



SAE 2017 Intelligent and Connected Vehicles Symposium

汽车智能与网联技术国际学术会议

September 26-27, 2017

Kunshan China

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SAE 2017 Intelligent and Connected Vehicles Symposium

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HOSTS INTRODUCTION



SAE International is a global technical association of more than 145,000 engineers and related technical experts in the aerospace, automotive and commercial-vehicle industries. It was founded in 1905 with 30 engineers in New York and now spans more than 100 countries. SAE International is perhaps best known for its technical standards. More than 8,000 technical experts from around the world participate on 600 standards committees to develop a large base of standards and recommended practices that are used to support product design and development. Many government regulations and documents reference SAE International standards.



Kunshan Economic & Technological Development Zone (KETD), founded in 1984, was approved by the provincial government as a provincial economic and technological development zone in the end of 1991 and China national technical development zone in August 1992, covering an area of 115 square kilometers and with a population of 698 thousands.

Since KETD was established, it has always been insisting emphasizing ideological emancipation, deepening reform and opening up, and leading industrial diversification, functional innovation and urbanization. A batch of national characteristic industrial parks such as the comprehensive Free Trade Zone, Photoelectric industrial park and overseas student pioneer park has begun to take shape. What is more, quite a few parks, for instance, Robot intelligent equipment industrial park, European and American science industry city, high-end food industrial park is under construction, which forms five leading industries --electronic information, photoelectric display, precision machinery, equipment manufacturing and livelihood light industry.

So far, KETD attracted investors from Europe, America, Japan, Korea, Chinese Hong Kong, Macao and Taiwan etc., over 50 countries and regions to invest over \$37 billion, with a registered capital of \$19.8 billion & 2,242 invested projects. The number of registered domestic enterprises exceeds 14,800 and the registered capital exceeds 60 billion RMB. KETD is evaluated as the national intellectual property demonstration zone, overseas talents entrepreneurship demonstration base in China, the province's first innovative development zone and "two combination" demonstration area. Its system innovation index ranks first in the national development zone. In the evaluation of the comprehensive development level of national development zones carried out by the ministry of commerce, KETD has been the top four in the country for years.

The purpose of this session is to provide an open exchange of ideas. Remarks made by participants or members of the audience cannot be quoted or attributed to the individual or their company unless express permission has been granted by the individual and their company. Any record of remarks, discussion, or photographs may not be used unless express permission has been granted by the individual and their company.

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EVENT-AT-A-GLANCE

September 26, Tuesday

07:45	REGISTRATION	
09:00 - 09:30	WELCOME AND INTRODUCTION	
09:30 - 10:15	KEYNOTE ADDRESSES	
10:15 - 10:45	TEA BREAK	
10:45 - 11:30	KEYNOTE ADDRESSES	
11:30 - 12:20	PANEL DISCUSSION TECHNOLOGY INNOVATION AND BUSINESS TRANSFORMATION SHAPING THE FUTURE OF INTELLIGENT CONNECTED VEHICLES	
12:20 - 13:20	LUNCH	
	BALLROOM A	BALLROOM B
13:20 - 15:10	ICVS100: INTELLIGENT VEHICLE TECHNOLOGIES	ICVS300: HUMAN-VEHICLE-ENVIRONMENT INTERACTION
15:10 - 15:30	TEA BREAK	
15:30 - 17:30	ICVS100: INTELLIGENT VEHICLE TECHNOLOGIES	ICVS600: CYBERSECURITY
17:30 - 18:00	KEYNOTE ADDRESS	
18:00 - 20:30	GALA DINNER	

September 27, Wednesday

09:00 - 10:30	KEYNOTE ADDRESSES	
10:30 - 11:15	TEA BREAK	
	BALLROOM A	BALLROOM B
11:15 - 11:55	ICVS400: CONNECTED VEHICLES AND COOPERATIVE DRIVING	ICVS800: INTELLIGENT TRANSPORTATION SYSTEMS
11:55 - 13:00	LUNCH	
13:00 - 14:50	ICVS200: SENSORS, SENSING AND PERCEPTION	ICVS500: TOOLS AND METHODS FOR INTELLIGENT VEHICLES
14:50 - 15:20	TEA BREAK	
15:20 - 17:00	ICVS200: SENSORS, SENSING AND PERCEPTION	ICVS500: TOOLS AND METHODS FOR INTELLIGENT VEHICLES
17:00 - 17:45	PANEL: MOVING FORWARD: ACCELERATORS AND INHIBITORS	
17:45 - 18:00	EXCELLENT PRESENTATION AWARD	

