

JIA HU

Curriculum Vitae

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Educational Background

2010	B.S.	Zhejiang University	Civil Engineering
2011	M.E.	North Carolina State University	Civil and Environmental Engineering
2014	Ph.D.	University of Virginia	Civil and Environmental Engineering

Appointments

2019-Present	Professor	College of Transportation Engineering, Tongji University, Shanghai, China
2018-2019	“Hundred Talents Program” Professor	College of Transportation Engineering, Tongji University, Shanghai, China
2014-2017	Research Associate	Federal Highway Administration, Washington, D.C., USA
Feb, 2011-Aug, 2011	Transportation Research Intern	Vanasse Hangen Brustlin, Inc, Raleigh, North Carolina, USA

Academic Affiliations

• ASCE's Journal of Transportation Engineering, Part A: Systems	Associate Editor
• IEEE Open Journal on Intelligent Transportation Systems	Associate Editor
• IEEE International Conference on Vehicular Electronics and Safety	Associate Editor
• IEEE Forum on Integrated and Sustainable Transportation Systems	Associate Editor
• Transportation Research Part C: Emerging Technologies	Guest Associate Editor
• Journal of Sensors	Guest Associate Editor
• Journal of Intelligent Transportation Systems	Guest Associate Editor
• International Journal of Transportation	Editorial Board Member
• COTA conference International Conference of Transportation Professionals	Area Editor
• World Transport Convention Vehicle Automation and Connectivity Committee	Chair
• Automated Vehicle Symposium Energy Breakout Session Organizing Committee	Committee Member
• Transportation Research Board Freeway Operation Standing Committee	Committee Member
• Transportation Research Board Vehicle Highway Automation Standing Committee	Committee Member
• Transportation Research Board Signal Simulation Subcommittee	Committee Member
• SAE Shared and Digital Mobility Committee	Committee Member
• ASCE Advanced Technologies Committee	Committee Member
• ASCE Sustainability and Environment Committee	Committee Member
• China Highway & Transportation Society Vehicle-Highway Automation	Committee Member
• Chinese Automation Association Predictive Control Committee	Committee Member
• Shanghai Highway and Transportation Society Standing Committee on	Committee Member

Intelligent Transportation Systems

- International Conference of Traffic and Transportation Engineering Committee Member
- Institute of Electrical and Electronics Engineers (IEEE) Member
- American Society of Civil Engineering (ASCE) Member

