

SECTION I: CHING-YAO CHAN'S RECENT PUBLICATIONS, 2015-2022

- Y. Li, et al., "Energy-based Learning for Multi-Agent Activity Forecasting," *AAAI 2022*, to be presented, February 2022.
- Arian Ranjbar, et al., "Safety Monitoring of Neural Networks Using Unsupervised Feature Learning and Novelty Estimation," *IEEE Transactions on Intelligent Vehicles*, accepted and to appear.
- Pei Wang, et al, "Automated Vehicles Industry Survey of Transportation Infrastructure Needs," *2022 Transportation Research Records*, to appear.
- I.H. Kao, C-Y Chan "Impact of Posture and Social Features on Pedestrian Road-Crossing Trajectory Prediction," *IEEE Transactions on Instrumentation and Measurement*, accepted January 2022, Print ISSN: 0018-9456, Online ISSN: 1557-9662, 10.1109/TIM.2021.3139691.
- I.H. Kao, C-Y Chan "Estimation of vehicle dynamics by fusion image and radar based on subtraction convolutional neural network," *9th International Conference on Mechanical, Automotive and Materials Engineering (CMAME2021)*, December 2021.
- Y. Du et al, "Comfortable and Energy-Efficient Speed Control of Autonomous Vehicles on Rough Pavements using Deep Reinforcement Learning," *Transportation Research Part C*, accepted November 2021.
- Y. Li, et al., "Imitative Learning for Multi-Person Action Forecasting," *ACM Multimedia*, October 2021.
- I-His Kao, et al, "A Posture Features Based Pedestrian Trajectory Prediction with LSTM," *IEEE-International Conference on Consumers Electronics*, Best Paper Award, September 2021.
- Fei Ye, et al., "Motion Planning and Control of Autonomous Vehicles," *IEEE Intelligent Vehicles Symposium*, July 2021.
- Fei Ye, et al., "Meta Reinforcement Learning-Based Lane Change Strategy for Autonomous Vehicles," *IEEE Intelligent Vehicles Symposium*, July 2021.
- Y. Li, P. Wang, C-Y Chan, "RESTEP into the Future: Relational Spatio-Temporal Learning for Multi-Person Action Forecasting," *IEEE Transactions on Multimedia*, Print ISSN: 1520-9210 Online ISSN: 1941-0077, June 2021.
- B. Yang et al, "A Novel Graph-based Trajectory Predictor with Pseudo Oracle," *IEEE Transactions on Neural Networks and Learning Systems*, Print ISSN: 2162-237X, Online ISSN: 2162-2388, Digital Object Identifier: 10.1109/TNNLS.2021.3084143, June 2021.
- P. Wang et al, "Decision Making for Autonomous Driving via Augmented Adversarial Inverse Reinforcement Learning", *IEEE International Conference on Robotics and Automation*, May 2021.

