.M, Ivey S, Haralambides H.E. and **Saharidis G.K.D.** "Maximizing throughput and minimizing tardiness and earliness at a cross dock facility: A bi-objective formulation" 89th Annual Meeting of the Transportation Research Board (TRB) 2010, January 10th-14th, Washington D.C., USA.
- CP15. Zhang T., **Saharidis G.K.D.**, Theofanis S. and Boile M. "Scheduling of inbound and outbound trucks at cross-docks: Multiobjective approach" 89th Annual Meeting of the Transportation Research Board (TRB) 2010, January 10th-14th, Washington D.C., USA.
- CP16. **Saharidis G.K.D.**, M.M. Golias, M. Boile, S. Theofanis "Optimizing seaside operations at dedicated marine container terminals: The limited berth capacity case" EURO XXIV 2010, July 11th-14th, Lisbon, Portugal, EU.
- CP17. **Saharidis G.K.D.**, Golias M.M, Theofanis S. and Boile M. "New formulation for the assignment of inbound truck in cross docking facilities" International Conference on Transportation Research 2010, September 27th-28th, Volos, Greece.
- CP18. **Saharidis G.K.D.** and Golias M.M. "Discrete time formulation for the assignment problem applied in cross docking facilities" INFORMS 2010, November 7th-10th, Austin, Texas, USA (**Invited Speaker**).
- CP19. **Saharidis G.K.D.**, Jiang W. and Tang L. "The logistics network design problem with capacity expansions of existing warehouses" INFORMS 2010, November 7th-10th, Austin, Texas, USA (**Invited Speaker**).
- CP20. Kolomvos G., Golias M., Ivey S. and **Saharidis G.K.D.** "Berth scheduling at marine container terminals under uncertainty" INFORMS 2010, November 7th-10th, Austin, Texas, USA.
- CP21. Karafa J., Kolomvos G., Golias M. M. and **Saharidis G.K.D.** "Truck scheduling at a cross-dock facility: Accounting for travel time variability" INFORMS 2010, November 7th-10th, Austin, Texas, USA.
- CP22. Karafa J., Golias M.M., Ivey S., **Saharidis G.K.D.** and Leonardos N. "Berth scheduling at dedicated marine container terminals: Limited berth capacity case (11-1554)" 90th Annual Meeting of the Transportation Research Board (TRB) 2011, January 23rd-27th, Washington D.C., USA.

- CP23. Golias M.M., **Saharidis G.K.D.**, Ivey S. and Lipinski M.E. "Risk averse truck scheduling at a cross-dock facility" 90th Annual Meeting of the Transportation Research Board (TRB) 2011, January 23rd-27th, Washington D.C., USA.
- CP24. Golias M.M., **Saharidis G.K.D.**, Ivey S. and Lipinski M.E. "Risk-averse truck scheduling at cross-dock facility (11-3328)" 90th Annual Meeting of the Transportation Research Board (TRB) 2011, January 23rd-27th, Washington D.C., USA.
- CP25. **Saharidis G.K.D.**, Golias M.M. and Zhang T. "Discrete time formulation for the assignment problem applied in cross docking facilities" 91st Annual Meeting of the Transportation Research Board (TRB) 2012, January 22nd-26th, Washington D.C., USA.
- CP26. Golias M.M., **Saharidis G.K.D.**, Ivey S. and Lipinski M.E. "Scheduling inbound trucks at a cross-dock facility under truck arrival uncertainty" 91st Annual Meeting of the Transportation Research Board (TRB) 2012, January 22nd-26th, Washington D.C., USA.
- CP27. **Saharidis G.K.D.**, Bellas I., Tsaperlis A. and Golias M.M. "Comparison of different mathematical formulation and heuristic approaches for the solid waste collection problem in residential areas" International Conference of Solid Waste Management ATHENS 2012, June 28th-29th, Greece, EU.
- CP28. Naimi A., Golias M.M. and **Saharidis G.K.D.** "Discrete vs continuous time formulation for the two dimension assignment problem" INFORMS 2012, October 14th-17th, Phoenix Arizona, USA.
- CP29. **Saharidis G.K.D.** and Liberopoulos G. "Environmental vehicle routing problem" INFORMS 2012, October 14th-17th, Phoenix Arizona, USA.
- CP30. Azad N., Golias M., Malekly H. and **Saharidis G.K.D.** "Improvements on Benders decomposition algorithm" INFORMS 2012, October 14th-17th, Phoenix Arizona, USA.
- CP31. **Saharidis G.K.D.**, Dimitropoulos C. and Skordilis E. "Minimizing waiting times at transitional nodes for public bus transportation in Greece" 92nd Annual Meeting of the Transportation Research Board (TRB) 2013, January 13th-17th, Washington D.C., USA.
- CP32. **Saharidis G.K.D.** and Liberopoulos G. "Environmental vehicle routing problem (VRP)" 26th European Conference on Operational Research 2013, July 1st -4th, Rome, Italy, EU.
- CP33. Kostarelou E., **Saharidis G.K.D.** and Liberopoulos G. "Centralized versus decentralized supply chain" 26th European Conference on Operational Research 2013, July 1st-4th, Rome, Italy, EU.
- CP34. **Saharidis G.K.D.**, Fragkogios A. and Zygouri E. "A multi-periodic optimization modeling approach for the establishment of a bike-sharing network: a case-study of the city of Athens" 2nd International Symposium and 24th National Conference on Operational Research 2013, September 26th-28th, Athens, Greece, EU.
- CP35. Kolomvos G., **Saharidis G.K.D.** and Liberopoulos G. "Different formulations and Benders decomposition on TSP" 2nd International Symposium and 24th National Conference on Operational Research 2013, September 26th-28th, Athens, Greece, EU.
- CP36. Kostarelou E., **Saharidis G. K. D.**, Liberopoulos G. and Pandelis D. "Centralized vs decentralized decomposition of supply chain using bi-level schema" 2nd International Symposium and 24th National Conference on Operational Research 2013, September 26th-28th, Athens, Greece, EU.
- CP37. **Saharidis G.K.D.** and Liberopoulos G. "Environmental vehicle routing problem" 2nd International Symposium and 24th National Conference on Operational Research 2013, September 26th-28th, Athens, Greece, EU.
- CP38. Konstantzos G. E., **Saharidis G.K.D.**, Loizidou M., Kolomvos G., Tsoukala V. and Bourousian M. "Development of an objective function for the minimisation of Greenhouse Gas (GHG) emissions from in port truck operations" 2nd International Symposium and 24th National Conference on Operational Research 2013, September 26th-28th, Athens, Greece, EU.
- CP39. **Saharidis G.K.D.**, Kolomvos G. and Liberopoulos G. "GreenRoute platform" INFORMS 2013, October 6th-9th, Minneapolis, Minnesota, USA.

