



Christine DI MARTINELLY

Ph.D. in Economic and Management Sciences

Associate Professor, Operations Management

Head of Department

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EDUCATION

- 2008** Ph.D. in Applied Sciences, INSA Lyon, France
- 2008** Ph.D. in Economic and Management Sciences, Louvain School of Management, Belgium
- 2003** Master, Management Sciences, Statistics, Facultes des Sciences Agronomiques de Gembloux, Belgium
- 2001** Master in Management, Facultes Universtaires Catholiques de Mons, Belgium

PROFESSIONAL CERTIFICATION

- 2001** ITIL Certificate, Pink Elephant, United Kingdom

RESEARCH INTERESTS

Operations Management

PROFESSIONAL EXPERIENCE

ACADEMIC:

- 2014 - Present** Academic director, IÉSEG School of Management, France
- 2010 - Present** Professor, Management, IÉSEG School of Management, France
- 2002 - 2008** Teaching and Research Assistant, Facultes Universtaires Catholiques de Mons, Mons, Belgium

PROFESSIONAL:

- 2001 - 2002** Junior Consultant, Arthur Andersen Business Consulting, Brussel, Belgium

COURSES TAUGHT

- Supply chain management, Grande ecole (master cycle)
- Supply chain management, Msc in business analysis and consulting
- Transportation & logistics, Grande ecole (master cycle)

- Gestion de operaciones 2
- Investigation de operaciones (operations research)
- Gestion de operaciones 1
- Gestion de la production - horaire decale
- Gestion de la production - horaire decale

INTELLECTUAL CONTRIBUTIONS

Papers in refereed journals

Published

- Achamrah F. E., Riane F., Di Martinelly C., Limbourg S., (2022), A matheuristic for solving inventory sharing problems, *Computers & Operations Research*, 138(2022), pp. 105605
- Duenas A., Di Martinelly C., Aelbrecht A., Allard P. -E., Rousseaux J., (2019), Cost-effectiveness of an Educational Healthcare Circuit for bariatric surgery in France., *Public Health*, 172(July 2019), pp. 43-51
- Glaize A., Duenas A., Di Martinelly C., Fagnot I., (2019), Healthcare decision-making applications using multi-criteria decision analysis: a scoping review., *Journal of Multi-Criteria Decision Analysis*, 26(1-2), pp. 62-83
- Di Martinelly C., Meskens N., (2017), A bi-objective integrated approach to building surgical teams and nurse schedule rosters to maximise surgical team affinities and minimise nurses' idle time, *International Journal of Production Economics*, 191, pp. 323-334
- Di Martinelly C., Baptiste P., Maknoon M., (2014), An assessment of the integration of nurse timetable changes with operating room planning and scheduling, *International Journal of Production Research*, 52(24), pp. 7239–7250
- Di Martinelly C., Riane F., Rappold J., Guinet A., (2011), Implémentation d'une armoire automatique de dispensation des médicaments dans un hôpital: une méthodologie pour évaluer la performance, *Logistique & Management*, 19(2), pp. 53-68
- Rappold J. A., Van Roo B. D., Di Martinelly C., Riane F., (2011), An inventory optimization model to support operating room schedules, *Supply Chain Forum: An International Journal*, 12(1), pp. 56-69
- Roland B., Di Martinelly C., Riane F., Pochet Y., (2010), Scheduling an operating theatre under human resource constraints, *Computers and Industrial Engineering*, 58(2), pp. 212-220

Papers in non-refereed journals

Published

- Di Martinelly C., Riane F., Guinet A., (2009), A Porter-SCOR modeling approach for the hospital supply chain, *International Journal of Logistics Systems and Management*, 5(3/4), pp. 436-456

Communications in refereed conferences

International

- Di Martinelly C., Duenas A., Glaize A., Fagnot I., (2022), *An approach to healthcare services decision-making using fuzzy ELECTRE III. An outpatient chemotherapy service application.* international conference on optimization and decision sciences ODSS 2022, Firenze, Italy
- Di Martinelly C., Meskens N., Riane F., Hssini I., (2021), *Inventory routing problem with transshipment and substitution for blood products using the case of the Belgian blood distribution* APMS 2021, Advances in production management systems, Nantes, France

Di Martinelly C., Duenas A., Aguado J., Tutuncu Y., (2020), *An Evolutionary Algorithm based on Multidimensional Multiple-Choice Knapsack Model for Resource Allocation Problem in a Construction Equipment Manufacturer* International conference on Information systems, logistics & supply chain, Austin Texas, USA

