# Mostafa Mohammadi

Nationality: Iranian Date of birth: 25/01/1989 Phone number: (+39) 3516005410

Email address: mostafa.mohmmadi@uniroma1.it

• Home: Via del tempio degli Arvali 35 A, 00148 Rome (Italy)

#### **EDUCATION AND TRAINING**

#### Ph.D in Infrastructures and Transportation engineering

Sapienza University of Rome [ 01/11/2021 - Current ]

Address: Rome (Italy)

Website: https://phd.uniroma1.it/web/MOSTAFA-MOHAMMADI\_nP1755962\_aspx

**Thesis:** A Solution Framework For Demand Responsive Transit With Stochastic Passenger Request and estimation of speed profile in each zone under supervision of professor Gaetano Fusco and professor Chiara Colombaroni

#### Master's Degree in Transportation System Engineering

Sapienza University of Rome [ 10/09/2019 - 29/07/2021]

Address: Rome (Italy)
Final grade: 110 Con Lode

**Thesis:** A set of heuristic for solving Vehicle Routing Problem in IoT-based Waste Management System under supervision of professor Gaetano Fusco and professor Chiara Colombaroni

## Master's Degree in Industrial Engineering

Mazandaran University of Science and Technology [ 01/09/2012 - 30/08/2014]

Address: Babol (Iran)

Final grade: GPA: 16.16 out of 20.

Thesis: Minimizing Makespan for the multiple travel salesman problem

#### **Bachelor's Degree in Industrial Engineering**

**Shomal University** [ 01/09/2008 - 31/08/2012]

Address: Amol (Iran)

Final grade: GPA: 3.75 out of 4.0

- I achieved the 3rd highest GPA among all students in Industrial Engineering (from the same entrance)

#### **WORK EXPERIENCE**

#### University teaching assistant in Traffic System Engineering and ITS

Sapienza University of Rome [ 01/11/2022 - Current]

#### City: Rome

- Assist the professor in preparing and delivering lectures on traffic system engineering principles, traffic flow theory, macroscopic and microscopic traffic models, and ITS technologies.
- Grade assignments, lab reports, and exams, providing constructive feedback to students and assisting in their understandingof course material.
- Collaborate with the professor in developing course materials, including lecture slides, lab exercises, and assignments.

## University teaching assistant in Freight Transport and logistics

Sapienza University of Rome [ 20/09/2023 - 21/12/2023]

#### City: Rome

- Assist the professor in preparing and delivering lectures on the introduction to logistics systems, mathematical model and optimization algorithms, vehicle routing problem.
- Grade assignments and providing constructive feedback to students and assisting in their understanding.

# University teaching assistant in Programming for Transportation Engineering

Sapienza University of Rome [ 01/11/2021 - Current]

#### City: Rome

- Assist professor in delivering lectures, conducting tutorials, and grading assignments for programming courses in transportation engineering.

- Provide guidance to students in understanding programming concepts, and debugging programs.
- Support the development of course materials, and hold office hours for student assistance.

## Research Assistant at Smart and Sustainable Logistics Laboratory

*University of Tecnológico de Monterrey* [ 01/01/2021 – Current]

City: Monterrey
Country: Mexico

- Assist in planning, designing, and conducting research experiments and studies related to smart and sustainable logistics.
- Collect and analyze data, using statistical analysis software and tools, to derive meaningful insights and contribute to research findings.
- Collaborate with the research team in developing research proposals, literature reviews, and technical reports.

#### Internship in developing Multi-Objective Optimization Software

*University of Jyvaskyla, Finland* [ 01/03/2021 - 30/06/2021]

**City:** Jyvaskyla **Country:** Finland

- Implementing of indicator-based evolutionary algorithm (IBEA), Preference-Based Evolutionary Algorithm (PBEA) and distance-based problems.

#### Supply chain planning Supervisor

Aras Taban Company [ 01/06/2017 - 30/08/2019]

- Supervise and coordinate all activities related to supply chain management.
- Collaborate with internal stakeholders, such as production managers and sales teams.

# Production and operations control Supervisor

Beryan Goosht - Food manufacturing company [01/05/2013 - 30/05/2017]

- Supervise and coordinate production activities to ensure timely and efficient production processes.
- Develop and implement production plans and schedules.

