Suzhou·2023
29th ITS World Congress

29th ITS WORLD CONGRESS

Driving Towards Intelligent Society ——Quality Life

Suzhou International Expo Center

SUZHOU CHINA

2023.10.16—10.20

Supported by:

Ministry of Transport of the People's Republic of China
Jiangsu Provincial People's Government

Hosted by:

Suzhou Municipal People's Government
Jiangsu Provincial Department of Transport
Research Institute of Highway Ministry of Transport of P. R. China

Hosted by:

ITS Asia-Pacific
ITS America
ERTICO - ITS Europe

Co-hosted by:

Suzhou Transportation Bureau
Suzhou Industrial Park Administration Committee
China ITS Industry Alliance

29th ITS World Congress
About the MaaS Platform

App Name: ITS Mobility

This APP will provide one-stop transportation and information services for the 29th ITS World Congress.

Main Services:

【Mobility Services】

This service provides comprehensive transportation solutions tailored to the congress's needs, encompassing traffic information retrieval, route planning and guidance, and integrated travel services. These offerings encompass various modes of transportation such as public transit, bicycles, autonomous driving, taxi services, ride-sharing platforms, connected vehicles, Robotaxis, congress shuttle buses, and cutting-edge transportation technologies for future demonstrations and immersive experiences.

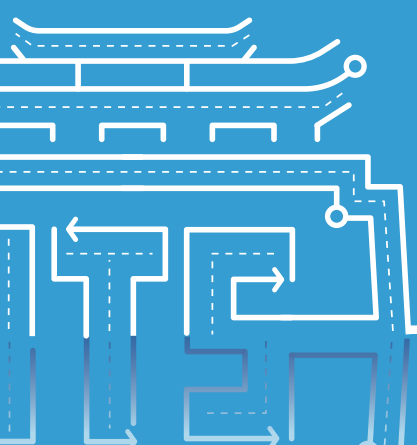
【Congress Services】

This service offers comprehensive assistance and coordination for obtaining congress information, including programs, exhibitor details, technical visits, demonstrations, and press announcements, among others. Also, this service assists users in personalizing their congress itineraries and offers appropriate travel recommendations.

Key Features:

- One-stop Services for Mobility and Congress Information
- Options available for self-guided exploration within the immediate vicinity of the main venue
- Session schedules for your optimal scheduling
- Providing a comprehensive guided tour showcasing potential transportation alternatives.

Suzhou·2023
29th ITS World Congress



Suzhou·2023
29th ITS World Congress

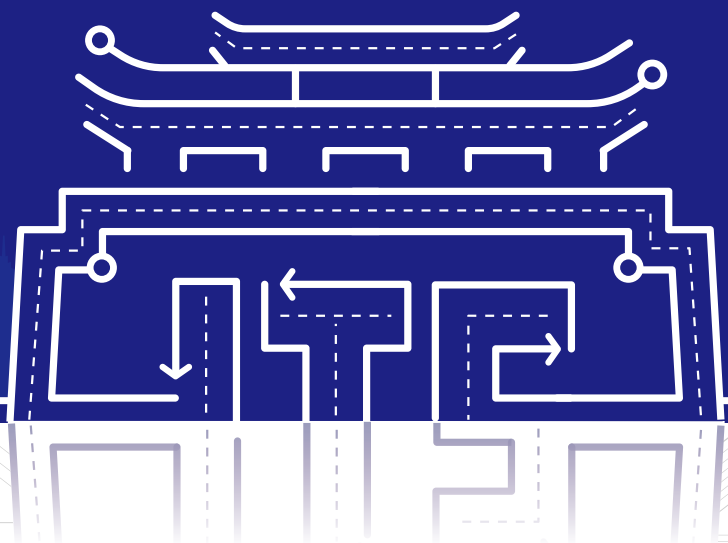
第29届智能交通世界大会

29th ITS WORLD CONGRESS

智能交通 美好生活

Driving Towards Intelligent Society ——Quality Life

2023 10.16 — 10.20



CHINA
中国
苏州
SUZHOU

The ITS World Congress is an international congress launched by the International Organization of Intelligent Transportation in America, Europe, and the Asian-Pacific region, which is the most influential comprehensive international congress in the field and is also the most extraordinary platform for achievement exhibition and technology exchange. Since 1994, countries on three continents have taken turns holding it once a year to promote the research of cutting-edge technologies in the field and the application of intelligent transportation systems. The ITS World Congress has been successfully held for 28 sessions. It integrates the exhibition and academic conference to show the technological strength and research achievements in the development of intelligent transportation in the countries. Government officials, technical experts, business people, and experts from relevant international organizations will be invited here.

Introduction

The 29th ITS World Congress will take place at the Suzhou International Expo Center from October 16-20, 2023. Suzhou is the second city after Beijing to hold the ITS Congress on behalf of China. The theme of this year's Congress is Driving Towards Intelligent Society - Quality Life. A variety of events will be held, including sessions, exhibition, demonstration, technical tours and social events. The exhibition covers an area of 27,000 square meters, focusing on the products and technologies of cutting-edge ITS equipment, intelligent vehicles, intelligent transportation management and control, and the new generation of transportation systems and services worldwide. Officials, professionals, experts, and scholars across the globe will have an opportunity to visit Suzhou and witness the latest achievements in ITS development in China and beyond.

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Wu Qingwen

Chairman of the 29th ITS World Congress
Mayor of Suzhou Municipal People's Government

It is my great pleasure to invite you to join the 29th Intelligent Transport Systems (ITS) World Congress from 16 to 20 October, 2023 in Suzhou, China. This World Congress, supported by Ministry of Transport of the P.R.C., Jiangsu Provincial People's Government, is to be jointly hosted by Suzhou Municipal People's Government, Jiangsu Provincial Department of Transport, and the Research Institute of Highway of the Ministry of Transport of China, and co-hosted by ITS Asia-Pacific, ITS America, ERTICO-ITS Europe. It will be co-organized by Suzhou Bureau of Transportation, Suzhou Industrial Park Administrative Committee, and China ITS Industry Alliance.

Being a renowned historical and cultural city in China, Suzhou is also known for its openness, vitality and strong economy. As one of the key cities in the Yangtze River Delta, Suzhou enjoys prominent geographical advantages and a solid industrial foundation. It also boasts extensive international exchanges and cooperation, friendly environment for innovation, and rich experience in organizing conferences and exhibitions, which firms up our confidence in the successful holding of the Congress.

The 29th ITS World Congress theme of "Driving towards Intelligent Society -- Quality of Life" fully demonstrates our commitment to focusing on intelligent transportation and satisfying people's aspiration for a better life. With a dynamic program mainly including intelligent transportation conferences and exhibitions, technical demonstrations and others, the 29th ITS world Congress will provide an opportunity for sponsors and partners to expand their networks, share cutting-edge technologies, strengthen mutually beneficial partnerships, and fully enjoy the charm of intelligent transportation. It will bring together global experts to chart the course of intelligent transportation and propel the exchange and integration of the intelligent transportation industry in the Asia-Pacific region and beyond to a higher level and greater extent.

We are truly honored to host the 29th ITS World Congress in 2023 and look forward to your active participation, sponsorship and sharing of insights and know-hows in the Congress. Let us gather together in Suzhou for the 29th ITS World Congress. Welcome to Suzhou!

Akio Yamamoto
Secretary-General
ITS Asia-Pacific

On behalf of ITS Asia-Pacific, I would like to invite you all to the 29th ITS World Congress in Suzhou.

In China, which is a frontrunner in the ITS field, Suzhou is an international city that enjoys a remarkable industry foundation and superb innovation environment.
Currently, ITS is seeking the integration of mobility services and infrastructure in alignment with urban planning and digitalization. On top of that, ITS is expanding its scope from the transportation field itself to the integrated solutions for societal challenges, such as environmental issues, disaster recovery, and more.

With these views, the theme of the ITS World Congress in Suzhou, "DRIVING TOWARDS INTELLIGENT SOCIETY - Quality Life" is very much to the point. I expect we will be able to enjoy exceptional demonstrations leveraging advanced ITS technologies and services and gain knowledge through exhibition and valuable technical programs. I hope a lot of ITS stakeholders and experts will get together to discuss the future of better-quality life with ITS.

I am very much looking forward to coming over to Suzhou City, a place where the classical and the modern meet. We'll see each other in Suzhou!

Laura Chace
President and CEO
ITS America

On behalf of the Intelligent Transportation Society of America (ITS America), welcome to the 29th ITS World Congress in Suzhou! ITS America is proud to join with ITS Asia-Pacific and ERTICO – ITS Europe in organizing this exciting event in Suzhou that will bring the global ITS community together to learn, share knowledge, and build new relationships to further our goals of delivering safer, greener, smarter transportation.

The theme of "Driving towards intelligent society – quality life," is what our industry strives to achieve every day. Existing and emerging ITS technologies allow us to drive real world advances that will save lives, make our cities smarter and ultimately create thriving communities. The Congress will be an exciting conference with thought provoking sessions, demonstrations of new and emerging technologies and many opportunities to learn, share, and challenge one another.

At ITS America, our vision is of "A better future transformed by transportation technology and innovation. Safer. Greener. Smarter. For all. " We are the leading voice advocating for the scaled deployment of innovative transportation technology through policy, thought leadership, and developing a diverse workforce. Our members are eager to engage with others around the world who share these same goals and I encourage you to make the most of your time at the 2023 World Congress in Suzhou!

Joost Vantomme
Chief Executive Officer
ERTICO - ITS Europe

On behalf of ERTICO – ITS Europe and our network of Partners, it is my pleasure to welcome you to the 29th ITS World Congress in Suzhou.
ERTICO – ITS Europe is delighted to co-organise this event with ITS Asia-Pacific and ITS America, and join our Hosts from China in their ambition to promote smart and sustainable mobility solutions and services.

The ITS World Congresses are one of the most significant events globally and represent the ultimate showcase of mobility services deployment and are the means for the ITS Community to keep pace with the incredible evolution of the industry and cutting edge technologies. These events embrace the latest in smart mobility and the digitalisation of transport, particularly in cities and regions where they are hosted and are important channels to raise awareness among stakeholders, policy makers, experts and the general public.

'Driving Towards Intelligent Society – Quality Life' is the theme of the Congress where intelligent and innovative solutions meet societies' and citizens needs and enhance people's daily life through seamless, smart, and sustainable mobility solutions.

The ITS Congresses are a great vehicle in bringing together the ITS Community to unite and share ideas, bridging the gaps and connecting the dots across all key mobility players.

I hope that many of you will attend ITS Suzhou 2023 for having the chance to share ideas at this great event for the entire mobility community.

Suzhou Municipal People's Government

Renowned as the Paradise on the earth, Suzhou is a city of the double-sided embroidery with the combination of the classical and the modern. As one of the key central cities in China's Yangtze River Delta, Suzhou enjoys a remarkable geographical location, solid industry foundation, close international cooperation, and superb innovation environment. Suzhou is a modern city with vitality, charm and attraction.

In recent years, focusing on the goal of building a "Transportation Modernization Demonstration City" and "Transportation Power Demonstration Pilot Zone", we took the chance of preparing the 29th ITS World Congress, launched the construction of a group of demonstration projects of Taicang Smart Port, Suzhou-Taizhou Smart Expressway, and Smart Channel of Beijing-Hangzhou Canal Suzhou Section, completed the construction of transport command center and other leading intelligent transport brands nationwide, and successfully built the city as the first pilot zone of internet of vehicles in Jiangsu Province and the first demonstration zone of digital transport. Suzhou was approved by Ministry of Transport as the first group of intelligent transport application pilot cities, and it has become one of the representative cities that have the rapid development of intelligent transport in China.

Please visit **www.suzhou.gov.cn** for more information

Jiangsu Provincial Department of Transport

Jiangsu Provincial Department of Transport is a governmental body of the People's Government of Jiangsu Province. It undertakes the task of implementing the transportation policies established by the central government as well as executing the directives and strategies sanctioned by the Provincial Party Committee. In addition, it guarantees compliance with transportation policies, legislation, and regulations established by the governing authorities, facilitates the coordination and development of a comprehensive transportation system strategy for the province, oversees the implementation of significant national and provincial transport infrastructure initiatives, takes on regulatory duties for the road and water transport sectors within the province, offers guidance for comprehensive enforcement of administrative laws in the transportation sector, and ensures effective monitoring and management of production safety in the transportation industry. Moreover, it assumes the responsibility of overseeing the province's railway sector, among various other obligations.

Over the past few years, Jiangsu Provincial Department of Transport has been dedicating to advancing the establishment of a pilot transportation power and a demonstration zone for transportation modernization. The ultimate objective is to meet the people's ever-growing needs for a better life. This effort includes the accelerated development of a modern comprehensive transportation system that is safe, convenient, efficient, and environmentally friendly, aiming to expand the range of diversified and high-quality transportation services, foster innovation-driven and integrated development, and strengthen a green, safe, open, and cooperative model of progress. By doing so, it will effectively enhance and guarantee the progress of the innovative pursuit of Chinese-style modernization in Jiangsu, thus ushering in a transformative era characterized by robustness, wealth, visual attractiveness, and superiority in Jiangsu.

Please visit **jtyst.jiangsu.gov.cn** for more information.

Research Institute of Highway Ministry of Transport of People's Republic of China

The Research Institute of Highway Ministry of Transport is a large-scale comprehensive highway transportation research institution directly under the Ministry of Transport, mainly engaged in scientific research and development of technical materials and equipment in the fields of road engineering, bridge engineering, transportation engineering, intelligent transportation, automotive application engineering, road transportation and logistics, highway ecology and environmental protection engineering, etc. Its main responsibilities are to serve major national strategic tasks, serve the scientific development of transportation The service industry has made technological progress, and government departments have fulfilled their duties and responsibilities.

Please visit **new.rioh.cn.** for more information.

