

# CURRICULUM VITAE

**Matteo Ignaccolo**  
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November 2024

## EDUCATION

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1997	Massachusetts Institute of Technology (MIT) Cambridge Boston (USA), CNR Junior fellowship
1991	Politecnico di Milano (Italy), Ph.D. in Transport Engineering
1985-1986	University of Palermo (Italy), Transport Institute fellow
1983	University of Catania, Degree in Civil Transport Engineering

## ACADEMIC EMPLOYMENT

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2022_ Present	<b>Head of the Department of Civil Engineering and Architecture</b> (DICAr), University of Catania
2018 _ Present	<b>Full Professor of Transport Planning</b> , University of Catania
2002_2018	<b>Associate Professor of Transport Planning</b> , University of Catania
1993_2001	<b>Transport Researcher</b> , University of Catania

## RESEARCH ACTIVITIES

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Some of the most significant competences and experiences are listed below:

- **Planning and design of transport systems:** quantitative methods for demand and supply analysis in road, rail, air and sea transport at urban and regional scale; construction of multimodal networks model for the analysis of demand/supply equilibrium; techniques for representation and modelling of transport/land use interactions; decision-support methods to promote public participation in the decision-making process.
- **Sustainable planning of port areas**, with specific reference to the interface between port and city.
- **Planning and management of logistics and intermodal transport:** design of systems of infrastructures, services and technologies for freight intermodal transport; planning and design of infrastructures for intermodal transport; new technologies for integrated management of logistics; use of intelligent transport systems to promote the motorways of the sea;
- **Mobility and logistics management through ITS:** techniques for monitoring, controlling and optimization of people and freight transport by using intelligent transport systems; implementation of information networks of transport infrastructures.
- **Walking and cycling in urban areas:** techniques for promoting walking and cycling in urban areas; planning, design and simulation of walking and cycling networks; analysis and modelling of public transport accessibility for pedestrians; analysis of safety for pedestrian and cyclists.

## PUBLICATIONS

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AUTHOR OF MORE THAN 200 SCIENTIFIC PUBLICATIONS ON TOPICS LIKE: URBAN TRANSPORT SYSTEMS, SUSTAINABLE MOBILITY, AIR TRANSPORT SYSTEMS, TECHNICAL/ECONOMIC FEASIBILITY OF TRANSPORT INTERVENTIONS, AGENT-BASED MODELLING APPLIED TO TRANSPORT PLANNING. THE SCOPUS INDEXED PUBLICATIONS SHOW A TOTAL OF 123 DOCUMENTS, 2308 CITATIONS AND AN H-INDEX OF 29 (October 2024).

