Lanhang Ye

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About Me

Lanhang Ye obtained his Ph.D. degree from Nagoya University (NU), Japan, in 2019. His primary research interest concentrates on the study of ***traffic systems integrating emerging automotive technologies***. He focuses on developing microscopic traffic flow models that incorporate these technologies to model potential future scenarios, evaluating the potential impact of these technologies on future traffic systems, providing management recommendations for their better integration into the current traffic system, and exploring traffic flow theory in the era of Connected and Automated Vehicles. Currently, he works as a researcher at the Institute of Materials and Systems for Sustainability at Nagoya University, Japan.

Research Interests

- **Connected and Autonomous Vehicle**
- **Traffic Flow Modelling**
- **Traffic Simulation**
- **Sustainable Mobility**

Academic Background

- D. Engr., **Nagoya University**, Japan, 2019
- M. Engr., **Hebei University of Technology**, China, 2016
- B. Engr., **Shijiazhuang Tiedao University**, China, 2013

Professional Experience

- 2023.04~ Researcher at Institute of Materials and Systems for Sustainability, Nagoya University
- 2023.03~2023.04 Researcher at Global Research Institute for Mobility, Nagoya University, Japan
- 2020.01~2023.02 Lecturer at Department of Transportation, Zhejiang Normal University, China
    - Undergraduate courses: ***Intelligent transportation system***, ***Matlab Fundamentals and Applications***, ***English in Traffic Engineering***

Publications

Web of Science, Orcid, ResearchGate.

- **Modeling Connected and Autonomous Vehicles in Heterogeneous Traffic Flow**
  Lanhang Ye#, Toshiyuki Yamamoto,
  Physica A: Statistical Mechanics and its Applications 490 (2018): 269-277.
  [PDF]
- **Impact of Dedicated Lanes for Connected and Autonomous Vehicle on Traffic Flow Throughput**
  Lanhang Ye#, Toshiyuki Yamamoto
  Physica A: Statistical Mechanics and its Applications 512 (2018): 588-597.
  [PDF]
- **Evaluating the Impact of Connected and Autonomous Vehicles on Traffic Safety**
  Lanhang Ye#, Toshiyuki Yamamoto
  Physica A: Statistical Mechanics and its Applications 526, 121009.
  [PDF]
- **Heterogeneous Traffic Flow Dynamics under Various Penetration Rates of Connected and Autonomous Vehicle**
  Lanhang Ye#, Toshiyuki Yamamoto, Takayuki Morikawa
  21st International Conference on Intelligent Transportation Systems (ITSC), Hawaii, USA, 2018.
  [PDF]
- **Bayesian Mixture Model to Estimate Freeway Travel Time under Low-Frequency Probe Data**
  Hyungjoo Kim#, **Lanhang Ye**
  Applied Sciences 12(2022): 6483.
  [PDF]

Presentations

- **Modeling connected and autonomous vehicles in heterogeneous traffic flow** Traffic & Granular Flow, Washington, USA, 2017.
- **Evaluation of safety with mixed traffic of connected autonomous vehicles and conventional vehicles** 57th Infrastructure Planning Conference, Tokyo, Japan, 2018.
- **Heterogeneous Traffic flow dynamics under various penetration rates of connected and autonomous vehicle** 21st IEEE International Conference on Intelligent Transportation Systems, Hawaii, USA, 2018.
- **Integrating Personal Rapid Transit into Existing Traffic Systems: Feasibility, Simulation, and Optimization** International Conference on Materials and Systems for Sustainability, Nagoya, Japan, 2023.

Academic services

Reviewer

- Physica A: Statistical Mechanics and its Applications
- Transportation Research Part B: Methodological
- Accident Analysis & Prevention

- Transport Policy
- IEEE Transactions on Intelligent Transportation Systems
- IEEE Transactions on Intelligent Vehicles
- IEEE Transactions on Knowledge and Data Engineering
- IEEE Intelligent Transportation Systems Magazine
- IEEE Transactions on Transportation Electrification
- IEEE Vehicular Technology Magazine
- IEEE Systems Journal
- Expert Systems with Applications
- Engineering Applications of Artificial Intelligence
- Simulation Modelling Practice and Theory
- Transportmetrica A: Transport Science
- Transportmetrica B: Transport Dynamics
- IET Intelligent Transport Systems
- Journal of Advanced Transportation
- Modern Physics Letters B
- Chaos, Solitons & Fractals
- Advances in Civil Engineering
- Journal of Traffic and Transportation Engineering (English Edition)
- Journal of Transportation Safety & Security
- Applied Mathematical Modelling
- Canadian Journal of Civil Engineering
- Frontiers of Engineering Management
- IEEE Access