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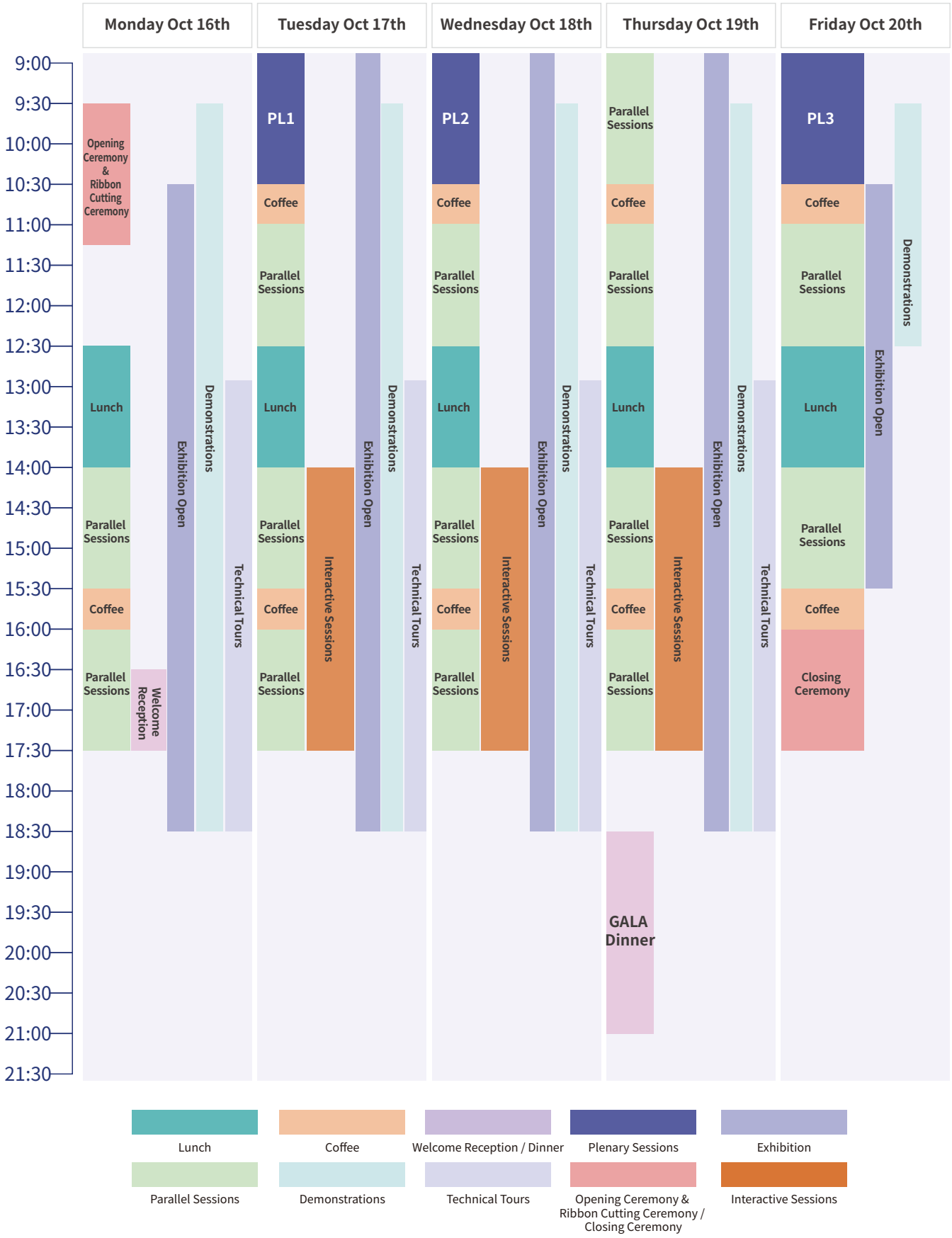
PROGRAMME AT A GLANCE



PROGRAMME

Ministerial Round Table

A considerable contingent of experts, scholars, industry professionals, and government officials from all over the world will be in attendance at this World Congress. Organizing a ministerial roundtable discussion during this period presents valuable opportunities for international cooperation and greater progress in cutting-edge transportation technologies, and foster international exchanges and collaborations in intelligent transportation across countries and regions.
Participation is by invitation only.

Theme
The main theme of the ministerial roundtable is "Digitalization and Intellectualization for High-quality Transportation Development". Discussions will primarily revolve around leveraging digital and intelligent technologies to facilitate an affordable and equitable transportation system, bolstering the resilience and safety of the transportation infrastructure, and exploring sustainable development of intelligent transportation system.

Mayoral Round Table

As one of the key high-level events of the previous ITS World Congresses, the Mayoral Roundtable aims to showcase the achievements and aspirations of each participating city's intelligent transportation system, which brings more opportunities and momentum to the technical upgrading, business promotion and industrial development of intelligent transportation in the participating cities.
With the ITS World Congress serving as a catalyst, we intend to enhance our collaboration and communication with the participating city leaders in such areas as urban governance and city development, etc.
Participation is by invitation only.

Theme
The forthcoming Mayoral Roundtable will center around the theme of "Advancing ITS industries, empowering traffic governance in big cities, and facilitating Suzhou's modern industrial system through ITS". Discussions will primarily revolve around leveraging digital and intelligent technologies to facilitate an affordable and equitable transportation system, bolstering the resilience and safety of the transportation infrastructure, and exploring sustainable development of intelligent transportation system.

Plenary Sessions (PL)
All attendees are welcome to join the Opening and Closing Ceremonies and Plenary Sessions dedicated to key ITS issues addressed by major personalities.

Executive Sessions (ES)
In these sessions, high-level industry executives, public officials and academia from around the world will draw from their experiences to share their views on ITS achievements, issues and challenges.

Special Interest Sessions (SIS)
Organised at the request of groups of experts developing and deploying ITS, these interactive, tailor-made sessions provide the opportunity to focus on specific topics of interest.

Scientific Sessions (SP)
These sessions are a major forum for academic and scientific excellence to share substantial findings and achievements on an advanced topic and to inspire an intensive discussion in that field.

Technical Sessions (TS)
These sessions aim to provide engineers and researchers with a venue for broad-ranging discussion on technical subjects as well as the institutional, business and economic aspects of ITS.

Interactive Sessions (IS)
These sessions provide a space for an interactive discussion via a poster presentation or two stages presentations including a short oral presentation followed by a poster presentation. It is hoped that this climate of free, face-to-face dialogue leads to further innovations in the field.

PROGRAMME TOPICS

Sustainable and Transformational Development of Transport

Connected, Cooperative and Automated Mobility

Intelligent and Digital Transport Infrastructure

Integrated Transport Systems

Advanced Technology for Improved Services

Smart Cities and Future Transport

Pricing and Travel Demand Management

Policy, Standards and Harmonization

SESSIONS AT A GLANCE

16 Oct Mon

	Opening Ceremony Closing Ceremony Plenary Sessions	Executive Sessions	Special Interest Sessions				Scientific Sessions		Technical Sessions			Interactive Session
	Jinji Lake Hall (Level 3, Hall B)	Room 1	Room 2	Room 3	Room 4	Room 5	Room 6	Room 7	Room 8	Room 9	Room 10	Room 11
09:30-11:15	Opening Ceremony & Ribbon Cutting Ceremony											
12:30-14:00	Lunch											
14:00-15:30		ES01 Imagine the Future: The Vision of Intelligent Mobility and Future City	SIS01 Navigating the Future: The Role of Electromobility and EV Charging Infrastructure	SIS02 C-V2X Empowering Safe and Connected Mobility	SIS03 Technology and Practice of Digital Twin in Transportation	SIS04 Intelligent Highway Technology and Operation Service	SP01 Climate Goals and Action Plans in Transport	SP02 ITS Technology for Traffic Safety	TS01 Mobility as a Service	TS02 V2X Communication Technologies and Cooperative Systems (1)	TS03 Cloud Computing, Edge Computing, Artificial Intelligence, Digital Twins, Blockchain in Transportation (1)	
15:30-16:00	Coffee Break											
16:00-17:30		ES02 Active Modes and ITS	SIS05 Green Transport and Green Energy	SIS06 Automatic Driving Test Technology and Demonstration Area Construction	SIS07 Global V2X Demonstration and Operation Service Providers: Present and Future	SIS51 Data Sharing to Improve Safety and Mobility in Connected Transportation System			TS04 Climate Goals and Action Plans in Transport	TS05 V2X Communication Technologies and Cooperative Systems (2)	TS06 Cloud Computing, Edge Computing, Artificial Intelligence, Digital Twins, Blockchain in Transportation (2)	
16:30-17:30	Welcome Reception											

Exhibition 09:00-18:30 – **Demonstrations** 09:30-18:30 – **Technical Tours** 13:00-18:30

SESSIONS AT A GLANCE

10 oct | 17 Tue

	Opening Ceremony Closing Ceremony Plenary Sessions	Executive Sessions	Special Interest Sessions				Scientific Sessions		Technical Sessions			Interactive Session
	Jinji Lake Hall (Level 3, Hall B)	Room 1	Room 2	Room 3	Room 4	Room 5	Room 6	Room 7	Room 8	Room 9	Room 10	Room 11
09:00-10:30	PL 1 Sustainable and Intelligent Integrated Transport											
10:30-11:00	Coffee Break											
11:00-12:30		ES03 Intelligent Infrastructure, Moving to a Larger Scale	SIS09 Advancing Intelligent and Sustainable Urban Transport in Developing Countries	SIS10 Latest Progress of Engineering Application of V2X Networking Technology	SIS11 National ITS Activities in Japan - Future Transport Society with DX	SIS12 Development of Traffic Active Control under Smart Highway	SP05 Energy, Noise and Environmental Impacts	SP06 Multimodal Travel Information and Planning Services & Bike Sharing		TS08 V2X Communication Technologies and Cooperative Systems (3)	TS09 Artificial Intelligence & Crowdsourcing and Big Data Analytics	
12:30-14:00	Lunch											
14:00-15:30		ES04 The Global Development of Intelligent Automobiles	SIS13 Novel electric Micromobility and Mobility as a Service	SIS14 Current and Future Spectrum Strategy for Cooperative Automated Vehicle	SIS46 In Cabin Challenges: from Requirement to Homologation	SIS16 ICT-enabled the Development of ITS	SP07 Electromobility & Mobility as a Service	SP08 Multimodal Journey Planner	TS10 Energy, Noise and Environmental Impacts	TS11 V2X Communication Technologies and Cooperative Systems (4)	TS12 Availability, Quality And Visualization Of Data & New Type Detectors And Sensors	IS01 **14:00-17:00** Sustainable and Transformational Development of Transport & Policy, Standards and Harmonization
15:30-16:00	Coffee Break											
16:00-17:30		ES05 Decarbonization in Public Transport	SIS17 Energy-based Green ITS Services for Smart City Mobility	SIS08 Visualizing Smart Mobilities Intelligent Transportation System in the New Capital City	SIS19 Using Transportation Big Data Intelligence to Serve Ground Transportation Economy Development	SIS20 Sustainable and Digital Development of Multimodal Transport Systems			TS13 Electromobility and EV Charging Infrastructure	TS14 Simulation and Modelling	TS15 Innovative Use of ETC Infrastructure for Other Applications	

Exhibition 09:00-18:30 – **Demonstrations** 09:30-18:30 – **Technical Tours** 13:00-18:30

SESSIONS AT A GLANCE

10 oct 18 Wed

	Opening Ceremony Closing Ceremony Plenary Sessions	Executive Sessions	Special Interest Sessions				Scientific Sessions		Technical Sessions			Interactive Session
	Jinji Lake Hall (Level 3, Hall B)	Room 1	Room 2	Room 3	Room 4	Room 5	Room 6	Room 7	Room 8	Room 9	Room 10	Room 11
09:00-10:30	PL2 Future Mobility and Transport Industry Driven by Innovation											
10:30-11:00	Coffee Break											
11:00-12:30		ES06 Using Artificial Intelligence (AI) to Improve Operations and Security of Our Transportation System	SIS21 Challenges and Innovative Solutions from China and Europe – in Particular Suzhou/Shanghai and Berlin	SIS22 Promoting C-V2X Application Worldwide: Learning from China's Success	SIS23 Road Infrastructure Support for Automated Driving	SIS24 Insurtech and ITS: Transportation Risk Assessment and Management Solutions TRAMS (TRAMS)	SP11 Sensors and Perception Methods for Automated Vehicles	SP12 ITS in Airport Ground Operations & Waterway Transport Applications and 5G Solution	TS16 Mobility for Ageing Population	TS17 Pilots, Trials and Tests of Intelligent and Autonomous Vehicles	TS18 Transport Infrastructure Predictive Maintenance	
12:30-14:00	Lunch											
14:00-15:30		ES07 Sustainable Development of Intelligent Port and Freight	SIS25 Safety Measures for Mixed Traffic in Asia Pacific Region	SIS26 Accelerating Global C-V2X Deployment for Safer and Smarter Mobility	SIS27 Digital Infrastructure Practice for Serving Autonomous Driving Scenarios	SIS28 The Application of Digital Twins in the Intelligent Transportation	SP13 New Advances in V2V, V2I and V2X Technology	SP14 Cloud Computing, Edge Computing, AI, Digital Twins, Blockchain in Transportation & Cybersecurity and Data Security for Transport	TS19 Next Generation Human Machine Interface and Human Factors	TS20 ITS Policy and Strategy & Standardization		IS02 **14:00-17:00** Connected, Cooperative and Automated Mobility & Smart City
15:30-16:00	Coffee Break											
16:00-17:30		ES08 Utilising the Third Dimension for New Mobility Services	SIS29 Strategy of Practical Implementation of V2X Systems for Traffic Accident Avoidance	SIS30 Perception and Evaluation Technology of Intelligent Connected Vehicles		SIS32 Sensor Data Sharing in ITS - Status and Outlook	SP15 V2X Communication Technologies and Cooperative Systems	SP16 Real-time Information, Intelligent Traffic Management			TS24 ITS Technology for Traffic Safety (1)	

Exhibition 09:00-18:30 – **Demonstrations** 09:30-18:30 – **Technical Tours** 13:00-18:30