- CP40. Kolomvos G., Golias M.M., Liberopoulos G. and **Saharidis G.K.D.** "Solution approach for the traveling salesman problem" INFORMS 2013, October 6th-9th, Minneapolis, Minnesota, USA.
- CP41. Kolomvos G., **Saharidis G.K.D.** and Golias M.M. "Improvements in Exact Solution Method for Traveling Salesman Problem" 93rd Annual Meeting of the Transportation Research Board (TRB) 2014, January 12th-16th, Washington D.C., USA.
- CP42 **Saharidis G.K.D.** and Liberopoulos G. "Modeling and Solution Approach for the Environmental Traveling Salesman Problem" IMECS 2014, March 12th-14th, Hong-Kong.
- CP43 Fragogios A., Zigouri E. and **Saharidis G.K.D.** "A Multi-periodic Optimization Modeling Approach for the Establishment of a Bike Sharing Network: a Case Study of the City of Athens" IMECS 2014, March 12th-14th, Hong-Kong.
- CP44 **Saharidis G.K.D.**, Kolomvos G. and Liberopoulos G. "Modeling and Solution Approach for the Environmental Traveling Salesman Problem" TRA 2014, April 14th-17th, Paris, France.
- CP45 Konstantzos G., **Saharidis G.K.D.**, Loizidou M. and Kolomvos G. " Development of a prototype model for assessing Greenhouse Gas (GHG) emissions from terminal and drayage operations" Transportation Research Arena (TRA) 2014, April 14th-17th, Paris, France.
- CP46 **Saharidis G.K.D.**, Kolomvos G., Liberopoulos G. "Modeling and Solution Approach for the Environmental Traveling Salesman Problem" Second International Conference on Information Technology and Quantitative Management (ITQM 2014) 2014, June 3rd-5th, Moscow, Russia.
- CP47 **Saharidis G.K.D.**, Liberopoulos G., Kolomvos G. "Modeling and Solution Approach for the Environmental Traveling Salesman Problem" 20th Conference of the International Federation of Operational Research Societies (IFORS 2014), July 13th - 18th, Barcelona, Spain.
- CP48 Konstantzos G., Emmanouilidis G., Mpizas L., Tsoutsanis N, Moza Z., Pechak O., **Saharidis G.K.D.** "FindMyWay: A prototype web-based platform for journey planning in Athens city, Volos city and Crete island" 3rd International Symposium and 25th National Conference on Operational Research 2014, June 26th-28th, Volos, Greece, EU.
- CP49 Mpizas L., Tsoutsanis N, Moza Z., Pechak O., Pantelis D., **Saharidis G.K.D.** "Touristic Guide: A prototype software for touristic journey planning" 3rd International Symposium and 25th National Conference on Operational Research 2014, June 26th-28th, Volos, Greece, EU.
- CP50 Spathis V., Forlidas I., Skordilis E., **Saharidis G.K.D.** "Inspection of power grid by periodic vehicle routing formulation" 3rd International Symposium and 25th National Conference on Operational Research 2014, June 26th-28th, Volos, Greece, EU.
- CP51 Zygouri E., Fragkogios A., **Saharidis G.K.D.**, Mavrotas G. "An optimization modeling approach for the establishment of a bike-sharing network using Monte Carlo simulation and stochastic demand: a case-study of the city of Athens" 3rd International Symposium and 25th National Conference on Operational Research 2014, June 26th-28th, Volos, Greece, EU.
- CP52 **Saharidis G.K.D.** "GreenYourRoute platform" 3rd International Symposium and 25th National Conference on Operational Research 2014, June 26th-28th, Volos, Greece, EU.
- CP53 Dimitropoulos Ch., Skordilis E., **Saharidis G.K.D.** "Reducing waiting time at intermediate nodes for intercity bus transportation" 3rd International Symposium and 25th National Conference on Operational Research 2014, June 26th-28th, Volos, Greece, EU.
- CP54 Konstantzos G., **Saharidis G.K.D.**, Kolomvos G., Loizidou M. "Development of a software developed for assessing Greenhouse Gas (GHG) emissions from terminal and drayage operations" 3rd International Symposium and 25th National Conference on Operational Research 2014, June 26th-28th, Volos, Greece, EU.
- CP55 Liberopoulos G., Pandelis D., Kozanidis G., **Saharidis G.K.D.** "Development of optimization models for addressing various decision and information related issues in supply chain planning" 3rd International Symposium and 25th National Conference on Operational Research 2014, June 26th-28th, Volos, Greece, EU.
- CP56 **Saharidis G.K.D.**, Liberopoulos G., Kolomvos G. "GreenRoute: A web based platform which help individuals and companies move commodities with the most environmental friendly way,

