PERSONAL INFORMATION

Giuseppe Stecca

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PROFILE

Senior Research Scientist

Giuseppe Stecca graduated in Management Engineering and obtained his Ph.D in Economics and Management Engineering at University of Rome "Tor Vergata" in 2000 and 2004 respectively. He holds the chair of "Supply Chain Management" (MAT/09), at University of Rome "Tor Vergata", and the chair of "Modelli di Sistemi di Produzione" (Modelli di Sistemi di Produzione - ING-IND/35) at University "Guglielmo Marconi". He is Senior Research Scientist at National Research Council of Italy, Institute of Systems Analysis and Computer Science "Antonio Ruberti" (Istituto di Analisi dei Sistemi ed Informatica "Antonio Ruberti") - CNR-IASI. He has plurienal experience in national and international research projects. He is scientific evaluator for national research projects. He had several abroad experiences. His principal research interests are related to mathematical modelling and simulation for transport systems, logistics, service and production systems. He studies operational research and algorithms based on cooperative methods applied to green supply chain management, digital twin. He is cohautor of more than 50 publications on international scientific journals and conference proceedings. He is in the list of professional engineers of the Provence of Rome (Civil, environmental industrial and information sectors).

PROFESSIONAL EXPERIENCE

09/2011 – now
Researcher

Consiglio Nazionale delle Ricerche, Istituto di Analisi dei Sistemi ed Informatica "Antonio Ruberti"
Via dei Taurini 19, 00185 Roma. Senior Researcher from 2023, January

Modeling and optimization of processes in logistics, manufacturing, transportation, circular economy, sustainability.

01/2001 – 08/2011
Research collaborator

National Research Council

Modeling and optimization of processes in logistics, manufacturing, transportation, circular economy, sustainability.

2019 - now
Recent Editorial activity

– Guest Editor for "Soft Computing"
– Guest Editor for "Sustainability"
– Guest Editor for "Discrete Applied Mathematics"
– Associate Editor "International Journal of Manufacturing Research"
– Associate Editor "IET Collaborative Intelligent Manufacturing"
– Editor Volume "Graphs and Combinatorial Optimization: from Theory to Applications: CTW2020 Proceedings", Gentile G, Stecca G., and Ventura P., Springer International Publishing, 2021
– Editor Volume "A View of Operations Research Applications in Italy", Dell'Amico M., Gaudioso M., and Stecca G., Springer Springer International Publishing, 2019

2015 – now
Project coordinator

- Coordinator for CNR-IASI PNRR CN MOST Center for Sustainable Mobility, Spoke 7 CCAM (Cooperative Connected Autonomous Vehicles), by 01/09/2022.
- Coordinator for CNR-IASI and scientific leader of "PIPER - Piattaforma Intelligente per l'Ottimizzazione delle operazioni di riciclo" (Intelligent Platform for the Optimization of Recycling Operations) POR FESR LAZIO 2014-2020 "Progetti Gruppi di Ricerca 2020" by 15/04/2022.
- Coordinator for CNR-IASI of "CTEMT - Casa delle Tecnologie Emergenti di Matera" (House of Emergent Technologies Matera), funded by Fondo Crescita Sostenibile del MiSE, for the development of digital twin for the urban intelligence, related to optimization sustainable mobility and accessibility.
- Coordinator for CNR-IASI and scientific leader of "REMIND - Reverse Manufacturing Innovation Decision System", code
  B86H18000160002, Programma Regione Lazio POR FERS "Economia Circolare" by 1/11/2018.
- Coordinator for CNR-IASI of "ZED&L Zero Emissions Distribution & Logistics", by 1/09/2018 to 27/02/2019.
- Coordinator for CNR-IASI of "MIE - Mobilità Intelligente Ecosostenibile" (Smart Eco-sustainable Mobility), code
  CTN01_00034_594122, cluster "Technologies for Smart Communities", by 1/12/2016.
- Coordinator for CNR-IASI of PRIN "SPORT" - Smart Port Terminals, code
  2015XAPRKF by 12/10/2016.
- Coordinator for CNR-IASI of "SIGMA - Sistema Integrato di sensori In ambiente cloud per la Gestione Multirischio Avanzata" (Integrated Sensor System in Cloud for Advanced Management of Multi Risks), code PON01_00683 by 09/06/2013.
- Coordinator of Premial Project "Tecnologie e sistemi innovativi per la fabbrica del futuro e made in Italy" (Technologies and Innovative Systems for the Factory of the Future), code B82I12000420005, years 2014 and 2015.
- Coordinator for CNR-IASI Attività Progettuali (AP) Fabbrica del Futuro (Activities for Factory of the Future), year 2014.

