

COTA CICTP 2018 THU Invited Session Program

July 6th

THU Invited Session 1—Session 5

THU Invited Session 1: Education challenges for future transportation engineering		14:00 – 15:50
Chair: <i>Dr. Jing Shi, Professor, Tsinghua University, China</i>		Meeting Room 1
<i>Dr. Meng Li, Associate Professor, Tsinghua University, China</i>		Xijiao Hotel
		西郊宾馆第一会议室
Speakers	Dr. Yin Hai Wang Dr. Xiangmo Zhao Yunpeng Wang Hongzhi Guan Chunfu Shao Jianming Ling	
14:00 - 15:00	<i>Speakers' talk on the topic</i>	
15:00 – 15:50	<i>Free talk & exchange</i>	

THU Invited Session 2: New Energy Auto		14:00 – 15:40
Chair: <i>Dr. Hewu Wang, Associate Professor, Tsinghua University, China</i>		Meeting Room 2
Co-chair: <i>Dr. Han Hao, Assistant Professor, Tsinghua University, China</i>		Xijiao Hotel
		西郊宾馆第二会议室
14:00	Opening remarks	
14:00 – 14:20	Research on NEV Policies in the Post Subsidy Era <i>Dr. Bin LIU CATARC, China</i>	
14:20 – 14:40	Hydrogen Fuel Cell Vehicle Policy <i>Dr. Chengbin Zhang ChinaEV100, China</i>	
14:40 – 15:00	Road Transport Energy Demand and GHG Emissions in Future China <i>Dr. Xunmin Ou Associate Professor of Institute of Energy, Environment and Economy, Tsinghua University, China</i>	
15:00– 15:20	Progress of NEV and Environmental Benefits in China <i>Dr. Hewu Wang, Assistant Professor, Tsinghua University, China</i>	
15:20 – 15:40	Rare metal constraints for electric vehicles: Global and regional perspectives <i>Dr. Han Hao, Assistant Professor, Tsinghua University, China</i>	
15:45	Summary	

THU Invited Session 3: Advances in Vehicle Safety**14:00 – 16:00****Chair:** *Dr. Liang Li, Associate Professor, Tsinghua University, China***Meeting Room 3***Ph.D. Chao Yang, Tsinghua University, China***Xijiao Hotel****西郊宾馆第三会议室**

14:00	Opening remarks
14:00 – 14:20	Road-Friction-Estimation-Based Adaptive Collision Avoidance System <i>Dr. Shuo Cheng PhD , State Key Laboratory of Automotive Safety and Energy, Tsinghua University, China</i>
14:20 –14:40	Bionics and Their Application in Plug-in Hybrid Electric Vehicle <i>Dr. Congzhi Liu PhD ,State Key Laboratory of Automotive Safety and Energy, Tsinghua University, China</i>
14:40 – 15:00	Learning-based Control of Automotive Powertrains <i>Dr. Yahui Zhang PhD , Sophia University,Japan</i>
15:00– 15:20	A Modified Lithium-ion Battery State of Charge Estimation Algorithm for Application in Plug-in Hybrid Electric Vehicles <i>Dr. Yong Sun Associate Professor ,College of Information Science and Engineering, Ocean University of China,China</i>
15:20 –15:40	Automatic steering control strategy for unmanned vehicles based on sliding mode control theory <i>Dr. Pengwei Wang PhD , Shandong University of Technology, China</i>
15:40 –16:00	Vehicle Stability Control by Coordinating Active Four Wheel Steering and Direct Yaw Moment Control System via Stackelberg Game Theory <i>Dr. Lin Zhao PhD ,Chongqing University, China</i>
16:00	Summary

