FISITA
Intelligent Safety
Conference **China**

16 July 2021
Changchun, China

CHINA SAE

FISITA Intelligent Safety Conference 2021

Event Programme
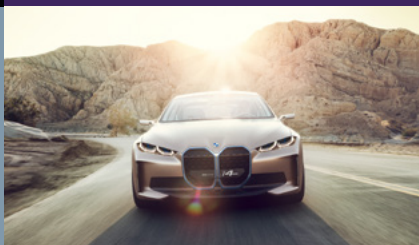
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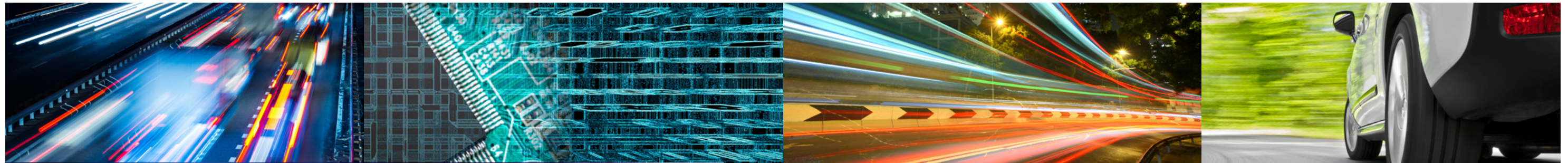
Contents

Welcome

FISITA and China SAE are delighted to confirm that the third annual FISITA Intelligent Safety Conference China will take place 16 July 2021 in Changchun, China, with physical or online participation available to registered participants.

Following highly successful events in 2019 and 2020, FISITA Intelligent Safety Conference 2021 will run as a stand-alone conference for the first time.

The 2021 event will feature keynote speeches and a panel discussion, followed by three parallel technical sessions on the Safety of the Intended Functionality (SOTIF), Cybersecurity and the Impacts of Human Factors on Safety.

The event is co-organised in China by Jilin University and Automotive Innovation and supported by Tsinghua University and the CAICV SOTIF Workivng Group.

The event will take place at the Four Points by Sheraton, Changchun **(长春高新益田福朋喜来登酒店)**. Three sessions will also be live-streamed for a remote audience and we will post the link on the FISITA website (www.fisita.com/isc) prior to the event.

The FISITA Intelligent Safety Conference is organised by FISITA, international membership organisation for the automotive and mobility systems engineering profession, and China SAE.

Established in 1948, FISITA links the national automotive engineering societies in 36 countries representing over 210,000 engineering professionals and organises the biennial FISITA World Congress, the annual World Mobility Summit, EuroBrake and the FISITA PLUS Conference.

FISITA (UK) Limited
29 M11 Business Link
Stansted
Essex
CM24 8GF
United Kingdom
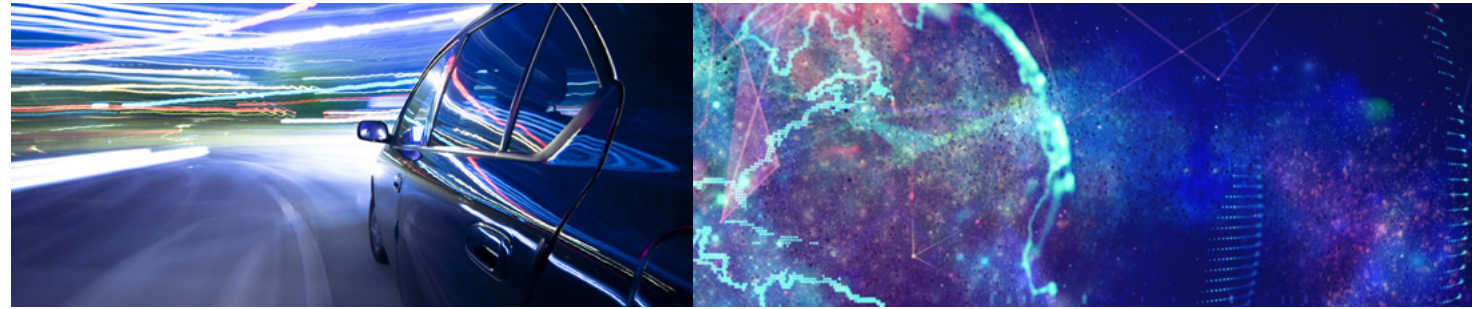
Tel: +44 (0) 1279 883 470

