Daniele Manerba, Ph.D. – Academic CV

Born in Brescia (Italy), 1983.
Italian.
Male.

Affiliation: Dept. of Control and Computer Engineering (DAUIN) - Politecnico of Torino, Italy.

Position: Assistant Professor (RTD A) in Operational Research (MAT/09). Since 09/01/2017.

Contacts:

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Academic web profiles:

- Scopus: https://www.scopus.com/authid/detail.uri?authorId=55220200300
- GoogleScholar: https://scholar.google.it/citations?user=pXW63_QAAAAJ
- ResearchGate: https://www.researchgate.net/profile/Daniele_Manerba
- Publons: http://publons.com/a/1404480/

Previous affiliations:

- 2010 - 2016: Department of Information Engineering - University of Brescia. Italy.

Research interests:

- Integer Programming / Combinatorial Optimization
- Polyhedral analysis / Polyhedral combinatorics
- Exact algorithms, Branch-and-cut, Branch-and-price, Meta-heuristics, Matheuristics
- Distribution/Procurement Logistics, Vehicle Routing Problems, City Logistics, Last-mile optimization
- Supplier selection / Discount policies / Purchasing
- Stochastic Programming
- Energy Management / Virtual Power Plant optimization
- Home Healthcare Logistics / Nurse routing and rostering
- Network Optimization / Inter-modal and Synchro-modal transportation

Last update: 03/01/2019

Publications

International journals

1. M. M. Baldi, D. Manerba, G. Perboli, R. Tadei. A generalized bin packing problem for parcel delivery in last-mile logistics. *European Journal of Operational Research* 274 (3). 990-999. 2019.
2. D. Manerba, G. Perboli. New Solution Approaches for the Capacitated Supplier Selection Problem with Total Quantity Discount and Activation Costs under Demand Uncertainty. *Computers and Operations Research* 101, 29-42. 2019.
3. M. Pasetti, S. Rinaldi, D. Manerba. A Virtual Power Plant Architecture for the Demand-Side Management of Smart Prosumers. *Applied Sciences* 8 (3), 432. 2018.
4. D. Manerba, R. Mansini, G. Perboli. The Capacitated Supplier Selection Problem with Total Quantity Discount policy and Activation Costs under Uncertainty. *International Journal of Production Economics* 198, 119-132. 2018.
5. P. Beraldi, M. E. Bruni, D. Manerba, R. Mansini. A Stochastic Programming approach for the Traveling Purchaser Problem. *IMA Journal of Management Mathematics* 28 (1), 41-63. 2017.
6. D. Manerba, R. Mansini, J. Riera-Ledesma. The Traveling Purchaser Problem and its Variants. *European Journal of Operational Research* 259 (1), 1-18. 2017.
7. M. Gendreau, D. Manerba, R. Mansini. The Multi-Vehicle Traveling Purchaser Problem with Pairwise Incompatibility Constraints and Unitary Demands: A Branch-and-Price approach. *European Journal of Operational Research* 248 (1), 59-71. 2016.
8. D. Manerba, R. Mansini. A branch-and-cut algorithm for the Multi-Vehicle Traveling Purchaser Problem with Pairwise Incompatibility Constraints. *Networks* 65 (2), 139-154. 2015.
9. D. Manerba, R. Mansini. An Effective Matheuristic for the Capacitated Total Quantity Discount Problem. *Computers and Operations Research* 41 (1), 1-11. 2014.
10. D. Manerba, R. Mansini. An Exact Algorithm for the Capacitated Total Quantity Discount Problem. *European Journal of Operational Research* 222 (2), 287-300. 2012.