Publications

1. Yu Bai, Yu Zhang, **Jia Hu***. "Cooperative Weaving for Connected and Automated Vehicles to Reduce Traffic Oscillation", *Transportmetrica A: Transport Science*. Doi: 10.1080/23249935.2019.1645758.
2. Yunyi Liang, Zhizhou Wu, **Jia Hu***. "Road Side Unit Location Optimization for Optimum Link Flow Determination". *Computer-Aided Civil and Infrastructure Engineering*, Accepted. doi: 10.1111/mice.12490.
3. Ling Wang, Mohamed Abdel-Aty, Wanjing Ma, **Jia Hu**, Hao Zhong. "Quasi-Vehicle-Trajectory-based Real-time Safety Analysis for Expressways", *Transportation Research Part C: Emerging Technologies*, 103 (2019): 30-38.
4. Ping Wang, Yuqi Chen, Chao Wang, Fuqiang Liu, **Jia Hu***, Nguyen Van. "Development & Verification of Cooperative Adaptive Cruise Control via LTE-V", *IET Intelligent Transport Systems*, 13, no. 6 (2019): 991-1000.
5. Jiaqi Ma, **Jia Hu***, Ed Leslie, Fang Zhou, Peter Huang, Joe Bared. "An Eco-Drive Experiment on Rolling Terrains for Fuel Consumption Optimization with Connected Automated Vehicles", *Transportation Research Part C: Emerging Technologies*, 100 (2019): 125-141.
6. Weiyang Wang, **Jia Hu**, Yuxiong Ji, Yuchuan Du. "Improving Fuel Efficiency of Connected and Automated Transit Buses on Signalized Corridors", *IET Intelligent Transport Systems*, 13, no. 5 (2019): 870-879.
7. Lian Cui, **Jia Hu***, Brian Park, Pavle Bujanovic. "Development of a Simulation Platform for Safety Impact Analysis Considering Vehicle Dynamics, Sensor Errors, and Communication Latencies: Assessing Cooperative Adaptive Cruise Control under Cyber Attack," *Transportation Research Part C: Emerging Technologies*, 97 (2018): 1-22.
8. James, Rachel, Christopher Melson*, **Jia Hu**, Joe Bared. "Characterizing the impact of production adaptive cruise control on traffic flow: an investigation." *Transportmetrica B: Transport Dynamics* (2018): 1-21.
9. Lian Cui, Huifu Jiang, Brian Park, Young-Ji Byon, **Jia Hu***. "Impact of Automated Vehicle Eco-Approach on Human Driven Vehicles," *IEEE ACCESS*, online. doi: 10.1109/ACCESS.2018.2874761.
10. Jun Liu, Asad Khattak, Cong Chen, Dan Wan, Jiaqi Ma, **Jia Hu**. "Revisiting Hit-and-Run Crashes: A Geospatial Modeling Method." *Transportation Research Record: Journal of the Transportation Research Board*. In Press.
11. Xin Li, Ming Wei, **Jia Hu***, Yun Yuan and Huifu Jiang. "An Agent-Based Model for Dispatching Real-Time Demand-Responsive Feeder Bus," *Mathematical Problems in Engineering*, vol. 2018, Article ID 6925764, 11 pages, 2018. doi:10.1155/2018/6925764.
12. Li Zhang, Lei Zhang, David Hale, **Jia Hu***, Zhitong Huang. "A Cycle-Based Variable Speed Limit Methodology for Improved Freeway Merging." *IET Intelligent Transport Systems*, 11, no. 10 (2017): 632-640.
13. Huifu Jiang, **Jia Hu***, Shi An, Meng Wang, Byungkyu Brian Park. "Eco Approach at an Isolated Signalized Intersection under Partially Connected and Automated Vehicle Environment". *Transportation Research Part C: Emerging Technologies*, 79:290-307, June 2017, DOI: 10.1016/j.trc.2017.04.001.
14. **Jia Hu**, Yunli Shao, Zongxuan Sun*, Joe Bared. "Integrated Vehicle and Powertrain Optimization for

