

Università Telematica Internazionale
UNINETTUNO
Faculty of Engineering
Corso Vittorio Emanuele II
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Italy

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Elpidio Romano, PhD Researcher

https://www.researchgate.net/profile/Elpidio_Romano

Education

Sep 1990 – Dec 1999 **Università degli Studi di Napoli Federico II**
Engineer, Transportation Engineering
Naples, Italy

Thesis

Study of New Air Link from Naples to New York: simulation analysis.

Research Experience

May 2015 – present **Researcher**
Università Telematica Internazionale UNINETTUNO,

Mar 2014 – present **Responsible Scientific**
Mevb Italia,
Venezia, Veneto, Italy

Capacity Assessment and geometrical design in the Marco Polo Airport (VE)

Jan 2014 – present **Consultant**
Save Engineering, - Marco Polo Airport – Venezia

Apr 2013 – Aug 2013 **Simulation expertise**
Tecno Engineering 2C,
Roma, Italy

Study and Analysis Capacity at the Venice Airport

Mar 2013 – present **Globid**
Università degli Studi di Napoli Federico II, Department of Chemical,
Materials and Industrial Production Engineering
Napoli, Italy

Traceability to food product

Jan 2012 – Jan 2015 **Professor (Assistant) in Industrial Logistics**
University of Naples Federico II, Department of Chemical, Materials and
Industrial Production Engineering

Jan 2006 – Mar 2009 **Reload**

Università degli Studi di Napoli Federico II, Department of Chemical, Material and Production Engineering Napoli, Italy

Statistics

RG Score 12.17
Publications 75
Reads 11,025
Citations 213

Skills & Activities

Skills Industrial Engineering, Optimization, Lean Manufacturing, Operations Management, Scheduling, System Dynamics Modeling, Reverse Logistics, Logistics, Safety Management, Optimal Transport, Modeling and Simulation, Supply Chain, Manufacturing, Discrete Optimization, Combinatorial Optimization, Design of Experiments, Design, Traffic Engineering, Transportation Planning, Traffic Flow, Traffic Control, microscopic simulation, Inventory, Simulation Software, Systems Dynamics, ProModel, Computer Simulations, Heuristics, Discrete Event Simulation, Simulation, Programming Languages, Distributed Systems, Manufacturing Engineering, E-health, Computer Engineering, Traffic Accidents, Algorithms, Scheduling Theory, Air Traffic Management, Building Simulation, Milk Run, Transportation Systems, Transportation Engineering, Port Management, Port Transportation, Design Optimization, Arena (Simulation Software), Logit, Vehicle Routing Problem, Milk run model, Travelling Salesman Problem, Air Transport, Airports, Air Traffic Control, Resilience Theory, Material Management, Remanufacturing, Statistical Design of Experiments, Process Modeling, Hybrid Simulation, Lean Six Sigma, Parallel Modeling & Simulation, Total Quality Management, Healthcare Informatics, Health Services Research, Mathematical Modelling, Operations Research, Petri Nets Modeling, Systems Engineering, Lean Management, Kanban simulation, Production, Container Shipping, Maintenance Management, Simulation Modeling, Modeling, Production Planning, Mathematical Programming, Applied Behavior Analysis, Applied Mathematics, Electronic Waste, Waste Management, Intelligent Transportation Systems, Management Science, Decision Support Systems, Collaborative Decision Making, Virtual Architecture, Inventory Management, Linear Programming, Airport Management, Probabilistic Models, Simulation and Modeling, Driving Behavior, Production Management, Building Performance Simulation, Decision Making, Resilience, Production Systems, DOE, DES, Manufacturing Systems, Process Analysis, Production Engineering, Aeronautical Engineering, Aviation, Risk Assessment, Arena, Statistics, Operating Systems

Languages English, Italian

Scientific Memberships

Interests Sports, cooking and Theater.