Conference papers/proceedings (selective conferences)

1. R. Tadei, G. Perboli, D. Manerba. A recent approach to derive the Multinomial Logit model for choice probability. *In: P. Daniele and L. Scrimali (eds.), New Trends in Emerging Complex Real Life Problems, AIRO Springer Series* 1 – ODS2018, Sept 10-13, 2018. Taormina (Italy).
2. D. Manerba, R. Mansini, R. Zanotti. Attended Home Delivery: reducing last-mile environmental impact by changing customer habits. *IFAC-PapersOnLine* 51 (5), 55-60. 2018. - *IAMES2018, 1th IFAC workshop on Integrated Assessment Modelling and Environmental Systems*. May 10-11, 2018. Brescia, Italy.
3. D. Holfeld, C. Iorfida, M. Koya, D. Manerba, J. Stephens, R. Tadei, F. Werner. SYNCHRO-NET: a powerful and innovative synchro-modal supply chain eco-NET. *Proceedings of 7th Transport Research Arena TRA2018*. April 16-19, 2018. Vienna, Austria. DOI: 10.5281/zenodo.1421656
4. R. Giusti, D. Manerba, G. Perboli, R. Tadei, S. Yuan. A New Open-source System for Strategic Freight Logistics Planning: the SYNCHRO-NET Optimization Tools. *Transportation Research Procedia* 30C, pp. 245-254, 2018. EURO mini conference on "Advances in Freight Transportation and Logistics", 7-9 March 2018. Padova, Italy.

5. D. Manerba, R. Mansini, The Nurse Routing Problem with Workload Constraints and Incompatible Services. *IFAC-PapersOnLine* 49 (12), 1192-1197. 2016. - *MIM2016, 8th IFAC Conference on Manufacturing, Modelling, Management and Control*. June 28-30, 2016. Troyes, France.

Abstracts in journals

- D. Manerba. Optimization models and algorithms for problems in Procurement Logistics. *4OR - A Quarterly Journal of Operations Research* 13 (3), pp. 339-340. 2015.

Doctoral thesis

- D. Manerba. Optimization models and algorithms for problems in Procurement Logistics. *Ph.D. thesis in Computer and Control Engineering, University of Brescia.* 2015.

Technical Reports

- D. Manerba, G. Perboli. New Solution Approaches for the Capacitated Supplier Selection Problem with Total Quantity Discount and Activation Costs under Demand Uncertainty. *Technical report CIRRELT-2017-68*. CIRRELT, Montréal. Nov 2017.
- D. Manerba, R. Mansini, G. Perboli. A Stochastic Programming Approach for the Capacitated Supplier Selection Problem with Total Quantity Discount and Activation Costs. *Technical report CIRRELT-2017-13*. CIRRELT, Montréal. Feb 2017.
- D. Manerba, R. Mansini, J. Riera-Ledesma. The Traveling Purchaser Problem and its Variants. *Technical report OR@DII-2016-01.* OR@DII - Dept. of Information Engineering, University of Brescia, 2016.
- D. Manerba, R. Mansini, M. Gendreau. The Multi-Vehicle Traveling Purchaser Problem with Pairwise Incompatibility Constraints and Unitary Demands: A Branch-and-Price approach. *Technical report CIRRELT-2014-52*. CIRRELT, Montréal. Oct 2014.
- D. Manerba, R. Mansini. A branch-and-cut algorithm for the Multi-Vehicle Traveling Purchaser Problem with Exclusionary Side Constraints. *Technical report OR@DII-2013-02.* OR@DII - Dept. of Information Engineering, University of Brescia, 2013.
- D. Manerba, R. Mansini. An effective hybrid heuristic for the Capacitated Total Quantity Discount Problem. *Technical report RT_2011-03-67*, Dept. of Information Engineering, University of Brescia, 2011.
- D. Manerba, R. Mansini. An exact algorithm for the Capacitated Total Quantity Discount Problem. *Technical report RT_2011-02-66*, Dept. of Information Engineering, University of Brescia, 2011.