- Passenger Vehicles with Vehicle-Infrastructure Communication". *Transportation Research Part C: Emerging Technologies*, 79:85-102, June 2017, DOI: 10.1016/j.trc.2017.03.010.
15. Young-Jae Lee, Seyedehsan Davar, **Jia Hu***, Byungkyu Brian Park, "Results of Transit Signal Priority Experiment in Connected Vehicle Technology Environment". *ASCE's Journal of Transportation Engineering, Part A: Systems* 143, no. 8 (2017): 05017005.
 16. Seongah Hong, **Jia Hu***, Byungkyu Brian Park. "Exploring Environmentally Sustainable Traffic Signal Warrant for Planning Application". *International Journal of Sustainable Transportation*, July 2017. DOI: 10.1080/15568318.2016.1276652.
 17. Jiaqi Ma, Xiaopeng Li*, Fang Zhou, **Jia Hu**, Brian Park. "Parsimonious Shooting Heuristic for Trajectory Design of Connected Automated Traffic Part II: Computational Issues and Optimization," *Transportation Research Part B, Methodological* 95 (2017): 421-441. DOI: 10.1016/j.trb.2016.06.010.
 18. Hale, David, Ali Hajbabaie, Jiaqi Ma, **Jia Hu**, Hyoshin Park, and Joe Bared. "Proposed Data-Driven Performance Measures for Comparing and Ranking Traffic Bottlenecks." *Transportation Research Procedia* 15 (2016): 483-494.
 19. **Jia Hu***, Brian Park, Young-Jae Lee. "Transit Signal Priority Accommodating Conflicting Requests Under Connected Vehicles Technology," *Transportation Research Part C: Emerging Technologies*, 69:173-192, July 2016, DOI: 10.1016/j.trc.2016.06.001.
 20. Jiaqi Ma, Michael Fontaine, Fang Zhou, **Jia Hu**, David hale, Michael Clements. "Estimation of Crash Modification Factors for an Adaptive Traffic Signal Control System." *ASCE Journal of Transportation Engineering* 142.12 (2016): 04016061. DOI: 10.1061/(ASCE)TE.1943-5436.0000890.
 21. **Jia Hu**, Yunli Shao, Zongxuan Sun*, Meng Wang, Joe Bared, Peter Huang. "Integrated Optimal Eco-Driving On Rolling Terrain for Hybrid Electric Vehicle with Vehicle-Infrastructure Communication." *Transportation Research Part C: Emerging Technologies*, 68:228-244, July 2016. DOI: 10.1016/j.trc. 2016. 04.009.
 22. David Hale*, Jiaqi Ma, Alexandra Kondyli, **Jia Hu**, Zhitong Huang, Peng Su. "Right-Turn-On-Red Flow Profile Impacts on Urban Street Capacity Analysis." *Transportation Research Record: Journal of the Transportation Research Board* 2553 (2016): 29-40. DOI: 10.3141/2553-04.
 23. Jiaqi Ma, **Jia Hu***, David K. Hale, Joe Bared. "Dynamic Hard Shoulder Running for Traffic Incident Management," *Transportation Research Record: Journal of the Transportation Research Board* 2554 (2016): 120-128.
 24. **Jia Hu***, Michael Fontaine, Jiaqi Ma. "Quality of Private Sector Travel Time Data on Arterials." *ASCE Journal of Transportation Engineering*, Vol 142, Issue 4, April 2016, 10.1061/(ASCE)TE.1943-5436.0000815, 04016010.
 25. Jun Liu, Xin Wang, Asad J Khattak, **Jia Hu***, Jianxun Cui, Jiaqi Ma. "How Big Data Serves for Freight Safety Management at Highway-Rail Grade Crossings? A Spatial Approach Fused with Path Analysis." *Neurocomputing* 181 (2016): 38-52.. DOI: 10.1016/j.neucom.2015.08.098.
 26. Ximiao Jiang, Mohamed Abdel-Aty, **Jia Hu***, Jaeyoung Lee. "Investigating Macro-level Hotzone Identification and Variable Importance Using Big Data: A Random Forest Models Approach." *Neurocomputing* 181 (2016): 53-63.. DOI: 10.1016/j.neucom.2015.08.097.
 27. Jianxun Cui, Feng Liu*, **Jia Hu**, Janssens Davy. "Identifying mismatch between urban travel demand and transport network services using GPS data: A case study in the fast growing Chinese city of Harbin." *Neurocomputing* 181 (2016): 4-18. DOI:10.1016/j.neucom.2015.08.100.
 28. **Jia Hu***, Michael Fontaine. "Field Evaluations of an Adaptive Traffic Signal Control System Using Private Sector Probe Data." *ASCE Journal of Transportation Engineering* Vol. 142, Issue 1 (January 2016). DOI 10.1061/(ASCE)TE.1943-5436.0000806.

29. **Jia Hu***, Brian Park, Young-Jae Lee. "Coordinated Transit Signal Priority Supporting Transit Progression Under Connected Vehicle Technology," *Transportation Research Part C: Emerging Technologies* 55 (2015): 393-408, DOI: 10.1016/j.trc.2014.12.005.
30. **Jia Hu***, Brian Park, Emily Parkany. "Transit Signal Priority with Connected Vehicle Technology," *Transportation Research Record: Journal of the Transportation Research Board* 2418 (2014): 20-29, DOI 10.3141/2418-03.
31. Yingjie Xia*, **Jia Hu**, Michael D Fontaine. "A Cyber ITS Framework for Massive Traffic Data Analysis Using Cyber infrastructure," *The Scientific World Journal*, vol. 2013, Article ID 462846, 9 pages, 2013. doi:10.1155/2013/462846
32. Yu Zhang, Elizabeth Harris*, Meghan Rogers, David Kaber, Joseph Hummer, William Rasdorf, **Jia Hu**. "Driver Distraction and Performance Effects of Highway Logo Sign Design," *Applied Ergonomics* 44.3 (2013): 472-479.
33. **Jia Hu***, Bastian J. Schroeder, and Nagui M. Roupail, "Rationale for Incorporating Queue Discharge Flow into Highway Capacity Manual Procedure for Analysis of Freeway Facilities," *Transportation Research Record: Journal of the Transportation Research Board* 2286 (2012): 76-83.