SESSIONS AT A GLANCE

10 oct **19** Thu

	Opening Ceremony Closing Ceremony Plenary Sessions	Executive Sessions	Special Interest Sessions				Scientific Sessions		Technical Sessions			Interactive Session
	Jinji Lake Hall (Level 3, Hall B)	Room 1	Room 2	Room 3	Room 4	Room 5	Room 6	Room 7	Room 8	Room 9	Room 10	Room 11
09:00-10:30			SIS33 Current Status of V2X in US and Europe	SIS34 China Vehicle&city Integration Development Conference	SIS35 Roadside Infrastructure Supported Location-based Services for Urban Connected Automated Mobility	SIS36 Intelligent Connected Urban Transport and Smart Governance	SP17 Simulation and Modelling	SP18 Future Rail Experience	TS25 Sensors and Perception Methods for Automated Vehicles (1)	TS26 Data Collection and Fusion Technologies	TS27 ITS Technology for Traffic Safety (2)	
10:30-11:00	Coffee Break											
11:00-12:30			SIS37 The Best Practice from Excellent Projects of Smart Transportation Innovation Competition in the Yangtze River Delta	SIS38 Managing Mixed Traffic with Connected and Automated Vehicles: Challenges and Opportunities	SIS39 Global Policy and Standardiza-tion for Cybersecurity Issues	SIS40 Transporta-tion 5.0: The DAO to Safe, Secure, and Sustainable ITS for DeEco and DeSoc	SP19 Impact, Cost-benefit and Risk Assessment for Automated Vehicles	SP20 Predictive Network Management, Influencing Traveler Behavior, Citizens Engagement and Co-creation	TS28 Sensors and Perception Methods for Automated Vehicles (2)		TS30 ITS Technology for Traffic Safety (3)	
12:30-14:00	Lunch											
14:00-15:30		ES09 Transport Equity – Planning a Diverse Workforce that Advances Future Mobility Needs for All		SIS42 Urban Connected Automated Shuttle Systems and Services	SIS43 Intelligent Roadway Infrastructure and Traffic Safety	SIS44 Mobility on Demand: The Rise of Disruptive Technologies, Models, and Services	SP21 Pilots, Trials and Tests of Intelligent and Autonomous Vehicles		TS31 New Advances in V2V, V2I and V2X Technology		TS33 Smart Parking&bicy-cle Sharing	IS03 **14:00-17:00** Intelligent and Digital Transport Infrastructure & Integrated Transport Systems
15:30-16:00	Coffee Break											
16:00-17:30		ES10 Transportation Innovation and Personalized Service- The Intersection of Equity, Accessibility and Technology	SIS45 The Application Development of Specific Scenario, Policy and Regulation Prospects of Surface Autonomous Driving Technology		SIS47 Developing Highway Systems for Connected & Autonomous Vehicles: Achieving Global Consensus	SIS48 Global Commercial-ization Policy and Strategy for ITS	SP23 Next Generation Traffic Mangement	SP24 Data Analytics for Traffic Monitoring and Management	TS34 Railway Applications and 5G Solution	TS35 Next Generation Traffic Management	TS36 Future Metropolitan Transport & Disruptive Innovations in Digital Transport	
18:30-21:00	Gala Dinner											

Exhibition 09:00-18:30 — **Demonstrations** 09:30-18:30 — **Technical Tours** 13:00-18:30

SESSIONS AT A GLANCE

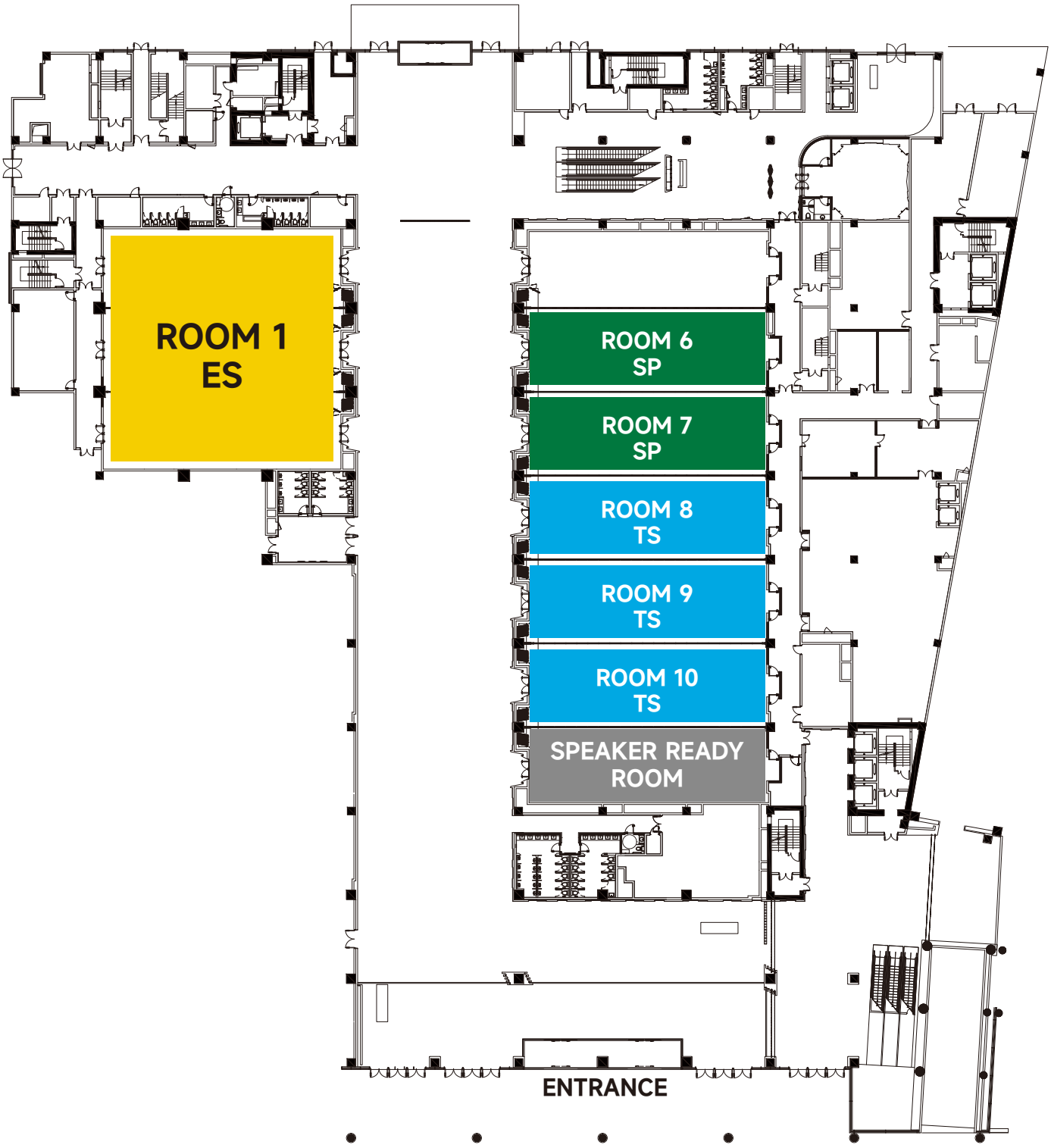
10 oct 20 Fri

	Opening Ceremony Closing Ceremony Plenary Sessions	Executive Sessions	Special Interest Sessions				Scientific Sessions		Technical Sessions			Interactive Session
	Jinji Lake Hall (Level 3, Hall B)	Room 1	Room 2	Room 3	Room 4	Room 5	Room 6	Room 7	Room 8	Room 9	Room 10	Room 11
09:00-10:30	PL3 Digitization Reshapes the Future of Transportation and Society											
10:30-11:00	Coffee Break											
11:00-12:30		ES11 Going Further with Uniform Ticketing in MaaS	SIS49 How Can Intelligent Connected Vehicles Achieve Commercial Application of Vehicle-road Coordination?	SIS50 Exploration and Practice: Innovation of Smart Transportation to Drive Digital Transformation			SP25 Intelligent Emergency and Incident Management	TS37 Platooning	TS38 Multimodal Journey Planner & Smart and Green Vehicle Routing	TS39 ITS Infrastructure for Automated Vehicles	TS40 Data Analytics for Traffic Monitoring and Management	
12:30-14:00	Lunch											
14:00-15:30		ES12 Digital Infrastructure	SIS53 Smart Parking Assists the Construction of Smart Cities	SIS54 How Microsimulation Can Help to Foresee and Optimize the Impact of CAV on Urban Traffic			TS42 Technologies for Travel Demand Management			TS45 Policy and Regulation for Connected and Autonomous Vehicles		
15:30-16:00	Coffee Break											
16:00-17:30	Closing Ceremony											