Conferences / Dissemination

Speaker at the following national and international selective conferences

- D. Manerba, R. Tadei, G. Perboli. A deterministic approximation for the long-term Capacitated Supplier Selection problem with Total Quantity Discount and Activation Costs under Uncertainty. ODS2018, Sept 10-13, 2018. Taormina (Italy).
- D. Manerba, G. Perboli. The Capacitated Supplier Selection Problem with Total Quantity Discount and Activation Costs under Demand Uncertainty: exact and approximate approaches. EURO2018. July 8-11, 2018. Valencia, Spain.
- M. Gendreau, D. Manerba, R. Mansini. The Multi-Vehicle Travelling Purchaser Problem with Pairwise Incompatibility Constraints and Unitary Demands: A branch-and-price approach. *EURO2018*. July 8-11, 2018. Valencia, Spain. **Invited talk.**
- D. Manerba, G. Perboli. A Progressive Hedging approach for a Supplier Selection Problem under Total Quantity Discount and Demand Uncertainty. *Odysseus2018 - 7th International Workshop on Freight Transportation and Logistics*, June 3-8, 2018. Cagliari, Italy.
- D. Manerba, R. Mansini, R. Zanotti. Attended Home Delivery: reducing last-mile environmental impact by changing customer habits. *IAMES2018, 1th IFAC workshop on Integrated Assessment Modelling and Environmental Systems*. May 10-11, 2018. Brescia, Italy.
- D. Holfeld, C. Iorfida, M. Koya, D. Manerba, J. Stephens, R. Tadei, F. Werner. SYNCHRO-NET: a powerful and innovative synchro-modal supply chain eco-NET. TRA2018, Transport Research Arena. April 16-19, 2018. Vienna, Austria.
- R. Giusti, D. Manerba, G. Perboli, R. Tadei, S. Yuan. A New Open-source System for Strategic Freight Logistics Planning: the SYNCHRO-NET Optimization Tools. EURO mini conference on "Advances in Freight Transportation and Logistics", 7-9 March 2018. Padova, Italy.
- D. Manerba, R. Mansini, G. Perboli. Supplier Selection under Uncertainty in the presence of Total Quantity Discounts. *ODS2017*. September 4-7, 2017. Sorrento, Italy
- D. Manerba, R. Mansini, The Nurse Routing Problem with Workload Constraints and Incompatible Services. MIM 2016, 8th IFAC Conference on Manufacturing, Modelling, Management and Control. June 28-30, 2016. Troyes, France.
- D. Manerba, R. Mansini. A Nurse Routing Problem with operational side-constraints. *VeRoLog2016*. June 6-8, 2016. Nantes, France.
- M. Gendreau, D. Manerba, R. Mansini. A branch-and-price algorithm for the Multi-Vehicle Travelling Purchaser Problem with Pairwise Incompatibility Constraints and Unitary Demands. *AIRO 2014 – Decision Models for Smarter Cities*. September 2-5, 2014. Como, Italy.
- M. Gendreau, D. Manerba, R. Mansini. A column generation approach for the Multi-Vehicle Travelling Purchaser Problem with Pairwise Incompatibility Constraints. *IFORS*. July 13-18, 2014. Barcellona, Spain.
- D. Manerba, R. Mansini. Multi-Vehicle Traveling Purchaser Problem with Exclusionary Side Constraints. *VeRoLog2013*. July 7-10, 2013. Southampton, England.
- D. Manerba, R. Mansini, M. Picchi. Vehicle Purchaser Problem with Exclusionary Side Constraints. *AIRO 2012 - Graph Algorithms and Optimization.* September 4-7, 2012. Vietri sul Mare (SA), Italy.
- D. Manerba, R. Mansini. The Capacitated Traveling Purchaser Problem with Total Quantity Discount. *Odysseus2012 - 5th International Workshop on Freight Transportation and Logistics*, May 21-25, 2012. Mykonos, Greece.

- D. Manerba, R. Mansini. An exact algorithm for the Capacitated Total Quantity Discount Problem. *AIRO 2011, OR in Transportation and Logistics*. September 6-9, 2011. Brescia, Italy.

Co-author of the following works presented at national and international selective conferences

- R. Tadei, G. Perboli, D. Manerba. A recent approach to derive the Multinomial Logit model for choice probability. ODS2018, Sept 10-13, 2018. Taormina (Italy).
- D. Holfeld, A. Simroth, Y. Li, D. Manerba, R. Tadei. Risk Analysis for synchro-modal freight transportation: the SYNCHRO-NET approach. *Odysseus2018 - 7th International Workshop on Freight Transportation and Logistics*, June 3-8, 2018. Cagliari, Italy.
- M. Gendreau, D. Manerba, R. Mansini. Introducing incompatibility restrictions among products in a multi-vehicle procurement and routing context. *NOW 2015 - Network Optimization Workshop*. May 18-21, 2015. La Rochelle, France.
- P. Beraldi, M. E. Bruni, D. Manerba, R. Mansini. The Traveling Purchaser Problem under Uncertainty. *AIRO 2012 - Graph Algorithms and Optimization.* September 4-7, 2012. Vietri sul Mare (SA), Italy.