Editorials

1. Zhengbing He, **Jia Hu**, B. Brian Park & Michael W. Levin, "Vehicle sensor data-based transportation research: Modeling, analysis, and management", *Journal of Intelligent Transportation Systems*, 2019,23:2, 99-102, DOI: 10.1080/15472450.2019.1586335.
2. Chuan Ding, **Jia Hu**, and Xiaolei Ma, "Sensors in Connected Vehicle Technology: How Sensors Play a Critical Role", *Journal of Sensors*, Volume 2017, Article ID 8241932, 2 pages, <https://doi.org/10.1155/2017/8241932>

Conference Presentations

1. A Generic Simulation Platform for Cooperative Adaptive Cruise Control under Partially Connected and Automated Environment. Transportation Research Board 99th Annual Meeting, Washington, D.C., January 12-16, 2020.
2. MT-LinAdapt: A Human-centric Machine Learning based Individual Drivers' Route Choice Model for Personalized Route Recommendation. Transportation Research Board 99th Annual Meeting, Washington, D.C., January 12-16, 2020.
3. Chang-Hu's Optimal Motion Planning Framework for Cooperative Automation: Mathematical Formulation, Solution, and Applications. Transportation Research Board 99th Annual Meeting, Washington, D.C., January 12-16, 2020.
4. Data-Driven Road Side Unit Location Optimization for Information Propagation under Stochastic Traffic Condition. Transportation Research Board 99th Annual Meeting, Washington, D.C., January 12-16, 2020.
5. Cut Through Traffic to Catch Green Light: Eco Approach with Overtake Capability. Transportation Research Board 99th Annual Meeting, Washington, D.C., January 12-16, 2020.
6. Modeling System Dynamics for Mixed Traffic with Partially Connected and Automated Vehicles. Transportation Research Board 99th Annual Meeting, Washington, D.C., January 12-16, 2020.
7. Human-in-the-Platoon Cooperative Adaptive Cruise Control. Transportation Research Board 99th Annual Meeting, Washington, D.C., January 12-16, 2020.
8. CACC Systems with Compensation of Communication Delay: Control Design, Stability Analysis and Traffic Flow Implications. Transportation Research Board 99th Annual Meeting, Washington, D.C.,

January 12-16, 2020.