THU Invited Session 4: V2X based transportation system and intelligent driving

Chair: *Dr. Yi Zhang , Professor, Tsinghua University, China*

14:00 – 15:40

Meeting Room 7

Xijiao Hotel

西郊宾馆第七会议室

14:00	Opening remarks
14:00 – 14:20	Methodology and Practice for Testing the Performance of Connected and Automated Vehicles in Closed Proving Ground <i>Prof. Xiangmo Zhao, Professor , Chang'an University, China</i>
14:20 –14:40	Ground Traffic Control in the Past Century and Its Future Perspective <i>Dr. Li Li, Professor , Tsinghua University, China</i>
14:40 – 15:00	Pragmatic Research on Coordinated Control Mechanism for RVs, CVs and AVs Heterogeneous Traffic Flow <i>Dr. Xiaoguang Yang, Professor , the research center for Intelligent Transport Systems at Tongji University , China</i>
15:00– 15:20	A Survey of Connected Automated Vehicle Perception Mode: From Autonomy to Interaction <i>Prof. Wei ShangGuan, Professor , Beijing Jiaotong University, School of Electronic and Information Engineering, China</i>
15:20 –15:40	The role and application of V2X in industrial practice <i>Dr. Yizhi Wang, Beijing Nebula Link Tech, China</i>
15:45	Summary

THU Invited Session 5: ICVT: Center for Intelligent Connected Vehicles & Transportation

Chair: *Dr. Jianqiang Wang, Professor, Tsinghua University, China*

Dr. Meng Li, Associate Professor, Tsinghua University, China

14:00 – 18:00

Hui Yuan Hall

Xijiao Hotel

西郊宾馆荟缘厅

14:00-14:05	Opening remarks
14:05 – 14:25	Robust Semantic Segmentation and Visual Tracking Revisited: From Fully Convolutional Networks to Correlation Filter <i>Dr. Lisheng Jin Professor , Jilin University, China</i>
14:25 –14:45	Experimental study of Human factors in Automatic Platoon of Trucks <i>Dr. Rencheng Zheng Professor , Dalian University of Technology, China</i>
14:45 – 15:05	Thinking about Autonomous Vehicle of Special Area <i>Dr. Guizhen Yu Professor , Beihang University, China</i>
15:05– 15:25	Accelerated Autonomous Vehicle Virtual Testing and Self-Learning <i>Dr. Jian Sun Professor , Tongji University, China</i>
15:25 –15:45	Modelling Relationship between Truck Fuel Consumption and Driving Behavior Using Data from Internet of Vehicles <i>Dr. Zhigang Xu Professor , Chang'an University, China</i>
15:45-16:00	Moving the Connected and Autonomous Vehicles from the Test Zone to the Public Road <i>Dr. Kang (Kenneth) An, Senior Manager, Shanghai International Automobile City (SIAC)</i>
16:00 –16:10	Tea Brake
16:10 –16:30	Overview of intelligent transportation system and connected vehicles <i>Dr. Danya Yao Professor , Tsinghua University, China</i>
16:30 –16:50	Multiple-object detection and semantic understanding using deep learning <i>Dr. Fuchun Sun Professor , Tsinghua University, China</i>
16:50 –17:10	Reconfigurable Processor for Deep Learning in Autonomous Vehicles <i>Dr. Shuang Liang PhD ,Tsinghua University, China</i>
17:10 –17:30	Lane-level Route Planning based on HD map for Autonomous Vehicles <i>Dr. Kun Jiang PhD , Department of Automotive Engineering</i>
17:30 –17:50	Indirect Shared Control for Driver-Automation Cooperative Driving <i>Dr. Renjie Li PhD ,Tsinghua University, China</i>
17:50 –18:00	Summary

July 7th

THU Invited Session 6—Session10

THU Invited Session 6: Transport System Optimization

14:00 – 16:00

Chair: *Dr. Zhiyuan Liu, Professor, School of transportation, Southeast University, China*