Pham D. K., Duenas A., Di Martinelly C., (2019), *An online approach for chemotherapy patient scheduling problem* The 45th annual meeting of the EURO Working Group on Operational Research Applied to Health Services (ORAHS) , Karlsruhe, Germany

Di Martinelly C., Alejandra D., Pham D. K., (2018), *Integration of operating room advance scheduling and allocation scheduling while considering the resource constraints: a multi-objective genetic algorithm approach* International Conference on Information Systems, Logistics and Supply Chain 2018, Lyon, France

Glaize A., Alejandra D., Di Martinelly C., Fagnot I., (2018), *How to improve the patient flow process in outpatient services of a hospital: A problem structuring and lean management approach* IEOM Conference, Paris, France

Pham D. K., Di Martinelly C., Duenas A., (2018), *Discrete Event Simulation for Chemotherapy patient flows* 2nd European Conference on Industrial Engineering and Operatitons Management, Paris, France

Di Martinelly C., Garonne C., Duenas A., (2017), *The Impact of Health Policy on The Pharmaceutical Supply Chain in France* ISPOR 20th Annual European Congress, Glasgow, United Kingdom

Glaize A., Duenas A., Di Martinelly C., Fagnot I., (2016), *MCDa applied to health care* OR58 Annual Conference, Portsmouth , United Kingdom

Di Martinelly C., Meskens N., (2014), *Building Surgical Team with High Affinities - A Bicriteria Mixed-integer Programming Approach* International Conference on Operations Research and Enterprise Systems, Angers, France

Di Martinelly C., Meskens N., (2014), *Surgical team rostering problem considering break windows: A bicriteria mixed-integer programming approach* Conference of the International Federation of Operational Research Societies, Barcelona, Spain

Di Martinelly C., Meskens N., (2013), *Surgical team rostering taking into account affinities* International Symposium on Operational Research and Applications, Marrakesh, Morocco

Duenas A., Di Martinelly C., (2013), *A compromised programming approach to solve a multi-objective planning and scheduling problem in a hospital* International Symposium on Econometrics Operation Research and Statistic, Sarajevo, Bosnia and Herzegovina

Di Martinelly C., Baptiste P., Maknoon Y., (2012), *Impact assessment of the integration of nurses timetable on the operating theatre planning and scheduling* 4th International Conference on Information Systems, Quebec, Canada

Di Martinelly C., Duenas A., (2012), *Scheduling the operating theatre: a hybrid multi-objective approach* Gestion et Ingénierie des Systèmes Hospitaliers - GISEH 2012 Conference, Quebec City, Canada

Di Martinelly C., Baptiste P., Maknoon Y., (2011), *Evaluation de l'impact de l'intégration de la conception d'horaires infirmiers sur la programmation opératoire* 9e Congrès International de Génie Industriel – CIGI, Quebec, Canada

Di Martinelly C., Baptiste P., Maknoon Y., (2011), *Impact assessment of the integration of nurses timetable on the OR planning and scheduling* Congres de la Recherche Opérationnelle et d'Aide à la Décision, Saint-Etienne, France

National

Di Martinelly C., Meskens N., Zorman D., (2010), *Mise en place d'un itinéraire clinique pratique au CHU Tivoli* Gestion et Ingénierie des Systèmes Hospitaliers (GISEH), Clermont-Ferrand, France

Other conference and seminar presentations

International

YI X., Di Martinelly C., (2024), *Operating Room Scheduling under Human Resources* Production and Operations Management Society (POMS), Minneapolis, USA

Di Martinelly C., Duenas A., Glaize A., Fagnot I., (2020), *MCDa modelling in an outpatient chemotherapy service* ORAHS 2020, Vienna, Austria

National

Glaize A., Duenas A., Di Martinelly C., Fagnot I., (2015), *MCDAs applied to health care decision-making: a systematic review* EUHEA Conference, Paris, France

Refereed proceedings

Published

Di Martinelly C., Meskens N., (2014), Building Surgical Team with High Affinities - A Bicriteria Mixed-integer Programming Approach, in: Begona Vitoriano, Eric Pinson, Fernando Valente(Eds.) in *Proceedings of the 3rd International Conference on Operations Research and Enterprise Systems, SCITEPRESS, Setúba*