9. Modeling System Dynamics of Mixed Traffic with Partially Connected and Automated Vehicles. IEEE Intelligent Transportation Systems Conference, Auckland, New Zealand, October 27-30, 2019.
10. Vehicle Trajectory Based Real-time Safety Analysis. Transportation Research Board 98th Annual Meeting, Washington, D.C., January 13-17, 2019.
11. Complete Link Flow Inference Oriented Roadside Unit Location. Transportation Research Board 98th Annual Meeting, Washington, D.C., January 13-17, 2019.
12. Motion Planning Algorithm under Partially Connected and Automated Environment. Transportation Research Board 98th Annual Meeting, Washington, D.C., January 13-17, 2019.
13. Cooperative Weaving for Connected and Automated Vehicles to Mitigate Traffic Oscillation. Transportation Research Board 98th Annual Meeting, Washington, D.C., January 13-17, 2019.
14. Platoon-Scale Cooperative Adaptive Cruise Control: Communication Topology and Control Logic. Transportation Research Board 98th Annual Meeting, Washington, D.C., January 13-17, 2019.
15. Mobility Oriented Motion Planning for Cooperative Lane Changing under Partially Connected and Automated Environment. IEEE ITSC, Hawaii, United States, November 4-7, 2018.
16. Human-in-the-platoon Cooperative Adaptive Cruise Control: Field Experiment, Automated Vehicle Symposium, San Francisco, July 9-12, 2018.
17. Development of a Simulation Platform for Safety Evaluation of Connected and Automated Vehicles. IEEE Intelligent Vehicles, Changshu, China, June 26-29, 2018.
18. An Eco-Drive Experiment on Rolling Terrains for Fuel Consumption Optimization with Connected Automated Vehicles. Transportation Research Board 97th Annual Meeting, Washington, D.C., January 7-11, 2018.
19. A Design of Cooperation Between Traffic Signal and Connected Automated Vehicles. Transportation Research Board 97th Annual Meeting, Washington, D.C., January 7-11, 2018.
20. Characterizing the Impact of Production Adaptive Cruise Control on Traffic Flow: An Investigation. Transportation Research Board 97th Annual Meeting, Washington, D.C., January 7-11, 2018.
21. Cooperative Adaptive Cruise Control Algorithm with Priority Weights Assigned to Downstream Vehicles for Increased Safety. Transportation Research Board 97th Annual Meeting, Washington, D.C., January 7-11, 2018.
22. Reliability-Oriented Transit Signal Priority System. Transportation Research Board 97th Annual Meeting, Washington, D.C., January 7-11, 2018.
23. Revisiting Hit-and-Run Crashes: A Geospatial Modeling Method. Transportation Research Board 97th Annual Meeting, Washington, D.C., January 7-11, 2018.
24. Cooperative Adaptive Cruise Control Algorithm with Priority Weights Assigned to Downstream Vehicles for Increased Safety. Transportation Research Board 97th Annual Meeting, Washington, D.C., January 7-11, 2018.
25. Connected and Automated Driving at a Signalized Intersection - Two Examples of Vehicle-Signal Cooperation, Automated Vehicle Symposium, San Francisco, July 10-14, 2017.
26. Road Test of CAV Eco-ACC on Rolling Terrain, Automated Vehicle Symposium, San Francisco, July 10-14, 2017.
27. Eco-approach at an Isolated Intersection under Partially Connected and Automated Vehicles Environment, World Transport Convention, Beijing China, June 4-6, 2017
28. Development of Agent-Based On-line Adaptive Signal Control (ASC) Framework Using Connected Vehicle (CV) Technology, World Transport Convention, Beijing China, June 4-6, 2017

29. Optimal Lane Sequence Guidance Based on Connected Vehicles, World Transport Convention, Beijing China, June 4-6, 2017
30. Optimization of Multimodal Network System for Environmental Sustainability incorporating Economies of Scale, Transportation Research Board 96th Annual Meeting, Washington, D.C., January 8-12, 2017.
31. Integrated Vehicle and Powertrain Optimization for Passenger Vehicles with Vehicle-Infrastructure Communication, Transportation Research Board 96th Annual Meeting, Washington, D.C., January 8-12, 2017.
32. Responsive Signal Control with Active Connected Vehicles, Transportation Research Board 96th Annual Meeting, Washington, D.C., January 8-12, 2017.
33. Proposed Data-Driven Performance Measures for Comparing and Ranking Traffic Bottlenecks, Transportation Research Board 96th Annual Meeting, Washington, D.C., January 8-12, 2017.
34. Scalable Short-Term Origin-Destination Estimation Approach Based on Modularized Network with Connected-Vehicle Technology, Transportation Research Board 96th Annual Meeting, Washington, D.C., January 8-12, 2017.
35. Transit Signal Priority Accommodating Conflicting Requests Under Connected Vehicles Technology. Transportation Research Board 96th Annual Meeting, Washington, D.C., January 8-12, 2017.
36. Transit Signal Priority Accommodating Conflicting Requests Under Connected Vehicles Technology. Transportation Research Board Traffic Signal Systems Committee Summer Meeting, Pittsburgh, PA, July 24, 2016.
37. A Cycle-Based Variable Speed Limit Methodology for Improved Freeway Merging. The 23rd ITS World Congress 2016, Melbourne, Australia, Oct 10-14, 2016.
38. Integrated Optimal Eco-Driving on Rolling Terrain for Hybrid Electric Vehicle under Connected Vehicle Context. Transportation Research Board 95th Annual Meeting, Washington, D.C., January 10-14, 2016.
39. Results of Transit Signal Priority Experiment in Connected Vehicle Technology Environment. Transportation Research Board 95th Annual Meeting, Washington, D.C., January 10-14, 2016.
40. Dynamic Hard Shoulder Running for Traffic Incident Management. Transportation Research Board 95th Annual Meeting, Washington, D.C., January 10-14, 2016.
41. Development and Evaluation of Environmentally Sustainable Signal Warrant at Planning Level. Transportation Research Board 95th Annual Meeting, Washington, D.C., January 10-14, 2016.
42. Transit Signal Priority with Connected Vehicle Considering Conflicting Requests. The 22nd ITS World Congress 2015, Bordeaux, France, Oct 5-9, 2015.
43. Validation of Private Sector Data on Arterials. The 22nd ITS World Congress 2015, Bordeaux, France, Oct 5-9, 2015.
44. SPaT and Active Traffic Management Strategies for Oversaturated Signalized Intersection. The 22nd ITS World Congress 2015, Bordeaux, France, Oct 5-9, 2015.
45. Intelligent Transit Signal Priority Resolving Conflicting Requests. Transportation Research Board 94th Annual Meeting, Traffic Signal System Control Simulation Subcommittee Meeting, Washington, D.C., January 11-15, 2015.
46. Intelligent Transit Signal Priority Considering Bus Progression. Transportation Research Board 94th Annual Meeting, Washington, D.C., January 11-15, 2015.
47. Field Evaluations of an Adaptive Traffic Signal Control System Using Private Sector Probe Data. The 21st ITS World Congress 2014, Detroit, MI, September 7-11, 2014
48. A Rationale for Incorporating its Applications' Effect into The HCM Signalized Facilities Analysis. The 21st ITS World Congress 2014, Detroit, MI, September 7-11, 2014.