- minimizing emissions and transportation cost" XVII Latin-Iberian-American Conference on Operations Research (CLAIO 2014), October 6th - 10th, Monterrey, Mexico.
- CP57 Saharidis G.K.D.** "GreenRoute: A web based platform which help individuals and companies move commodities with the most environmental friendly way, minimizing emissions and transportation cost" ITS and Smart Cities 2014, November 19th - 22th, Patra, Greece.
- CP58 Saharidis G.K.D., Kolomvos G., Liberopoulos G.** "GreenRoute: A web based platform which help individuals and companies move commodities with the most environmental friendly way, minimizing emissions and transportation cost" International Conference on Traffic and Transport engineering (ICTTE), November 27th - 28th, Belgrade, Serbia.
- CP59 Fragogios A., & Saharidis G.K.D.** "Benders Decomposition with integer subproblem" 3rd International Conference on Energy Sustainability and Climate Change ESCC 2015, July 10-16, 2016, Athens, Greece.
- CP60 Rizopoulos D., & Saharidis G.K.D.** "Journey Planning Problem" 3rd International Conference on Energy Sustainability and Climate Change ESCC 2015, July 10-16, 2016, Athens, Greece.
- CP61 Saharidis G.K.D.** "LIFE GreenYourMove project - GTFS data in Greece" 4th International Conference on "Energy, Sustainability and Climate Change, ESCC 2017 Santorini, Greece, June 12-16, 2017.
- CP62 Fragogios A., & Saharidis G.K.D.** "Applying Benders Decomposition" 4th International Conference on "Energy, Sustainability and Climate Change, ESCC 2017 Santorini, Greece, June 12-16, 2017.
- CP63 Kastori G.-E., Papadimitriou G., Katsis P., Kouridis Ch., & Saharidis G.K.D.** "Co-modal Emission Calculation and Inventory Methodology" 5th International Conference on "Energy, Sustainability and Climate Change" ESCC 2018, Mykonos, Greece, June 4-8, 2018.
- CP64 Rizopoulos D. & Saharidis G.K.D.** "Timetable Synchronization of Public Transport" 5th International Conference on "Energy, Sustainability and Climate Change" ESCC 2018, Mykonos, Greece, June 4-8, 2018.
- CP65 Fragkogios A. & Saharidis G.K.D.** "An Accelerated Benders Decomposition Method Applied on Crude Oil Scheduling" 5th International Conference on "Energy, Sustainability and Climate Change" ESCC 2018, Mykonos, Greece, June 4-8, 2018.
- CP66 Saharidis G.K.D.** "GreenYourMove" 6th International Conference on "Energy, Sustainability and Climate Change" ESCC 2019, Chania, Greece, June 2-4, 2019.

EDITORIAL EXPERIENCE

2008 to Present Member of the Editorial Board and Peer-reviewer (referee): International Journal of Information Systems and Supply Chain Management.