Email: info@fisita.com

Registered in England: 03572997

FISITA President
Nadine Leclair

FISITA Chief Executive
Chris Mason

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Technical Programme
Friday 16 July 2021

08:40 - 12:15	**Plenary Session**
	Opening Remarks
	Moderated by **Xuming Zhang,** Deputy Vice President, China SAE
08:40 - 09:10	**Jinhua Zhang,** Executive Vice President of China SAE
	Nadine Leclair, President of FISITA, Chair of FISITA Intelligent Safety Working Group (online)
	Chris Mason, CEO of FISITA (online)
	Prof. Zhenhai Gao, Dean of College of Automotive Engineering, Jilin University, Director of State Key Laboratory of Automotive Simulation and Control
	Dr. Hongjian Li, VP of FAW R&D Institute, Director of State Key Laboratory of Comprehensive Technology on Automobile Vibration and Noise & Safety Control
09:10 - 10:50	**Keynote Speeches: Strategy, Technology Roadmap, Technology Trend**
	Moderated by **Prof. Mike Ma,** Technical Advisor of FISITA, Professor of Jilin University, Executive Editor-in-Chief of Automotive Innovation
	An evaluation system for intelligence of automatic driving vehicles
	Prof. Hsin Guan, Vice President of China SAE, Professor of Jilin University
	The future of vehicle safety – a paradigm shift from "what" to "how and why"
	Dominik Schuster, VP Vehicle Safety, BMW Group (online)
	Safety and security technology strategy and innovation applications for Hongqi brand
	Dan Li, VP of FAW R&D Institute, Director of ICV Department, FAW
	Insights into Automated Driving Research
	Prof. Lutz Eckstein, Director of Institute for Automotive Engineering, RWTH Aachen University (online)
10:50 - 11:15	**Coffee Break**
11:15 - 12:15	**Panel Discussion**
	Chaired by **Prof. Frank Zhao,** Honorable Lifetime President of FISITA, Director of Tsinghua Automotive Strategy Research Institute (TASRI)
	How to ensure the safety of L3/L4 automated vehicles?
	Prof. Changjun Wang, Director, Road Transportation Safety Research Center, the Ministry of Public Security of the PRC
	Dan Li, VP of FAW R&D Institute, Director of ICV Department
	Stanislav Lincer, Functional Safety & Cybersecurity Director, Great Wall Motor Co. Ltd
	Yali Wang, Head of Functional Safety Team in Baidu
	Dr. Rainer Hoffmann, CSO, Shanghai Digauto Automobile Technology Co. Ltd
12:15 - 13:30	**Networking Lunch**

Technical Programme

Friday 16 July 2021

13:30 - 17:30	Parallel Technical Sessions

SOTIF - Architecture, Perception, Planning, Control, Test, Evaluation

Moderated by

Dr. Hong Wang, Associate Research Professor at the School of Vehicle and Mobility, Tsinghua University, and Deputy Executive Director, CAICV-SOTIF Technical Alliance

Dr. Bolin Gao, Associate Research Professor at the School of Vehicle and Mobility, Tsinghua University, and Deputy Secretary General of the Youth Committee of China-SAE

AI safety in autonomous driving

Prof. Hong Cheng, Professor, University of Electronic Science and Technology of China

Comprehensive Safety Concept

Stanislav Lincer, Functional Safety & Cybersecurity Director, Great Wall Motor

ISO/DIS 21448 SOTIF: short introduction, current ISO status and next steps

Pascal Chaussis, Safety Expert, Groupe Renault (online)

Practical work in CAICV-SOTIF technical alliance and exploration of real-time SOTIF guarantee system for intelligent vehicles

Dr. Hong Wang, Associate Research Professor at the School of Vehicle and Mobility, Tsinghua University, and Deputy Executive Director, CAICV-SOTIF Technical Alliance

SOTIF validation on public roads

Stefan de Vries, Project Manager & Business Developer, Connected and Automated Vehicles, Applus IDIADA (online)

VTEHIL – A novel technology for assessing the safety performance of full vehicles in ADAS and ADS scenarios

Rainer Hoffmann, CSO, Shanghai Digauto Automobile Technology

Methodology and data for scenario-based validation of safety for automated driving

Dr. Adrian Zlocki, Head of Automated Driving, fka GmbH (online)

Scenario database construction study of SOTIF

Dr. Shulian Zhao, Director of Data and Simulation Department, CACI Intelligent Network Technology Co. Ltd.