49. Near-Side Bus Stop with Queue Jumper Lane under Connected Vehicles. The 21st ITS World Congress 2014, Detroit, MI, September 7-11, 2014.
50. Transit Signal Priority with Connected Vehicle Technology, Transportation Research Board 93rd Annual Meeting, Washington, D.C., January 14, 2014.
51. A Cyber Its Framework for Massive Traffic Data Analysis Using Cyber infrastructure, Transportation Research Board 92nd Annual Meeting, Washington, D.C., January 14, 2013.
52. Driving Simulator Evaluation of Effects of Nine Panel and Overflow Combination Specific Service Logo Signs on Driver Performance and Distraction, Transportation Research Board 92nd Annual Meeting, Washington, D.C., January 14, 2013.
53. A Rationale for Incorporating Queue Discharge Flow into Highway Capacity Manual Procedure for Analysis of Freeway Facilities, Transportation Research Board 91st Annual Meeting, Washington, D.C., January 24, 2012.

Moderated Seminars

1. Moderator: The 22nd COTA TRB Winter Symposium, Transportation Research Board, January 13-17, 2019.
2. Chair: Connected and Automated Vehicles Test and Evaluation, IEEE Intelligent Vehicles Symposium, June 26-30, 2018
3. Chair: New Innovations in Intersection Control with Cooperative Automation, Automated Vehicle Symposium, San Francisco, July 9-12, 2018.
4. Chair: Effects of Vehicle Automation on Energy-Usage and Emissions, Automated Vehicle Symposium, San Francisco, July 10-14, 2017.

Research Reports

1. David Hale, Ramanujan Jagannathan, Michalis Xyntarakis, Peng Su, Ximiao Jiang, Jiaqi Ma, **Jia Hu**, and Cory Krause. Traffic Bottlenecks: Identification and Solutions. Report No. FHWA-HRT-16-064, FHWA; U.S. Department of Transportation, 2016.
2. Byungkyu Brian Park, **Jia Hu**, Seongah Hong. Optimization of Multimodal Network System for Environmental Sustainability incorporating Economies of Scale. MATSUTC, 2016.
3. Jia Hu, Young-Jae Lee, Byungkyu Brian Park and Seyedehsan Dadvar. Next Generation Transit Signal Priority with Connected Vehicle Technology. Duns: 0031370150000. EIN: 54-6001805. Research and Innovation Technology Administration (RITA); U.S. Department of Transportation, 2016.
4. Michael D Fontaine, Jiaqi Ma and **Jia Hu**. Evaluation of the Virginia Department of Transportation Adaptive Signal Control Technology Pilot Project, Report No. VCTIR 15-R24, Charlottesville, VA, June 2015.
5. Byungkyu Brian Park and **Jia Hu**. Transit Signal Priority with Connected Vehicle Technology. University of Virginia, Report No. UVA-2012-05, Charlottesville, VA, 2013.