- P. Wang, H. Li, C-Y Chan, "Learning Adaptable Policy via Meta-Adversarial Inverse Reinforcement Learning for Decision-making Tasks", *IEEE International Conference on Robotics and Automation*, May 2021.
- B. Yang et al, " Crossing or not? Context-based recognition of pedestrian crossing intention in the urban environment", T-ITS-19-03-0334, *IEEE Transactions on Intelligent Transportation Systems*, Print ISSN: 1524-9050, Online ISSN: 1558-0016, February 2021.
- S. Motamedi, Pei Wang, C-Y Chan, "Exploring Public Perception of Level-2 Automation and Full Automation: Interview Based Study", Paper 21-01824, *Transportation Research Board Meeting*, January 2021.
- X. Zhou, T. Zhang, P. Wang, C-Y Chan, "Visualization of Driving Scenes for Realistic Simulator Experimentation - An Efficient Framework", Paper 21-03634, *Transportation Research Board Meeting*, January 2021.
- P. Wang, et al, "Pedestrian Interaction with Automated Vehicles at Uncontrolled Intersections", *Transportation Research Part F: Psychology and Behaviour*, Dec. 2020.
- L. Bai, et al, "Capacity Estimation of Midblock Bike Lanes with Mixed Two-Wheeled Traffic", *Transportation A: Transport Science*, Dec. 2020.
- Yanli Ma, Zhiliang Lv, Peng Zhang, Ching-Yao Chan, "Impact of Lane Changing on Adjacent Vehicles considering Multi-Vehicle Interaction in Mixed Traffic Flow: A Velocity Estimating Model", *Physics A: Statistical Mechanics and Its Applications*, November 2020.
- 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.
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- Yanli Ma, et al., "Support vector machines for the identification of real-time driving distraction using in-vehicle information systems," *Journal of Transportation Safety and Security*, DOI: 10.1080/19439962.2020.1774019, June 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.
- Tianyi Li, et al., "Lane-level localization system using surround view cameras adaptive to different driving conditions," *International Journal of Advanced Robotic Systems*, March 2020.
- Tingting Li, et al., "A Cooperative Lane Change Model for Connected and Automated Vehicles," *IEEE Access*, page(s): 1-12, ISSN: 2169-3536, March 2020.
- S. Motamedi, P. Wang, C-Y Chan, "Acceptance of Full Driving Automation: Personally-Owned and Shared-Use Concepts," *Human Factors: The Journal of the Human Factors and Ergonomics Society*, March 2020.
- 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.
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- 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.
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- 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.
- P. Wang, C-Y Chan, "Continuous Control for Automated Lane Change Behavior Based on Deep Deterministic Policy Gradient Algorithm," *IEEE Intelligent Vehicles*, June 2019.
- P. Wang, et al., "A Data Driven Method of Optimizing Feedforward Compensator for Autonomous Vehicle," *IEEE Intelligent Vehicles*, June 2019.
- L. Sun, W. Zhan, C-Y Chan, M. Tomizuka "Behavior Planning of Autonomous Vehicles with Social Perception," *IEEE Intelligent Vehicles*, June 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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- S. Motamedi, et al., "An Interview Study Exploring Tesla End-Users Acceptance," *Human-Computer Interaction International (HCCI) 2018*, July 2018.
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- 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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- X-M. Chen, et al, "Bionic Decision-Making Analysis During Urban Expressway Ramp Merging for Autonomous Vehicle," *TRB Annual Meeting*, Paper #17-3483, January 2017.
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- W. Zhan, C. Liu, C-Y Chan, M. Tomizuka, "A Non-Conservatively Defensive Strategy for Urban Autonomous Vehicle," *IEEE ITS Conference*, Rio De Janeiro, Brazil, November 2016.
- L. Lu et al., "A Cellular Automation Simulation Model for Pedestrian and Vehicle Interaction Behaviors at Unsignalized Mid-Block Crosswalks," *Accident Analysis and Prevention*, Volume 95, Part B, pp. 425-437, October 2016.
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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.

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- Z. Tong et al., "A Link Reliability Model of Metropolitan VANETs for Data Dissemination," *IEEE Vehicular Technology Conference*, Fall 2016, Montreal, Canada, September 2016.
- L. Lu, C-Y Chan, J. Wang, W. Wang, "A Study of Pedestrian Group Behaviors in Crowd Evacuation Based on an Extended Floor Field Cellular Automation Model," *Transportation Research Part C, Emerging Technologies*, available online September 2016.
- P. Wang, C-Y Chan, J. Wang, S. Fang, "An Examination of Traffic Patterns at Signalized Intersections via Use of a Network of Discrete Sensors," *14th World Conference of Transport Research*, Shanghai, China, July 2016.
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- H. Lo, J-C Chen, C-Y Chan, S-C Lin, "Deployment of A Vehicle Occupant Detection System for High-Occupancy Lane Operation," *ITS Asia Pacific Conference*, Nanjing, China, April 2015.

SECTION II: CHING-YAO CHAN'S PREVIOUS PUBLICATIONS, UP TILL 2015

Book

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Book Chapters

- 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)

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- W-B Zhang, et al., "Deployment Challenges for Truck Platoon," *ITS World Congress 2014*, Detroit, September 2014.
- C-Y Chan, T. Oda, M. Koga, "Vehicle Connectivity and Automation for Aging Society," *ITS Europe 2014*, Helsinki, Finland, June 2014.
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- J. Huang, C-Y Chan, "Evaluation of Commercial Truck Traffic in California and Use of ITS Technologies," *Scientific Paper, ITS Europe*, Dublin, Ireland, June 2013.
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- C-Y. Chan, et al., "Experimental Design and Evaluation of Networked Traveler Field Tests of Safety Applications in California," *IEEE IV-2010*, San Diego, June 2010.

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