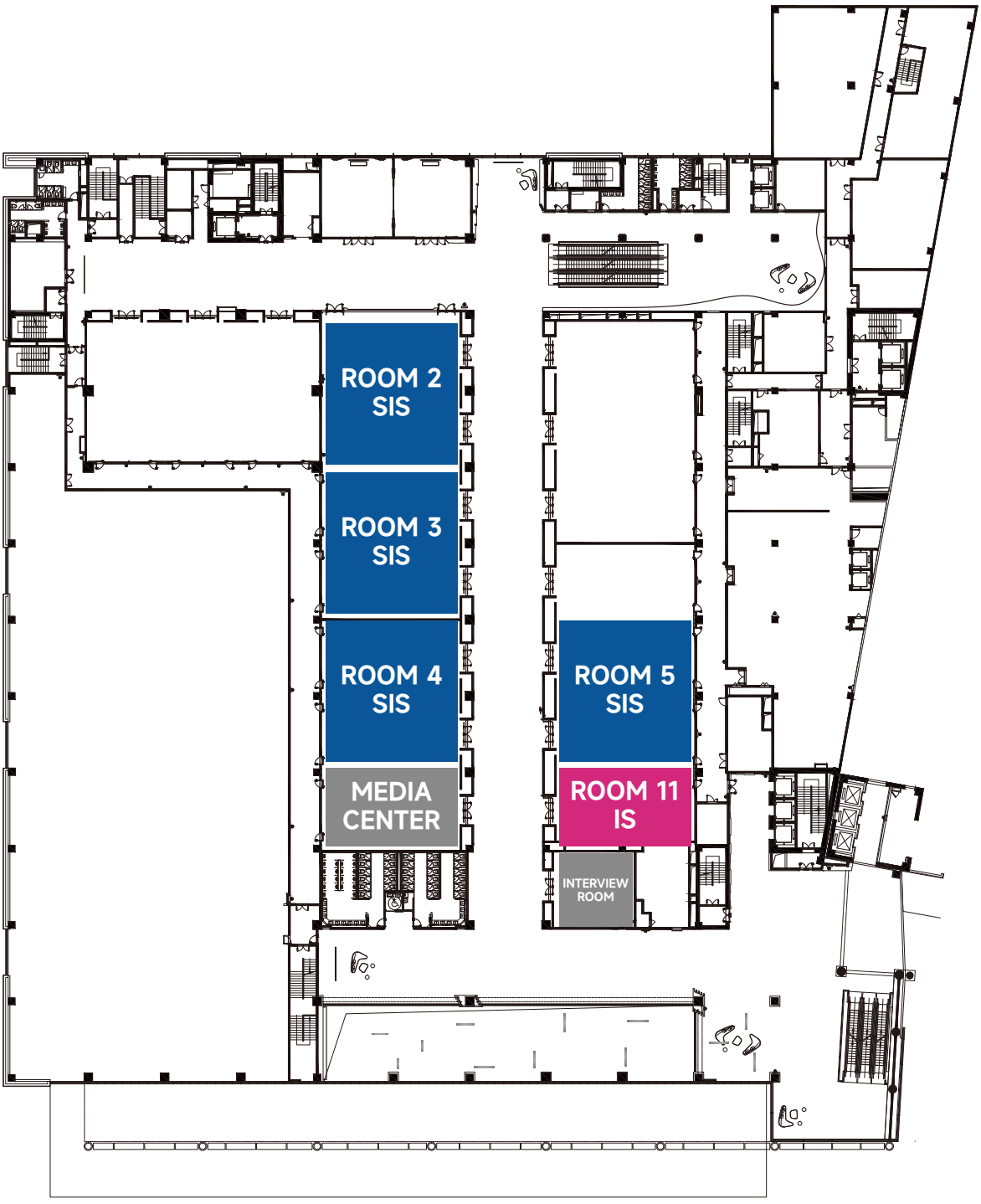
Exhibition 09:00-15:30

Demonstrations 09:30-12:30

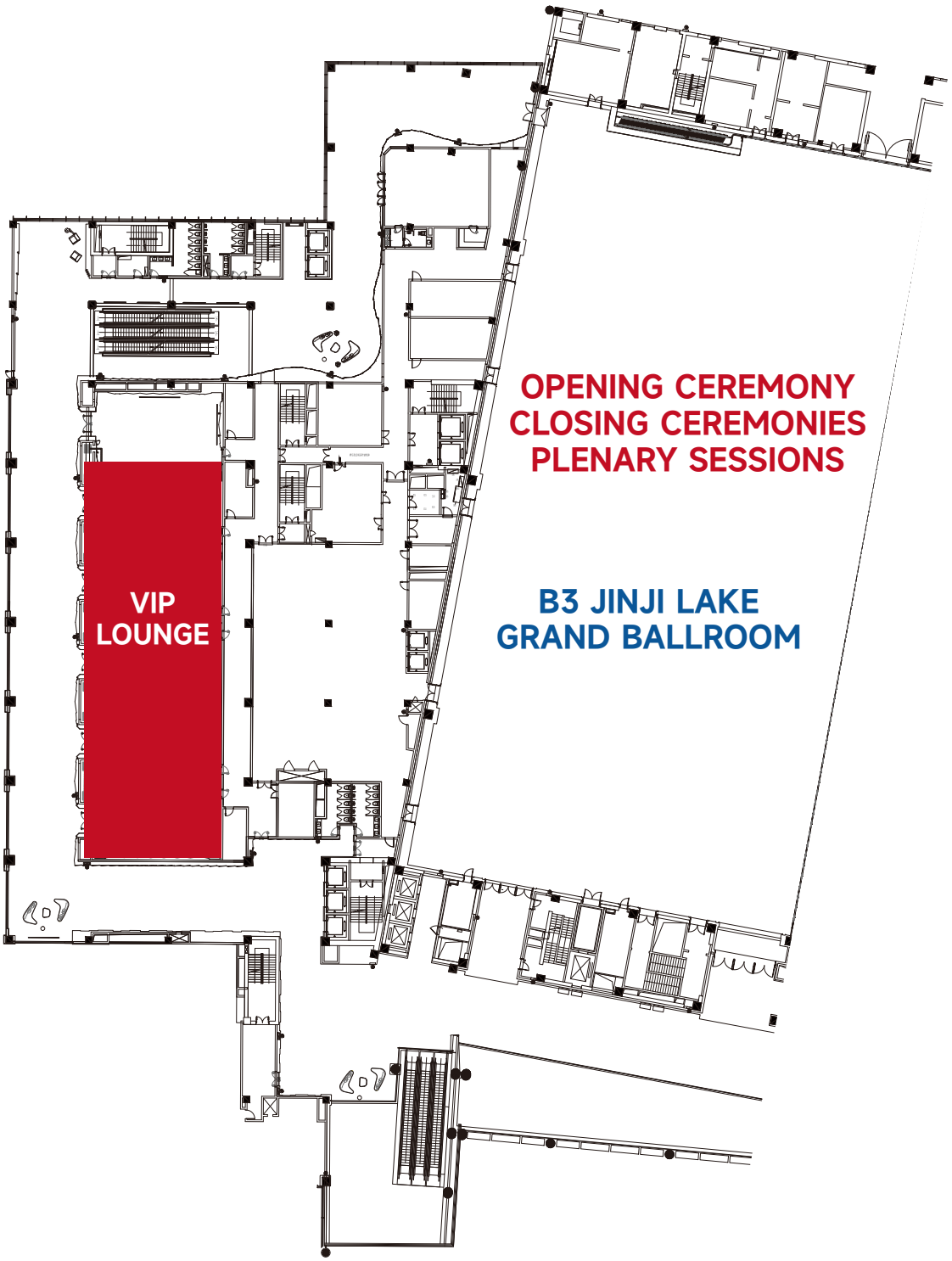
Level 1, Hall A



Level 2, Hall A



Level 3, Hall A



OPENING CEREMONY & RIBBON CUTTING CEREMONY

Monday, 16 October 2023 | 09:30 - 11:15 |< Room: Level 3, Jinji Lake Hall >

In keeping with tradition, the Opening Ceremony will start with the official welcome by the organisers, Suzhou Municipal People's Government, Jiangsu Provincial Department of transport, Research Institute of Highway Ministry of Transport of People's Republic of China, and co-hosts representing Asia-Pacific, Americas and Europe. Celebrations at the opening ceremony include the presentation of the 'Hall of Fame - Lifetime Achievement' award, entertainment that encapsulates the charms of the host city Suzhou, and the Ribbon Cutting Ceremony.

CLOSING CEREMONY

Friday, 20 October 2023 | 16:00 - 17:30 | < Room: Level 3, Jinji Lake Hall >

The Closing Ceremony will summarise key moments that made the 29th ITS World Congress unique. It will include among others, official closing keynote speeches from the organisers, Suzhou Municipal People's Government, Jiangsu Provincial Department of transport, Research Institute of Highway Ministry of Transport of People's Republic of China, best paper awards, presentations and invitations by the 30th ITS World Congress (Dubai 2024), the 31st World Congress (Atlanta 2025) and 32nd World Congress (Gangneung 2026) and Passing of the Globe Ceremony.

PL1 SUSTAINABLE AND INTELLIGENT INTEGRATED TRANSPORT

Tuesday, 17 October 2023 | 09:00-10:30 | < Room: Level 3, Jinji Lake Hall >

It has been a goal of all countries to achieve sustainable transport, which is green, safe and convenient. Intelligent technology is an important tool to achieve a cleaner and more sustainable integrated transport system. Electric vehicles, alternative fuels, digital infrastructure, intelligent integrated transportation hubs and the synergy of multiple modes of transportation can make it more possible for our transport system to decarbonize faster, reduce congestion and reduce air pollution. Officials, experts, and entrepreneurs from the transport industry, information industry, and energy sectors will gather together to discuss:

- How to cooperate, support and deploy various intelligent integrated transport solutions?
- What policies do we have or we are going to have?
- What are the existing challenges?

Moderator
MR. PAN LIU, Executive Deputy Secretary, Southeast University, China

Hall of Fame Ceremony

Speakers
MR. MENGYONG WENG, Chairman, China Highway & Transportation Society/Former Vice Minister of Transport, China
MS. ROSALINDE VAN DER VLIES, Director of Clean Planet, DG RTD, European Commission, Belgium
MS. TILLY CHANG, Executive Director, San Francisco County Transportation Authority, United States
MR. JINQUAN ZHANG, President, Research Institute of Highway Ministry of Transport, China

PL2 FUTURE MOBILITY AND TRANSPORT INDUSTRY DRIVEN BY INNOVATION

Wednesday, 18 October 2023 | 09:00-10:30 |< Room: Level 3, Jinji Lake Hall >

The integration of IoT, artificial intelligence, machine learning, big data and a new generation of information technology, represented by 5G with transport has resulted in numerous innovations, which will drive the revolution in vehicles, travel behavior, traffic service, and management. It will inevitably stimulate the development of the new transport industry. This session will focus on the following aspects:

- What are the new intelligent travel services, both implemented and to be implemented around the world?
- What is the possible development of the Intelligent Transportation System like in the future?
- What benefits a successful project can bring to ordinary people and enterprises?
- How a successful project can promote the transformation of transport and the increase of efficiency?

Moderator
MR. XIAOJING WANG, Chairman of China ITS Industry Alliance, China

Hall of Fame Ceremony

Speakers
MR. KEQIANG LI, Academician/Professor, The Chinese Academy of Engineering/Tsinghua University, China
DR. JÜRGEN UNSER, President of Audi China, Audi, Germany
MR. CHENWEI YAN, Senior Vice President, Qualcomm, United States
MR. NAOHIKO OGIHARA, Director-General of the Radio Department, Telecommunications Bureau, Ministry of Internal Affairs and Communications, Japan

PL3 DIGITIZATION RESHAPES THE FUTURE OF TRANSPORTATION AND SOCIETY

Friday, 20 October 2023 | 09:00-10:30 | < Room: Level 3, Jinji Lake Hall >

Digitization, networking, and intelligentization are shaping new transport and social forms. The new generation of digitalization will not only profoundly affect the organization, process control, and value definition of transport, which will promote human beings to enter an intelligent interconnection of everything era, where "humans, machines and things" are integrated with each other, but also make it more possible for underdeveloped countries/regions to access more digital infrastructure, enabling them to enhance their transportation and traffic conditions This plenary session will focus on:

• How the new generation of digital products and services will be used in the real world and what opportunities and challenges it will bring to us?

• How to better realize user-centered technologies and services to provide people and goods with mobility service which is secure, seamless, smart, inclusive, resilient, climate-neutral and sustainable?How to formulate an architecture for sustainable development, and how to coordinate various stakeholders?

• How to formulate an architecture for sustainable development, and how to coordinate various stakeholders?

• How to formulate policies to support future development?

• What is the vision of the funding policies of organizations like the World Bank, ADB and AIIB for the digital infrastructure development in underdeveloped countries and regions in order to provide equal opportunities for the people in these regions to enjoy the benefits brought by a much greener, smarter and safer transport system?

Moderator

MR. BIN LI, Vice President, Research Institute of Highway Ministry of Transport, China

Speakers

MR. HEPING SHI, Chairman, Jiangsu Provincial Comprehensive Transportation Society/Former Vice Governor of Jiangsu Provincial Government, China

DR. ANGELOS AMDITIS, ERTICO-ITS Europe Chairman, ICCS, Greece

MR. CHRISTIAN HAAS, Chief Executive Officer, UMovity, United States

MR. DENNIS WALSH, Chief Engineer Engineering & Technology, Department of Transport and Main Roads, Queensland, Australia

ES01 IMAGINE THE FUTURE: THE VISION OF INTELLIGENT MOBILITY AND FUTURE CITY

Monday, 16 October 2023 | 14:00-15:30 | <Room: 1>

As we enter a new era of transportation featuring the boom of innovative technologies, the future of intelligent mobility is becoming increasingly important and fascinating. The picture of intelligent mobility is more than just cars that can drive by themselves. It will cover diverse ranges of transportation options that will shape the future of mobility, including intelligent high-speed railways, smart boats and even flying cars. The speakers will share their insights on how these advances will revolutionize transportation and transform our cities and communities, as well as the potential impact on society as a whole. This session intends to envision the future of intelligent mobility and explore numerous possibilities for a more connected, efficient, sustainable and innovative transportation system.

Moderator:
MR. MIKE RUDGE, Director, ITS New Zealand, New Zealand

Speakers:
MR. BOB ZHANG, CTO/CEO, DiDi Chuxing/DiDi Autonomous, China
MR. ROBERT SYKORA, Director for Europe, Ohmio, Luxembourg
MR. SHIN YAMAMOTO, Dept. General Manager, Toyota Motor Cooperation, Japan
MR. FRED KALT, President, ITS Singapore, Singapore

ES02 ACTIVE MODES AND ITS

Monday, 16 October 2023 | 16:00-17:30 | <Room: 1>

The sustainable and transformational development of transport requires integrating active mobility modes like biking, walking, and scooters with Intelligent Transport Systems (ITS) to reduce carbon emissions, improve road safety, and manage congestion. ITS provides real-time data on traffic flows, parking, and public transport options to optimize traffic management and provide better information to pedestrians and cyclists.
Other technologies such as shared mobility solutions and smart parking systems can also support the return of urban space to pedestrians and bikes. Balancing the needs of different users and considering the impact on businesses and residents is crucial in managing urban space.
By this session will explore how integrating ITS and other technologies into urban planning and management, cities can create liable, efficient, and sustainable environments that benefit everyone.

Moderator:
DR. NOBUYUKI OZAKI, Professor, Nagoya University, Japan

Speakers:
MS. LISA SPELLMAN, Founding Director, VRU Safety Consortium, SAE, United States
MS. YOLANDA YOU, Head of Research & Advanced Engineering, Continental Corporation, China
MR. GONZALO ALCARAZ, Deputy Director General, International Road Federation (IRF), Switzerland
DR. RESDIANSYAH, Ph.D., Chief Urban Mobility, Nusantara National Capital City Authority/Vice President ITS Indonesia, Indonesia

ES03 INTELLIGENT INFRASTRUCTURE, MOVING TO A LARGER SCALE

Tuesday, 17 October 2023 | 11:00-12:30 | <Room: 1>

There is convincing evidence that intelligent infrastructure delivers crucial transportation benefits including increased safety, improved efficiency and enhance user experience. This session explores the question about whether it is time to step up the scale of investments and intelligent infrastructure. Having provided proof based on initial experience, are we now constraining the full value that can be achieved from intelligent infrastructure by taking an incremental approach, rather than large scale investments? This session will address the advantages of taking a "moon-shot" approach to intelligent infrastructure deployment using large-scale coordinated investments, focused on the achievement of bold goals. This will include a discussion on the need for critical mass and a desire to create outcomes and impacts that are of national and international significance.

Moderator:
MR. CHRISTIAN HAAS, Chief Executive Officer, UMovity, United States

Speakers:
MS. FULING SUN, Chief Expert, Zhongzi Huake Traffic Construction Technology Co.LTD, China
DR. MENG LU, Vice President, IEEE, The Netherlands
MR. LIN WANG, Director, National Center of ITS Engineering & Technology, Research Institute of Highway,MOT, China
TBD

ES04 THE GLOBAL DEVELOPMENT OF INTELLIGENT AUTOMOBILES

Tuesday, 17 October 2023 | 14:00-15:30 | <Room: 1>

With the application of more innovative technologies and the push of user demands, automobiles are no longer just transportation tools Instead, they have become comprehensive products that incorporate multiple industrial technologies. The global cooperation in the industry chain, supply chain, as well as data and information security of smart cars, is crucial for providing a sustainable development ecosystem for the future of intelligent mobility. This conference aims to explore this issue from various dimensions, including policy regulations, development trends, opportunities, and challenges.

Moderator:
TS. MOHD SHARULNIZAM SARIP, Chief Technology Officer, MARii /Deputy President, ITS Malaysia, Malaysia

Speakers:
PROF. JIANQIANG WANG, Professor/Dean of School of Vehicle and Mobility, Tsinghua University, China
MR. MICHAEL HOFMANN, Executive Vice President/ Head of Audi China R&D, Audi China, Germany
MR. TIM LEINMUELLER, Senior Manager, Denso, Germany
MS. SUE BAI, Chief Engineer, Chief Data Business, Honda, United States
DR. CHARLES KARL, Chief Technology Leader/ Discipline Leader: Transport Systems, Mobility Futures, NTRO, Australia

ES05 DECARBONIZATION IN PUBLIC TRANSPORT

Tuesday, 17 October 2023 | 16:00-17:30 | <Room: 1>

While electrification and the shift toward alternate fuels in the transport industry are being touted as a way to reduce greenhouse gas emissions, we recognize that the use of alternate fuels may not completely address other issues that significantly impact mobility. The picture that many transport professionals paint regarding electrification is that if more personal vehicles are electrified, that alone will not solve our most serious transport problems including congestion. However, electrification and the use of alternate fuels can make a positive impact on the environment. This, in conjunction with an increase in the use of shared mobility, can improve life in cities. Also, if electrification and the use of alternate fuels are extended to vehicle fleets, such as those operated by public transport and other municipal agencies, the result can be even better for urban mobility. This session will explore decarbonizing public transport fleets and incentivizing decarbonization through innovative ITS tools like mobility as a service (MaaS).