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Sorted by First Letter of Surname



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President, Tongji University



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He, Hangen

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Engineering and Automation
National University of Defense
Technology



Yang, Zhigang

Director, Shanghai Automotive
Wind Tunnel Center
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Engineer, Tongji University



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TUESDAY, SEPTEMBER 26



Li, Deyi

Academician, Chinese Academy of Engineering
President, Chinese Association for Artificial Intelligence

The Turing Test of Unmanned Driving



Xie, Fei

Director & Vice General Manager
China Automotive Engineering Research Institute Co., Ltd.

Evaluation System Introduction on i-Vista Intelligent & Connected Vehicles



Li, Lin

Chief Engineer
Shanghai International Automobile City (Group) Co., Ltd

Status and Plans of National Intelligent Connected Vehicle (Shanghai) Pilot Zone

WEDNESDAY, SEPTEMBER 27



Litkouhi, Bakhtiar

Manager, Automated Driving & Vehicle Control Systems Electrical
& Controls Systems Research Lab
General Motors

Autonomous Vehicles, Past, Present, Future



Stephens, Renee

VP U.S. Auto Quality, J.D. POWER
VP, Automotive, We Predict

Connected Mobility – Putting the Consumer at the Center

TECHNICAL PROGRAM

TUESDAY, SEPTEMBER 26

TIME		
9:00	WELCOME Xu, Billy General Manager, China, SAE International Li, Deyi Academician, Chinese Academy of Engineering President, Chinese Association for Artificial Intelligence Kunshan Governor	
9:15	Kunshan Economy Development Introduction	
	KEYNOTE	
9:30	The Turing Test of Unmanned Driving Li, Deyi Academician, Chinese Academy of Engineering President, Chinese Association for Artificial Intelligence	
10:15	Break	
10:45	Evaluation System Introduction on i-Vista Intelligent & Connected Vehicles Xie, Fei Director & Vice General Manager, China Automotive Engineering Research Institute	
	PANEL	
11:30	Technology Innovation and Business Transformation Shaping the Future of Intelligent Connected Vehicles Moderator Chen, Chaozhuo Deputy General Manager, ZongMu Technology Panelists Barkai, Joe Industry Analyst, Consultant and Author Dr. Gu, Jianmin Engineering Director, VOLVO Car China Prof. Zhu, Xichan Tongji University	
12:20	Lunch	
	BALLROOM A	BALLROOM B
	ICVS100: Intelligent Vehicle Technologies Chair: Prof. Chen, Hui	ICVS300: Human-Vehicle-Environment Interaction Chair: Prof. Deng, Kevin
13:20	Best Practices in the Development of Complex Intelligent Vehicle Systems Zhou, Jianguang Vice President, Dongfeng Motor Technical Center	Binocular Intelligent System Zhang, Xiaolin Researcher, SIMIT
13:50	Local Path Planning for Intelligent Vehicle Obstacle Avoidance Based on Dubins Curve and Tentacle Algorithm Wu, Lingfei GAC Group	Effects of Human Adaptation and Trust on Shared Control for Driver-Automation Cooperative Driving Li, Renjie Tsinghua University

