

Warnakulasooriya Umesh Ashen Lowe

PhD researcher

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Professional Profile

I am a PhD researcher with several years of teaching and research experience. I am attentive and enthusiastic, always willing to learn new skills. I can work independently in busy environments and also within a team setting. I am energetic and tactful and have strong attention to detail when solving problems.

Career Summary

Teaching Assistant, University College Dublin, Ireland

01/2023 – current,

Higher education and research.

RESPONSIBILITIES

- Perform academic lab sessions related to computational applications for transportation Engineering where students learn how to use Python and GIS for transport applications.
- Perform academic lab sessions related to transportation planning where students learn about the implementation of transport policies.

Researcher, SIIT, Thammasat University, Thailand

09/2022 – 11/2022,

Higher education and research.

RESPONSIBILITIES

- Data analysis using machine learning techniques (k-mean, CART and fuzzy clustering) to identify factors influencing carpool adoption in Thailand.
- Transform findings into a report.

Teaching Assistant, SIIT, Thammasat University, Thailand

08/2020 – 08/2020,

Higher education and research.

RESPONSIBILITIES

- Guide undergraduate students in their senior research project in terms of developing a questionnaire survey and using R for data analysis.
- Perform academic lab sessions related to soil mechanics lab and Computer Graphics and Applications course where students learn how to use Mathematica.
- Exam invigilation both online and onsite.

Research Assistant, University of Peradeniya, Sri Lanka

02/2020 – 08/2020,

Higher education and research.

RESPONSIBILITIES

- Data collection, analysis and report writing for public transport development research project. Develop simulation algorithm for bus transport, and transport network in GIS and transform findings into reports.

Instructor, University of Peradeniya, Sri Lanka

03/2019 – 01/2020,

Higher education and research.

RESPONSIBILITIES

- Perform academic lab sessions in the soil mechanics laboratory, survey laboratory, material laboratory and fluid mechanics laboratory. Introduce the theoretical backgrounds of the lab session, and they were taught how to use different equipment to collect data and make a report.
- Conducted design classes on structural designs where students learn how to use Euro codes for structural design.

 **Civil Engineer (Intern)**, Sierra Construction Ltd Company, Sri Lanka
Construction and Engineering.

11/2017 – 01/2018,

RESPONSIBILITIES

- Work with the contractors' team. Assist consultants with inspections. Guide labourers to achieve different onsite tasks using both practical and theoretical knowledge and report the progress to the site Engineer.

 **Civil Engineer (Intern)**, Provincial Engineering Services Department, Sri Lanka
Construction and Engineering.

11/2016 – 01/2017,

RESPONSIBILITIES

- Work with the consultants' team. Inspect contractor's work and report them to consulting Engineer.

Education

 **PhD (Civil Engineering)**, University College Dublin, Ireland

2027

 **MSc (Engineering and Technology)**, SIIT, Thammasat University, Thailand

2022

 **BSc (Specialized in Civil Engineering)**, SIIT, Thammasat University, Thailand

2019

Other Courses: Transportation Planning and Safety | Research integrity| Safety induction |SQL for data science |Data-driven decisions |Data analysis with R programming |Data foundation, cleaning and preparation

Research experience

- **Projects:** Next Generation Energy Systems (NexSys), a multidisciplinary energy research program (2023-2027) | Assessment of Transport Policies to Tackle Global Pandemics for Sustainable Mobility in ASEAN Countries (2021-2022)| Enhancing bus-based public transport system in central province Sri Lanka (2020-2021)
- **Publications:** European Transport Research Review-2024| Case Studies on Transport Policy- 2023|Journal of the Eastern Asia Society for Transportation Studies-2022|Proceedings of the 2021 9th International Conference on Information Technology: IoT and Smart City -2021 | ICSBE 2018: Proceedings of the 9th International Conference on Sustainable Built Environment-2020

Professional Affiliations

- **Volunteer organizing committee:** International Network Optimization Conference (INOC) 2024 | SCICOM conference 2023| Transport Research symposium 2023 by Transport Research Hub at UCD
- **STEM demonstrator volunteer:** BT young scientist and technology exhibition 2025/2026| *I'm a scientist* chat program |UCD STEM Adventure program by the UCD alumni | UCD Institute for Discovery team| Math Teacher secondary-level students who lacked educational facilities in Sri Lanka
- **Other volunteer experience:** River cleaning team at Thammasat University | Construction labour for rural school developments in Sri Lanka
- **Co-curricular Activities:** South Dublin Badminton club member | University baseball team member (2014-2016)| School baseball, cricket, table tennis and naval cadet member
- **Memberships:** Member of Transport Research Hub at UCD | Committee member of Sri Lankan Society at UCD | Member of Thammasat International Club| Member of Civil Engineering Society at University of Peradeniya | Associate member Institute of Engineers Sri Lanka

Skills

- **Professional Skills :** Teaching | Mathematical Modelling | Multidisciplinary Approach | Transportation Management
- **Soft Skills :** Analytical Thinking| Coordination Skills |Team Working| Communication skills| Adaptability
- **IT Skills:** Basic skills in C++, Python, Matlab, Mathematica, PTV Vissim, SQL, MATSim, Civil 3D | Experienced with R, Python, C++, NetLogo, ArcGIS, QGIS, AutoCAD, Sketchup, OpenShot, MS project, sap 2000, Microsoft office excel, word and PowerPoint

References

Available on request