Publication Highlights

- Elpidio Romano, Guido Guizzi, Daniela Chiocca: *A decision support tool, implemented in a system dynamics model, to improve the effectiveness in the hospital emergency department*. International Journal of Procurement Management 12/2014; 8(1), DOI:10.1504/IJPM.2015.066291
- Elpidio Romano, Liberatina C. Santillo, Pasquale Zoppoli: *A static algorithm to solve the air traffic sequencing problem*. WSEAS Transactions on Systems 01/2013; 7(6):682-695.
- Guido Guizzi, Daniela Chiocca, Elpidio Romano: *Healthcare Lean Thinking: Simulation of an Intensive Care Unit (ICU)*. Proceedings of the 6th WSEAS European Computing Conference (ECC '12); 09/2012
- Elpidio Romano: *An Hybrid Simulation model to support decision making in a manufacturing plant*. WSEAS Transactions on Systems 07/2014; 13:312-321.
- Ludovica Adacher, Marta Flamini, Elpidio Romano: *REROUTING ALGORITHMS SOLVING AIR TRAFFIC CONGESTION*. ICAMCS; 01/2017, DOI:10.1063/1.4981993

Books

- E. Romano, D. Chiocca, G. Guizzi: *System dynamics approach to model a Hybrid Manufacturing System*. Edited by Springer Verlag, 09/2012; IOS press., DOI:10.3233/978-1-61499-125-0-499
- E. Romano, T. Murino, G. Guizzi: *An Innovative Approach to Environmental Issues*. Edited by Springer Verlag, 09/2012; IOS press.
- E. Romano, G. Naviglio, D.R. Montella, R. Di Micco: *Design of Experiments in a Single Stage Multiproduct Kanban System*. Edited by Springer Verlag, 09/2012; IOS press., DOI:10.3233/978-1-61499-125-0-518

Book Chapters

- Elpidio Romano, Lorenzo Damiani, Roberto Revetria, Pietro Giribone, Guido Guizzi: *Different Approaches for Studying Interruptible Industrial Processes: Application of Two Different Simulation Techniques*. Computational Simulation and Modeling in Engineering, Handbook of Research on Computational Simulation and Modeling in Engineering edited by IGI Global, 09/2015: chapter Different Approaches for Studying Interruptible Industrial Processes: Application of Two Different Simulation Techniques: pages 69-104; , ISBN: 9781466688230, DOI:10.4018/978-1-4666-8823-0.ch002
- Elpidio Romano, Stefano Filippi, Pietro Giribone, Roberto Revetria, Guido Guizzi: *Design Support System of Fishing Vessel Through Simulation Approach*. Transactions on Engineering Technologies. Transactions on Engineering Technologies, Special Issue of the World Congress on Engineering and Computer Science 2013 edited by Kim Haeng Kon, Ao Sio-Iong, Amouzegar Mahyar A., 12/2014: chapter 45: pages 615-629; Springer., ISBN: 978-94-017-9115-1
- Stefano Filippi, Piero Giribone, Roberto Revetria, Alessandro Testa, Guido Guizzi, Elpidio Romano: *Design Support System of Fishing Vessel Through Simulation Approach*. Transactions on Engineering Technologies, 01/2014: pages 615-629; , ISBN: 978-94-017-9114-4, DOI:10.1007/978-94-017-9115-1_45
- Mos Gallo, Elpidio Romano, Liberatina Carmela: *A Perspective on Remanufacturing Business: Issues and Opportunities*. International Trade from Economic and Policy Perspective, 08/2012; , ISBN: 978-953-51-0708-8, DOI:10.5772/48103

