

Luca Mantecchini (Bologna, 14/11/1975)

e-mail: luca.mantecchini@unibo.it



Short biography

Luca Mantecchini is Assistant Professor in Transportation at DICAM – University of Bologna. He has a background in Civil Engineering and a PhD in Transportation. He is member of SIDT (società italiana dei docenti di trasporto) and EWGT (euro working group on transportation).

His research has mainly concerned transport sustainability, airport planning and development, simulation of transportation network under disruptions, simulation of airport operations, optimization of healthcare logistics networks.

He has taught courses on transport planning. Currently he teaches traffic and transport models at postgraduate level.

He has been invited to give talks and lessons to several Universities and transport agencies. He is member of the board of Bologna G. Marconi airport and he is transport advisor of the Italian National Transplant Centre.

Education

- | | |
|------|--|
| 2004 | PhD in Transportation, Faculty of Engineering, University of Bologna (Italy). |
| 2000 | 5-year degree in Civil Engineering, Faculty of Engineering, University of Bologna (Italy). |

Employment

- | | |
|---------|--|
| 2005 | – Assistant Professor, University of Bologna |
| present | <i>Teaching in undergraduate and postgraduate programmes offered by School of Engineering and Architecture since 2005. Research on transport modelling planning within department DICAM.</i> |

Teaching

University of Bologna (Italy)

- Traffic Engineering (MS Civil Engineering)
- Transport Planning (MS Civil Engineering)
- Transport Engineering and Economics (BS Civil Engineering)

PhD supervisions

2010 – present	Supervisor of four PhD Thesis
2005-2010	Member of the board of PhD Course in Transportation, University of Bologna
2010-2012	Member of the board of PhD Course in Civil, Environmental and Materials Engineering, University of Bologna

Main Publications

Since 2014

- [1] Postorino, Maria Nadia; Mantecchini, Luca; Malandri, Caterina; Paganelli, Filippo, *Airport Passenger Arrival Process: Estimation of Earliness Arrival Functions*, in: Transportation Research Procedia, Elsevier B.V., 2019, 37, pp. 338 – 345;
- [2] Paganelli, F.; Mantecchini, L.; Peritore, D.; Morabito, V.; Rizzato, L.; Nanni Costa, A., *Network Model for Optimal Aircraft Location for Human Organ Transportation Activities*, TRANSPANTATION PROCEEDINGS, Elsevier , 2019, 51, pp. 100 – 105;
- [3] Postorino, M. N., Mantecchini, L., & Paganelli, F. (2019). *Improving taxi-out operations at city airports to reduce CO2 emissions*. TRANSPORT POLICY. Elsevier (in press).
- [4] Malandri, C., Briccoli, M., Mantecchini, L., Paganelli, F. (2018). *A Discrete Event Simulation Model for Inbound Baggage Handling*. In: Transportation Research Procedia, Elsevier B.V., 2019, 35, pp. 295-304.
- [5] Cacchiani, V.; Malandri, C.; Mantecchini, L.; Paganelli, F., *A study on the optimal aircraft location for human organ transportation activities*, in: Transportation Research Procedia, Elsevier B.V., 2018, 30, pp. 314 – 323;
- [6] Postorino, M.N.; Mantecchini, L., *An agent framework to support air passengers in departure terminals*, in: CEUR Workshop Proceedings, CEUR-WS, 2018, 2215, pp. 75 – 80;
- [7] Sara Zanni, Francesco Lalli, Eleonora Foschi, Alessandra Bonoli, Luca Mantecchini, *Indoor Air Quality Real-Time Monitoring in Airport Terminal Areas: An Opportunity for Sustainable Management of Micro-Climatic Parameters*, SENSORS, 2018, 18, pp. 3798 – 3812;
- [8] Malandri, Caterina; Mantecchini, Luca; Postorino, Maria Nadia, *Airport Ground Access Reliability and Resilience of Transit Networks: A Case Study*, in: Transportation Research Procedia, Elsevier B.V., 2017, 27, pp. 1129 – 1136;
- [9] Postorino, M.N.; Mantecchini, L.; Paganelli, F., *Green airport investments to mitigate externalities: procedural and technological strategies*, in: Sustainable Entrepreneurship and Investments in the Green Economy, Hershey PA, IGI Global, 2017, pp. 231 – 256;
- [10] Maria Nadia Postorino; Luca Mantecchini; Ettore Gualandi, *Integration between aircraft and handling vehicles during taxiing procedures to improve airport sustainability*, INTERNATIONAL JOURNAL OF TRANSPORT DEVELOPMENT AND INTEGRATION, 2017, 1, pp. 28 – 42;
- [11] Khammash, Laura; Mantecchini, Luca; Reis, Vasco, *Micro-simulation of airport taxiing procedures to improve operation sustainability: Application of semi-robotic towing tractor*, in: 5th IEEE International Conference on Models and Technologies for Intelligent Transportation Systems, MT-ITS 2017 - Proceedings, Institute of Electrical and Electronics Engineers Inc., 2017, pp. 616 – 621;
- [12] Mantecchini, L.; Paganelli, F.; Peritore, D.; Trapani, S.; Morabito, V.; Oliveti, A.; Stabile, D.; Fiaschetti, P.; Rizzato, L.; Nanni Costa, A., *Transport of Human Organs in Italy: Location*,

