

Nadia Kaviani



Summary

Ph.D. Candidate in Transport Systems Engineering with sufficient level of knowledge in cleared courses, with specification in the field of Railway Engineering.
With reliable experience in performing state-of-the-art researches and sufficient ability to collaborate with other colleagues as well as good with the deadlines and responsibilities due to the experience of working in different positions.
Actively seeking for acquiring new relative skills and software, namely getting experiences in OpenTrack for simulating networks and Python to implement advanced statistical analytics.

Education



Sapienza Università di Roma

Ph.D. Candidate and Researcher, Infrastructure and Transport Systems Engineering
2020 - 2023
Ph.D. topic :
"Predictive Maintenance of Track geometry by collecting data from in-service trains"
goal: proposing an algorithm to predict the track condition



Sapienza Università di Roma

Master of Engineering - MEng, Transport Systems Engineering
2017 - 2020
With the specification of Railway Engineering
Thesis Topic: "Identification of the most suitable sensor technology to measure the transversal position of the wheel in relation to rail track"
Cooperated in organizing the Plenary meeting of Assets4Rail in Sapienza University of Rome.



Azad Univeristy of Shiraz

Bachelor of Engineering - BE, Civil Engineering
2012 - 2016

Experience



Research Assistant in Assets4Rail Project

Sapienza Università di Roma
Mar 2019 - Present (2 years 5 months +)
Cooperated with European Union project Assets4Rail, in particular with developing sensor systems for supporting track geometry monitoring and detecting the transversal position of the wheel in relation to the rail track.

- Identified most suitable sensors to be mounted on commercial trains.
- These two sensors are alternatives for inertial platform to find the location of measurement points.

- These two sensors are alternatives for inertial platform to find the location of measurement points.
- Visited Track Geometry Monitoring approaches by RFI Diagnostic Train from Rome to Florence.
- The master thesis was accomplished in association with Assets4Rail project.
- Author of a paper "Development of a Contactless Sensor System to Support Rail Track Geometry Monitoring".



English Language Teacher

English Lessons

Sep 2017 - Present (3 years 11 months +)



Technical Office Engineer

Fahandej C.o.

May 2015 - Sep 2015 (5 months)



Technical Office Engineer

Kooban Consulting Engineering

Jun 2014 - Aug 2015 (1 year 3 months)

Publication and Conferences

Deep Learning based Virtual Point Tracking for Real-Time Target-less Dynamic Displacement Measurement in Railway Applications

https://www.researchgate.net/publication/348589285_Deep_Learning_based_Virtual_Point_Tracking_for_Real-Time_Target-less_Dynamic_Displacement_Measurement_in_Railway_Applications

Presented "Development of a Contactless Sensor System to Support Rail Track Geometry Monitoring" Paper on CETRA 2021 Conference in Croatia (will be published soon)

Skills

Microsoft Office • Microsoft Excel • Leadership • Research • Social Media
 Microsoft Word • Microsoft PowerPoint • AutoCAD Civil 3D • AutoCAD • Matlab
 Python • Simpack

Languages

English, Italian, Persian, German (beginner)

References

Prof. Dr. Stefano Ricci

Rome, Italy

Stefano.ricci@uniroma1.it

Chairman of the board of teaching area of transportation engineering

Prof. Dr. Lucca Rizzetto

Rome, Italy

luca.rizzetto@uniroma1.it

Chief Executive Officer of the Spin off Sapienza Development & Innovation in Transport Systems (DITS)

Prof. Dr. Alireza Hajjani

Shiraz, Iran

hajjanib@shirazu.ac.ir

Chairman of Kooban Kavosh Jonoub