TECHNICAL PROGRAM

TIME	BALLROOM A	BALLROOM B
14:10	Path Following Based on Model Predictive Control for Automatic Parking System Li, Fang Institute of Electrical Engineering, CAS	Identification of Driver Individualities Using Random Forest Model Zhu, Bing Jilin University
14:30	How the Security Architecture of Chips Responds to ADAS Functions Gong, Yunan NXP	Driver Lane Keeping Characteristic Indices for Personalized Lane Keeping Assistance System Lan, Xiaoming Tongji University
14:50	Path-tracking Controller Design for a 4WIS and 4WID Electric Vehicle with Steer-by-wire System Hang, Peng Tongji University	Personalized Controller Design for Electric Power Steering System Based on Driver Behavior Yan, Shude Jilin University
15:10	Break	
	ICVS100: Intelligent Vehicle Technologies Chair: Prof. Chen, Hui	ICVS600: Cybersecurity Chair: Liu, Wei
15:30	Intelligence Wins The Future Dr. Zha, Hongshan Vice President, GAC Auto R&D Center	Large Scale Vehicle's Information Security Testing Research And Method Zhong, Jeffrey Director of Engineer, VisualThreat
16:00	Longitudinal Planning and Control Method for Autonomous Vehicles Based on A New Potential Field Model Ruan, Yandong Tongji University	Research on Vehicle Cybersecurity Based on Special Security Hardware and ECDH Algorithm Zhao, Jianning Tongji University
16:20	Motion Planning of Vehicle Obstacle Avoidance in Complex Traffic Scenarios Dang, Dongfang	Research on CAN Network Security Aspects and Intrusion Detection Design Li, Fang Institute of Electrical Engineering, CAS
16:40	Obstacle Avoidance for Self-driving Vehicle with Reinforcement Learning Zong, Xiaopeng Beihang University	The Development of Safety Cases for an Autonomous Vehicle: a Comparative Study on Different Methods Yang, Junfeng Birmingham City Univ.
17:30	Keynote Status and Plans of National Intelligent Connected Vehicle (Shanghai) Pilot Zone LI, Lin Shanghai International Automobile City (Group) Co., Ltd	
18:30	Gala Dinner	

TIME		
	KEYNOTE	
9:00	Autonomous Vehicles, Past, Present, Future Litkouhi, Bakhtiar Manager, Automated Driving & Vehicle Control Systems Electrical & Controls Systems Research Lab, General Motors	
9:45	Connected Mobility – Putting the Consumer at the Center Stephens, Renee VP U.S. Auto Quality, J.D. POWER / VP, Automotive, We Predict	
10:30	Break	
	BALLROOM A	BALLROOM B
	ICVS400: Connected Vehicles and Cooperative Driving Chair: Hu, Jianming	ICVS800: Intelligent Transportation Systems Chair: Prof. Yin, Chengliang
11:15	Evaluation of Shanghai's Industrial Chain of Intelligent and Connected Vehicles Based on AHP Method Lin, Gaoxiang Tongji University	Macroscopic Traffic States Estimation Based on Vehicle-to-Infrastructure (V2I) Connected Vehicle Data Xu, Zhe
11:35	Boosted Deep Neural Network with Weighted Output Layers Cui, Hua Tongji University	Development of Smart Public Transport System by Converting the Existing Conventional Vehicles to EV's in Indian Smart Cities Singh, Suyash ABV- IIITM, Gwalior
11:55	Lunch	
	ICVS200: Sensors, Sensing and Perception Chair: Prof. Bai, Jie	ICVS500: Tools and Methods for Intelligent Vehicles Chair: Dr. Gu, Jianmin
13:00	The Last Piece of Puzzle of The Automatic Sensor Hu, Yanshan Vice General Manager, Xuanyuan	Intelligent Driving Process and Millimeter Wave Radar Technology Trends Bi, Xin General Manager, 3S-RADAR
13:30	Integrated Positioning System Method for Intelligent Vehicle Based on GPS and UWB Ke, Min Jilin University	Stability Control of Autonomous Vehicles with Four In-wheel Motor Drive for Severe Environments Li, Xin Hong Kong Productivity Council
13:50	Edge Enhanced Traffic Scene Segmentation Algorithm with Deep Neural Network Tian, Huan Neusoft	Development and Test of ESC Controller with Driver-In-the-Loop Platform Pei, Xiaofei Wuhan University of Technology