Posters presented

- D. Manerba, R. Mansini. The Multi-Vehicle Traveling Purchaser Problem with Exclusionary Side Constraints. Presented during "*VRP2013: European Spring School on Vehicle Routing" poster session*. May 2013. Angers, France.

Seminars

- 02/12/2016 – "Door-to-door garbage collection with Arc Routing: the case study of Brescia". During the "Arc Routing Problems: optimization models, algorithms, and applications" mini-course (Prof. Renata Mansini - Nov 4, Dec 1-2, 2016). Dept. of Computer Science - University of Verona (Italy). Chair: Prof. Romeo Rizzi.
- 04/10/2016 – "Energy Management System per la gestione dell'edificio", in "Progetto S.C.U.O.LA. Smart Campus as Urban Open Lab, Obiettivi e risultati dei dimostratori di Brescia". University of Brescia, Italy. Chair: Prof. Alessandra Flammini.
- 22/01/2015 – "Optimization Models and Algorithms for Problems in Procurement Logistics". University of Brescia, Italy. Ph.D. thesis dissertation.

Organization Committee of the following conferences:

- AIRO 2011 - Operational Research in Transportation and Logistics. September 6-9, 2011. Brescia, Italy

Chair of the following conference sessions:

- *Healthcare Logistics*. VEROLOG, June 6-8, 2016. Nantes (France).
- *Variants of the Vehicle Routing Problem*. IFORS, July 13-18, 2014. Barcellona (Spain).
- *Stochastic Programming*. ODYSSEUS, June 3-8, 2018. Cagliari (Italy).

Previous positions:

- 01/01/2016 – 31/12/2016. Post-doc research fellow (MAT/09 - Operational Research, ING-INF/07 - Electric and electronic measures, ING-INF/01 - Electronics) at Department of Information Engineering - University of Brescia. Subject: "Development and validation of optimization models and algorithms for Energy Management".
- 01/10/2015 – 31/12/2015. Post-doc research fellow (MAT/09, Operational Research) at Department of Information Engineering - University of Brescia. Subject: "Analysis and optimization of the colo-rectal cancer therapy process".
- 01/10/2014 – 30/09/2015. Post-doc research fellow (MAT/09, Operational Research) at Department of Information Engineering - University of Brescia. Subject: "Optimization models and algorithms for management, consumption, and storage of energy".
- 01/09/2010 – 31/08/2011. Research fellow (MAT/09, Operational Research) at Department of Information Engineering - University of Brescia. Project: "Mathematical models and algorithms for procurement problems with purchasing costs, travelling costs and discount policies".

Reviewer for the following journals/conferences:

- 4OR – A Quarterly Journal of Operation Research
- American Journal of Mathematical and Management Sciences
- Annals of Operations Research
- Asia-Pacific Journal of Operational Research
- Assembly Automation
- Computational Management Science
- Computers & Industrial Engineering
- Computers & Operations Research
- Conference on Automation Science and Engineering (CASE2017)
- EURO Journal on Transportation and Logistics
- European Journal of Operational Research
- IEEE COMPSAC2017
- International Journal of Management Science and Engineering Management
- International Journal of Production Research
- International Transactions in Operational Research
- Journal of Cleaner Production
- Journal of Experimental & Theoretical Artificial Intelligence
- Journal of the Operational Research Society
- Journal of Scheduling
- Operational Research: An International Journal
- Operations Research
- Scientia Iranica – International Journal of Science and Technology
- Soft Computing
- Transport Research Arena (TRA2018)
- Transportation Research Part B: Methodological
- Transportation Research Part E: Logistics and Transportation Review
- Transportation Science

Outstanding reviewer (https://www.reviewerrecognition.elsevier.com/#/profile/ae4f1804-58ed-4bb3-93cf-743fd8963502):