### *PEER-REVIEWED JOURNAL ARTICLES (2021-2024)*

- Capodici, A. E., Citrano, M., D'Orso, G., Migliore, M., **Ignaccolo**, M., Leonardi, P., & Torrisi, V. (2024). Designing microtransit services in suburban areas: A case study in Palermo, Italy. *Research in Transportation Business & Management*, 56, 101191.
- Le Pira, M., Distefano, N., Cocuzza, E., Leonardi, S., Inturri, G., & **Ignaccolo**, M. (2024). Pedestrian mobility and University campus accessibility: an analysis of student preferences. *European Transport\Trasporti Europei* 97, n° 10
- Calabrò, G., Le Pira, M., Giuffrida, N., Fazio, M., Inturri, G., & **Ignaccolo**, M. (2023). A spatial agent-based model of e-commerce last-mile logistics towards a delivery-oriented development. *Transportation Research Interdisciplinary Perspectives*, 21, 100895.
- Le Pira, M., Fazio, M., Giuffrida, N., Calabrò, G., Inturri, G., & **Ignaccolo**, M. (2023). UaaS app–university as a service app: Exploring the acceptability of a MaaS-like concept for a university community. *European Transport-Trasporti Europei*, 90, 1-10.
- Fazio, M., Pluchino, A., Inturri, G., Le Pira, M., Giuffrida, N., & **Ignaccolo**, M. (2022). Exploring the impact of mobility restrictions on the COVID-19 spreading through an agent-based approach. *Journal of Transport & Health*, 25, 101373.
- Calabrò, G., Le Pira, M., Giuffrida, N., Inturri, G., **Ignaccolo**, M., & Correia, G. H. D. A. (2022). Fixed Route vs. Demand Responsive Transport Feeder Services: An Exploratory Study Using an Agent-Based Model. *Journal of Adv. Transportation*, 2022(1), 8382754.
- Le Pira, M., Tavasszy, L. A., de Almeida Correia, G. H., **Ignaccolo**, M., & Inturri, G. (2021). Opportunities for integration between Mobility as a Service (MaaS) and freight transport: A conceptual model. *Sustainable Cities and Society*, 74, 103212.
- Fazio, M., Giuffrida, N., Le Pira, M., Inturri, G., & **Ignaccolo**, M. (2021). Planning suitable transport networks for e-scooters to foster micromobility spreading. *Sustainability*, 13(20), 11422.
- Campisi, T., **Ignaccolo**, M., Inturri, G., Tesoriere, G., & Torrisi, V. (2021). Evaluation of walkability and mobility requirements of visually impaired people in urban spaces. *Research in Transportation Business & Management*, 40, 100592.
- Fazio, M., Giuffrida, N., Le Pira, M., Inturri, G., & **Ignaccolo**, M. (2021). Bike oriented development: Selecting locations for cycle stations through a spatial approach. *Research in Transportation Business & Management*, 40, 100576.
- Inturri, G., Giuffrida, N., Le Pira, M., Fazio, M., & **Ignaccolo**, M. (2021). Linking public transport user satisfaction with service accessibility for sustainable mobility planning. *ISPRS International Journal of Geo-Information*, 10(4), 235.
- Giuffrida, N., Stojaković, M., Twrdy, E., & **Ignaccolo**, M. (2021). The importance of environmental factors in the planning of container terminals: the case study of the Port of Augusta. *Applied Sciences*, 11(5), 2153.
- Inturri, G., Giuffrida, N., Ignaccolo, M., Le Pira, M., Pluchino, A., Rapisarda, A., & D'Angelo, R. (2021). Taxi vs. demand responsive shared transport systems: an agent-based simulation approach. *Transport Policy* 103, 116-126.
- Giuffrida, N. Le Pira, M. Inturri, G. **Ignaccolo**, M. (2021). Addressing the public transport ridership/coverage dilemma in small cities: a spatial approach. *Case Studies on Transport Policy* 9, 12-21.

## MAIN ACADEMIC ACHIEVEMENTS ---

He is in charge of different responsibility roles on behalf on UNICT:

- 2022-today: **Head of the Department** of Civil Engineering and Architecture (DICAr)
- 2017-today: Responsible for the University of Catania and member of the regional permanent working group on “**Economia del mare**” (Blue growth) (Po Fesr Sicilia 2014 – 2020 Azione 1.2.3)
- 2015-today: Responsible for the University of Catania for “**Cluster nazionale del mare**” (National sea cluster)
- 2006-today: University of Catania Rector’s **Delegate for “Polo regionale per la “Formazione sui Trasporti”** (Regional Center for “Training on Transport”)
- 2006-2012: Responsible for the University of Catania of the establishment and coordination of “Distretto tecnologico Trasporti navali, commerciali e da diporto” (**NAVTEC**) (Naval, Commercial and Yachting Technology District)
- 2006-2012: Responsible for the University of Catania of the coordination of the activities of the transport center “**Meridionale Innovazione Trasporti**” (MIT) with the establishment of the technological laboratory on sustainable mobility “Laboratorio di Mobilità Sostenibile” (PON 2000-2006)

Matteo Ignacolo established successful research collaborations with researchers from European Universities and Research Institutes, documented by collaboration in research projects (listed below) and also by joint research papers, e.g. with:

- Universitat Politècnica de València (Spain) (Prof. Vicente Chapapria – Erasmus Teaching Exchange agreement, Prof. Monica Garcia-Melon)
- University of Lubjiana (Prof. Elen Twrdy)
- Ben-Gurion University of the Negev (Prof. Yodan Rofé)
- Town and Country Planning Association (TCPA) (Diane Smith)
- University of Manchester (Prof. John Handley)

