Saeed Mansouryar

Date of birth: 18/07/1990 | **Email address:** Saeed.Mansouryar@uniroma1.it |

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ABOUT ME

As a passionate PhD researcher in Transportation Systems Engineering at Sapienza University of Rome, I bring expertise in Intelligent Transportation Systems (ITS), focusing on advancing urban mobility through smart technology. My research, supported by the European NextGenerationEU scholarship, explores adaptive traffic signal control, transit priority systems, and dynamic variable speed limits. I am particularly invested in applying machine learning to optimize priority corridors for public transport, contributing to safer, more efficient, and connected urban transportation networks. In addition to my research, I actively mentor students in traffic modeling and simulation with microsimulation software like SUMO and VISSIM, enhancing their practical skills in ITS applications. Through my work, I aim to foster the next generation of innovations in transportation technology, with a vision for smarter, more sustainable urban mobility.

WORK EXPERIENCE

2024 – CURRENT Rome, Italy
PROJECT MANAGER SAPIENZA UNIVERSITY OF ROME

1. Directed a team of four traffic specialists in simulating a 46 km multimodal corridor in Trentino, Italy, using VISSIM to support road safety objectives.
2. Personally, developed the priority system design for the Bus Rapid Transit (BRT), implementing pre-signals to minimize delays and designing optimized traffic light timings to enhance corridor efficiency.
3. Conducted model calibration and validation, analyzing current transit scenarios and improved BRT setups with priority signals, evaluating delay, safety, queue, and emissions impacts.

References
Prof. Gaetano Fusco & Prof. Chiara Colombaroni

Department Department of Civil Constructional and Environmental Engineering, Sapienza University of Rome

18/03/2024 – 14/06/2024 rome, Italy
CLASSROOM TUTOR SAPIENZA UNIVERSITY OF ROME

Assisted Prof. Chiara Colombaroni in the Transportation System Design course at the University of Sapienza as a tutor for international students. Provided expertise and guidance on various topics, including:
• Transport modeling and Origin-Destination (OD) matrix estimation.
• Traffic assignment methodologies and strategies.
• Microsimulation software (Simulation of Urban Mobility "SUMO") for network design and traffic flow analysis.
Conducted practical sessions on:
Network design, demand assignment, and public transit modeling using SUMO.
Calibration and validation of traffic models to ensure accuracy and reliability.
Managed output generation and analysis, including trip information, queue lengths, and emission data reports (e.g., tripinfo, queue.out, and emissions files)

2021 – 2022 Rome
TRAFFIC ENGINEER TRAINEE MOVEAX - SAPIENZA

In a collaborative effort between the Sapienza team and Moveax Company, my role as a traffic engineer centered on refining and testing the Intelligent Traffic Light Control algorithm developed by Moveax. I spearheaded efforts to evaluate the algorithm's performance through simulations that mirrored real-world traffic networks, focusing on key metrics such as intersection delay, level of service, waiting times, and time-loss. My responsibilities culminated in the creation of a comprehensive Technical Report aimed at detailing the algorithm's commercial viability and efficiency improvements for urban traffic management.

2015 – 2017 Tehran, Iran
PROJECT SUPERINTENDENT- TECHINCAL SUPERVISOR DORSAN SAZEH CO

As a Project Engineer and Superintendent , I was entrusted with overseeing construction project planning and execution, ensuring completion within budget and timelines. Additionally, I was responsible for the technical aspects of projects, including planning, establishing criteria, coordinating reviews, and overseeing structural codes based on Knauf manual and designs.