Moderator
MR. ANDREW MEHAFFEY, Director NSW, Ohmio, Australia

Speakers
MR. ZHENNING DONG, Vice President, Autonavi, China
MR. YONGWEI ZHANG, Vice President/Secretary-General, China EV100, China
MR. MATTHIAS PFRIEM, Senior Product Manager, PTV Group, Germany
MR. YU YU ZHANG, Ph.D., Professor, CEE, University of Southern Florida, United States
MR. KEN KOIBUCHI, Chief Project Leader, Software Development Center, Toyota Motor Corporation, Japan

ES06 USING ARTIFICIAL INTELLIGENCE (AI) TO IMPROVE OPERATIONS AND SECURITY OF OUR TRANSPORTATION SYSTEM

Wednesday, 18 October 2023 | 11:00-12:30 | <Room: 1>

Operations of transportation systems creates extremely large sets of data. Trying to interpret that data is very difficult and we should be moving to Artificial Intelligence (AI) techniques to analyze and reduce the data to a quantity that can be understood by an operator. AI systems excel at identifying patterns and trends that could be exploited to improve operations. As connected vehicles start to proliferate the market, techniques to merge the terrestrial system data with the vehicle data will be critical to long term operational success. This session would focus on technique being applied in different regions of the world.

Moderator
DR. YONGYAO YANG, Chief Scientist/Professor, Zhejiang SUPCON Information Co. Ltd., China

Speakers
MR. XIANGBIN WU, Principal Research Scientist/Director, Intel Labs/Intelligent Edge System Lab of Intel Labs China, China
MR. LIN TAO, Chairman, Shenzhen Urban Transport Planning Center Co., Ltd, China
MR. LEI ZHANG, Vice President, Alibaba Cloud, China
MR. LUCA PAONE, Principal Product Manager for Mobility Network Management Solutions, PTV Group, Italy

ES07 SUSTAINABLE DEVELOPMENT OF INTELLIGENT PORT AND FREIGHT

Wednesday, 18 October 2023 | 14:00-15:30 | <Room: 1>

The emergence and application of new technologies and the continuous push of production and demand in modern society under the background of globalization have greatly prompted the intelligent development of ports and logistics. The investment in intelligent equipment and solutions by ports has greatly improved the efficiency of port operations and cargo handling while reducing costs. At the same time, these intelligent approaches further reduce carbon emission, reduce environmental impacts, and adapt to future market demands, which promotes the sustainable development of ports.

1. In this context, what opportunities and challenges do we face?
2. What impact will new technologies, such as big data, virtual reality, artificial intelligence, and unmanned logistics, have on ports?
3. What kind of solutions do we need to seek to meet these opportunities and face these challenges?

Moderator:

MR. WEIFENG WANG, Professor, College of Civil and Transportation Engineering, Hohai University, China

Speakers:

MR. XIAOBO LIU, Dean of School of Transportation and Logistics, Southwest Jiao Tong University, China
MR. LARS ANKE, Asia Chief Representative, HHLA Hamburger Hafen und Logistik AG, Germany
MR. WEIHUA LIU, Professor/ Head of Department, Tianjin University, China
RUIBING TAN, Deputy General Manager, Jiangsu Port Group Co., Ltd., China

ES08 UTILISING THE THIRD DIMENSION FOR NEW MOBILITY SERVICES (ALTERNATIVELY: CCAM IN THE AIR)

Wednesday, 18 October 2023 | 16:00-17:30 | <Room: 1>

The session – addressing UAM developers, integrators, service providers and regulators–will investigate the status of UAM research, development and deployment in the different regions in relation to technologies, available services, air space management and regulatory aspects. Business models for new UAM services will be presented which will pay on the transition towards sustainable mobility.
Sometimes UAM technologies and services are regarded as an extension of land-based CCAM solutions for freight and people transport. Questions similar to those discussed in the CCAM community such as system resilience against cyber-attacks (and hostile drones) or teleoperation need to be investigated, but might deliver different answers. Issues related to management of air space, teleoperation and regulatory needs will round off the session.

Moderator:
DR. MENG LU, Vice President, IEEE, The Netherlands

Speakers:
MR. DELI ZHAO, Founder & President, XPENG AEROHT, China
MR. RALF WILLENBROCK, Product Manager Logistics, Connected Mobility, T-Systems International, Germany
MS. SUZANNE MURTHA, Global Lead for Connected and Automated Technology, AECOM, United States
MS. LISA SPELLMAN, Founding Director, VRU Safety Consortium, SAE, United States

ES09 TRANSPORT EQUITY – PLANNING A DIVERSE WORKFORCE THAT ADVANCES FUTURE MOBILITY NEEDS FOR ALL

Thursday, 19 October 2023 | 14:00-15:30 | <Room: 1>

Transport systems connect people to essential services and opportunities, however, the system is not designed by diverse voices needed to meet the needs of all people transport serves. What practices and strategies can we implement to ensure diversity is represented across the transportation workforce so that the system is planned, designed, build and maintained to meet the needs of all community members? What innovative approaches are global ITS leaders using to ensure they are thinking about the different experiences community members have and how the transport system must support various needs? What are the existing barriers and challenges for women, people of color, and underserved communities in the workforce that keep them from advancement? Join us to address these questions and hear from universities around the globe as they discuss existing research surrounding this topic and best practices for working toward a more equitable workforce.

Moderator
MR. XIAOJING WANG, Chairman, China ITS Industry Alliance, China

Speakers
MS. MENGKE CHEN, Associate General Manager, Tencent, China
DR. ROBERT KAHLENBERG, Senior Vice President, BMW, China
MR. YUSEN CHEN, Principal Scientist, Zhejiang Communication Investment Group Co.Ltd., China
MR. JAMES BULLEN, Product Manager Lead (MaaS), Transport for West Midlands, United Kingdom
PROF./DR./TECH./IR. DANANG PARIKESIT, MSc (Eng), Transport Planning Expert, Center for Transportation and Logistics Universitas Gajah Mada, Indonesia

ES10 TRANSPORTATION INNOVATION AND PERSONALIZED SERVICE- THE INTERSECTION OF EQUITY, ACCESSIBILITY AND TECHNOLOGY

Thursday, 19 October 2023 | 16:00-17:30 | <Room: 1>

AI, 5G, cloud computing, big data are all essential digital technologies that are being explored in incorporating into transportation system. Technology has empowered transportation organizations with new tools they can use to better understand the nature of challenges facing their communities. Technologies also benefit operational efficiencies tied to sustainability and drive ESG forward. While organizations continuously innovate the services, individual and community's needs are equally important when it comes to ESG, accessibility and equity.
Road user charging, congestion charging, or distance-based charging are means frequently adopted to achieve equity and ESG goal by organizations. Yet individual's need to move from point A to point B through safe, efficient, and cost-effective ways is the key element required to be designed in transportation system.

The Executive Session will showcase new technology, best practice, successful pilot or real case in implementing and developing personalized transportation service while taking ESG, equity and accessibility into service design. Innovative approaches of utilizing digital technologies into improving safety, mobility, climate resilience, infrastructure investments, ESG, and more will be shared during the session as reference for worldwide transportation agencies, service providers, and solution providers.

Moderator:
MR. HAJIME AMANO, Representative Director, Mobility Innovation Alliance Japan, Japan

Speakers:
MR. CHUNLEI MENG, CEO, Beijing GOTEC ITS Technology Co., Ltd., China
PROF. YANYAN CHEN, Professor/Dean of College of Metropolitan Transportation, Beijing University of Technology, China
MR. ZHIGANG XU, Vice Dean of School of Information Engineering/Chang'an Scholar Distinguished Professor, Chang'an University, China
MS. SUZANNE MURTHA, Global Lead for Connected and Automated Technology, AECOM, United States
DR. YC CHANG, Managing Director, Far Eastern Electronic Toll Collection Co., Ltd. (FETC) / Former President & Current Chair of Board of Supervisor, ITS Taiwan, Chinese Taipei

ES11 GOING FURTHER WITH UNIFORM TICKETING IN MAAS

Friday, 20 October 2023 | 11:00-12:30 | <Room: 1>

There is little doubt that seamless access to MaaS is in the best interest of operators, service providers, cities and citizens. Uniform ticketing is an important step toward seamless mobility, but hurdles for wider deployment are huge. Today's ticketing processes are spread over isolated islands marked by different payment services and a variety of technologies in use (credit/debit cards, dedicated smart cards). An integrated multisectoral approach for ticketing and its background processes is needed for success.

The session will identify the hurdles for further deployment of uniform ticketing for MaaS services and bring together stakeholders crucial for successful roll-out coming from the transport, services and financial sector. Best practices for opening closed markets from all over the world will be presented. Regulatory challenges and solutions under preparation (such as European Commission's Multimodal Digital Mobility Services (MDMS)) as well as business models will be discussed.

Moderator:
MR. JOHN PADDINGTON, Senior Manager, Innovation & Deployment, ERTICO-ITS Europe, Belgium

Speakers:
MR. FANG HE, Associate Professor, Tsinghua University, China
MR. MARK COLLINS, Head of Future Transport, Transport for West Midlands, United Kingdom
MR. MOUSA MOHAMED AL RAEISY, Director, Technology Strategy & Governance Department, Road Transport Authority, United Arab Emirates
MR. MIKE RUDGE, Director, ITS New Zealand, New Zealand

ES12 DIGITAL INFRASTRUCTURE

Friday, 20 October 2023 | 14:00-15:30 | <Room: 1>

The transportation industry is in the process of transforming itself with the development of Intelligent Transport Systems (ITS). With this change comes the need to build intelligent and digital transport infrastructure that meets the needs of modern cities and societies.
However, fFor digital infrastructure to be inclusive and sustainable, issues such as interoperability, standardisation, governance, and regulation must be addressed.
This executive session aims at providing a platform for experts, practitioners, and policymakers to explore the latest trends, challenges, and opportunities in building inclusive and sustainable digital transport infrastructure.
Key themes that will be discussed in the session include advanced technologies for transport infrastructure such as AI, IoT, data analytics, and digital twins, satellite technology and continuous connectivity, financing and business models, and the importance of interoperability, standardisation, governance, and regulation in digital transport infrastructure.

Moderator:
MR. TIM LEINMUELLER, Senior Manager, Denso, Germany

Speakers:
MR. XIAOJING WANG, Chairman, China ITS Industry Alliance, China
MR. WEIDONG YANG, Chairman of the Board, China Design Group, China
MR. CHRISTOPH SCHROTH, VP Digital Product Strategy, BMW Group, Germany
MR. DATUK ISMAIL MD SALLEH, President, ITS Malaysia, Malaysia
MR. SUKU PHULL, Technical expert, Traffic and Technology Division, Department for Transport, United Kingdom

SIS01 NAVIGATING THE FUTURE: THE ROLE OF ELECTROMOBILITY AND EV CHARGING INFRASTRUCTURE

Monday, 16 October 2023 | 14:00-15:30 | <Room·2>

As we face the challenges of climate change and urban air pollution, the promotion of electromobility and EV charging infrastructure has become increasingly essential. Electromobility offers a viable and sustainable solution to reduce greenhouse gas emissions, improve air quality, and foster energy security. Under these circumstances, this session will discuss the transformative potential of electromobility and the critical role of EV charging infrastructure in shaping transportation systems. In this session, multiple topics to be covered by presenters, including current trends in EV adoption, integration of electromobility with existing transportation systems, planning, operation and management of EV charging infrastructure and mobility services, and strategies for interaction between EV infrastructure and power grids. The session is intended for researchers, practitioners, policymakers, and others interested in electromobility and the evolution of EV charging infrastructure.

Organizer:
ENJIAN YAO, Beijing Jiaotong University, China

Moderator:
RONGSHENG CHEN, Beijing Jiaotong University, China

Speakers:
JUNICHI HIROSE, Highway Industry Development Organization, Japan
JOHN PADDINGTON, ERTICO, Belgium
LONG PAN, Beijing Jiaotong University, China
RUIQING GUO, NIO Co.,Ltd, China
JUNSHENG FU, Zenseact, Sweden

SIS02 C-V2X EMPOWERING SAFE AND CONNECTED MOBILITY

Monday, 16 October 2023 | 14:00-15:30 | <Room·3>

C-V2X (Cellular Vehicle-to-Everything) technology and its applications cover collaborative innovation of Information and Communication Technology (ICT), automobile, and transportation industries to trigger cross-industry transformation. Become an important driving force, C-V2X will empower the innovative development of Intelligent Connected Vehicles and Cooperative Vehicle Infrastructure Systems for Automated Driving and Intelligent Transportation Systems (ITS). Promoted by the related standardization, extensive testing and verification, and commercial projects, C-V2X is mature and being deployed globally, and will play a pivotal role for industrial innovations and changes of social operation modes. C-V2X can reduce and defuse the risk of collisions and ensure the safety of life and property, and show the advantages of improving the efficiency of the transportation networks, energy conservation and emission. This session will introduce the latest advances empowered by C-V2X in connected vehicle, automated mobility, and cooperative interacting among traffic participants. The unique insight of the implementation and practice will be shared for technology, standardization, industrialization, business, and regulation.
This session will include the following key information:

- The status quo of the C-V2X technology, standardization, and industrialization.
- The global collaboration of C-V2X for the wide-spread implementation and the (pre-)commercial deployment.

Organizer:
JINLING HU, China Information and Communication Technology Group Connected and Intelligent Technologies Co., Ltd, China

Moderator:
JINLING HU, China Information and Communication Technology Group Connected and Intelligent Technologies Co., Ltd, China

Speakers:
MAXIME FLAMENT, 5GAA, Germany
SHANZHI CHEN, China Information and Communication Technology Group Co., Ltd., China
KONGJIAN QIN, CATARC, China
YAN LI, Qualcomm, China
MATHIAS REIMANN, BOSCH, Germany
BHARGAVI SRINIVASAN, Spirent, France

SIS03 TECHNOLOGY AND PRACTICE OF DIGITAL TWIN IN TRANSPORTATION

Monday, 16 October 2023 | 14:00-15:30 | <Room·4>

The digital twin (DT) is an emerging technology that builds on the convergence of computer science, mathematics and engineering, and increasingly being applied in the field of transportation recent years. Based on the related research and practice findings, conclusions, and recommendations, this session will present and discuss the current application and technological development of transportation DT, including the roles of data-driven learning and computational modeling in achieving robust and reliable digital twins from the aspect of methodologies, the value of transportation DT, key challenges and opportunities in the research, development, and application of DT development and application advancements from the perspective of progress.