Books

Published

Di Martinelly C., Riane F., Guinet A., (2010), *Reengineering of the hospital supply chain*, 978-3-63921488-8, VDM Verlag Dr. Müller, Sarrebruck, 167 pages

Chapters in books

Published

Di Martinelly C., Meskens N., Riane F., Hssini I., (2021), Inventory Routing Problem with Transshipment and Substitution for Blood Products Using the Case of the Belgian Blood Distribution, in: Dolgui A., Bernard A., Lemoine D., von Cieminski G., Romero D(Eds.), *Advances in Production Management Systems. Artificial Intelligence for Sustainable and Resilient Production Systems. APMS 2021. IFIP Advances in Information and Communication Technology, Part V*, 978-3-030-85913-8, Springer, Cham, chapter 1, pp. 87-96

Duenas A., Di Martinelly C., Tütüncü Y., Aguado J., (2017), A multi-objective hospital operating room planning and scheduling problem using compromise programming, in: Grigori Sidorov, Oscar Herrera-Alcantara(Eds.), *Advances in Computational Intelligence*, 978-3-319-62433-4, Springer, Cham, chapter 10061, pp. 379-390

Duenas A., Di Martinelly C., Tütüncü Y., (2014), A Multidimensional Multiple-Choice Knapsack Model for Resource Allocation in a Construction Equipment Manufacturer Setting Using an Evolutionary Algorithm, in: Grabot , B. Vallespir, B. Gomes, S., Bouras, A., Kiritsis, D.(Eds.), *APMS, Part I, Innovative and Knowledge-Based Production Management in a Global-Local World, IFIP AICT 438*, 978-3-662-44738-3, Springer, Berlin, pp. 539-546

Duenas A., Di Martinelly C., Fagnot I., (2013), An approach based on an Interactive Procedure for Multiple Objective Optimisation Problems, in: F. Castro, A. Gelbukh and M. Gonzalez(Eds.), *MICAI 2013, Part II. Lecture Notes in Artificial Intelligence*, 0, Springer, Berlin, pp. 450-465

Case studies

Di Martinelly C., Joliet R., (2013), *Redesigning the Global Supply Chain Network in Fashion Retail: The Esprit Case, or How to Reconcile Operations and Financial Management*, European Case Clearing House, case study 113-024-1, teaching note 113-024-8, teaching note supplement 113-024-4

Di Martinelly C., Meskens N., Duenas A., (2013), *Buena Vista Hospital: Operating Room Scheduling*, European Case Clearing House, case study 613-009-1, teaching note 613-009-8

Duenas A., Di Martinelly C., (2013), *Do Not Break that Cup!: The Case of a Pottery Company*, European Case Clearing House, case study 613-036-1, teaching note 613-036-8

Duenas A., Tütüncü Y., Di Martinelly C., (2012), *Buena Vista Go Home Healthy Hospital: A Bed Capacity*, European Case Clearing House, case study 612-034-1, teaching note 612-034-8

Fagnot I., Duenas A., Di Martinelly C., (2012), *Adapting or not Adapting Digitization of Health Information: The Case of England and Summary Care Records*, European Case Clearing House, case study 912-040-1, teaching note 912-040-8

Grants

2012 Montage de projet, Ministère du développement économique, innovation et exportation (Canada)

Reviewer in an academic journal

| | |
|--------------------|--|
| 2022 | Healthcare analytics |
| 2022 | Journal of scheduling |
| 2021 | operations research: an international journal |
| 2021 | international journal of production economics |
| 2021 | international transactions in operational research |
| 2021 | operations research: an international journal |
| 2021 | Expert systems with Applications |
| 2021 | Annals of operations research |
| 2020 | European Journal of Operational Research |
| 2020 | Operational Research: an International journal |
| 2020 | International Transactions in Operational Research |
| 2020 - 2021 | International Journal of Systems Science |
| 2020 | Health systems |
| 2019 | Operational research: an international journal |
| 2019 | Informs: Transactions on education |
| 2019 | Logisitque & Management |
| 2019 | Computers and operations research |
| 2019 | Informs: Transactions on education |
| 2018 | Operational Research: an international journal |
| 2018 | Computers and Operations Research |
| 2018 | Annals of Operations Research |
| 2017 | INFORMS Transactions on Education |
| 2017 | Expert systems with applications |
| 2017 | Operational research: an international journal |
| 2016 | International Journal of Production Economics |
| 2016 | european journal of operational research |
| 2015 | International Journal of Production Research |
| 2014 | International Journal of Logistics |
| 2014 | Flexible Services and Manufacturing |