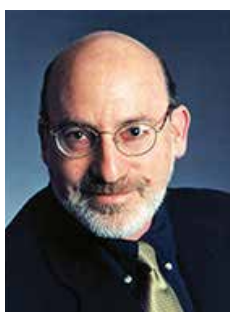
TECHNICAL PROGRAM

TIME	BALLROOM A	BALLROOM B
14:10	3D Scene Reconstruction with Sparse LiDAR Data and Monocular Image in Single Frame Wang, Sijia Tsinghua University	Traffic Modeling Considering Motion Uncertainties Li, Jianping Jilin University
14:30	Efficient Lane Detection Using Deep Lane Feature Extraction Method Wang, Zhangyu Beihang University	The Trajectory Planning of the Lane Change Assist Based on the Model Predictive Control with Multi-objective Wang, Yangyang Tongji University
14:50	Break	
15:20	Hybrid Camera-radar Vehicle Tracking System with Image Perceptual Hash Encoding Chen, Sihan Tongji University	Dynamic Modeling and State Estimation for Multi-In-Wheel-Motor-Driven Intelligent Vehicle Pei, Xiaofei Wuhan University of Technology
15:40	2-D CFAR Procedure of Multiple Target Detection for Automotive Radar Li, Sen Tongji University	Automatic Generation Method of Test Scenario for ADAS Based on Complexity Duan, Jianli Chongqing University
16:00	The Application of Compressed Sensing in Automotive Radar Signal Processing for the Target Location Yin, Yang Tongji University	An Omni-Directional Collision Warning Method Based on V2X Communication Technology Zhou, Hao Intelligent Transportation Systems
16:20	A Modified Chirp Sequence Design for Monopulse Automotive Radar Chen, Tao China Automotive Engineering Research Institute Co Ltd	Analysis of Illumination Condition Effect on Vehicle Detection in Photo-realistic Virtual World Yang, Shun Jilin University
16:40	A Hybrid Method for Stereo Vision-based Vehicle Detection in Urban Environment Wang, Yin Jilin University	Ethernet Standards for the Automotive Industry Shigeru, Kobayashi TE Connectivity
	Panel	
17:00	Moving Forward: Accelerators and Inhibitors Moderator Chen, Chaozhao Deputy General Manager, ZongMu Technology Panelists Prof. Bai, Jie Tongji University Dr. Du, Jiangling Director of China Science Lab, General Motors Deng, Weiwen Dean, School of Transportation Science and Engineering, Beihang University	
17:45	EXCELLENT PAPERS AWARD	

PANEL & INDUSTRY SPEAKERS - DAY ONE



Panel Moderator
Chen, Chaozhuo
Deputy General Manager
ZongMu Technology



Barkai, Joe
Industry Analyst, Consultant and
Author



Gu, Jianmin
Engineering Director
VOLVO Car China



Zhu, Xichan
Professor
Tongji University



Zhou, Jianguang
Vice President
Dongfeng Motor Technical
Center



Zhang, Xiaolin
Researcher
Shanghai Institute of Microsystem
and Information Technology
Chinese Academy of Sciences