03/2012 – now **Recent Experience as Scientific Evaluator**

- president of evaluation committee in public tender for port area concessions of mq 170.000. For: Port Authority of "Autorità Portuale Mar Tirreno Settentrionale". Year 2020
- Expert Scientific Evaluator of Research project for CNR/Ministry of Economic Development (MiSE), Innovation agreements D.M. 24/5/2017.
- Expert Scientific Evaluator of Research project for CNR/Ministry of Economic Development (MiSE), D.M. 5/3/2018 and D.D. 20/11/2018 area Industry 4.0. From 2019
- Expert Evaluator of Research and Development Projects for Tuscany Region, program Smart Factory. For Sviluppo Toscana. Time: from 2018
- Member of Engineering Management Master Degree Thesis evaluation. For: Università di Roma "Tor Vergata". From: 2012
- Member of Engineering Informatics Degree Thesis. Fort: Università "Guglielmo Marconi". From 2017.
- Member of public grant assignment in CNR for research grants (Assegni di Ricerca). From 2014.

2012 – now **Teaching**

- Chair of "Supply Chain Management"
  Date: by A.A. 2011/2012
  Note: University of Rome "Tor Vergata", Department of Enterprise Engineering; Course of Management Engineering Dm.270/04 - MAT/09; 6 learning credits (CFU); Rif. `http://didatticaweb.uniroma2.it/docenti/curriculum/3127-Giuseppe-Stecca`
- Chair of "Modelli di Sistemi di Produzione" (Models of Production Systems)
  Date: by A.A. 2017/2018
  Note: University "Guglielmo Marconi" Science and applied technologies; Course of Informatics Engineering Ing/35; 6 learning credits (CFU); Rif. `https://www.unimarconi.it/en/docenti`

Other recent activities and memberships

– Committee member of doctoral school ABRO - Automatica Bioingegneria e Ricerca Operativa (Automatica Bioengineering and Operations Research)
Date: By A.A. 2021/2022
Note: University of Rome "La Sapienza", Department of Augomatica and Management Engineering "Antonio Ruberti"; Rif. `https://phd.uniroma1.it/web/ AUTOMATICA-BIOINGEGNERIA-E-RICERCA-OPERATIVA---ABRO_nD3553_IT.aspx`
– Member of AIRO - Associazione Italiana di Ricerca Operativa (Italian Association of Operations Research)
Date: by 2012
– Member of professional engineers of Roma Provence
Date: by 2004
Note: N. 24370, Sector Civil, Environmental, Industrial, Information

EDUCATION

| 2002 – 2004 | Ph.D. in Economics and Management Engineering | ISCED 6 |

University of Rome "Tor Vergata"

| 2001 – 2002 | Master II Level in Enterprise Engineering |

University of Rome "Tor Vergata"

| 1993 – 2000 | Laurea Degree in Management Engineering D.M. 509/99) |

University of Rome "Tor Vergata"

MAIN SKILLS

Mother tongue   Italiano

Other languages

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
Inglese	B2	B2	B2	B2	C1

Digital competences

SELF-ASSESSMENT				
Information Processing	Communication	Content creation	Safety	Problem solving
Proficient user	Proficient user	Proficient user	Proficient user	Proficient user

Digital competences - Self-assessment grid

Informatic Skills   MS Office, Libreoffice, Operating Systems Windows and Linux, Programming Languages C/C++ and Python, OpenLCA, SIMIO, JAAMSIM, VISUM.

SOME PUBLICATIONS

[1] Massimiliano Caramia, Diego Maria Pinto, Emanuele Pizzari, and **Giuseppe Stecca**. "Clustering and routing in waste management: A two-stage optimisation approach". In: *EURO Journal on Transportation and Logistics* (2023), p. 100114.

[2] Massimiliano Caramia and **Giuseppe Stecca**. "A Bi-Objective Model for Scheduling Green Investments in Two-Stage Supply Chains". In: *Supply Chain Analytics* (2023), p. 100029.

[3] Claudio Gentile, Diego Maria Pinto, and **Giuseppe Stecca**. "Price of robustness optimization through demand forecasting with an application to waste management". In: *Soft Computing* (2022), pp. 1–12.

[4] Anna Sciomachen and **Giuseppe Stecca**. "Forwarding containers to dry ports in congested logistic networks". In: *Transportation Research Interdisciplinary Perspectives* 20 (2023), p. 100846.

[5] Antonio D'Uffizi, Fabrizio Pecoraro, Fabrizio L Ricci, **Giuseppe Stecca**, and Fabrizio Consorti. "The Complexity of a Clinical History." In: *Studies in Health Technology and Informatics* 302 (2023), pp. 506–507.