## **PUBLICATIONS**

# A dynamic approach for the multi-compartment vehicle routing problem in waste management

Mostafa Mohammadi, Golman Rahmanifar, Mostafa Hajiaghaei-Keshteli, Gaetano Fusco, Chiara Colombaroni, Ali Sherafat. (2023). A dynamic approach for the multi-compartment vehicle routing problem in waste management. Renewable and Sustainable Energy Reviews, Volume 184,. CiteScore = 26.3 and Impact Factor=15.9 Q1

# Heuristic approaches to address vehicle routing problem in the lot-based waste management system

Rahmanifar, G., Mohammadi, M., Sherafat, A., Hajiaghaei-Keshteli, M., Fusco, G., & Colombaroni, C. (2023). Heuristic approaches to address vehicle routing problem in the Iot-based waste management system. Expert Systems with Applications, 220, 119708. CiteScore = 12.2 and Impact Factor=8.665 Q1

## An allocation-routing optimization model for integrated solid waste management

Hashemi-Amiri, O., Mohammadi, M., Rahmanifar, G., Hajiaghaei-Keshteli, M., Fusco, G., & Colombaroni, C. (2023). An allocation-routing optimization model for integrated solid waste management. Expert Systems with Applications, 227, 120364. CiteScore = 12.2 and Impact Factor=8.665 Q1

# Makespan minimizing on multiple travel salesman problem with a learning effect of visiting time.

Colombaroni, C., Mohammadi, M., & Rahmanifar, G. (2020). Makespan minimizing on multiple travel salesman problem with a learning effect of visiting time. WSEAS Transactions on Systems and Control, 15, 508–526. WSEAS Transactions on Systems and Control Journal

# <u>Designing a multi-period dynamic electric vehicle production-routing problem in a supply chain considering energy consumption</u>

Mostafa Hajiaghaei-Keshteli, Golman Rahmanifar, Mostafa Mohammadi, Fatemeh Gholian-Jouybari, Jiří Jaromír Klemeš, Sasan Zahmatkesh, Awais Bokhari, Gaetano Fusco, Chiara Colombaroni, Designing a multi-period dynamic electric vehicle production-routing problem in a supply chain considering energy consumption, Journal of Cleaner Production,

# A platform to optimize urban deliveries with e-vans Dealing with vehicles range and batteries recharge

Valentini, M. P., Carrese, F., Colombaroni, C., Conti, V., Corazza, M., Lelli, M., Mohammadi, M., Orchi, S., Ortenzi, F., Rahmanifar, G., Tomasino, G., & Fusco, G. (2023). A platform to optimize urban deliveries with e-vans. TeMA - Journal of Land Use, Mobility and Environment, 16(2), 403–423. https://doi.org/10.6093/1970-9870/9911

# **Submitted and Under Revision Papers**

- A Two-Echelon Vehicle Routing Problem Considering Temporal Capacity for Synchronization In Waste Collection System

- An Integrated Location and Routing Formulation for Cold Chain Logistics Network with Heterogeneous Customer Demand
- A Three-Step Waste Management System by Designing a Sustainable Supply Chain and Dynamic Routing
- Proposing A Locating-Routing Optimization Model for Two Echelon Electric Vehicle Routing Problem
- A Meta Heuristic Approach for Multi-Period Dynamic Electric Vehicle Production Routing Problem

## **CONFERENCES AND SEMINARS**

Learn Python by Doing the Complete Python Course, Udemy July 2022. Machine

Learning, Data Science and Deep Learning with Python, Udemy.

Non-Linear Multi objective Optimization-20 hours-Jyvasyla University of Finland, March 2021. Geographic

information systems (GIS) with QGIS, Udemy course.

Mathematical Optimization with GAMS and Pyomo (Python).

How to Write a Successful Research Paper in Tecnológico de Monterrey university.

Sustainable smart logistics: Application of metaheuristic algorithms in Tecnológico de Monterrey university.

## **HONOURS AND AWARDS**

The highest GPA (Top 1%) in transportation engineering at Sapienza University of Rome.

Erasmus+study scholarship in faculty of civil and industrial engineering of Sapienza University, Dec 2020.

Erasmus+Traineeship scholarship in faculty of civil and industrial engineering of Sapienza University, Dec 2020.

#### LANGUAGE SKILLS

Mother tongue(s): Persian

Other language(s):

# **English**

LISTENING B2 READING B2 WRITING B2

SPOKEN PRODUCTION B2 SPOKEN INTERACTION B2

# **DIGITAL SKILLS**

## **Programming Languages**

Python / Matlab / Pyomo / GAMS

# Scientific Software

QGIS / TransCAD / Minitab / SPSS

(luogo e data) ROMA - 06 October 2023

Mostafa Mohammadi

MOSTAFA MOHAMMADI

(firma