- Computers & Operations Research
- European Journal of Operational Research

- Transportation Research Part E: Logistics and Transportation Review

Prizes, Awards, Invitations

- Invited by the European Journal of Operational Research (EJOR)'s Editorial Board to present the already published work "Gendreau, Manerba, Mansini. 2016. The Multi-Vehicle Traveling Purchaser Problem with Pairwise Incompatibility Constraints and Unitary Demands: A Branch-and-Price approach. *EJOR* 248 (1), pp. 59-71" during the invited session "Meet the Editors of EJOR" at the 29th EURO conference in Valencia (July 8-11, 2018).
- EU/ME scholarship to attend "VRP2013: European Spring School on Vehicle Routing"

Research groups and memberships:

- OROgroup – Operations Research group at Dept. of Control and Computer Engineering, Politecnico di Torino (http://www.orgroup.polito.it)
- ICELAB - ICT for City Logistics and Enterprises Lab (http://icelab.polito.it)
- OR@DII – Operations Research group at Dept. of Information Engineering of University of Brescia (http://or-dii.unibs.it/)
- OR@BRESCIA – Operation Research group at University of Brescia
- AIRO – Italian Association of Operational Research
    - Sezione tematica "Programmazione stocastica"
- EU/ME – European working group on Metaheuristics
- VeRoLog – EURO working group on Vehicle Routing and Logistics Optimization

Research collaborations and experiences

- 15 Oct. 2013 – 20 Dic. 2013: visiting PhD student at CIRRELT – Interuniversity Research Centre on Enterprise Networks, Logistics and Transportation. Montreal (Canada). Supervisor Prof. Michel Gendreau.
- Stable international collaborations: Michel Gendreau (Polytechnique du Montréal, CIRRELT), Jorge Riera-Ledesma (Universidad de la Laguna, Spain), Denise Holfeld and Axel Simroth (Fraunhofer Institute IVI of Dresden, Germany).

National and International Research projects

Scientific responsibility:

- **SYNCHRO-NET - Synchro-modal supply chain eco-NET.** European Union's Horizon2020 research and innovation programme, grant 636354. Duration: 3.5 years.
  Scientific coordinator of two working packages:
    - WP5: Supply Chain De-Stressing Simulator & eco-NET. From 02/2017 to 04/2018.
    - WP6: SYNCHRO-NET Business Cases & Demonstrators. From 02/2017 to 10/2018.

Partecipation in national and international projects:

- **SYNCHRO-NET - Synchro-modal supply chain eco-NET.** European Union's Horizon2020 research and innovation programme, grant 636354. Duration: 3.5 years.
- **DISLOMAN - Dynamic Integrated Shopfloor operation Management for Industry 4.0.** Fondi Miur POR FESR 2014/2020, "Fabbrica Intelligente".
- **A.I.A.C.C.I.O. - Advanced Integrated Assistance for Colorectal Cancer: Interventive Options**. Duration: 3 years.
- **S.IN. - Social INnovation (00665), Virtual eGateway (Gateway domestico per la gestione interattiva dei flussi di energia).** Duration: 3 years

- **S.C.U.O.LA. - Smart Campus as Urban Open LAbs.**
  Regione Lombardia, “Smart Cities and Communities”.
  Duration: March 2014 - November 2015.
- **Portale integrato per la tracciabilità di filiera e la trasparenza dei prodotti di IV gamma nel comparto ortofrutta.** Regione Lombardia, “FEARS PSR Programma di Sviluppo Rurale 2007-2013, Misura 124”. Duration: 2 years (July 2012 – July 2014)

Teaching activities

Main teaching:

- 2017/2018 –
  - Course: "**Operational Research: theory and applications**", with Prof. E. Leonardi. Corso Di Laurea Magistrale In ICT For Smart Societies (8 cfu). Politecnico di Torino. [40 hours, English].