[6] Massimiliano Caramia and **Giuseppe Stecca**. "Sustainable two stage supply chain management: A quadratic optimization approach with a quadratic constraint". In: *EURO Journal on Computational Optimization* 10 (2022), p. 100040.

[7] Giordana Castelli, Amedeo Cesta, Mario Ciampi, Riccardo De Benedictis, Giuseppe De Pietro, Matteo Diez, Giovanni Felici, Roberto Malvezzi, Barbara Masini, Riccardo Pellegrini, **Giuseppe Stecca**, et al. "Urban Intelligence: Toward the Digital Twin of Matera and Catania". In: *2022 Workshop on Blockchain for Renewables Integration (BLORIN)*. IEEE. 2022, pp. 132–137.

[8] **Giuseppe Stecca** and Toshiya Kaihara. "Negotiation based approach for collecting and recycling operations in circular economy". In: *Procedia CIRP* 104 (2021), pp. 200–205.

[9] M Di Francesco, C. Gentile, S. Schirra, **G. Stecca**, and P Zuddas. "An integral LP relaxation for a drayage problem". In: *Discrete Optimization* 31 (2019), pp. 93–102.

[10] Mauro Dell'Amico, Manlio Gaudioso, and **Giuseppe Stecca**. *A View of Operations Research Applications in Italy, 2018*. 2019.

[11] Simona Mancini and **Giuseppe Stecca**. "A Large Neighborhood Search based Matheuristic for the Tourist Cruises Itinerary Planning". In: *Computers & Industrial Engineering* 122 (2018), pp. 140–148.

[12] **Giuseppe Stecca**, Ilaria Baffo, and Toshiya Kaihara. "Design and operation of strategic inventory control system for drug delivery in healthcare industry". In: *IFAC-PapersOnLine* 49.12 (2016), pp. 904–909.

[13] Giuseppe Ianniello, Michela Piccarozzi, Ilaria Baffo, **Giuseppe Stecca**, and Pasquale Carotenuto. "A Collaborative Decisional System to Support a Business Model for the Development of Charging Infrastructure". In: *Collaboration in a Hyperconnected World: 17th IFIP WG 5.5 Working Conference on Virtual Enterprises, PRO-VE 2016, Porto, Portugal, October 3-5, 2016, Proceedings 17*. Springer International Publishing. 2016, pp. 569–578.

[14] Giacomo Liotta, Toshiya Kaihara, and **Giuseppe Stecca**. "Optimization and Simulation of Collaborative Networks for Sustainable Production and Transportation". In: *IEEE Transactions on Industrial Informatics* 12.1 (2016), pp. 417–424.

[15] Giacomo Liotta, **Giuseppe Stecca**, and Toshiya Kaihara. "Optimisation of freight flows and sourcing in sustainable production and transportation networks". In: *International Journal of Production Economics* 164 (2015), pp. 351–365.

[16] Antonio D'Uffizi, Marco Simonetti, **Giuseppe Stecca**, and Giuseppe Confessore. "A simulation study of logistics for disaster relief operations". In: *Procedia CIRP* 33 (2015), pp. 157–162.

[17] **G. Stecca**, G. Lanza, and S. Peters. "Optimization in Manufacturing". In: *The International Academy for Production Engineering, Laperrière L., Reinhart G.(eds) CIRP Encyclopedia of Production Engineering. Springer, Berlin, Heidelberg* (2014), pp. 929–932.

[18] Fabrizio Clemente, **Giuseppe Stecca**, Paolo Bifulco, Mario Cesarelli, Giuliana Faiella, and Maria Romano. "Process modeling of devices management in home care". In: *2013 E-Health and Bioengineering Conference (EHB)*. IEEE. 2013, pp. 1–4.

[19] G Confessore, D Corini, and G Stecca. "A computational method for pricing of delivery service in a logistics network". In: *International journal of production research* 46.5 (2008), pp. 1231–1242.

[20]   Qi Hao, Weiming Shen, **Giuseppe Stecca**, and Lihui Wang. "Towards an Internet enabled cooperative manufacturing management framework". In: *Processes and Foundations for Virtual Organizations: IFIP TC5/WG5. 5 Fourth Working Conference on Virtual Enterprises (PRO-VE'03) October 29–31, 2003, Lugano, Switzerland.* Springer US. 2004, pp. 191–200.

Declarations   I authorize the treatment of my personal data according to the Italian Law "Decreto Legislativo 30 giugno 2003, n. 196" "Codice in materia di protezione dei dati personali" e dell'art. 13 del GDPR (Regolamento UE 2016/679).