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Technical Programme

Friday 16 July 2021

13:30 - 17:30	Parallel Technical Sessions

Cybersecurity

Moderated by

Prof. Shichun Yang, Professor and Dean of School of Transportation Science and Engineering, Beihang University

Hongxing Hu, CTO Cybersecurity, China Automotive Innovation Co., Ltd.

Thoughts on the construction of a vehicle networking safety system based on standard compliance and safety baselines

Yanan Zhang, Director of Intelligent Connected Vehicle Department, China Automotive Technology & Research Center

Toward Level 4 autonomy: resilience and integrity monitoring in automated driving systems

Prof. Merhdad Dianati, Professor & Director, Warwick University (online)

The best practices of intelligent vehicles apollo cybersecurity engine

Jianhao Liu, Leader of Baidu Apollo Cybersecurity, Baidu

Resilience by design for Connected Cars Security

Maxime Ayrault, Third Year PhD Student, Telecom Paris (online)

Penetration testing system and result analysis for ICV cybersecurity

Bosong Zou, Vice General Manager of ICV Software Testing Department, China Software Testing Centre

Cybersecurity and automated vehicles, what are the main challenges?

Dr. Tomas Olovsson, Associate Professor, Department of Computer Science and Engineering, Chalmers University of Technology (online)

Building multi-level safety system for intelligent vehicles

Prof. Shichun Yang, Professor and Dean of School of Transportation Science and Engineering, Beihang University

Establishing a secure automotive software development process based on ISO/SAE 21434

Dr. Dennis Kengo Oka, Principal Automotive Security Strategist, Synopsys (online)

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Technical Programme

Friday 16 July 2021

13:30 - 17:30	**Parallel Technical Sessions**

Impacts of Human Factors on Safety

Moderated by

Prof. Dongpu Cao, Professor of University of Waterloo, Chief Scientist for Autonomous Driving of Canada

Prof. Xinjie Zhang, Vice Director of State Key Laboratory of Automotive Simulation and Control, Professor of Jilin University

Human factor challenges in autonomous driving

Prof. Fang Chen, Chief Consultant of HMI Design, China FAW Group

Man-machine teaming: safety benefits of agency and narration

Dr. Stéphane Buffat, Director of the LAB (Accidentology, Biomechanics and Driver Behavior), Expert Leader Road Safety, Renault Group (online)

The role of the human driver and social cognition attributes in autonomous driving system

Prof. Rui Fu, Professor, Chang'an University

Driving behavior and truck safety under the influence of cross-wind

Prof. Feng Chen, Professor, Tongji University

Human factors and safety of automated mobility

Azra Habibovic, Senior Researcher of Digital Systems, RISE Research Institutes of Sweden (online)

Ensuring the safety and efficiency of takeover in automated driving: from the perspective of human factors

Prof. Hongyu Hu, Professor, Jilin University

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Chairs & Moderators

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Professor of University of Waterloo, Chief Scientist for Autonomous Driving of Canada

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Supporters

State Key Laboratory of Comprehensive Technology on Automobile Vibration and Noise & Safety Control

The State Key Laboratory of Comprehensive Technology on Automobile Vibration and Noise & Safety Control (hereinafter referred to as the Laboratory) is supported by FAW Group, approved for construction in 2010 and passed the National Acceptance in 2015.
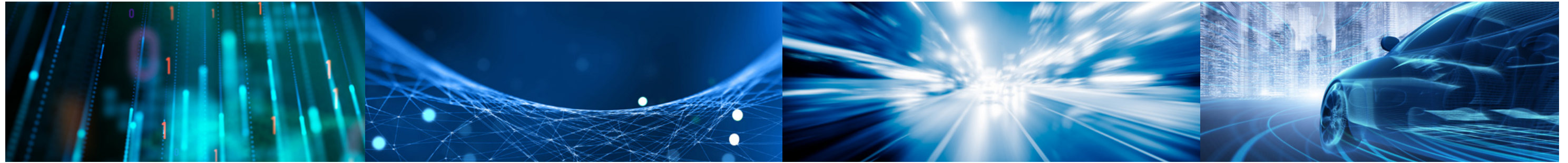
As a critical part of the China's National Technology Innovation System, it conducts research on key, basic and common technologies in the development process of automobiles, focusing on four research directions: vibration and noise, reliability and durability, safety and comfort, and system integration. The Laboratory aims to develop cutting-edge technologies featured by "high comfort, high durability, high safety and low noise". The Laboratory strive to guide the growth of talented researchers, improve the manufacturing excellence of major automotive test equipment, strengthen the development of test methods, and comprehensively improve the technical level of Chinese-brand vehicles.