Zha, Hongshan
Vice President
GAC Auto R&D Center



Zhong, Jeffrey
Director of Engineer
VisualThreat

PANEL & INDUSTRY SPEAKERS - DAY TWO



Panel Moderator
Chen, Chaozhuo
Deputy General Manager
ZongMu Technology



Hu, Yanshan
Vice General Manager
Xuanyuan



Bi, Xin
General Manager
3S-RADAR



Bai, Jie
Professor
Tongji University



Du, Jiangling
Director of China Science
Lab
General Motors



Deng, Weiwen
Dean, School of
Transportation Science
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ICVS100: Intelligent Vehicle Technologies	
Chair: Prof. Chen, Hui	
WRITTEN & ORAL PRESENTATION	
Local Path Planning for Intelligent Vehicle Obstacle Avoidance Based on Dubins Curve and Tentacle Algorithm (2017-01-1951) Lingfei Wu, Hongshan Zha, Caijing Xiu, Qiaojun He, Guangzhou Automobile Group	Path Following Based on Model Predictive Control for Automatic Parking System (2017-01-1952) ChengJun Ma, Univ of CAS, IEECAS; Fang Li, Institute of Electrical Engineering, CAS; Chenglin Liao, Lifang Wang, Key Laboratory of PEED, CAS
Path-tracking Controller design for a 4WIS and 4WID Electric Vehicle with Steer-by-wire System (2017-01-1954) Peng Hang, Xinbo Chen, Fengmei Luo, Tongji University	Longitudinal Planning and Control Method for Autonomous Vehicles Based on A New Potential Field Model (2017-01-1955) Yandong Ruan, Hui Chen, Jiancong Li, Tongji University
Motion Planning of Vehicle Obstacle Avoidance in Complex Traffic Scenarios (2017-01-1958) Dongfang Dang	Obstacle Avoidance for Self-driving Vehicle with Reinforcement Learning (2017-01-1960) Xiaopeng Zong, Guizhen Yu, Hongjie Su, Chaowei Hu, Guoyan Xu, Beihang University
WRITTEN PAPER ONLY	
Hierarchical Framework for Adaptive Cruise Control with Model Predictive Control Method (2017-01-1963) Yuande Jiang, Jilin Univ; Weiwen Deng, Beihang University; Rui He, Shun Yang, Shanshan Wang, Jilin Univ; Ning Bian, Dongfeng Auto	Speed Tracking Control for All-Terrain Vehicle Considering Road Slope and Saturation Constraint of Actuator (2017-01-1953) Manfei Bai, Lu Xiong, Zhiqiang Fu, Renxie Zhang
Autonomous Emergency Braking Control Based on Hierarchical Strategy Using Integrated-Electro-Hydraulic Brake System (2017-01-1964) Xiangkun He, Xuewu Ji, Kaiming Yang, Yulong Liu, Jian WU, Yahui Liu, Tsinghua Univ	Study on Steering Angle Input during the Automated Lane Change of Electric Vehicle (2017-01-1962) Hongluo Li, Yutao Luo, South China Univ of Technology

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ICVS200: Sensors, Sensing and Perception Chair: Prof. Bai, Jie	
WRITTEN & ORAL PRESENTATION	
Integrated Positioning Method for Intelligent Vehicle Based on GPS and UWB (2017-01-1966) Min Ke, Bing Zhu, Jian Zhao, Weiwen Deng, Jilin University	Edge Enhanced Traffic Scene Segmentation Algorithm with Deep Neural Network (2017-01-1967) Wei Liu, Northeastern University; Huan Tian, Neusoft; Jun Hu, Northeastern University; Shuai Cheng, Neusoft; Huai Yuan, Northeastern University
3D Scene Reconstruction with Sparse LiDAR Data and Monocular Image in Single Frame (2017-01-1969) Yuanxin Zhong, Sijia Wang, Shichao Xie, Zhong Cao, Kun Jiang, Diange Yang, Tsinghua University	Hybrid Camera-Radar Vehicle Tracking with Image Perceptual Hash Encoding (2017-01-1971) Sihan Chen, Libo Huang, Xin Bi, Jie Bai, Tongji University
2-D CFAR Procedure of Multiple Target Detection for Automotive Radar (2017-01-1972) Sen Li, Xin Bi, Tongji Univ.; Libo Huang, Automotive Sensors Group; Bin Tan, Tongji Univ	The Application of Compressed Sensing in Automotive Radar Signal Processing for the Target Location (2017-01-1973) Yang Yin, Xin Bi, Libo Huang, Shitao Yan, Tongji University
A Modified Chirp Sequence Design for Monopulse Automotive Radar (2017-01-1974) Tao Chen, China Automotive Engrg Rsch Inst Co Ltd; Jie Bai, Tongji Univ; Fang Wang, Vehicle Design Research Pty Ltd; Libo Huang, Automotive Sensors Group	A Hybrid Method for Stereo Vision-Based Vehicle Detection in Urban Environment (2017-01-1975) Wenhui Li, Wenlan Li, Jialun Liu, Yuhao Chen, Jilin Univ.
WRITTEN PAPER ONLY	
Efficient Lane Detection Using Deep Lane Feature Extraction Method (2017-01-1970) Guizhen Yu, Zhangyu Wang, Xinkai Wu, Yalong Ma, Yunpeng Wang, Beihang University	A New Method of Target Detection Based on Autonomous Radar and Camera Data Fusion (2017-01-1977) Xin Bi, Bin Tan, Zhijun Xu, Tongji Univ; Libo Huang, Automotive Sensors Group
Distance Estimation by Fusing Radar and Monocular Camera with Kalman Filter (2017-01-1978) Yuxiang Feng; Simon Pickering, Edward Chappell, Pejman iravani, Chris Brace, University Of Bath	