Journal Publications

- Elpidio Romano, Iuliano Domenico: *A simulation/optimization approach to support resource's allocation in a service firms*. International Journal of Procurement Management 01 /2017; in press.
- Elpidio Romano: *A decision support tool, implemented in a system dynamics model, to improve the effectiveness in the hospital emergency department*. International Journal of Procurement Management 01 /2015; 8.
- Elpidio Romano, Guido Guizzi, Daniela Chiocca: *A decision support tool, implemented in a system dynamics model, to improve the effectiveness in the hospital emergency department*. International Journal of Procurement Management 12 /2014; 8(1)., DOI:10.1504/IJPM.2015.066291
- Elpidio Romano, Guido Guizzi, Daniela Milele: *System Dynamics analysis: simulation case study on production*. Frontiers in Artificial Intelligence and Applications 09 /2014; 265:936-950., DOI:10.3233/978-1-61499-434-3-936
- Elpidio Romano: *An Hybrid Simulation model to support decision making in a manufacturing plant*. WSEAS Transactions on Systems 07 /2014; 13:312-321.
- E. Romano, C. Cesarano, D. Iuliano: *An hybrid simulation model to support decision making in a manufacturing plant*.
- Elpidio Romano: *Lean Maintenance model to reduce scraps and WIP in manufacturing system:case study in power cables factory*. WSEAS Transactions on Systems 12 /2013; 12(12):650-666.
- E. Romano, T. Murino, F. Asta, P. Costagliola: *Lean Maintenance model to reduce scraps and WIP in manufacturing system: Case study in power cables factory*.
- Elpidio Romano, Teresa Murino, Daniela Chiocca Liberatina C. Santillo: *Scenario Analysis based on Simulation Models to Determine the Efficiency of an Aircraft Industry*.
- Elpidio Romano, Liberatina C. Santillo, Pasquale Zoppoli: *A static algorithm to solve the air traffic sequencing problem*. WSEAS Transactions on Systems 01 /2013; 7(6):682-695.
- E Romano, L C Santillo, P Zoppoli: *Transformation of a production/assembly washing machine lines into a lean manufacturing system*. WSEAS Transactions on Systems and Control 01 /2013; 4(2):65-76.
- Teresa Murino, Elpidio Romano, Pasquale Zoppoli: *Maintenance policies and buffer sizing: An optimization model*. WSEAS Transactions on Business and Economics 01 /2013; 6(1):21-30.
- G. Guizzi, D. Miele, L.C. Santillo, E. Romano: *New formalism for production systems modeling*.
- M. Gallo, R. Revetria, and E. Romano: *A pull management model for a production cell under variable demand conditions*. International Journal of Mathematical Models and Methods in Applied Sciences 01 /2013; 6(4):519-526.
- Daniela Chiocca, Guido Guizzi, Teresa Murino, Roberto Revetria, Elpidio Romano: *A Methodology for Supporting Lean Healthcare*. DOI:10.1007 /978-3-642-30732-4-12
- G. Guizzi, T. Murino, E. Romano: *An innovative approach to environmental issues: The growth of a green market modeled by system dynamics*. Frontiers in Artificial Intelligence and Applications 01 /2012; 246:538-557., DOI:10.3233/978-1-61499-125-0-538
- T. Murino, G. Naviglio, E. Romano: *Cost estimation in an aeronautical supply chain*. DOI:10.1109 /SKIMA.2011.6090016
- T. Murino, G. Naviglio, E. Romano: *Optimal size of kanban board in a single stage multi product system*. WSEAS Transactions on Systems and Control 06 /2010; 5(6):464-473.

L Guerra, T Murino, E Romano: *A system dynamics model for a Single-Stage Multi-Product Kanban production system.*

Daniela Chiocca, Teresa Murino, Elpidio Romano: *Management of check-in at the Naples port terminal by DES logic.*

L Guerra, T Murino, E Romano: *Reverse Logistics for Electrical and Electronic Equipment: a modular simulation model.*

T. Murino, E. Romano, L.C. Santillo: *A simulation decision support model for check-in desks in an airport.*

M Gallo, R Grisi, G Guizzi, E Romano: *A comparison of production policies in remanufacturing systems.*

R. Di Micco, E. Romano, L.C. Santillo: *Study and analysis of production dynamics with designed experimentation: sizing of a pull drum line supermarket.* International Journal of Mathematics and Computers in Simulation 12/2008; 2(4):313-327.