Organizer:
HONGXU YANG, BWTON Technology Co, Ltd, China

Moderator:
HAODE LIU，China Academy of Transportation Sciences，China

Speakers:
JINYUAN CHOI，BWTON Technology Co., Ltd，Republic of Korea
JINLONG LI，Beijing Urban Construction Design & Development Group Co., Ltd，China
QIYUAN LIU, Shanghai Jida Transportation Technology Co., Ltd, China
KUIFENG SU，Shenzhen Tencent Computer System Co., Ltd，China
HUI ZHAO, Beijing Municipal Engineering Design Institute Co., Ltd,China

SIS04 INTELLIGENT HIGHWAY TECHNOLOGY AND OPERATION SERVICE

Monday, 16 October 2023 | 14:00-15:30 | <Room·5>

It is a professional conference in the field of intelligent transportation, aimed at exploring the development trends, technological innovations, and practical applications of intelligent highway toll technology and operational services. Industry experts and scholars are invited to give keynote speeches on the intelligent development trends, technological innovations, and practical applications of highway toll technology and operational services, sharing the latest research results and practical experience. The forum covers multiple fields and topics, with the aim of promoting the intelligent development of highway toll technology and operational services and fostering industry cooperation and innovation.

Organizer:
GANG WANG, Highway Monitoring and Emergency Response Center, China

Moderator:
XU LIU, Highway Monitoring and Emergency Response Center, Ministry of Transport of the P.R.C, China

Speakers:
DER HORNG LEE, Zhejiang University, Singapore
BIN LI, Guangdong E-Serve CO., China
HONG ZHOU, Jiangsu Communications Holding Digital Transportation Research Institute Co., Ltd., China
TBD

SIS05 GREEN TRANSPORT AND GREEN ENERGY

Monday, 16 October 2023 | 16:00-17:30 | <Room·2 >

Technology has promoted the rapid development of intelligent transport, providing flexible, safe, comfortable and convenient travel services for human beings. Green energy provides a clean, eco-friendly, healthy and sustainable living environment for human development; Energize green transport with green energy, so that more green energy can be transported, and make our world more environmentally friendly. Share a peaceful, healthy and intelligent future life. We will discuss the following topics: How to integrate transportation infrastructure and electric vehicle charging? How to integrate optical storage and charging technology with parking lot and charging station? What kind of charging facilities are needed for the highway? How to coordinate the layout of urban charging piles with urban traffic? Impact of energy policy on transportation. etc. We're looking forward to more experts paying attention to these topics and making suggestions for development together.

Organizer:
JINBIN ZHAO, Shanghai Electric Power University, China

Moderator:
CHUN HE, Xuchang KETOP Testing Research Institute Co.,Ltd, China

Speakers:
YONGDONG LIU, China Electricity Council, China
YANHUI XIA, SUNGROW Co., Ltd., China
QIAN ZHANG, Chongqing University, China
HUIYU MIAO, State Grid Jiangsu Electric Power Research Institute, China

SIS06 AUTOMATIC DRIVING TEST TECHNOLOGY AND DEMONSTRATION AREA CONSTRUCTION

Monday, 16 October 2023 | 16:00-17:30 | <Room·3>

Automated driving has become China's new calling card to showcase the country's technological strength, innovation capability and industry support level. In 2022, China's autonomous driving industry ushered in intensive policy support and the first legislative breakthrough. The macro policy guidance from the Ministry of Transportation and other central ministries and commissions, as well as the management and implementation rules of more than 40 provincial and municipal local governments, provide clearer policy support and legal protection for autonomous driving technology innovation and industrial synergy, especially for key issues such as vehicle requirements, operator qualifications, road applicability, personnel requirements, safety assurance and supervision and management, promoting the healthy and rapid development of autonomous driving-related industries.The Ministry of Transport also carried out demonstration construction of automatic driving landing application and industrialization in Beijing, Suzhou and other cities.This Special Interest Sessions will invite relevant government agencies and enterprises from Beijing, Suzhou, Lanzhou and other places to introduce the latest construction and technology application of the demonstration area, and will also discuss the advanced technology of automatic driving test and automatic driving information security test.

Organizer:
JISHENG ZHANG, Research Institute of Highway R&D Center of Transport Industry of Autonomous Driving, China

Moderator:
JISHENG ZHANG, Research Institute of Highway R&D Center of Transport Industry of Autonomous Driving, China

Speakers:
JISHENG ZHANG, Research Institute of Highway R&D Center of Transport Industry of Autonomous Driving, China
NING SUN, Beijing Connected and Autonomous Vehicles Technology Co., Ltd, China
JINGLEI HOU，DIDI，China
FENG WANG, Gansu Intelligent Transportation and Intelligent Connected Vehicle Comprehensive Test and Application Demonstration Base, China
LIANG REN, Baidu, China

SIS07 GLOBAL V2X DEMONSTRATION AND OPERATION SERVICE PROVIDERS: PRESENT AND FUTURE

Monday, 16 October 2023 | 16:00-17:30 | <Room·4>

The session is jointly organized by Vanguard Investment, Wuhan University of Technology, and iSmartWays. It will focus on the theme of "Current and Future Commercialization of V2X Demonstration Operators Worldwide", inviting well-known leaders of demonstration zones both domestically and internationally to explore the planning, construction, and operation of demonstration zones from an international perspective.

Organizer:
HAONAN LIU, Hubei ITS Technology Innovation Platform, China

Moderator:
HUI ZHANG, Wuhan University of Technology, China

Speakers:
JIALI WANG, Pioneer (Suzhou) Digital Industry Investment Co., China
WALTER ESPONIA, iSmart Ways USA Signed, United States
DONGZHE SU, ASTRI, China
SHUO YANG, Liuzhou Dongke Smart City Investment and Development Co., China

SIS08 VISUALIZING SMART MOBILITIES INTELLIGENT TRANSPORTATION SYSTEM IN THE NEW CAPITAL CITY

Tuesday, 17 October 2023 | 16:00-17:30 | <Room·3>

This session will explore the latest developments of intelligent transportation system infrastructure in Nusantara, the future capital city of Indonesia. The session will cover various subtopics about the intelligent transportation system, the principles of Nusantara's mobility development, the multi-utility tunnel infrastructure, the intelligent transportation command center, and the wide-range implementation of the IoT and electric vehicle ecosystem in Nusantara. Furthermore, the subtopics also would like to discuss the pioneering achievement of the development of safe and proper urban air mobility.
The session will also take a focused look at the main components of the intelligent transportation system planned, the Advanced Public Transportation System, Advanced Traffic Management System, Advanced Parking Management System, Autonomous Driving System, Incident Management System, Commercial Vehicle Operation System. Electronic Payment System, and Advanced Traveller Information System. Furthermore, the development would be done with the planning and implementation of the electric vehicle ecosystem and the use of IoT and 5G connectivity. With this scope being in the master plan, Nusantara aims to introduce the vision of smart mobility to the world. Thus, fostering an impactful and mutually beneficial collaboration.
This session will shows a thorough review of the most recent data on the creation of intelligent and digital transport infrastructure, as well as how these developments are being put into practice in Indonesia's new capital city of Nusantara. We will talk about how these technologies can be utilized to increase transportation effectiveness, security, and sustainability as well as the opportunities and challenges of developing a genuinely smart mobility system.

Organizer:
BAMBANG SUSANTONO, Otorita Ibu Kota Nusantara (Nusantara National Capital Authority), Indonesia

Moderator:
TBD, Otorita Ibu Kota Nusantara (Nusantara National Capital Authority), Indonesia

Speakers:
MOHAMMED ALI BERAWI M.ENG.SC, Otorita Ibu Kota Nusantara (Nusantara National Capital Authority), Indonesia
IR. RESDIANSYAH ST., MT., PH.D, Otorita Ibu Kota Nusantara (Nusantara National Capital Authority), Indonesia
WILLIAM P SABANDAR, Intelligent Transport Systems Indonesia, Indonesia
TBD, Otorita Ibu Kota Nusantara (Nusantara National Capital Authority), Indonesia

SIS09 ADVANCING INTELLIGENT AND SUSTAINABLE URBAN TRANSPORT IN DEVELOPING COUNTRIES

Tuesday, 17 October 2023 | 11:00-12:30 | <Room·2 >

The world is undergoing the largest wave of urban growth in its history, and by 2030, over 60 percent of the population will live in cities. This trend is largely driven by the developing country economies, which initially relied on low-wage labor and capital investment in resource-intensive industries. However, as developing countries face challenges related to socio-economic development and environmental issues, it is crucial to discuss key areas such as decoupling economic and sustainable development, urban transport demand growth and decarbonization, and opportunities and challenges for intelligent transport techniques on greener transition.

Rapid urbanization and population growth have put immense pressure on urban transport systems in developing countries. Therefore, there is a need for efficient, affordable, and sustainable transport solutions. To address this need, a conference will explore the latest developments in intelligent transport techniques and their potential to improve urban mobility while reducing congestion, pollution, and greenhouse gas emissions. The conference will feature keynote speeches from leading experts in the field of intelligent and sustainable transport, and panel discussions will focus on topics such as the role of public-private partnerships in advancing ITS implementation, the use of big data and artificial intelligence to optimize traffic flow, the integration of electric vehicles into urban transport networks, autonomous vehicle and share mobility, and the development of smart city infrastructure to support sustainable mobility.

The event aims to provide insights and lessons learned that are in line with future sustainable and urban transport development trends, including those related to intelligent technologies. It will benefit from aspects of politics, academia, and industry and will also include voices from developed countries and regions to provide valuable insights for identifying sustainable urban development by combining developing countries' needs with advanced urban transport development concepts.

Also, through integrated efforts of municipal governments at all levels and with other municipal systems and planning practices, the activity aims to help municipalities achieve development plan development, regardless of their previous experience with similar processes. The event will identify key players and roles in development, conduct analysis at each stage of plan design and implementation through real-world examples, and provide case studies and recommendations for success.

Ultimately, the event aims to provide lessons learned and policy insights for achieving sustainable development and green, low-carbon growth through the exchange of perspectives from government representatives, academia, international agencies, and other participants, including those working in the field of urban transport and intelligent technologies.

Organizer:
YANYAN CHEN, Beijing University of Technology, China

Moderator:
YANYAN CHEN, Beijing University of Technology, China

Speakers:
YANG JIANG, China Sustainable Transportation Center, China.
HUI ZHAO, Beijing General Municipal Engineering Design & Research Institute Co., Ltd, China
WEINAN HE, Beijing Transport Institute, China
LAN WU, China Design Group, China
SHAHD M.K.OMAR, Beijing University Of Technology, Palestine

SIS10 LATEST PROGRESS OF ENGINEERING APPLICATION OF V2X NETWORKING TECHNOLOGY

Tuesday, 17 October 2023 | 11:00-12:30 | <Room·3>

1. Innovation in traffic flow monitoring and management using V2X technology and exploration of next-generation traffic management system in this region.
2. How vehicle manufacturers/collaborative intelligent driving solution providers use V2X pilot zone project environment to realize engineering verification of key technologies and outlook for V2X enabling intelligent driving.
3. How V2X system service providers realize engineering application of V2X technology in V2X pilot zone project construction.

Organizer:
LEI YANG, China-Europe Alumni Automotive Industry Association CAAA, China

Moderator:
PIN ZHOU, Executive Vice Chairman of CEIBS Alumni Auto Association, China

Speakers:
YUMING GE, China Academy of Information and Communications Technology, China
XIAOGUANG YANG, Tongji University, China
ANG HU, The University of Tokyo, China
ICHIJO FUTAKAWA, Nissan Mobility Service Co., Ltd, China

SIS11 NATIONAL ITS ACTIVITIES IN JAPAN - FUTURE TRANSPORT SOCIETY WITH DX

Tuesday, 17 October 2023 | 11:00-12:30 | <Room·4>

This session will introduce one-stop introductions on various ITS activities conducted by Japanese Government including Digital Agency (as a moderator), National Police Agency (NPA), Ministry of Internal Affairs and Communications (MIC), Ministry of Economy, Trade and Industry (METI), Ministry of Land, Infrastructure, Transport and Tourism (MLIT) and Cabinet Office. From the 27th ITS World Congress 2019 Singapore till the 29th Congress 2022 Los Angeles, the sessions were held under the name of "SIP-adus" that introduced overall activities in Japan on automated driving for universal services (adus). Due to the end of the 2nd period of "SIP-adus" of 5 year-program in FY2022, and the establishment of a new "Digital Agency" in 2022, Japan started a new progress on ITS with a new plan "Future Transport Society with DX" which was successor of Governmental "Public-Private Concept and Roadmap on ITS". This session will give you the latest policies, regulations, technologies, plans and activities of Japanese governmental ITS.

Organizer:
TAKEHIKO BARADA, ITS Japan, Japan

Moderator:
TAKEHIKO BARADA, ITS Japan, Japan

Speakers:
HISAAKI IKEUCHI, National Police Agency, Japan
TAKANORI MASHIKO, Ministry of Internal Affairs and Communicatons, Japan
YUTA KYOTO, Ministry of Economy, Trade and Industry, Japan
MASAMITSU WAGA, Road Bureau, Ministry of Land, Infrastructure, Transport and Tourism, Japan
KENICHI HAYASHI, Road Transport Bureau, Ministry of Land, Infrastructure, Transport and Tourism, Japan
HARUO ISHIDA, Cabinet Office, Japan
KENTARO ASAYAMA, Digital Agency, Japan

SIS12 DEVELOPMENT OF TRAFFIC ACTIVE CONTROL UNDER SMART HIGHWAY

Tuesday, 17 October 2023 | 11:00-12:30 | <Room·5>

With the development of new technologies, smart highway traffic management will lead to the transformation to active control, which has greatly attracted more attention in the intelligent transportation field. This special interest section invites scholars and experts, from the academic and industrial of several countries, to discuss the recent development of application scenarios and requirements, research achievement, potential prospect, etc. Specifically, this session focuses on topics of separated line between passenger and freight transportation, multi-stage speed limit control, etc., and discusses the development tendency of active traffic control through promoting smart highway.