The Laboratory has always been committed to the operation principle of "openness, mobility, cooperation and competition", actively communicating and collaborating with universities and research institutes around the world. It has released 29 open projects with a total funding of more than 30 million RMB. Through collaboration with universities, research institutes and tech companies, it has made significant progress in basic, applied and development research. The research results of all major national projects undertaken by the Laboratory have been applied to products such as Hongqi and Jiefang. The Laboratory has achieved fruitful results in solving bottleneck problems and promoted the "industry-college-institute cooperation", thus becoming an important innovation platform for China's automotive industry.

Automotive Innovation

Automotive Innovation is the leading peer-reviewed international journal and China SAE's flagship publication. The journal presents innovative findings and influential developments that meet the changing needs of the automotive industry. It serves researchers in industry, government, and universities worldwide.

The journal provides a forum for the research of principles, methodologies, designs, theoretical background, and cutting-edge technologies in connection with the development of vehicle and mobility. The main topics cover: energy-saving, electrification, intelligent and connected, safety, and emerging vehicle technologies.

College of Automotive Engineering, Jilin University

College of Automotive Engineering, Jilin University (JLU) is one of the most brilliant pearls among the 46 colleges of JLU. The predecessor of the college is the Changchun College of Automobile and Tractor (CCAT) of the former Jilin University of Technology, which was reorganized and formed by the Transportation University, Huazhong Institute of Technology and Shandong Institute of Technology.

The College of Automotive Engineering was the car design and manufacturing discipline belonged to the CCAT. At the beginning of its setting up, a large number of authoritative experts in the automotive field joined the college, including Rao Bin, Huang Shupei, Dai Guirui, Yu Kezhen, Fang Chuanliu, Xu Naiqi, Chen Bingcong, Yang Kegang, Luo Bangjie and Zhuang Jide. After 60 years of development and the joint efforts of JLU's automotive people of several generations, the college has been developed into an important base for carrying out basic/common advanced technological research, training high-level talent and conducting high-level international cooperation. The college played an irreplaceable role in the development of China's automobile industry and construction of independent innovation capability; it was hailed as "the cradle of talent cultivation in China's automobile industry." Among all the disciplines that the college currently has, the Vehicle Engineering is the one qualified as the earliest national key discipline in the domestic automotive field. It has maintained the number one position of vehicle engineering for all the Key Disciplines Evaluations originated by the Ministry of Education.

State Key Laboratory of Automotive Simulation and Control

The State Key Laboratory of Automotive Simulation and Control (ASCL) is located in Changchun, Jilin, China, formerly the State Key Laboratory of Automotive Dynamic Simulation, was founded by Prof. Konghui Guo and Prof. Hsin Guan and passed the National Acceptance in December 1996, opening to domestic and overseas. The ASCL current director is Professor Gao Zhenhai and the Academic Committee Chair is Professor Li Jun.

ASCL focuses on the foundational, generic and cutting-edge technology of the automotive industry products, such as the vehicle design and theory, high-efficiency power train, advanced vehicle structures and materials, automotive electronic control theory and system, and intelligent mobility. The ASCL's objectives are: to explore theory, solve the technology of application problems, develop simulation and control software, construct databases, design the significant experimental equipment and conduct high-level personnel training, to provide theory, technology, personnel and equipment support for the construction of independent innovation system of Chinese automotive industry product development technology, improving product performance and quality of the independent brand vehicle and becoming a powerful country in automobile industry, and to develop a certain influence in the international automobile engineering field on behalf of China. ASCL will be eventually constructed to be a leading domestic and international advanced fundamental research center for automotive industry product development and high-level personnel training.

汽车振动噪声
与安全控制综合技术
国家重点实验室

依托单位 /
中国第一汽车集团有限公司

地　　址 /
吉林省长春市新红旗大街1号

联系电话 /
杨先生 0431-82028065