

Personal information

First and last name: Vardhman Lunkar

City of Residence: Lecco, Italy

+39 3209519828 vardhman.lunkar@polimi.it Gender: Male –

Date of birth: 21/11/1992 – Nationality: Indian

Job experience

09/2019 – ongoing

Research fellow at Politecnico di Milano

Current research grant title: “Tools and models for the analysis of the transport system. Long-distance transports, transport and land use, evaluation and transport policies”.

Department of Architecture and Urban Studies - Via Bonardi 3, 20133 Milano – Research Centre on Transport Policy (<http://www.traspol.polimi.it/en/>).

04/2018 – 08/2019

Junior Transport Consultant at REDAS engineering S.r.l

Main Tasks:

- Analysis of Data acquired from clients and existing databases and giving them meaning through representation in Tables, Graphs and Georeferenced maps.
- Analysis and Synthesis of traffic data, estimation of O/D Matrix for developing scenarios and as an input for transport modelling.
- Assisting in projecting real data into transport model in AIMSUN carrying out transport studies estimating mobility demand and carrying out simulations for diverse dynamic and static scenarios.

Education and Training:

- 02/2015 – 10/2017 **Master of Science in Civil Engineering for Risk Mitigation**
Politecnico di Milano – School of Civil, Environmental and Land Management Engineering (Milan, Italy)
Grade: 104/110.
The master's thesis aimed at developing an optimization model for regular railway timetables, considering the interaction of service with transport demand, in order to maximize railway users.
- 09/2006 – 09/2011 **Bachelor's degree in Civil Engineering**
Thapar Institute of Technology, India
Grade: 8.0/110.
- 09/2013 – 12/2013 **Research Project Title: Static and Dynamic Behavior of Hybrid Fiber Reinforced Polymer Cables used in Suspension Bridges at Politecnico di Torino**
Main Tasks:
- Designing and Building the test instrument for the tensile testing of high strength fibers like Kevlar and Silicon Carbide
 - Performing non-destructive dynamic tests on the fiber rope in order to identify and analyses the stress-strain behavior and consequently assess the structural damage which can be used to assess the life of such high resistant fibers used in cable stayed bridges.
 - Performing calculations for the various dynamic properties of the material and develop a sensitivity analysis in relation with the geometrical properties of the fibre rope.
 - Researched on literature relating structural dynamics, high strength fibres, cable stayed bridges, structural health monitoring applications.
 - Prepared an abstract of the study to present it in the University of Cambridge.
 - A research paper titled "Non-Linear characterization of Kevlar and Silicon Carbide Fibers for Structural Health Monitoring Applications" was presented at the Twelfth International Conference of Computational Structures Technology in Naples, Italy.
- 06/2013 – 09/2013 **Industrial Training (Trainee Civil engineer) at Runwal Project Private Limited India**
Main tasks:
- Analyzing the results of concrete testing on site.
 - Performing preventive maintenance checks on the site.
 - Monitoring and supervisions of the construction/documentation performed by the contractors.
 - Learnt the technical and practical constructing of the pile caps, beams, columns, slabs, sheer walls and retaining walls.

Personal skills

Languages	Mother tongue: Hindi Secondary Language: English Advance: certificate TOEFL IBT, score 116/120 Third language: Italian (Intermediate)
Computer skills	Operating systems: Windows (intermediate) Office suite: Access (basic), Excel (intermediate), Word (intermediate), PowerPoint (intermediate) Programming languages: SQL (basic), Matlab (Intermediate) GIS: QGIS, ArcGIS
Other information	General interests: Volunteering and civil rights. Public speaking, Communication skills, Travelling, Couchsurfing, poetry, photography, post processing photos,

Main publications and reports

2013	Pinotti E. et al., "Non - Linear Characterization of Kevlar and Silicon Carbide Fibres for Structural Health Monitoring Applications" Proceedings of the Twelfth International Conference on Computational Structures Technology. Civil-Comp Press, Stirlingshire, UK, Paper 97, 2014.
2019	Research paper titled "Evaluating EMAS materials functionality based on aircraft braking distance, application of risk/safety contour map" has been submitted to the Journal of Safety Science in the month of March,2019.