L. Guerra, T. Murino, and E. Romano: *Airport system analysis: a probabilistic risk assessment model.*

Luigi Guerra, Teresa Murino, Elpidio Romano: *Airport risk assessment: a probabilistic approach.*

E. Romano, L. C. Santillo, P. Zoppoli: *Scheduling applied to air traffic control.*

Luigi Guerra, Teresa Murino, Elpidio Romano: *A heuristic algorithm for the constrained location - routing problem.*

L Guerra, T Murino, E Romano: *The Location-Routing Problem: an innovative approach..*

E Romano, L C Santillo, P Zoppoli: *An integrated model of logistic networks for locating production and distribution points.*

E Romano, L C Santillo, P Zoppoli: *The change from push to pull production: effects analysis and simulation.*

Elpidio Romano: *Driver Behaviour At The Roundabouts: Analysis And Simulation.*

Mosè Gallo, Teresa Murino, Elpidio Romano: *The simulation of hybrid logic in reverse logistic network.*

T Murino, E Romano, P Zoppoli: *The effects of maintenance policies on buffer sizing.*

Conference Proceedings

Ludovica Adacher, Marta Flamini, Elpidio Romano: *REROUTING ALGORITHMS SOLVING AIR TRAFFIC CONGESTION.* ICAMCS; 01/2017, DOI:10.1063/1.4981993

Elpidio Romano: *Modeling of the State changes in the systems with System Dynamics Simulation approach.* 18th International Conference on AUTOMATIC CONTROL, MODELLING & SIMULATION (ACMOS '16), Venice (Italy); 01/2016

Elpidio Romano, Roberto Revetria, Guido Guizzi, Claudio Silvestri: *A comparison of forecast models to predict weather parameters.* Proceedings of the 4th International Conference on Energy and Environment Technologies and Equipment (EEETE '15), Michigan State University, East Lansing, MI, USA; 09/2015

Elpidio Romano: *An Integrating approach, based on simulation, to define optimal number of pallet in an Assembly Line.* 20th Issat Conference, Reliability and quality design; 08/2014

Elpidio Romano: *A decision support system to improve the effectiveness of a hospital department.* 18th Summer School Francesco Turco 2013, Senigallia (Italy); 09/2013