ICVS300: Human-Vehicle-Environment Interaction Chair: Prof. Deng, Kevin	ICVS400: Connected Vehicles and Cooperative Driving Chair: Hu, Jianming
WRITTEN & ORAL PRESENTATION	WRITTEN & ORAL PRESENTATION
Effects of Human Adaptation and Trust on Shared Control for Driver-Automation Cooperative Driving (2017-01-1987) Renjie Li, Shengbo Li, Hongbo Gao, Keqiang Li, Bo Cheng, Deyi Li, Tsinghua University	Evaluation of Shanghais Industry Chain of Intelligent and Connected Vehicles Based on AHP Method (2017-01-1989) Yi Chen, Gaoxiang Lin, Ying He, Tongji University
Identification of Driver Individualities Using Random Forest Model (2017-01-1981) Bing Zhu, Weinan Li, Jilin University; Ning Bian, Dongfeng Auto; Jian Zhao, Weiwen Deng, Jilin University	Boosted Deep Neural Network with Weighted Output Layers (2017-01-1997) Cui Hua, Tongji University
Driver Lane Keeping Characteristic Indices for Personalized Lane Keeping Assistance System (2017-01-1982) Xiaoming Lan, Hui Chen, Xiaolin He, Jiachen Chen, Tongji University; Yosuke Nishimura, Kazuya Ando, Kei Kitahara, JTEKT Corporation	
Personalized Controller Design for Electric Power Steering System Based on Driver Behavior (2017-01-1983) Bing Zhu, Shude Yan, Jian Zhao, Weiwen Deng, Jilin University; Ning Bian, Dongfeng Auto	
WRITTEN PAPER ONLY	WRITTEN PAPER ONLY
Impact of In-Vehicle Touchscreen Size on Visual Demand and Usability (2017-01-1984) Jun Ma, Junyi Li, Zaiyan Gong, Jihong Yu, Tongji Univ	Study on Routing Optimization of Multi-Compartment Vehicle with Carbon Emission (2017-01-1988) XueFei Deng, Intelligent Vehicle Hwy Soc of America; Lu Che, Rong Sun, Lei Zhang, Hebei Univ of Technology