Organizer:
JIAN GAO, Research Institute of Highway Ministry of Transport, China

Moderator:
TBD

Speakers:
MENG WANG, Traffic Proccess Automation Institute of Traffic Telematics, Germany
MAARTEN (MARCO) SCHREUDER, Advisor on Smart Mobility & Traffic Management, Netherlands
HONGHAI LI, Research Institute of Highway Ministry of Transport, China
YERAN HUANG, Research Institute of Highway Ministry of Transport, China
WEIXING HONG, Nanjing Zhixing Information Technology Co., Ltd, China

SIS13 NOVEL ELECTRIC MICROMOBILITY AND MOBILITY AS A SERVICE

Tuesday, 17 October 2023 | 14:00-15:30 | <Room·2>

Often when discussing infrastructure considerations for electric vehicles, the focus is on charging technologies for buses, cars, and trucks, but what about the requirements for smaller vehicles? How can they support Mobility as a Service?
This session will focus on the needs of micromobility vehicles such as e-bikes, e-scooters, e-cargo bikes, and e-tuk tuks. These vehicles can vary considerably in capability, size, weight, capacity, and speed. The panel will discuss how these vehicles can meet different use cases, particularly for small traders, women and families, who are often neglected in discussions on mobility. The differing needs for leisure, commuting and freight trips will also be considered.
Including micromobility in transportation, Smart City, Vision Zero, and other municipal planning initiatives can help ensure that the benefits and needs of all forms of mobility are given equal opportunity to realize maximum potential. These vehicles can play a vital part in the shift to low carbon economies. The right technology and infrastructure can help enable these vehicles; our panellists will discuss if there is a need for policy, standardisation and regulation. Exploring areas such as data sharing, apps, charging, battery swapping, safety, and accessibility.
Our Panelists have global experience and provide real life experiences in what is happening in Asia, Africa, the Americas, and Europe in both the private and public sectors. This reflects that each region has differing needs and that a solution in one region might not be suitable for all without adaptation.

Organizer:
JOHN PADDINGTON, ERTICO, Belgium

Moderator:
JOHN PADDINGTON, ERTICO, Belgium

Speakers:
RALF WILLENBROCK, T-Systems, Germany
LISA SPELLMAN, SAE International, United States
SONG SU, WRI, China
JAMES BULLEN, Transport for West Midlands, United Kingdom
GELI LATSA, ICCS, Greece

SIS14 CURRENT AND FUTURE SPECTRUM STRATEGY FOR COOPERATIVE AUTOMATED VEHICLE

Tuesday, 17 October 2023 | 14:00-15:30 | <Room·3>

In recent years, R&D and demonstrations of the Cooperative Automated Vehicle (CAV) have been actively conducted in order to realize more advanced driving safety support and automated driving. As the future introduction and spread of CAV progresses, international coordination and international harmonization of radio spectrum are expected to become even more important.

Organizer:
HIROFUMI KAKEGAWA，Ministry of Internal Affairs and Communications，Japan

Moderator:
TAKESHI YAMAMOTO，ITS Info-communication Forum，Japan

Speakers:
HIROFUMI KAKEGAWA，Ministry of Internal Affairs and Communications，Japan
NIELS PETER SKOV ANDERSEN，CAR 2 CAR Communication Consortium，Denmark
RAM SHALLOM，Autotalks Ltd.，Israel
SUZANNE MURTHA, AECOM, United States

SIS16 ICT-ENABLED THE DEVELOPMENT OF ITS

Tuesday, 17 October 2023 | 14:00-15:30 | <Room·5>

The global technological revolution and industrial change are flourishing, the information and communication technologies (ICT) such as 5G, C-V2X, artificial intelligence, and edge computing are evolving rapidly and iteratively, positively affecting and changing the daily lives of users and the production methods of related enterprises. At the same time, the integration of ICT with the vehicle, energy and transportation sectors has accelerated, with the development of digital, intelligent and connected vehicles and transportation becoming the trend in the industry. Information exchange and data sharing based on the structure of pedestrian-vehicle-road-cloud supports the realization of complex environment awareness, intelligent decision-making, collaborative control and other functions, creating a safer, more efficient, comfortable and energy-efficient transport environment, and improving comprehensive traffic management and emergency response capabilities. This special interest meeting is planned to invite cross-industry and academic experts in ICT, ITS (Intelligent Transportation System), and ICV (Intelligent Connected Vehicle) to explore the enabling role of the next-generation ICT for ITS from the perspective of practical application needs such as traffic optimization and traffic management capacity enhancement. The conference will also provide an overview of the critical challenges faced by cross-industry integration and innovation, jointly envisioning future development proposals and feasible implementation paths.

Organizer:
YUMING GE, China Academy of Information and Communications Technology, China

Moderator:
YUMING GE, China Academy of Information and Communications Technology, China

Speakers:
MAXIME FLAMENT, 5GAA, Germany
DAXIN TIAN, Beihang University, China
JINLING HU, China Information and Communication Technology Intelligent and Connected, China
JIN WANG, Zhongzhixing, China
BINGYAN YU, China Academy of Information and Communications Technology, China
JOHN KENNEY, Toyota Motor North America InfoTech Labs, United States

SIS17 ENERGY-BASED GREEN ITS SERVICES FOR SMART CITY MOBILITY

Tuesday, 17 October 2023 | 16:00-17:30 | <Room·2>

The London Declaration, "ISO's Climate Commitment", which has been approved by ISO members in 2021, representing 165 countries from around the world, reads: "ISO hereby commits to work with its members, stakeholders and partners to ensure that ISO International Standards and publications accelerate the successful achievement of the Paris Agreement, the United Nations Sustainable Development Goals and the United Nations Call for Action on Adaptation and Resilience."Methodology and standardization need to be discussed to promote eco and/or green mobility services for both city operators and peoples living in the city for managing carbon-free and energy related mobility. In ISO/TC204, the new SWG17.2 is developing a series of international standards which define energy-based green ITS services providing urban transport management and smart city mobility applications on nomadic & mobile devices by means of not only measuring energy consumption and CO_2 emissions but also providing information to users on energy capacity in transportation sectors in the smart city.

Organizer:
YOUNG-JUN MOON, Korea Advanced Institute of Science & Technology (KAIST), Republic of Korea

Moderator:
RALF WILLENBROCK, ERTICO Supervisory Board, Germany

Speakers:
RALF WILLENBROCK, ERTICO Supervisory Board, Germany
ZHIJUN CHEN, Wuhan University of Technology, China
SEUNGHYEOK BAEK, KERI, Republic of Korea
YOUNG-JUN MOON, KAIST, Republic of Korea

SIS19 USING TRANSPORTATION BIG DATA INTELLIGENCE TO SERVE GROUND TRANSPORTATION ECONOMY DEVELOPMENT

Tuesday, 17 October 2023 | 16:00-17:30 | <Room·4>

Transportation big data has been widely collected, gathered, governed and applied in various traffic management and services. With the interconnection and application of massive data related to transportation as the core, data resources gradually integrate into industrial innovation, which forms new economic forms, such as corridor economy, hub economy, digital economy, etc. Compared with other transportation production factors, data resources have the capabilities of replicability, shareability, unlimited growth and supply, breaking the constraint of limited supply of natural resources on growth, providing the foundation and possibility for sustainable growth and development, and becoming the key production factor and important resource for the development of digital economy.

In practice, many enterprises and manufacturers have carried out the construction and application research of transportation big data, but there still exist big gaps between the construction effect and degree, and the future trend needs more attention, understanding and participation from various ITS industry professionals and stakeholders.

This session invites participants to discuss how transportation big data can be applied to the field of transportation economy, and what transportation economy stakeholders can do to promote and ensure its healthy adoption. The session will first emphasize the unique technical characteristics of transportation big data in the context of transportation, as well as some best practices in the transportation industry in using big data. Then, it will reveal various needs brought by transportation big data for transportation and economic development, such as standardization, labor force development and policy making. Finally, panel members will identify other necessary activities to meet the growing demand of using transportation big data to improve the intelligence of transportation economic support systems by studying the progress and plans of work in standardization, industry initiatives and government programs.

Organizer:
YUE QIAN, Department of ITS, Research Institute of Highway, P.R.China, China

Moderator:
JUNYI ZHANG, Southeast University, China

Speakers:
YUE QIAN, Department of ITS, Research Institute of Highway, P.R.China, China
ZHONGHUA CHI, Yunnan Communications Investment & Construction Group Co.,Ltd, China
MINGLEI DUAN, Yunnan Highway Network Toll Management Co.,Ltd, China
JUNYI ZHANG, Southeast University, China
JIANCHENG WENG, Beijing University of Technology, China
JUNHUA CHEN, School of Traffic and Transportation, Beijing Jiaotong University, China

SIS20 SUSTAINABLE AND DIGITAL DEVELOPMENT OF MULTIMODAL TRANSPORT SYSTEMS

Tuesday, 17 October 2023 | 16:00-17:30 | <Room·5>

For a long time, roads, railways, waterways, air and other modes of transport have developed relatively independently. The connectivity and resilience of various transport modes are not strong, and the layout and structure of the multimodal transport network need to be optimized. The multimodal transport service quality now is difficult to meet the diversified travel needs, and the collaborative service efficiency of various transport modes is low. The overall efficiency of the multimodal transport system needs to be improved urgently. It is of great significance to construct a convenient, sustainable, intelligent and advanced modern multimodal transport system.

This session proposes to discuss the challenges and opportunities of sustainability and digitalization in multimodal transport systems. The content covers multimodal transport network modeling and design, multimodal transport network management, new energy and low-carbon transformation, transportation digital innovation, etc. The goal of the session is to provide participants with insights into the latest developments and trends in sustainable and digital multimodal transport, and to encourage discussion and collaboration among stakeholders in the field. The session will cover topics such as:

- Sustainable and digital infrastructure development
- Energy-efficient transportation modes
- Sustainable logistics and supply chain management
- Digitalization of multimodal transport services and operations
- Data-driven decision making for sustainable multimodal transport systems

Organizer:
JUN CHEN, Southeast University, China

Moderator:
ZHIYUAN LIU, Southeast University, China

Speakers:
HELAI HUANG, Central South University, China
FENG XIAO, Southwestern University of Finance and Economics, China
XIQUN CHEN, Zhejiang University, China
ZHENG CHANG, Ph.D,Research Institute of Highway Ministry of Transport, China

SIS21 CHALLENGES AND INNOVATIVE SOLUTIONS FROM CHINA AND EUROPE – IN PARTICULAR SUZHOU/SHANGHAI AND BERLIN

Wednesday, 18 October 2023 | 11:00-12:30 | <Room·2>

Two world leading metropole regions from China and Europe – in particular Suzhou / Shanghai and Berlin – have teamed up in this session to discuss their individual approaches to addressing the challenges they face in their mobility planning and management and in fostering innovative and sustainable mobility solutions for their citizens.
Start-ups and innovative companies from the selected cities will provide insights into their particular situations, explaining their Intelligent Transport Systems' contributions to supporting the cities to offering smart and sustainable mobility, thus supporting the improvement of the citizens' and the public's quality of life.
The goal of the session is to present an original and singular insight into the variety of innovative solutions from three world leading metropolitan regions, showcasing projects and highlights in game changing mobility solutions that foster an incremental drive towards intelligent societies.
4 panelists (one representative and one entrepreneur from each region) will discuss the challenges, perspectives and visions that guide their future-oriented urban mobility plans.
This session will be organized as a panel discussion format including panelist introduction and initial statements followed by an insightful discussion between the speakers on their approaches to current and upcoming challenges, their lessons learned, their visions and steps towards realizing them. Similarities and differences between the different regions will be discussed and ways to learn from each other identified. Questions from the audience will be allowed to bring the audience perspective into the discussion as well. Each speaker will wrap-up the discussion with a final statement to summarize their main ideas. Participants are invited to get in touch with the panel participants to continue their discussions with the representatives of the three metropoles even after the congress.
In the Q & A session, participants will have the chance to ask their questions and get in touch with the panelists from the three metropoles. The moderator will pay attention to reserve sufficient time for questions and answers and will also invite the audience to think about questions during the moderation. Perspectives from other cities and / or regions are welcome. The aim is to learn from each other and take inspiration - also the speakers are happy to take inspiration from the audience. The discussion shall serve as starting point for a longer in-depth discussion between those individual players who like to continue their discussions and exchanges afterwards.

Organizer:
WOLFGANG TREINEN, Berlin Partner for Business and Technology, Germany

Moderator:
WOLFGANG TREINEN, Berlin Partner for Business and Technology, Germany

Speakers:
SANDRA SCHULZE, Berlin Partner for Business and Technology, Germany
SCOFIELD LIANG, The Drivery, Germany and China
XIAOJING WANG, China ITS Industry Alliance, China
TBD

SIS22 PROMOTING C-V2X APPLICATION WORLDWIDE: LEARNING FROM CHINA'S SUCCESS

Wednesday, 18 October 2023 | 11:00-12:30 | <Room·3>

Connectivity is one of the key to a successful ITS world. Among all the connectivity methods, C-V2X is a cellular-based vehicle-to-everything technology that enables the communication between vehicles, infrastructure, pedestrians, and other road users, providing safe, efficient, and convenient services for intelligent transportation systems (ITS). C-V2X has been specified by 3GPP since 2017, and China is a leader and promoter of C-V2X technology, achieving remarkable results in policy, standardization, industry, and applications. For example, China has issued the dedicated spectrum for C-V2X direct communication, published numerous C-V2X technical standards and testing specifications, established a national unified C-V2X frequency resource management platform, and promoted C-V2X demonstration projects and commercial deployment in several cities and areas as well as launched lots of vehicle models in the market that the end consumers can experience. China will also be the first to establish V2X as part of NCAP.
The purpose of this session is to provide on one hand an update of the most recent C-V2X development in different regions regarding the regulation, spectrum, products, certifications, market deployment, and applications, especially from auto OEMs'/ Tier1s' perspective. This session aims to invite relevant experts from regions such as China, Japan, Korea, the United States, and Europe to discuss how to leverage China's successful experience in C-V2X to accelerate the application of C-V2X worldwide. In leveraging the experience from China, the session will address the issues met during the C-V2X development and come up with a common and agreed way forward as well as the actions to pave the way for a better future of the C-V2X development, to improve road safety, traffic efficiency, and to a safe, green, sustainability and better society.