## RESEARCH PROJECTS ---

International projects

- 2023-2026: “**IN-MOB** – Innovative Products For Sustainable Micromobility” (Project 101115057) funded by ERDF Programme 2022 - Innovation investments Strand 2° (I3-2021-INV2a-GREEN) **Scientific Coordinator of the Project**
- 2011-2015: **EU COST Action TU 1103** - Operation and Safety of tramways in interaction with public space **Management Committee member**

- 2010-2013: MED research project **PORTA** (Ports as gateways to access inner regions) **Scientific Coordinator** for UNICT
- 2008-2011: INTERREG IVC research project **GRABS** (GReen and Blues Spaces to adapt to climate change) **Scientific Coordinator** for UNICT
- 2007-2009: IEE research project **ASTUTE** (Advancing Sustainable Transport in Urban Areas To promote Energy efficiency) **Scientific Coordinator** for UNICT

#### National/Regional projects

- 2021-2024: **TETI** - Tecnologie innovative per il controllo, il monitoraggio e la sicurezza in mare”, PNR 2015-2020 Project, **Scientific Coordinator** for UNICT
- 2019-today: **S3CAMPUS** - SHARING, SMART AND SUSTAINABLE CAMPUS, PO FESR **Scientific Coordinator** for UNICT
- 2019-2023: **THALASSA** - TecHnology And materials for safe Low consumption And low life cycle cost veSSels And crafts, PNR 2015-2020 Project, **Task Coordinator** for UNICT
- 2013-2015: **RESET** - REte di laboratori per la Sicurezza, sostenibilità ed Efficienza dei Trasporti, PO FESR Sicilia 2007-2013 Asse IV Ob. operativo 4.1.2 A
- 2012-2015: **SEAPORT** - Sviluppo di tecnologie innovative per la sostenibilità energetica e ambientale di cantieri navali e aree portuali, PON Ricerca e Competitività 2007-2013, **Scientific Coordinator** for UNICT
- National research projects (**PRIN**):
  1. (1997) - “Infrastrutture di trasporto e ambiente”, Principal investigator (PI) Prof. N. Ventura Politecnico di Milano, Responsible of UNICT Research Unit M. Ignaccolo;
  2. (2000) - “Effetti sul sistema del trasporto aereo delle innovazioni tecnologiche e dei nuovi assetti organizzativi”, PI Prof. V. Correnti University of Palermo, Responsible of UNICT Research Unit M. Ignaccolo;
  3. (2002) - “Trasporto collettivo: linee guida per la messa in sicurezza dei percorsi nei sistemi a guida libera e vincolata”, PI prof. Corona University of Cagliari, Responsible of UNICT Research Unit M. Ignaccolo;
  4. (2010) – “Percorriamo il paesaggio. Metodi e strumenti di tutela del paesaggio e di pianificazione delle infrastrutture di mobilità dolce per la fruizione del tempo libero nella Sicilia centro orientale” (as a component), PI prof. N.G. Leone University of Palermo; Scientific Responsible of UNICT Local Unit Prof. P. La Greca.
  5. (2017) – “**WEAKI TRANSIT: WEAK-demand areas Innovative TRANsport Shared services for Italian Towns**”, **Principal investigator** M. Ignaccolo
  6. (2022) - SMART3R-FLITS: SMART Transport for TRavellers and Freight Logistics Integration Towards Sustainability (Participant of the UNICT Research UNIT, coordinator of the Project – PI G. Inturri)
  7. BEC2SCHOOL: Building Empowerment and Community Concerns via transport sensors in SCHOOLS (Participant of the UNICT Research UNIT – PI M. Le Pira)

## NATIONAL AND INTERNATIONAL GRANTS (AS PRINCIPAL INVESTIGATOR)

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Scientific Responsible for UNICT of the industrial research and experimental development contract with Al maviva – The Italian Innovation Company S.p.A. for Services for the **Mobility Centre** of Catania. Short description: scientific activities for the integration within the **Mobility Centre** of the urban traffic monitoring, estimation, forecasting and information system provided by the University of Catania (2022-ongoing).