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ICVS500: Tools and Methods for Intelligent Vehicles Chair: Dr. Gu, Jianmin	
WRITTEN & ORAL PRESENTATION	
Stability Control of Autonomous Vehicles with Four In-Wheel Motor Drive for Severe Environments (2017-01-2001) Xin Li, Lixin Situ, Yongqiang Yu, Feng Chen, Hong Kong Productivity Council	Development and Test of ESC Controller with Driver-In-the-Loop Platform (2017-01-1993) Daoyuan Sun, Xiaofei Pei, Xu Hu, Hao Pan, Bo Yang, Wuhan University of Technology
Traffic Modeling Considering Motion Uncertainties (2017-01-2000) Jianping Li, Jian Wu, Jilin University; Hao Sun, Beijing Union University; Yuyao Jiang, Weiwen Deng, Bing Zhu, Jilin University	The Trajectory Planning of the Lane Change Assist Based on the Model Predictive Control with Multi-Objective (2017-01-2004) Yangyang Wang, Tongji Univ.; Rong Feng, Chongqin Changan Automobile Co., Ltd; Ding Pan, Zhiguang Liu, Nan Wu, Wei Li, Tongji Univ.
Dynamic Modeling and State Estimation for Multi-In-Wheel-Motor-Driven Intelligent Vehicle (2017-01-1996) Zhichao Lin, Xuexun Guo, Xiaofei Pei, Bo Yang, Yanggang Zhang, Wuhan University of Technology	Automatic Generation Method of Test Scenario for ADAS Based on Complexity (2017-01-1992) Qin Xia, Jianli Duan, Feng Gao, Chongqing University; Tao Chen, China Automotive Engineering Research In; Cai Yang, Changan Automobile New Energy Research
An Omni-Directional Collision Warning Method Based on V2X Communication Technology (2017-01-1990) Xiangyu Huang, Hao Zhou, Beijing Wanji Tech. Co., Ltd	Analysis of Illumination Condition Effect on Vehicle Detection in Photo-Realistic Virtual World (2017-01-1998) Shun Yang, Weiwen Deng, Zhenyi Liu, Jilin University; Ying Wang, Jilin University
WRITTEN PAPER ONLY	
Integrated Approach for Active Safety System Analysis And Design (2017-01-2003) Zhang Wei, BAIC Motor Corp Ltd; 1Lt Xidaodong Tang, Beijing Automotive Industry Corp	Precise Steering Angle Control of Lane Change Assist System (2017-01-2002) Yang yang Wang, Guangda Chen, Xuanjing Ao, Shuhao Fan, Han Mei, Wei Li, Tongji Univ
Hardware-in-the-Loop (HIL) Implementation and Validation of SAE Level 2 Autonomous Vehicle with Subsystem Fault Tolerant Fallback Performance for Takeover Scenarios (2017-01-1994) Adit Joshi, Ford Motor Co Ltd	Powertrain and Chassis Hardware-in-the-Loop (HIL) Simulation of Autonomous Vehicle Platform (2017-01-1991) Adit Joshi, Ford Motor Co Ltd
An Investigation into C-NCAP AEB System Assessment Protocol (2017-01-2009) Kuiyuan Guo, Yan Yan, Juan Shi, Runqing Guo, Yuguang Liu, China Automotive Technology and Research	

ICVS600: Cybersecurity

Chair: Liu, Wei

WRITTEN & ORAL PRESENTATION

Research on Vehicle Cybersecurity Based on Dedicated Security Hardware and ECDH Algorithm (2017-01-2005)

Zhihong Wu, Jian_ning Zhao, Yuan Zhu, Qingchen Li, Tongji Univ

Research on CAN Network Security Aspects and Intrusion Detection Design (2017-01-2007)

Fang Li, Institute of Electrical Engineering,CAS; Lifang Wang, Key Laboratory of PEED,CAS; Yan Wu, Institute of Electrical Engineering,CAS

The Development of Safety Cases for an Autonomous Vehicle: A Comparative Study on Different Methods (2017-01-2010)

Junfeng Yang, Michael Ward, Jahangir Akhtar, Birmingham City Univ.

WRITTEN PAPER ONLY

One Kind Of Functional Safety Related Onboard Network And V2X Connectivity Cyber Security Solution (2017-01-2008)

Xingwei Wang, Infineon Technologies China Co Ltd

ICVS800: Intelligent Transportation Systems

Chair: Prof. Yin, Chengliang

WRITTEN & ORAL PRESENTATION

Macroscopic Traffic States Estimation Based on Vehicle-to-Infrastructure (V2I) Connected Vehicle Data (2017-01-2013)

Zhe Xu, Zhe Xu

Development of Smart PublicTransport System by Converting the Existing Conventional Vehicles to EV's in Indian Smart Cities (2017-01-2011)

Suyash Singh, Ankur Mathur, Sandeep Das, Purnendu Sinha, Vinay Singh, ABV- IIITM, Gwalior

智慧生活 安全连结

Secure Connections for a Smarter World



安全·互联汽车

- ADAS: 雷达、V2X、Vision、Fusion、网络处理器
- 车载娱乐系统
- 车载网络
- 汽车安全进入系统
- 安全汽车

端到端·安全与数据保护

- 移动支付
- 电子政务
- 智能银行卡
- 用户身份验证
- 嵌入式安全芯片
- 云计算和基础设施安全



智能·互联解决方案

消费者领域

- 移动音频
- 高速接口
- 智能手机RF
- 个人健康
- 医疗

行业领域

- 智能家居/智能建筑
- 智能城市、智能电网
- M2M, 工业4.0
- 智能物流
- 4.5G/5G网络