

CHING-YAO CHAN'S RECENT PUBLICATIONS, 2015-2021

- Sanaz Motamedi, Pei Wang, Ching-Yao Chan, "Exploring Public Perception of Level-2 Automation and Full Automation: Interview Based Study," Paper 21-01824, *Transportation Research Board Meeting*, presentation only, January 2021.
- Xiao Zhou, Tingting Zhang, Pei Wang, Ching-Yao Chan, "Visualization of Driving Scenes for Realistic Simulator Experimentation - An Efficient Framework," Paper 21-03634, *Transportation Research Board Meeting*, presentation only, January 2021.
- Fei Ye, et al., "Automated Lane Change Strategy using Proximal Policy Optimization-based Deep Reinforcement Learning," *IEEE Intelligent Vehicles*, October 2020.
- J. M. Salt Ducaju, et al., "Application Specific System Identification for Model-Based Control in Self-Driving Cars," *IEEE Intelligent Vehicles*, October 2020.
- Wenshuo Wang, et al., "Learning Representations for Multi-Vehicle Spatio-temporal Interactions with Semi-Stochastic Potential Fields," *IEEE Intelligent Vehicles*, October 2020.
- Arian Ranjbar, et al., "Scene Novelty Prediction from Unsupervised Discriminative Feature Learning," *IEEE Intelligent Transportation Systems Conference*, September 2020.
- I-Ming Chen, C-Y Chan, "Deep Reinforcement Learning Based Path Tracking Controller for Autonomous Vehicle" accepted for publication in *Proc. IMechE, Part D: Journal of Automobile Engineering*, August 2020.
- Yanli Ma, et al., "Drivers' Visual Attention Characteristics under Different Cognitive Workload: An On-road Driving Behavior study," *International Journal of Environmental Research and Public Health*, July 2020.
- Yi He, et al., "Visualization Analysis of Intelligent Vehicles Research Field Based on Mapping Knowledge Domain," *IEEE Transactions on Intelligent Transportation Systems*, Print ISSN: 1524-9050, Online ISSN: 1558-0016, early access on *IEEE Xplore*, May 2020.
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- Zhaoting Li, Wei Zhan*, Liting Sun, Ching-Yao Chan, Masayoshi Tomizuka, "Adaptive sampling-based motion planning with a non-conservatively defensive strategy for autonomous driving," *IFAC 2020*.
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- Yanli Ma, Biqing Yin, Xiancai Jiang, Jankun Du, Ching-Yao Chan "Psychological and Environmental Factors Affecting Driver's Frequent Lane-changing Driving Behaviors: A National Sample of Drivers in China," *IET Intelligent Transport Systems*, January 2020.
- Pin Wang, Hanhan Li, Ching-Yao Chan, "Structured Quadratic Q-network for Learning Continuous Vehicle Control," Paper 20-02002, *Transportation Research Board Meeting*, presentation only, January 2020.
- Sanaz Motamedi, Pei Wang, Teresa Canas Bajo, Shouming Qi, David Whitney, Ching-Yao Chan, Yaping Zhang, "External Interface of Automated Driving Systems: Communication and Interaction with Pedestrians," Paper 20-03984, *Transportation Research Board Meeting*, January 2020.
- Pei Wang, Tingting Zhang, Xiao Zhou, Sanaz Motamedi, Ching-Yao Chan, Yaping Zhang, "Freeway Traffic Sign Design for Interstate 80 Smart Corridor in California: A Driving Simulator Study," Paper 20-03907, *Transportation Research Board Meeting*, January 2020.
- Yanli Ma, Shouming Qi, Guan Lian, Jieyu Zhu, Ching-Yao Chan, Yaping Zhang, "An On-Road Driving Test of Cognitive Distraction: Characteristics of Drivers' Visual Behavior," Paper 20-02501, *Transportation Research Board Meeting*, January 2020.
- Hongyu Hu, Jiarui Liu, Pin, Wang, Ching-Yao Chan, "Driver Identification Using 1-D Convolutional Neural Networks with Vehicular CAN Signals," Paper 20-01857, *Transportation Research Board Meeting*, January 2020.
- Pin Wang, Hanhan Li, Ching-Yao Chan, "Quadratic Q-network for Learning Continuous Control for Autonomous Vehicles," *NeurIPS 2019 Machine Learning for Autonomous Driving Workshop*, December 2019.
- Yanli Ma, Shouming Qi, Luyang Fan, Weixin Lu, Ching-Yao Chan, Yaping Zhang, "Dynamic Bayesian network approach to evaluate vehicle driving risk based on on-road experiment driving data," early access, *IEEEExplore*, on page(s): 1-13, Print ISSN: 2169-3536, Online ISSN: 2169-3536, September 2019.
- Long Xin, Shengbo Eben Li*, Pin Wang, Yulin Wang, Bingbing Nie, Ching-Yao Chan, Bo Cheng, "Accelerated Inverse Reinforcement Learning with Randomly Pre-sampled Policies for Autonomous Driving Reward Design," *IEEE Intelligent Transportation System Conference*, October 2019.