Meeting Room 1

Xijiao Hotel

西郊宾馆第一会议室

13:30	Opening remarks
13:30 – 13:50	Data-driven bus scheduling to improve passenger flow <i>Dr. Xiang Li Professor ,School of Economics and Management Science, Beijing University of Chemical Technology , China</i>
13:50 –14:10	A column generation-based heuristic for aircraft recovery problem with airport capacity constraints and maintenance flexibility <i>Dr. Zhe Liang Professor ,Tongji University , China</i>
14:10 – 14:30	Combined vehicle relocation and operator assignment in one-way carsharing systems <i>Dr. Chi Xie Professor ,Tongji University , China</i>
14:30– 14:50	A Markov Process Model on Evaluating the Transit Vehicle Control Strategies <i>Dr. Qiong Tian Professor ,Beihang University, China</i>
14:50 –15:10	Link-based System Optimum Dynamic Traffic Assignment Problems in General Networks <i>Dr. Jiancheng Long Professor, Hefei University of Technology, China</i>
15:10–15:30	Joint Estimation of Signal Timings for all Directions of an Intersection Using Low-Frequency GPS Data <i>Dr. Hai Jiang, Associate Professor, Tsinghua University, China</i>
15:30 –15:50	Practical Taxi Sharing Schemes at Large Transport Terminals <i>Dr. Zhiyuan Liu Professor, School of transportation, Southeast University, China</i>
15:50	<i>Summary</i>

THU Invited Session 7: Human-machine Co-driving**14:00 – 16:00****Chair:** *Dr. Guangquan LU, Professor, Beihang University ,China***Meeting Room 2***Dr. Shengbo Eben Li, Professor, Tsinghua University ,China***Xijiao Hotel****西郊宾馆第二会议室**

14:00	Opening remarks
14:00 – 14:20	Human-Like Autonomous Car-Following Planning <i>Dr. Xuesong Wang Professor ,Tongji University, China</i>
14:20 –14:40	Driver-Automation Indirect Shared Control of Highly Automated Vehicles <i>Dr. Shengbo Eben Li Associate Professor ,Tsinghua University, China</i>
14:40 – 15:00	Reflection of driver intention in autonomous driving system <i>Dr. Rui Fu Professor ,School of Automobile, Chang'an University, China</i>
15:00– 15:20	Intelligent Vehicle Control with Driver Behavior Identification <i>Dr. Bing Zhu Professor ,Jilin University, China</i>
15:20 –15:40	Driving Workload Characteristics and Capability Boundary under Human-vehicle Switching <i>Dr. Nengchao Lyu Associate Professor ,Wuhan University of Technology, China</i>
15:40 –16:00	Quantify Risk Perception in Car-following Process <i>Dr. Guangquan Lu Professor ,Beihang University, China</i>
16:00	Summary

THU Invited Session 8: Traffic safety**14:00 – 15:40****Chair:** *Dr. Xuesong Wang, Professor, Tongji University, China***Meeting Room 3***Dr. Xiaohua Zhao, Professor, Beijing University of Technology, China***Xijiao Hotel****西郊宾馆第三会议室**

14:00	Opening remarks
14:00 – 14:20	Longitudinal Safety Analysis for Heterogeneous Platoon of Automated and Human Vehicles <i>Dr. Xin Pei Associate Professor, Tsinghua University, China</i>
14:20 – 14:40	A Traffic Assignment Method for Transport Network Considering Safety Reliability with Heterogeneous Risk Aversion <i>Dr. Helai Huang Professor, Central South University, China</i>
14:40 – 15:00	Developing Systematic Safety Performance Models in Shanghai, China <i>Dr. Xuesong Wang Professor, Tongji University, China</i>
15:00– 15:20	Study on the safety evaluation of driving behavior on urban roads <i>Dr. Xiaohua Zhao Professor, Beijing University of Technology, China</i>
15:20 – 15:40	Path – speed planning for complex alignment and its application on safety improvement of mountain roads design <i>Dr. Jin Xu Professor, Chongqing Jiaotong University, China</i>
15:45	Summary

THU Invited Session 9: Electrification in Transportation**14:00 – 15:20****Chair:** *Dr. Jianqiu Li, Professor, Tsinghua University, China***Meeting Room 7****Xijiao Hotel****西郊宾馆第七会议室**