Research Projects

2019/01-2021/12	¥230,000	PI	National Natural Science Foundation of China , Cooperative Adaptive Cruise Control under Partially Connected and Automated Environment
2018/05-2021/04	¥200,000	PI	Shanghai Science and Technology Committee , Automated Vehicle Decision Making under Partially Connected and

			Automated Environment
2016/10-2017/10	\$291,425	PI	U.S. Department of Transportation , Development of an Eco-cooperative adaptive cruise control to optimize vehicle performance for environment and mobility benefits, phase III
2016/05-2017/05	\$300,000	Co-PI	U.S. Department of Transportation , Road test and hardware-in-the-loop simulation test for eco-drive on rolling terrain
2015.10-2016.10	\$267,831	PI	U.S. Department of Transportation , Development of an Eco-cooperative adaptive cruise control to optimize vehicle performance for environment and mobility benefits, phase II,
2014/04-2016/04	\$1,100,000	Investigator	U.S. Department of Transportation , Traffic Bottlenecks Identification, Diagnosis, and Innovative Solutions to Local/Systemic Problems
2014/08-2015/08	\$267,831	PI	U.S. Department of Transportation , Development of an Eco-cooperative adaptive cruise control to optimize vehicle performance for environment and mobility benefits, phase I
2014/11-2016/04	\$258,000	PI	MAUTC (Mid-Atlantic University Transportation Center) , Multimodal Freight distribution to support increased port operations
2013/02-2014/01	\$159,368	PI	MAUTC (Mid-Atlantic University Transportation Center) , Next generation transit signal priority with Connected Vehicles Technology
2012/06-2013/05	\$150,000	PI	VDOT (Virginia Department of Transportation) , Transit signal priority with Connected Vehicles
2011/05-2015/05	\$205,000	Investigator	VDOT (Virginia Department of Transportation) , Evaluation of The Virginia Department of Transportation Adaptive Signal Control Technology Pilot Project
2010.6-2015.5	\$33,190	Investigator	NCDOT(North Carolina Department of Transportation) ,Driving Simulation Study of Nine-Panel Logo Signs

Reviewers

- Advances in Mechanical Engineering
- ASCE Journal of Transportation Engineering
- IET Intelligent Transport Systems
- Journal of Advanced Transportation
- Journal of Central South University
- Journal of Intelligent Transportation Systems
- Journal of Advanced Transportation
- Journal of Transport and Land Use
- Journal of Traffic and Transportation Engineering
- KSCE Journal of Civil Engineering
- Mathematical Problems in Engineering
- Transportation Research Part F: Psychology and Behavior
- Transportation Research Record: Journal of the Transportation Research Board
- Transportmetrica A: Transport Science
- Transportmetrica B: Transport Dynamics
- Transportation Letters
- Transportation Research Part C: Emerging Technologies
- Transportation Research Part D: Transport and Environment
- IEEE Intelligent Vehicles Symposium (Since 2013)
- IEEE Transaction on Intelligent Transportation Systems
- Eastern Asia Society for Transportation Studies (Since 2017)
- American Control Conference (Since 2016)
- Intelligent Transportation Systems America (Since 2016)
- IEEE International Conference on Intelligent

- IEEE Intelligent Transportation Systems Magazine
- Transport
- Transportation Systems (Since 2015)
- ITS World Congress (Since 2015)