- Tianyu Shi, Pin Wang*, Xuxin Cheng, Ching-Yao Chan, "Driving Decision and Control for Autonomous Lane Change based on Deep Reinforcement Learning," *IEEE Intelligent Transportation System Conference*, October 2019.
- Mengyu Guo, Pin Wang, Ching-Yao Chan, Sid Askary, "A Reinforcement Learning Approach for Intelligent Traffic Signal Control at Urban Intersections," *IEEE Intelligent Transportation System Conference*, October 2019.
- Tingting Li, Jianping Wu, Ching-Yao Chan, "Evolutionary Learning in Decision Making for Lane Change," *IEEE Intelligent Transportation System Conference*, October 2019.
- I-Ming Chen, Ching-Yao Chan, "A Deep Reinforcement Learning-Based Approach to Intelligent Powertrain Control for Automated Vehicles," *IEEE Intelligent Transportation System Conference*, October 2019.
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- Pin Wang, C-Y Chan, "Driving Maneuver Learning via Reinforcement Learning for Automated Vehicles in An Interactive Environment," *TRB 2019 Annual Meeting*, Paper 19-01116, January 2019.
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traffic environment" *Transport Research Part D: Transport and Environment*, Vol 63, August 2018, pp. 747-754.

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- Y. Liu, W-B Zhang, Z-L. Wang, C-Y Chan, "DSRC-Based End-of-Queue Warning System," *IEEE Intelligent Vehicles Conference*, Los Angeles, June 2017.
- W. Zhan, J. Chen, C-Y Chan, C. Liu, M. Tomizuka, "Spatially-Partitioned Environment Representation and Planning Architecture for On-Road Autonomous Driving," *IEEE Intelligent Vehicles Conference*, Los Angeles, June 2017.

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- C-Y Chan, "Disruptive Innovations in Technologies and the Tectonic Shift of Landscape in Transportation," *Modern Engineering and Technology Symposium*, Taipei, Taiwan, October 2016.
- Y. Li, J. Wang, C-Y Chan, T. Fu, "Develop Right-Turn Crash Warning System at Arterial Access Considering Driver Behavior," *IET Intelligent Transport Systems*, ISSN 1751-9578, available online September 2016.
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CHING-YAO CHAN'S PREVIOUS PUBLICATIONS, UP TILL 2015

Book

- C-Y. Chan, "Fundamental of Crash Sensing for Automotive Air Bag Systems," Society of Automotive and Aerospace Engineers (SAE), February 2000, ISBN 0-7680-0499-3.

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- F. Bu, C-Y Chan, "Adaptive and Cooperative Cruise Control," *Handbook of Intelligent Vehicles*, Feb. 2012, **ISBN-13**: 978-0857290847.
- C-Y. Chan, "Occupant Restraint Systems," McGraw-Hill 2006 Yearbook of Science and Technology, December 2005, ISBN: 0-0714-6205-8.

Archival Journal Publications (21)

- X. Li, W. Chen, C-Y Chan, "A Reliable Multi-Sensor Fusion Strategy for Lane Vehicle Positioning Using Low-Cost Sensors," *Proceedings of the Institution of Mechanical Engineers, Part D*, Vol. 228, No. 12, pp. 1375-1397, October 2014.
- X. Li, X. Song; C-Y Chan, "Reliable Vehicle Sideslip Angle Fusion Estimation Using Low-Cost Sensors," *Measurement*, Vol. 51, pp. 241-258, October 2014.
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