Business or Sector Construction | **Website** http://dorsansazeh.com/

EDUCATION AND TRAINING

01/11/2023 – CURRENT Rome, Italy
PHD STUDENT Sapienza University of Rome

Website https://phd.uniroma1.it/web/SAEED-MANSOURYAR_nP1818253_.aspx |

Field of study Traffic operations and adaptive Control

2022 Rome, Italy
MASTER OF SCIENCE IN TRANSPORTATION SYSTEM ENGINEERING

Final grade 109/110 | **Thesis** A Deep Reinforcement Learning approach for Intelligent Traffic Light Control

2015 Tehran, Iran
BACHELOR OF SCIENCE K.N Toosi University of Technology

LANGUAGE SKILLS

Mother tongue(s): **PERSIAN**

Other language(s):

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken production	Spoken interaction	
ENGLISH	C2	C2	C2	C2	C1
ITALIAN	A2	A2	A2	A2	A2

Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user

DIGITAL SKILLS

Microsoft Excel | Microsoft Word | Microsoft office Tools | Python | Simulation of Urban Mobility | SUMO | Transportation Planning | Data Analysis | PTV-VISSIM SOFTWARE | Machine Lerarning

PUBLICATIONS

2023
A microsimulation Study of bus priority systems using pre-signals

Write here the description...

Saeed Mansouryar, Gaetano Fusco, Chiara Colombaroni, Kaveh Shojaei

2024
Deep Reinforcement Learning approach for Traffic Light Control and Transit Priority

Saeed Mansouryar, Chiara Colombaroni, Gaetano Fusco, Natalia Isaenko

Link https://susy.mdpi.com/user/manuscripts/review_info/5bc80bb07c5651e87e571f7d459681c5

CONFERENCES AND SEMINARS

2022 Genova
SIDT Conference

2023 Spain
EWGT Conference

I presented my research paper on " A Microsimulation Study of Bus Priority Systems Using Pre-Signals"

2023 Rome
SIDT Conference

2024 Villasimius, Sardegna
SIDT Conference

I presented my last research and evaluation on Variable Speed Limits for extra Urban Corridors

PROJECTS

2020
Academic Project: Vehicle Route Planning

Travel Time and Distance Optimization of Delivery fleets of Vehicle. Generate road graph, Processing Delivery data, Implementation of Delivery Points and their characteristics, Implementation of Depot Layer, Obtaining OD matrix Demand , All or Nothing Assignment, Implement Vehicle Table and Vehicle Routing Problem, Compute Indicators.

2020
Academic Research Project: Developing a SUMP for City of Tehran

Presenting a revision plan based on Sustainability and Social Equity. Analyze, Organize, Assess and rank the problems. Deciding the right measures and Assessing the results.

2019
Academic Project: Railways Engineering, Analyzing the Railway of the Castel Lagopesole –Potenza Centrale

Analysis Speed of the Line especially along the Curves, Determination of horizontal and vertical transition curves, Timetable Design.
Calculation of running spaces and time, Signal Positioning. Minimum headway and capacity calculation by UIC405 method, Station routes schematization, occupation and interdiction time calculation, Traffic Assignment and station capacity calculation.

2018 – 2019
Academic Project: Traffic Signals Planning

Analyze the actual traffic situation of one of the main arteries in Rome ,Evaluation of intersection delay and LOS based on High
Capacity Manual (HCM) ,Delay reduction by signal setting optimization foreach intersection, The artery has been synchronized: maximizing the bandwidth, minimizing the delay along the artery.

NETWORKS AND MEMBERSHIPS

Italy
SIDT(Societa Italiana Docenti Di Trasporti)

Italian Society of Transport Tutors, organizes conferences on transportation and sustainable mobility. I enjoy contributing every year and I have presented my articles and research topics during SIDT conferences. It is a great opportunity to discuss, learn, share and exchange ideas and research topics in transportation field with professors and flow researchers.

Link https://www.docentitrasporti.it/

HOBBIES AND INTERESTS

Table Tennis

Won a team bronze medal with K.N.Toosi University during my bachelor. I had a chance to play as the 3rd player of university team in the university championships. I enjoy playing during my free time.

Fitness

There is an old saying that healthy mind is in healthy body.

Travelling

Beach holidays and picnics are always my favorite.