Teaching assistance:

- 2018/2019 –
  - Course: "**Optimization Methods and Algorithms AA-LZ**", Prof. R. Tadei. Corso Di Laurea Magistrale In Ingegneria Informatica e Corso Di Laurea Magistrale In Ingegneria Matematica (6 cfu). Politecnico di Torino. [18 hours, English]
  - Course: "**Optimization Methods and Algorithms MA-ZZ**", Prof. R. Tadei. Corso Di Laurea Magistrale In Ingegneria Informatica e Corso Di Laurea Magistrale In Ingegneria Matematica (6 cfu). Politecnico di Torino. [18 hours, English]
  - Course: "**Ottimizzazione per il Problem Solving**", Prof. R. Tadei. Corso Di Laurea In Ingegneria Informatica/Meccanica/Gestionale/altri e Corso Di Laurea In Matematica Per L'Ingegneria (6 cfu); Politecnico di Torino. [XX hours, Italian]

- 2017/2018 –
  - Course: "**Optimization Methods and Algorithms AA-LZ**", Prof. R. Tadei. Corso Di Laurea Magistrale In Ingegneria Informatica e Corso Di Laurea Magistrale In Ingegneria Matematica (6 cfu). Politecnico di Torino. [24 hours, English]
  - Course: "**Optimization Methods and Algorithms MA-ZZ**", Prof. R. Tadei. Corso Di Laurea Magistrale In Ingegneria Informatica e Corso Di Laurea Magistrale In Ingegneria Matematica (6 cfu). Politecnico di Torino. [22.5 hours, English]

- 2016/2017 –
  - Course: "**Ricerca Operativa**", Prof. G. Perboli. Corso Di Laurea In Ingegneria Della Produzione Industriale (6 cfu). Politecnico di Torino. [18 hours, Italian]
  - Course: "**Ottimizzazione per il Problem Solving**", Prof. R. Tadei. Corso Di Laurea In Ingegneria Informatica/Meccanica/Gestionale/altri e Corso Di Laurea In Matematica Per L'Ingegneria (6 cfu); Politecnico di Torino. [21 hours, Italian]

Teaching support:

- 2015/2016 – Course: "**Ricerca Operativa**", Prof.ssa R. Mansini. Corso Di Laurea In Ingegneria Informatica e Corso Di Laurea In Ingegneria Gestionale (6 cfu). Università degli Studi di Brescia. [50 hours, Italian]
- 2014/2015 – Course: "**Ricerca Operativa**", Prof.ssa R. Mansini. Corso Di Laurea In Ingegneria Informatica e Corso Di Laurea In Ingegneria Gestionale (6 cfu). Università degli Studi di Brescia. [40 hours, Italian]
- 2013/2014 – Course: "**Ricerca Operativa**", Prof.ssa R. Mansini. Corso Di Laurea In Ingegneria Informatica e Corso Di Laurea In Ingegneria Gestionale (6 cfu). Università degli Studi di Brescia. [25 hours, Italian]
- 2012/2013 – Course: "**Algoritmi di Ottimizzazione**", Prof.ssa R. Mansini. Corso Di Laurea Magistrale In Ingegneria Informatica e Corso Di Laurea Magistrale In Ingegneria Gestionale (6 cfu). Università degli Studi di Brescia. [17 hours, Italian]

- 2011/2012 – Course: "**Ricerca Operativa**", Prof.ssa R. Mansini. Corso Di Laurea In Ingegneria Informatica e Corso Di Laurea In Ingegneria Gestionale (6 cfu). Università degli Studi di Brescia. [15 hours, Italian]

Member of:

- Collegio dei Docenti di Ingegneria Elettronica, delle Telecomunicazioni e Fisica (ETF) - Politecnico di Torino (2017 - on going)
- Collegio dei Docenti di Ingegneria Matematica - Politecnico di Torino (2017 - on going)
- Collegio dei Docenti di Ingegneria Informatica, del Cinema e Meccatronica (ICM) - Politecnico di Torino (2017 - on going)

Lectures:

- Laboratory Instructor/Lecturer for "Optimization in City Logistics" course during the "Modelling week" Ph.D. school. September 4-11, 2016. Dept. of Computer Science - University of Verona (Italy). Coordinator: Prof. Giandomenico Orlandi
- April 2013 – "Polyhedral Analysis and Integer Linear Programming" (8 hours), University of Brescia (Italy).
- March 2012 - "Cplex: optimal solution of MILP problems" (4 hours), University of Brescia, (Italy).