- Time, and Performances*, TRANSPLANTATION PROCEEDINGS, Elsevier, 2017, 49, pp. 622 – 628;
- [13] Postorino, Maria Nadia; Mantecchini, Luca, *A systematic approach to assess the effectiveness of airport noise mitigation strategies*, JOURNAL OF AIR TRANSPORT MANAGEMENT, Elsevier, 2016, 50, pp. 71 – 82;
- [14] Lantieri, C; Mantecchini, L; Vignali, V, *Application of noise abatement procedures at regional airports*, PROCEEDINGS OF THE INSTITUTION OF CIVIL ENGINEERS. TRANSPORT, 2016, 169, pp. 42 – 52;
- [15] Mantecchini, L.; Paganelli, F.; Morabito, V; Ricci, A.; Peritore, D.; Trapani, S.; Montemurro, A.; Rizzo, A.; Del Sordo, E.; Gaeta, A.; Rizzato, L.; Nanni Costa, A., *Transportation of Organs by Air: Safety, Quality, and Sustainability Criteria*, TRANSPLANTATION PROCEEDINGS, Elsevier, 2016, 48, pp. 304 – 308;
- [16] M.N. Postorino; L. Mantecchini, *A transport carbon footprint methodology to assess airport carbon emissions*, JOURNAL OF AIR TRANSPORT MANAGEMENT, Elsevier, 2014, 37, pp. 76 - 86

Funding (responsible for research contracts)

- 2014 Research agreement between Department DICAM and National Transplant Centre (CNT) on the development of guidelines for safe and efficient air transportation of human organs for transplantation and surgery equips (€ 20k).
- 2015 Research agreement between Department DICAM and National Transplant Centre (CNT) on the development of guidelines for safe and efficient air transportation of human organs for transplantation and surgery equips (€ 50k).
- 2016 Research agreement between Department DICAM and National Transplant Centre (CNT) on research about the development of multi-modal network for transportation of human organs for transplantation and surgery equips (€ 39k).
- 2017 Research agreement between Department DICAM and National Transplant Centre (CNT) for funding a temporary researcher in multi-modal network optimization for transportation of human organs for transplantation and surgery equips (€ 110k).
- 2017 Research agreement between Department DICAM and G. Marconi Airport (Bologna) on Understanding airports landside mobility integration into functional urban areas, EU project LAirA (€ 30k).
- 2019 Research agreement between Department DICAM and ITL (institute for transport and logistics) for the development of a electric bike sharing mobile-hub in touristic harbour, EU project MOSES (€ 12k).

Main research projects

- 2012 – 2015 InterregIVC project “ECOTALE – External costs of transport and land equalisation”, member of the research unit, University of Bologna.
- 2011 – 2014 Central Europe project “AirLED – Local economic development in airport catchment areas”, member of research group involved in WP 3 “Transnational strategy for Airport City development, including final criteria”
- 2017-present Interreg Europe project “INNOVASUMP - Innovations in Sustainable Urban Mobility Plans for low-carbon urban transport”, Stakeholder.

2019 - present Interreg VA Italy-Croatia project “MOSES Maritime and multimodal transport Services based on Ea Sea-way”, member of the research group involved in the development of Pilot Project in Ravenna.

Appointments

2016 - present Transport Advisor of the Italian National Transplant Centre (CNT)

2011 - present Member of the Board, G. Marconi Airport (Bologna)

2001 - present Member of the Italian Society of Transportation Lecturers (SIDT)

2006 - present Member of Euro Working Group on Transportation (EWGT)