Scientific Responsible for UNICT of the coordination of the Sustainable Urban Mobility Plan (**Piano Urbano della Mobilità Sostenibile**) of the city of Vittoria (Italy) (2020-ongoing). Short description: scientific activities for transport network model definition, identification of plan objectives and plan alternatives, definition and monitoring of participation process.

Scientific Responsible for UNICT of the coordination of the Sustainable Urban Mobility Plan (**Piano Urbano della Mobilità Sostenibile**) of the Metropolitan City of Catania (Italy) (2019-ongoing). Short description: scientific activities for transport network model definition, identification of plan objectives and plan alternatives, definition and monitoring of participation process.

Technical/Scientific Responsible for UNICT of the coordination of the Urban Traffic Plan (**Piano Generale del Traffico Urbano**) of Acireale (Italy) (2016-2020). Short description: scientific activities for transport network model definition, identification of plan objectives and plan alternatives, definition and monitoring of participation process.

President of the technical-scientific committee and responsible of training for the national research project **SEAPORT** (Sviluppo di tecnologie innovative per a sostenibilità energetica e ambientale di cantieri navali e aree portuali) (PON Ricerca e Competitività 2007-2013) (2012-2015). Short description: UNICT analysed the interaction between terminal harbour components and the surrounding areas, to favour the sustainable development of the harbour areas.

Technical/Scientific Responsible for the University of Catania (UNICT) of the coordination of the Urban Traffic Plan (**Piano Generale del Traffico Urbano**) of Catania (2010-2013). Short description: grant to coordinate the scientific activities of the plan, including plan objectives definition, modelling and analysis of urban mobility.

Technical/Scientific Responsible for UNICT of the coordination of the Action Plan for Sustainable Mobility (**Piano d’Azione per la Mobilità Sostenibile**) of Catania (2009-2012). Short description: scientific activities for the definition of short-term and long-term solutions, aimed at sustainable mobility, and of a monitoring system with definition of environmental indicators.

Technical/Scientific Responsible for UNICT of the coordination of the Provincial Territorial Plan (**Piano Provinciale dei Trasporti e della Mobilità**) of Siracusa (2009-2010). Short description: analysis of transport-land use relationships and of the transport system at a provincial scale, with identification of critical issues and priority strategies.

## NATIONAL AND INTERNATIONAL ACKNOWLEDGMENTS

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**National President** of **AIIT** (Italian Association for Traffic and Transport Engineering) (2017-2020)

**Coordinator** of 2 University **masters (II level)** at UNICT: RESET (“Reti per l’Efficienza e la Sostenibilità Energetica del Territorio”) (2014-2015) and Sistemi di trasporto: management per l’integrazione e la mobilità sostenibile” (Transport systems: management for integration and sustainable mobility) (2010-2012)

**Member of the Management committee** of **EU COST Action TU 1103** - Operation and Safety of tramways in interaction with public space (2011-2015) and of the project **PO FESR RESET** (REte di laboratori per la Sicurezza, sostenibilità ed Efficienza dei Trasporti) (2013-2015)

Winner of **2 prizes** for the second best paper of the year in “**Ingegneria Ferroviaria**” for the papers:

1. “Corriere, F., Ignaccolo, M. (1987). Effetti della rigidità degli attacchi rotaie-traverse e della curvatura assiale sulle deformazioni trasversali del binario soggetto a variazioni termiche. Ing. ferroviaria 5”
2. “Inturri G., Ignaccolo M., & Capri S. (2015). The feasibility assessment of the new ‘Circumetnea’ railway through a multimodal network model with elastic demand. Ing. Ferroviaria 2, 133”

## EDITORIAL ACTIVITY

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### **Editor-in-chief**

Scientific Journal « European Transport / Trasporti Europei» indexed in Scopus/WoS

### **Committee Member of Editorial board**

Journal PORTUS

Journal PORTUSPlus

EGAF Transport Engineering Series

## PROFESSIONAL ASSOCIATION AFFILIATIONS

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### **Member**

AIIT - Italian Association for Traffic and Transport Engineering

SIDT - Italian Society of Transport Academics

SIPOTRÀ - Italian Society of Transport Policy

RETE - Association for the collaboration between Ports and Cities (Member of Scientific Committee)

CIFI - Association of Italian railway engineers

Catania, 14th November 2024