- Elpidio Romano: *Dynamic simulation applied to support decision making*. 18th Summer School Francesco Turco 2013, senigallia (Italy); 09/2013
- Guido Guizzi, Teresa Murino, Stefania Santini, Manuela Tufo, Elpidio Romano: *Integrating model to support decision making*. Intelligent Software Methodologies, Tools and Techniques (SoMeT), 2013 IEEE 12th International Conference on; 09/2013, DOI:10.1109/SoMeT.2013.6645653
- Elpidio Romano, Daniela Chiocca, Liberatina Carmela Santillo, Guido Guizzi: *A resilient approach to manage a supply chain network*. Intelligent Software Methodologies, Tools and Techniques (SoMeT), 2013 IEEE 12th International Conference on; 09/2013, DOI:10.1109/SoMeT.2013.6645646
- Guido Guizzi, Daniela Miele, Liberatina Carmela Santillo, Elpidio Romano: *A System Dynamics approach for the operational control of production*. Intelligent Software Methodologies, Tools and Techniques (SoMeT), 2013 IEEE 12th International Conference on; 09/2013, DOI:10.1109/SoMeT.2013.6645643
- Elpidio Romano, Dario Assante: *A Management of Intensive Care Unit based on the System Dynamics Model*. 5th International Conference on Applied Economics, Business and Development (AEBD '13), Chania, Crete Island, Greece; 08/2013
- Elpidio Romano, Domenico Iuliano, Clemente Cesarano: *A decision support system based on a new hybrid model of simulation*. 5th International Conference on Applied Economics, Business and Development (AEBD '13); 08/2013
- Federica Ferrigno, Teresa Murino, Elpidio Romano, Renzo Akkerman: *Salmonella Contamination in Chocolate Products: Simulation Model and Scenario Analysis*. 12th International Conference on System Science and Simulation In Engineering (ICOSSE '13); 04/2013
- E. Romano, D. Chiocca, G. Guizzi: *A model of process improvement in the hospital emergency department: solutions according the logic of System Dynamics..* 12th WSEAS International Conference on SYSTEM SCIENCE and SIMULATION in ENGINEERING (ICOSSE '13); 04/2013
- GUIDO GUIZZI, ROBERTO REVETRIA, ELPIDIO ROMANO: *Port Training using simulation methodology*. 7th International Conference on Applied Mathematics, Simulation, Modelling (ASM '13); 01/2013
- Romano E, ASSANTE D.: *A management of Intensive care unit based on the system dynamics model*. Recent Researches in Applied Economics and Management, Chania; 01/2013
- Daniela Chiocca, Teresa Murino, Liberatina C Santillo, Elpidio: *The efficiency of Handling in an Aircraft Industry Simulation Model and Scenario Analysis*. 6th WSEAS European Computing Conference (ECC '12); 09/2012
- Guido Guizzi, Roberto Revetria, Daniela Chiocca, Elpidio Romano: *A dynamic Milk Run in WEEE Reverse Logistics*. 6th WSEAS European Computing Conference (ECC '12); 09/2012
- Guido Guizzi, Daniela Chiocca, Elpidio Romano: *Healthcare Lean Thinking: Simulation of an Intensive Care Unit (ICU)*. Proceedings of the 6th WSEAS European Computing Conference (ECC '12); 09/2012
- Roberto Revetria, Alessandro Catania, Lucia Cassetari, Guido Guizzi, Elpidio Romano, Teresa Murino, Giovanni Improta, Hamido Fujita: *Improving Healthcare Using Cognitive Computing Based Software: An Application in Emergency Situation*. Proceedings of the 25th international conference on Industrial Engineering and Other Applications of Applied Intelligent Systems: advanced research in applied artificial intelligence; 06/2012, DOI:10.1007/978-3-642-31087-4_50
- R. Revetria, R. Mosca, L. Cassetari, G. Guizzi, E. Romano, L. C. Santillo: *Advanced modeling methodology based on system dynamics in healthcare*. Proceedings of the 6th WSEAS international conference on Computer Engineering and Applications, and Proceedings of the 2012 American conference on Applied Mathematics; 01/2012

- R. Revetria, A. Testa, I. Cassetari, G. Guizzi, E. Romano, M. Gallo: *Improving drilling operations management using combined simulation*. Proceedings of the 6th WSEAS international conference on Computer Engineering and Applications, and Proceedings of the 2012 American conference on Applied Mathematics; 01/2012
- P. Giribone, G. Guizzi, T. Murino, E. Romano, R. Revetria, A. Testa: *Combined simulation for improving operations in LNG logistics*. Proceedings of the 6th WSEAS international conference on Computer Engineering and Applications, and Proceedings of the 2012 American conference on Applied Mathematics; 01/2012
- Murino T., Naviglio G., Romano E., Guerra L, CASSETTARI L., R Mosca, R Revetria: *A WORLD CLASS MANUFACTURING IMPLEMENTATION MODEL*. Applied Mathematics in Electrical and Computer Engineering; 01/2012
- CASSETTARI L., GALLO M., MONTELLA D.R., REVETRIA R., ROMANO E., TESTA A.: *Analysis of demand variability in a kanban cell by Virtual Kanban Strategy*. Applied Mathematics in Electrical and Computer Engineering; 01/2012
- Teresa Murino, Elpidio Romano, Liberatina C Santillo: *Supply chain performance sustainability through resilience function*. 2011 Winter Simulation Conference S. Jain, R.R. Creasey, J. Himmelspach, K.P. White, and M. Fu, eds.; 12/2011, DOI:10.1109/WSC.2011.6147877
- Mosè Gallo, Elpidio Romano, Liberatina C Santillo: *A methodological approach to manage WEEE recovery systems in a push/pull logic*. 2011 Winter Simulation Conference S. Jain, R.R. Creasey, J. Himmelspach, K.P. White, and M. Fu, eds.; 12/2011, DOI:10.1109/WSC.2011.6147827
- T. Murino, G. Naviglio, E. Romano, P. Zoppoli: *Single stage multi product kanban system. Optimization and parametric analysis*. Proceedings of the 8th WSEAS international conference on System science and simulation in engineering; 10/2009
- Elpidio Romano: *A Discrete Event Simulation to model Passenger Flow in the Airport Terminal*. Proceedings of the APPLIED COMPUTING CONFERENCE 2009 (ACC '09); 09/2009
- G. Guizzi, T. Murino, E. Romano: *A discrete event simulation to model passenger flow in the airport terminal*. Proceedings of the 11th WSEAS international conference on Mathematical methods and computational techniques in electrical engineering; 09/2009
- R. DiMicco, E. Romano, I. C. Santillo: *Kanban system and supermarket: experimental analysis and simulation2*. Proceedings of the 7th WSEAS international conference on System science and simulation in engineering; 11/2008

