SINGAPORE UNIVERSITY OF SOCIAL SCIENCES

Curriculum Vitae

Dr. Zhu Siying

Lecturer, Business Analytics Programme

School of Business

Tel : +65 6240 8993

Education Qualifications

2021	Ph.D., Civil and Environmental Engineering, Nanyang Technological University
2017	B.Sc., Maritime Studies (First Class Honours), Nanyang Technological University

Academic and Professional Experience

2022 - Present	Lecturer, School of Business, Singapore University of Social Sciences
2021 - 2022	Research Fellow, Department of Civil and Environmental Engineering, National University of Singapore

Memberships and Professional Activities

- Journal Reviewer: Accident Analysis & Prevention, Transportation Research E: Logistics and Transportation Review, Expert Systems With Applications
- Guest Editor [Journal of Traffic and Transportation Engineering] -- SI: Network Resilience & System Safety Improvement for Multimodal Transportation
- Editorial Board Member: Digital Transportation and Safety
- The Institute of Electrical and Electronics Engineers (IEEE) Member

Research Interests

- Transportation Safety
- Big data
- Machine learning
- Maritime Studies
- Transportation network analysis

SINGAPORE UNIVERSITY OF SOCIAL SCIENCES

Selected Publications

- Wan, J.[1] and **Zhu, S.**[1,*], 2024. Cost-sensitive graph convolutional network with self-paced learning for hit-and-run analysis. IEEE Transactions on Intelligent Transportation Systems, 25(2), pp.1675-1690.
- Shen, X., Chen, J.*, **Zhu, S.** and Yan, R., 2024. A decentralized federated learning-based spatial–temporal model for freight traffic speed forecasting. Expert Systems with Applications, 238, p.122302.
- **Zhu, S.**, Cai, Y., Wang, M., Wang, H. and Meng, Q.*, 2023. How will China-Singapore International Land-Sea Trade Corridor affect route choice behaviour? A discrete choice model. Transport Policy, 135, pp.1-10.
- **Zhu, S.**, Jia, S., Sun, Q. and Meng, Q.*, 2023. An empirical study of China–Singapore International Land–Sea Trade Corridor: Analysis from supply and demand sides. Transport Policy, 135, pp.1-10.
- Shen, X., Chen, J.*, **Zhu, S.** and Yu, X., 2023. A data-driven inspection method for identifying container bookings with concealed hazardous materials. Engineering Optimization, pp.1-21.
- Zhao, H., Yu, N.*, **Zhu, S.**, 2023. International Land-Sea Trade Corridor for Sustainable Transportation: A Review of Recent Literature. Cleaner Logistics and Supply Chain, p.100089.
- Wan, J.[1] and **Zhu, S.**[1,*], 2023. Crash severity analysis with cost-sensitive graph convolutional networks. IEEE Transactions on Industrial Informatics, 19 (6), pp.7528-7540.
- Tan, S.* and **Zhu, S.**, 2023. Binary search of the optimal cut-point value in ROC analysis using the F1 score. Journal of Physics: Conference Series, 2609 (1), p. 012002.
- **Zhu, S.** and Meng, Q.*, 2022. What can we learn from autonomous vehicle collision data on crash severity? A cost-sensitive CART approach. Accident Analysis & Prevention, 174, p.106769.
- Wan, J.[1] and **Zhu, S.**[1,*], 2022. Cross-city crash severity analysis with cost-sensitive transfer learning algorithm. Expert Systems With Applications, 208, p.118129.
- **Zhu, S.**, 2022. Comparative study of statistical and machine learning methods for streetcar incident duration analysis. International Journal of Crashworthiness, pp.1-6.
- **Zhu, S.** and Wan, J.*, 2021. Cost-sensitive learning for semi-supervised hit-and-run analysis. Accident Analysis & Prevention, 158, p.106199.
- **Zhu, S.**, 2021. Analysis of the severity of vehicle-bicycle crashes with data mining techniques. Journal of Safety Research, 76, pp.218-227.
- **Zhu, S.**, 2021. Analyse vehicle-pedestrian crash severity at intersection with data mining techniques. International Journal of Crashworthiness, pp.1-9.
- **Zhu, S.**, 2021. Optimal fleet deployment strategy: Model the effect of shared e-bikes on bike-sharing system. Journal of Advanced Transportation, pp.1-12.
- **Zhu, S.**, 2020. Investigation of vehicle-bicycle hit-and-run crashes. Traffic Injury Prevention, pp.1-6.
- **Zhu, S.**, 2020. Stochastic bi-objective optimisation formulation for bike sharing system fleet deployment. Proceedings of the Institution of Civil Engineers-Transport, pp.1-20.
- **Zhu, S.**, 2020. Multi-objective route planning problem for cycle-tourists. Transportation Letters: the International Journal of Transportation Research, pp.1-9.

- **Zhu, S.** and Zhu, F.*, 2019. Multi-objective bike-way network design problem with space-time accessibility constraint. Transportation, pp.1-25.
- **Zhu, S.** and Zhu, F.*, 2019. Cycling comfort evaluation with instrumented probe bicycle. Transportation Research Part A: Policy and Practice, 129, pp.217-231.

Note: "1" indicates "common first author"; "" indicates "corresponding author"*

Updated on 25 April 2024