- 2013 European Journal of Operational Research
- 2013 International Journal of Production Research
- 2011 Decision Support Systems
- 2010 International Journal of Production Economics
- 2009 Production Planning and Control
- Logistique & Management, France
- International journal of production economics

PROFESSIONAL SERVICE

Chair in an academic conference

- 2021 International Conference Advances in Production Management Systems, APMS 2021, France
- 2018 International Conference on Information Systems, Logistics and Supply Chain, France
- 2012 International Conference on Information Systems, Logistics, and Supply Chain, Canada
- 2012 Gestion et Ingénierie des Systèmes Hospitaliers, Canada
- 2011 Congrès de la Recherche Opérationnelle et d'Aide à la Décision (ROADEF), France
- 2010 International Conference on Information Systems, Logistics, and Supply Chain, Canada

Member of the scientific committee of an academic conference

- 2019 - 2020 Information systems, logistics & supply chain conference 2020, USA
- 2019 - 2020 Gestion et Ingénierie des systèmes hospitaliers 2020, France
- 2017 ILS 2018
- 2017 Giseh 2018
- 2015 Gestion et Ingénierie des systèmes hospitaliers 2016, France
- 2015 International Conference on Information Systems, Logistics and Supply Chain 2016
- GISEH 2022, France

Presentation in a seminar

- 2018 journée du LEM, France
- 2016 research seminar with Bart MacCarthy, France

Reviewer - Grant proposal related to expertise

ministère des solidarités et de la santé - programme de recherche sur la performance du système de soins, France

INNOVARC

Reviewer for an academic conference

- 2019 ILS2020, USA

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| 2019 - 2020 | GISEH 2020, France |
| 2017 - 2018 | ILS 2018 |
| 2013 | Latin-American Algorithms, Graphs, and Optimization symposium |
| 2012 | International Conference on Information Systems, Logistics, and Supply Chain |
| 2012 | Gestion et Ingénierie des Systèmes Hospitaliers |
| 2011 | Congres de la Recherche Opérationnelle et d'Aide à la Décision (ROADEF) |
| 2010 | International Conference on Information Systems, Logistics, and Supply Chain |
| 2010 | Gestion et Ingénierie des Systèmes Hospitaliers |
| | International Conference on Information Systems, Logistics and supply chain 2016, France |
| | Gestion et Ingénierie des systèmes hospitaliers 2016, France |

Session chair in an academic conference

APMS 2021 International Conference Advances in Production Management Systems, France

RESEARCH ACTIVITIES

COMMITTEE CHAIR

| | |
|--------------------|--|
| yyyy2020 | membre du conseil du laboratoire LEM, LEM UMR CNRS, France |
| yyyy2016 | admission, IÉSEG School of Management, France |
| 2015 - 2016 | PGP- Msc in business analysis and consulting, IÉSEG School of Management, France |
| yyyy2015 | CETI, IÉSEG School of Management, France |
| yyyy2015 | qualite, IÉSEG School of Management, France |
| yyyy2022 | Msc in business analysis and consulting, IÉSEG School of Management, France |
| yyyy2021 | Operations management, IÉSEG School of Management, France |
| yyyy2018 | MSc in business analysis and consulting, IÉSEG School of Management, France |
| yyyy2016 | operations track, IÉSEG School of Management, France |
| yyyy2016 | operations track, IÉSEG School of Management, France |
| 2013 - 2014 | MSc in Business Analysis and Consulting, IÉSEG School of Management, France |

Supervision of Ph.D. Thesis:

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|--------------------|---|
| 2024 | Co-director, construire des institutions fortes, dans le secteur pharmaceutique africain: agencification et numérisation de la chaîne d'approvisionnement pour des produits médicaux de bonnes qualité, abordables et accessibles, University of Lorraine |
| 2014 - 2019 | Co-director, decision-making in health care: a multi-criteria decision approach, IÉSEG School of Management |

- 2018** Co-director, comité d'accompagnement- présentation - multi-objective approach for outpatient appointment scheduling , IÉSEG School of Management
- 2016** Co-director, Planification et re-planification des infirmières dans un département d'oncologie en suivant une approche multi-objectif et interdisciplinaire, IÉSEG School of Management
- 2014** Director, Prise de décision en Santé Publique : une approche de décision multicritères