14:00	Opening remarks
14:00 – 14:20	Data-driven states estimation for lithium-ion batteries <i>Dr. Caiping Zhang Professor , School of Electrical Engineering, Beijing Jiaotong University, China</i>
14:20 –14:40	Fundamental principles and research progress of lithium slurry battery <i>Dr. Dandan Liu Institute of Electrical Engineering, Chinese Academy of Sciences, China</i>
14:40 – 15:00	Multi-physical Modeling of Large-Format Batteries for Traction and Energy Storage <i>Dr. Zhe Li, Associate Professor, Department of Automotive Engineering, Tsinghua University, China</i>
15:00– 15:20	Structural Failure Mechanism and Modelling of Lithium-ion Battery under Mechanical Abuse <i>Dr. Yong Xia, Associate Professor, Department of Automotive Engineering, Tsinghua University, China</i>
15:20– 15:40	Trends of fuel cell vehicle in china <i>Dr. Jianqiu Li, Professor , Tsinghua University, China</i>
15:45	Summary

THU Invited Session 10: Information sharing platform of traffic safety research

14:00 – 18:00

Hui Yuan Hall

Chair: *Dr. Yan Gao, Associate Research Fellow, Traffic Management Research Institute of the Ministry of Public Security, China*

Xijiao Hotel

Dr. Wei Hao, Professor, Changsha University of Science & Technology, China

西郊宾馆荟缘厅

Dr. Quan Yuan, Dept. of Automotive Engineering, Tsinghua University, China

14:00	Opening remarks
14:00– 14:20	Traffic Risk Evaluation based on Big Data <i>Dr. Rongjie Yu, Associate Professor, College of Transportation Engineering, Tongji University, China</i>
14:20 –14:40	Investigating the spatial effects of land use and road network patterns on traffic safety <i>Dr. Chengcheng Xu, Associate Professor, Southeast University, China</i>
14:40 – 15:00	The characteristics of driving anger and the design of intervention in driving anger <i>Dr. Zhongxiang Feng, Associate Professor, Hefei University of Technology, China</i>
15:00– 15:20	Bus Travel Time Reliability Considering Stop Waiting Time and In-vehicle Travel Time with AVL Data <i>Dr. Jia Yao, Associate Professor, Harbin Institute of Technology, China</i>
15:20 –15:40	Development of Two-stage based Eco-Driving System for Connected Automated Vehicles <i>Dr. Wei Hao Professor, Changsha University of Science & Technology, China</i>
15:40 –15:55	Planning and Development Director of DEKRA East Asia <i>Mr. Xuan Zhou, DEKRA</i>
15:55–16:00	<i>Tea Brake</i>
16:00–16:20	The Dilemma Generated by Automated Driving Considered from Ethical Aspect <i>Dr. Quan Yuan, Director of Center Office, Center for Intelligent Connected Vehicles and Transportation, Dept. of Automotive Engineering, Tsinghua University, China</i>
16:20–16:40	Investigating the effects of traffic composition on freeway crash frequency and severity <i>Dr. Qiang Zeng, Assistant Professor, South China University of Technology, China</i>
16:40–17:00	Uncovering urban travel characteristics using large-scale GPS trajectory data <i>Dr. Jinjun Tang, Associate Professor, School of Traffic & Transportation Engineering, Central South University, China</i>
17:00–17:20	Vehicular Positioning Enhancements based on VANETs <i>Dr. Xuting Duan Beihang University, China</i>
17:20–17:40	Optimization of Bus Lines & Network Based on Perception of Individual Trip Characteristics <i>Prof. Jiancheng Weng, Associate Professor, College of Metropolitan Transportation, Beijing University of Technology, China</i>
17:40–18:00	Drivers' Visual Search Patterns during Overtaking Maneuvers on Freeway <i>Dr. Wenhui Zhang, Associate Professor, Northeast Forestry University, China</i>
18:00	Summary