Awards and Honors

2019	Distinguished Professor in Shanghai (上海市东方学者特聘教授)	Shanghai Municipal Education Commission (上海市教育委员会)
2019	Zhong Te Distinguished Chair in Cooperative Automation	Tongji University
2018	Best Paper Award: "Eco-drive Experiment"	U.S. Transportation Research Board
2017	Most Cited Papers	Web of Science
2017	Invited Webinar for USDOT	USDOT
2017	Research Featured in Advances in Engineering	Advances in Engineering
2016	Best Scientific Paper- Americas (1 paper per year)	ITS World Congress
2016	Paper featured by ASCE	ASCE (American Society of Civil Engineers)
2014	National Research Council Associateship Award	U.S. Transportation Research Board
2014	Academic Excellence Award	University of Virginia
2012	Second Place Winner of ITSVA Student Paper Contest	Intelligent Transportation Society of Virginia (U.S.)
2011	Commonwealth Fellowship	Commonwealth Scholarship and Fellowship Plan
2008-2009	Outstanding Senior Thesis	Zhejiang University
2008-2009	First Prize of Excellent Undergraduate Scholarship (5 out of 171)	Zhejiang University
2007-2008	First Prize of Excellent Undergraduate Scholarship (5 out of 171)	Zhejiang University
2007-2008	"Civil Engineering & Architecture & Landscape" Programming Funding	Zhejiang University
2007-2008	Fortis Scholarship	Zhejiang University
2008	Third Prize of Student Research Training Program	Zhejiang University
2006-2007	Second Prize of Excellent Undergraduate Scholarship (9 out of 171)	Zhejiang University
2007	Annual Excellent All-round Student (Won three times: 2006-2007, 2007-2008, and 2008-2009) Third Prize of Structure Design Competition (9 out of 171)	Zhejiang University
2007-2009	Member of Honors Class of Civil Engineering (Thirty five out of 171 students of Civil Engineering were selected)	Zhejiang University

Work Experience

2018-Present, Tongji University, China

Cooperative Adaptive Cruise Control

- Developed an optimal controller that enables platooning with both longitudinal and lateral automation
- Conduct field experiment with SAIC (OEM)

2014-2017, Federal Highway Administration, USA

Eco-Driving with Integrated Optimal Controller

- Developed and evaluated an ITS Eco-driving algorithm that utilizes connected vehicle communications between vehicle and road-side equipment
- Developed an optimal controller that integrates vehicle level and powertrain level optimization

Feb, 2011-Aug, 2011, Vanasse Hangen Brustlin, Inc., USA

NCHRP 3-93: Automated Enforcement for Speeding and Red Light Running (Research Assistant) Safety

- Identified and classified automated enforcement legislation across the nation.
- Prepared a comprehensive assessment of automated speeding and red light enforcement activity in the United States

Evaluation of Access Management Policies and Techniques (Research Assistant)

- Understand the safety effects of implementing various access management policies and strategies, including unsignalized access spacing, signal spacing, interchange spacing, corner clearance, and the provision of left turn lanes or non-traditional accommodation of left turns (e.g. roundabout and superstreet).
- Collected over 600 miles of detailed corridor data from multiple data sources, including state DOTs, Highway Safety Information System (HSIS), aerial imagery, and field visits.
- Input access data into ArcGIS.
- Developed Corridor-level crash prediction models that related access management strategies and safety performance.

Jun, 2010-Jul, 2010, Nagoya University, Nagoya, Japan

Summer Exchange program

- Subject 1: Latest Advanced Technology and Tasks in Automobile Engineering, 3 Credits, Grade: A
- Subject 2: Japanese, 3 Credits, Grade: A

2009, China Construction Ninth Engineering Division. Co., LTD.

- Metro construction management

Jul, 2009-Aug, 2009, China GuangSha Co., LTD.

Hangzhou Post Information Building's construction site

- Construction management

Teaching

Feb, 2018 - Present, Tongji University

An Introduction to Intelligent Transportation Systems

Sep, 2018 - Present, Tongji University

Traffic Information and Data

Feb, 2019 - Present, Tongji University

Traffic Control

Jan, 2011-May, 2011, University of Virginia

Applied Mathematics 3100 (Teaching Assistant)

Supervision

2019-Present	Haoran Wang (Ph.D.; Supervisor)
2018-Present	Lianhua An (Ph.D.; Supervisor)
2014-Present	Lian Cui (Ph.D.; Co-Supervisor)
2015-2018	Pavle Bojanovic (Ph.D.; Co-Supervisor)

2014-2018	Bingrong Sun (Ph.D.; Co-Supervisor)
2018-Present	Longqian Qi (Master; Supervisor)
2018-Present	Zihan Zhang (Master; Supervisor)
2017-Present	Yiming Zhang (Master; Co-Supervisor)
2017-Present	Zhiying Shang (Master; Co-Supervisor)