2008 to Present - Peer-reviewer (referee): Computer and Chemical Engineering.

2008 to Present - Peer-reviewer (referee): International Journal of Advanced Manufacturing Technology.

2008 to Present - Peer-reviewer (referee): International Journal of Production Economics.

2009 to Present - Peer-reviewer (referee): Annals of Operations Research.

2009 to Present - Peer-reviewer (referee): Journal of Global Optimization.

2009 to Present - Peer-reviewer (referee): International Journal of Operations Research & Information Systems.

2009 to Present - Peer-reviewer (referee): Operations Research: An international Journal.

2010 to Present - Peer-reviewer (referee): Computers & Operations Research.

2011 to Present - Peer-reviewer (referee): Journal of Natural Gas Science & Engineering.

Guest Editor of the following Special Volumes on:

- SV1.** Benders decomposition applied in Engineering: *Annals of Operations Research* November 2013, Volume 210, Issue 1.

- SV2. Hierarchical Optimization and its application in Engineering: *Computers & Operations Research, January 2014, Volume 41.*
- SV3. Maritime, Air, Rail and Public Transport in Europe: *International Journal of Information Systems and Supply Chain Management, January-March 2014, Volume 7.*
- SV4. Operation Research and its Application in Transportation: *International Journal of Operations Research and Information Systems, April-June 2014, Volume 5, Issue 2.*
- SV5. Operations Research and its Application in Engineering: *International Journal of Operations Research and Information Systems (open).*
- SV6. Operational Research on the Interrelated Application Areas of Energy, Transportation and the Environment: *Energy Systems (open).*
- SV7. Energy and Environment: Operational Research: An International Journal (*open*).

CONSULTING EXPERIENCE

- Reviewer for the implementation of 3 research projects: National Council for Research, Technology and Innovation – NCRTI. **2020-today**
- Technical consultant of City buses Volos Company. **2018-today.**

ORGANISATION & CO-CHAIRING OF SCIENTIFIC CONFERENCE

- CO1. Managing Director and Co-chairman of the 3rd International Symposium and 25th National Conference on Operational Research June 2014, Volos, Greece.
- CO2. Managing Director and Co-chairman of 2nd International Conference on Energy Sustainability and Climate Change ESCC 2015, June 21-27, 2015, Kolimpari, Greece.
- CO3. Managing Director and Co-chairman of 3rd International Conference on Energy Sustainability and Climate Change ESCC 2016, July 10-16, 2016, Athens, Greece.
- CO4. Managing Director and Co-chairman of 4th International Conference on Energy Sustainability and Climate Change ESCC 2017, June 12-16, 2017, Santorini, Greece.
- CO5. Managing Director and Co-chairman of 5th International Conference on Energy Sustainability and Climate Change ESCC 2018, June 4-8, 2018, Mikonos, Greece.
- CO6. Managing Director and Co-chairman of 6th International Conference on Energy Sustainability and Climate Change ESCC 2019, June 2-4, 2019, Chania, Greece.
- CO7. Managing Director and Co-chairman of 7th International Conference on Energy Sustainability and Climate Change ESCC 2020, June 2-4, 2019, Skiathos, Greece.
- CO8. Managing Director and Co-chairman of 8th International Conference on Energy Sustainability and Climate Change ESCC 2021, June 2-4, 2019, Volos, Greece.
- CO9. Managing Director and Co-chairman of 9th International Conference on Energy Sustainability and Climate Change ESCC 2022, June 2-4, 2019, Paphos, Cyprus.
- CO10. Managing Director and Co-chairman of 10th International Conference on Energy Sustainability and Climate Change ESCC 2023, June 2-4, 2019, Heraklion, Greece.

SUPERVISION of PhD THESES

- DM1. Antonis Fragogios “New technics for the acceleration of Benders Decomposition”. Defense December 2023.
- DM2. Zoi Moza “New modeling and solution approaches for the assignment problem”. Defense December 2024.
- DM3. Timoleontas Kaltis “Theoretical proof for the generation of strong cuts in the frame of benders decomposition”. Defense December 2025.
- DM4. Georgios Kalantzis “Air quality and allocation problem”. Defense December 2026.

RELEVANT SKILLS

Proficient in the following computer programs:

Optimization Software: CPLEX, Lingo, GAMS

Programming: C++, JAVA, Visual Basic, Fortran 77

Intelligence Programming: DataEngine, WINROSA

Design Programming: Pro/Engineer, PT/Modeler

Traffic Assignment Simulation software: VISTA, Paramics, VISSIM

Web-Design Programming: HTML programming, PHP programming

Other: Microsoft Office, LaTeX, WinEdt

Fluent in the following languages:

Greek: Mother tongue

French: Certificate I, Sorbonne I

English: Certificate I, University of Michigan