Supervisor of the following thesis:

- Vittorio Capocasale – "Blockchain applications to Supply Chain: an application to last-mile delivery". – Bachelor Thesis in Computer Engineering. Politecnico di Torino, Italy. Supervisor: G. Perboli, Co-supervisor: D. Manerba. 2018
- Tiantian Zhao – "Optimization models for supplier selection problems with different discount policies" – *Master thesis in Industrial Engineering*, University of Brescia, Italy. Supervisor: R. Mansini, Co-supervisor: D. Manerba. 2017.
- Alice Raffaele – "Time-constrained Vehicle Routing Problem" – *Master thesis in Information Engineering*, University of Brescia, Italy. Supervisor: R. Mansini, J.-F. Coté. Co-supervisor: D. Manerba. 2016.
- Alessandro Gobbi – "Ottimizzazione del percorso di cura per pazienti con neoplasia al colon-retto: processi decisionali, modelli e algoritmi" – *Master thesis in Information Engineering*, University of Brescia, Italy. Supervisor: R. Mansini. Co-supervisor: D. Manerba. 2016.
- Riccardo Orizio – "Vehicle Routing Problems with Time Windows Incentives" – *Master thesis in Information Engineering*, University of Brescia, Italy. Supervisors: R. Mansini, J.-F. Coté. Co-supervisor: D. Manerba. 2016.

Academic supervisor of the following curricular stages:

- Simone Cavanna, B.D. in Computer Engineering. Jun-Sept 2018. Politecnico di Torino.
- Matteo Coscia, B.D. in Computer Engineering. Mar-Jun 2018. Politecnico di Torino.
- Iolanda Tassoni, M.D. in Production Engineering. Mar-Jun 2017. Politecnico of Torino.
- Patrizio Sibona, B.D. in Computer Engineering. Mar-Jul 2017. Politecnico of Torino.
- Francesco De Nigris, B.D. in Computer Engineering. Mar-Jul 2017. Politecnico of Torino.
- Valerio Vallesio, M.D. in Mathematics Engineering. Mar-Jun 2017. Politecnico of Torino.

Curriculum studiorum

Academic degrees:

- March 16, 2015 – Ph.D. Degree in "Information and Automation Engineering" under the supervision of Prof. Renata Mansini. Department of Information Engineering, University of Brescia. Thesis: “Optimization Models and Algorithms for Problems in Procurement Logistics”.
- March 24, 2010 – Master Degree in Informatic Engineering, University of Brescia. Thesis: “The Capacitated Travelling Purchaser Problem with Volume Discount: models and algorithms”. Supervisor: Prof. Renata Mansini.
- November 2007 – Bachelor Degree in Information Engineering, University of Brescia. Thesis: “A web application for maintaining and programming a DNS server”. Supervisors: Prof. Marina Zanella, Prof. Paolo Prandini.

Schools/Ph.D. courses attended

- “Learning and teaching in Higher Education”, 40 hours course with Prof. Ettore Felisatti, Prof. Carla Salvaterra, Prof. Joellen Coryell, Prof. Maria Cinque, Dr. Anna Serbati and Dr. Beatrice Zucchi. Politecnico di Torino (Turin, Italy - 2017)
- “Discrete Optimization”, on-line course with Prof. Pascal Van Hentenryck. University of Melbourne (www.coursera.org - 2013)
- “VRP2013: European Spring School on Vehicle Routing”, 25.5 hours course with Professors Daniele Vigo, Christian Prins, Dominique Feillet, Victor Pillac and Michel Gendreau. Université Catholique de l'Ouest (Angers, France - 2013)
- “Linear and Discrete Optimization”, on-line course with Prof. Fritz Eisenbrand. École Polytechnique Fédérale de Lausanne (www.coursera.org - 2013)
- “Optimization on graphs”, 20 hours course with Prof. Giovanni Righini. University of Milano (Milano, Italy - 2013)
- “Stochastic programming”, 25 hours course with Prof. Lewis Ntaimo and Prof. Guglielmo Lulli. University of Milano-Bicocca (Milano, Italy - 2012)