Technical Reports

AVL Design – Salerno Airport. | Salerno, ITALIA

- > YEAR: 2001
- > COSTUMER: AIR Support srl
- > SERVICES PROVIDED: **Aiport Design**

Feasibility Study of the Airport Systems in Campania (Italy)

- > YEAR: 2001
- > COSTUMER: Regione Campania
- > SERVICES PROVIDED: **Specialistic Study**

Feasibility Study of the Airport Systems in Sicily (Italy)

- > YEAR: 2002

- > COSTUMER: GESIN srl
- > SERVICES PROVIDED: Specialistic Study

Risk Assessment Grosseto Airport (Italy)

- > YEAR: 2004
- > COSTUMER: SEAM spa
- > SERVICES PROVIDED: **Specialistic Study** – Development of Risk Assessment Quantitative Models

Consulenza specialistica finalizzata alla Localizzazione e geometrizzazione di una nuova piazzola utilizzata per le attività di de-icing di aeromobili UP TO C.

- > YEAR: 2015
- > COSTUMER: SAVE Engineering srl
- > SERVICES PROVIDED: **Airport Design**: design of the new De-Icing Location in the Apron: study of optimal localization and geometry design.

Progetto Preliminare delle infrastrutture di volo: piste e raccordi. Geometrizzazione e verifiche aeronautiche.

- > YEAR: 2015
- > COSTUMER: SAVE Engineering srl
- > SERVICES PROVIDED: **Airport Design**: new Layout Configuration of the Venice Airport to improve airport capacity in the future.

Studio della capacità del sistema aeroporto e valutazione dei ritardi in diversi scenari di progetto.

- > YEAR: 2016
- > COSTUMER: SAVE spa
- > SERVICES PROVIDED: **Simulation Model Design and Implementation to define Airport Capacity and Delay**: Implementation of Airport Model and Simulation in a fast time environment to reproduce the real transportation use of the infrastructures; Simulation Model to define Capacity and relative Delay for different airport configuration.

Analisi e valutazione della capacità della pista secondaria 04L-22R utilizzata come pista di volo principale.

- > YEAR: 2016
- > COSTUMER: SAVE spa
- > SERVICES PROVIDED: **Simulation Model Design and Implementation to define Airport Capacity and Delay**: Implementation of Airport Model and Simulation in a fast time environment to reproduce the real transportation use of the infrastructures; Simulation Model to define Capacity and relative Delay for different airport configuration.

Risk Assessment per la realizzazione in fasi distinte e sequenziali dei lavori di riqualifica Lotto 2

- > YEAR: 2017
- > COSTUMER: SAVE spa
- > SERVICES PROVIDED: **Risk Assessment Models**: Implementation of Risk Assessment and Capacity integrated models to assess the change of configuration in the sequential configuration change and to determine the optimal configuration of the airport; Use of Simulation Models.

Autorizzo il trattamento dei dati personali contenuti nel mio curriculum vitae in base all'art. 13 del D. Lgs. 196/2003.

Roma, 18.09.2017

In fede
Elpidio Romano