Organizer:
YAN LI, Qualcomm Inc., China

Moderator:
YAN LI, Qualcomm Inc., China

Speakers:
TIM LEINMUELLER, Denso, Germany
TONY QIU, iSmartWays Inc, United States
YING ZHANG, GWM, China
HAKSEONG KIM, LG Electronics, Republic of Korea
YIZHI WANG, Nebula, China

SIS23 ROAD INFRASTRUCTURE SUPPORT FOR AUTOMATED DRIVING

Wednesday, 18 October 2023 | 11:00-12:30 | <Room·4>

In order to realize automated driving, it is important not only for technological progress on the vehicle side but also for support from the road infrastructure side. Many countries around the world are developing cooperative road-vehicle technology, conducting various filed operational tests, and developing systems with support from road infrastructure in mind. In such a situation, the role of road administrators is becoming more important.In this session, speakers introduced the "support for automated driving from road infrastructure" in each country and we will aim to deepen discussions on the following items.·Public and private sector roles in technology development·How cooperation between road and vehicles should be coordinated from the perspective of vehicle and road management·Directions for cooperation and institutional support toward the realization of a road-vehicle cooperative system·Road structures (dedicated lanes) to support autonomous driving.

Organizer:
MIYAKE MASANORI, ITS Policy and Program Office Ministry of Land, Infrastructure, Transport and Tourism Japan, Japan

Moderator:
HIRONAO KAWASHIMA, Mobility Culture Research Center,Keio University, Japan

Speakers:
DONGZHU WANG, National ITS Research Center, Research Institute of Highway, MOT, China
SUKU PHULL, Traffic and Technology Division, Department for Transport, United Kingdom
TBD
MIYAKE MASANORI, ITS Policy and Program Office Ministry of Land, Infrastructure, Transport and Tourism Japan, Japan

SIS24 INSURTECH AND ITS: TRANSPORTATION RISK ASSESSMENT AND MANAGEMENT SOLUTIONS TRAMS (TRAMS)

Wednesday, 18 October 2023 | 11:00-12:30 | <Room·5>

The collaboration between the two digital ecosystems of ITS and Fintech (thru insurtech) will surely open up many new opportunities to propel development of future transportation system, as well as addressing some of the most burdensome legacy challenges for today's transportation system.
Whereas insurance has always been a critical market instrument for implementation of transportation regulations and stimulation of good behaviors for road safety, today, the advancement of insurtech has enabled new possibilities on how the risk & safety related big data resources and intelligence of insurance companies can be applied to improve design and management of modern transformation system, particularly for risk assessments and mitigation, and to advance developments of future transportation system (e.g. autonomous vehicle). However, new emerging bottlenecks such as data security and privacy will require collective efforts to address.
At the same time, legacy challenges still loom at large for transportation-insurance, such as accessibility and affordability for auto insurance, especially in emerging economies. Regulators and commercial champions have been exploring multisource data-modeling from ITS ecosystem to tackle these issues. Lessons from these endeavors can be instrumental for regulators to address some of today's most imminent problems.
The proposed SIS aims to form an interdisciplinary dialogue among experts from different sectors to explore how the two digital ecosystems can collaborate together for shaping a more affordable, intelligent, sustainable and derisked future transportation system, and what are the imminent chokepoints that two sides need to address for creating the enabling collaborative environment. It will take special interest in how emerging economies like China is utilizing ITS data to improve insurance risk management and applying insurtech to its transportation system design and risk mitigation while dealing with emerging challenges on data privacy and securities, and how developed economies like US is using multisource ITS big-data to improve insurance accessibility for auto-owners of all income level.

Organizer:
WILL SHAW, Innovation Center for Energy and Transportation, United States

Moderator:
FENG AN, Innovation Center for Energy and Transportation, United States

Speakers:
STEFAN SCHULZ , Munich Re, Head, Motor Consulting Unit, Germany
YIFEI SHI, China Banking and Insurance Information Technology Management Co. Ltd. (CBIT), General Manager, Business Unit 3 (Transportation & Mobility Services) , China
ZHI YU , Guangdong ITS Center at Sun Yat-Sen University, Professor, China
CAREY ANNE NADEAU, Loop Insurance, Co-CEO, United States
TIGER FANG, Kargo Technologies, CEO, Indonesia

SIS25 SAFETY MEASURES FOR MIXED TRAFFIC IN ASIA PACIFIC REGION

Wednesday, 18 October 2023 | 14:00-15:30 | <Room·2>

It has the most variation in traffic flow at Asia Pacific Region because there are so many mobility stakeholders such as tricycle, bike, motorcycle, e-kickboard beside 4 wheelers.
Even pedestrian is one of the players when safety measure should be considered.
The situation could be different from those of regions with organize traffic flow where vehicles run inside lanes. However, when we think about bike even for those organize traffic flow regions, it needs to consider further more safety aspects.
With the session, speakers will address concerns and troubles that they have and discuss solutions or services based on the finding through the session.

Organizer:
NOBUYUKI OZAKI, Nagoya University, Japan

Moderator:
NOBUYUKI OZAKI, Nagoya University, Japan

Speakers:
MAKOTO TAMURA, Toyota Motor Corporation, Japan
SHOICHIRO MIHARA, Toyota Motor Corporation, Japan
TONGKARN KAEWCHALERMTONG, ITS Thailand/ Chulachomklao Royal Military Academy, Thailand
NOBUYUKI OZAKI, Nagoya University, Japan

SIS26 ACCELERATING GLOBAL C-V2X DEPLOYMENT FOR SAFER AND SMARTER MOBILITY

Wednesday, 18 October 2023 | 14:00-15:30 | <Room·3>

The 5G Automotive Association (5GAA) proposes a special interest session that looks at the critical role that C-V2X deployment plays within the process of improving road safety in the United States.
The evidence is clear. C-V2X technology will transform traffic safety across the World, but the US in particular stands to reap the benefits of this. Today's C-V2X safety services, such as traffic signal pre-emption and road hazard information, are saving lives. With the regulatory conditions ripe for commercial deployment (assumption of the FCC order/waivers granted) the industry and infrastructure owners and operators are preparing for widespread deployment that will allow the American people to reap the benefits of this technology. It is this that we want the special interest session to focus on; the readiness of industry to deploy these solutions.

Organizer:
DAVID ERTL, 5GAA, Germany

Moderator:
MAXIME FLAMENT,5GAA, Germany

Speakers:
YUMING GE, CAICT, China
XIN ZANG, Bosch, China
ZHAOLI LI, CATT (tbc), China
TBD

SIS27 DIGITAL INFRASTRUCTURE PRACTICE FOR SERVING AUTONOMOUS DRIVING SCENARIOS

Wednesday, 18 October 2023 | 14:00-15:30 | <Room·4>

With the accelerating evolution of electrification, networking and intelligence of technologies, autonomous driving, which integrates the Internet of Things, cloud computing, big data, artificial intelligence and other innovative technologies, has emerged in response to the needs of times and become a strategic importance for the development of global emerging industries.
The transformation of the automobile industry has posed great challenges to the construction of traditional transportation infrastructure. Digital infrastructure has become the core of the construction of "cloud terminal" full-stack autonomous driving scenario. In order to deepen the collaborative development of "vehicle-road-cloud" and implement empowerment of infrastructure on the automatic driving upgrade, Suzhou Intelligent Network Technology Development Co., Ltd. has created a digital infrastructure integration service provider integrating scene construction, data service, commercial operation and industrial development, which coordinates the management of urban intelligent network, intelligent comprehensive rod and distributed edge cloud infrastructure, so as to realize unified planning, construction, operation and maintenance, and build an integrated physical space, Internet of things space and digital space of urban infrastructure. On the one hand, digital infrastructure construction serves the safe operation and efficient management of autonomous driving; on the other hand, it will boost urban transportation management and smart city construction, reduce costs, raise efficiency of urban public system and consolidate the foundation for the development of digital economy.

Organizer:
LI ZHANG, Suzhou Intelligent Connected Vehicle Technology Company Limited, China

Moderator:
NA LI, Sungent Digital Technology Co., Ltd, China

Speakers:
ZONGCHENG WANG, Suzhou Intelligent Connected Vehicle Technology Development Co., Ltd, China
DONGYAO JIA, Xi'an Jiaotong-Liverpool University, China
MINGCHUN LIU, Higer Bus Company Limited, China
HONGBEN LIU, College of Transportation Engineering, Tongji University, China
GUANGTAO ZHOU, China Unicom Smart Connection Technology Limited, China

SIS28 THE APPLICATION OF DIGITAL TWINS IN THE INTELLIGENT TRANSPORTATION

Wednesday, 18 October 2023 | 14:00-15:30 | <Room·5>

The research on the application of digital twins in the field of intelligent transportation can provide effective solutions to many transportation problems. For example, by deploying sensors and cameras in cities to collect traffic data, real-time monitoring of traffic flow and updating models to alleviate congestion can be realized. In addition, by simulating traffic accidents, the vulnerability of the transportation system can be assessed and the factors that may lead to accidents can be identified, thus providing transportation planners with suggestions to improve the design of the road network and enhance the safety of the transportation system. Meanwhile, through the digital twin model, different traffic flows, routes and rules can be simulated to test the reliability and sustainability of the transportation system. In addition, by simulating various road conditions and traffic scenarios, the safety and robustness of self-driving cars can be evaluated, among others.
Experts in the industry will be invited to share their insights from three aspects: basic software, industry applications and cutting-edge development, providing attendees with a wealth of information and in-depth insights. Please look forward to this event!

Organizer:
JSTI GROUP, China

Moderator:
JIAN LI, JSTI GROUP, China

Speakers:
HAI LANG HUANG, JSTI GROUP, China
ZHIBIN LI, JSTI GROUP, China
YANQING HU, JSTI GROUP, China
TBD

SIS29 STRATEGY OF PRACTICAL IMPLEMENTATION OF V2X SYSTEMS FOR TRAFFIC ACCIDENT AVOIDANCE

Wednesday, 18 October 2023 | 16:00-17:30 | <Room·2>

In many countries, the prevention of road traffic accidents, especially serious accidents, is an important issue for road users.This session aims to introduce the development and deployment of V2X systems and discuss the technical and political aspects of V2X systems for road accident avoidance.

Organizer:
HIROYA TOMIOKA,National Police Agency, National Police Agency, Japan

Moderator:
KENYA SATO, Doshisha University, Doshisha University, Japan

Speakers:
NAOTO SHIMADA, National Police Agency, Japan
MASAFUMI KOBAYASHI, UTMS Society of Japan, Japan
YUICHI TAKAYANAGI, UTMS Society of Japan, Japan
ANDREW MEHAFFEY, HMI Technologies Pty Ltd, Australia

SIS30 PERCEPTION AND EVALUATION TECHNOLOGY OF INTELLIGENT CONNECTED VEHICLES

Wednesday, 18 October 2023 | 16:00-17:30 | <Room·3>

The Intelligent traffic system (ITS) integrates advanced technologies such as onboard perception, roadside perception, vehicle infrastructure cooperative perception. As the core of ITS, advanced perception technology enables vehicles to analyze and understand the internal and external traffic environment information more accurately, and provides reliable information input for the decision-making module, which is the necessary basis for the intelligent connected vehicles. The complex and uncertain traffic scenarios put forward higher requirements for the cooperative vehicle-infrastructure system(CVIS), so it is necessary to test and evaluate the performance,reliability and safety of perception under many traffic scenarios. This session will revolve around the advanced perception and evaluation technology of ITS, and focus on single-modality traffic object detection and tracking, multimodal fusion traffic object detection and tracking, vehicle infrastructure cooperative perception, and the test and evaluation technology of different perception system.

Organizer:
XIN BI, Tongji University, China

Moderator:
XIN BI, Tongji University, China

Speakers:
XIAOCONG LIAN, Tsinghua University, China
JUNSHENG FU, Zenseact, Sweden
JIANYONG CAO, Shanghai Motor Vehicle Inspection Certification & Tech innovation Center Co., LTD, China
QIANG YANG, Beijing Saimo Technology Co., LTD, China

SIS32 SENSOR DATA SHARING IN ITS - STATUS AND OUTLOOK

Wednesday, 18 October 2023 | 16:00-17:30 | <Room·5>

Modern transport systems are increasingly equipped with all types of sensors in order to perceive their environment by detecting unoccupied regions, road users and other safety-relevant objects. Collective Perception allows traffic participants and infrastructure to exchange sensor information via V2X communication and therefore substantially enhance their environmental perception. After several years of intense research and standardization efforts, specifications of Collective Perception are being accomplished in the US, China, and Europe. In this session, the key concepts of sensor data sharing are introduced generically, before the leaders of the standardization efforts carried out by SAE (USA), C-SAE (China), and ETSI (EU) highlight the main distinctive features of their regions' implementation. Finally, future development directions and potential deployment scenarios are discussed, rounding up the session.

Organizer:
FLORIAN SCHIEGG, Robert Bosch GmbH, Germany

Moderator:
TBD

Speakers:
DAN VASSILOVSKI, Qualcomm Inc., United States
YIZHI WANG, Nebula Link, China
KATHRIN HAGEMANN, IAV GmbH, Germany
FLORIAN SCHIEGG, Robert Bosch GmbH, Germany
HUI GUO, QUALCOMM CHINA, INC., China

SIS33 CURRENT STATUS OF V2X IN US AND EUROPE

Thursday, 19 October 2023 | 09:00-10:30 | <Room·2>

This session provides an industrial viewpoint of international cooperation on deployed and actual operational V2X systems, as well as their future extensions, following the directions of each government. Everybody would be recognizing the importance of ITS deployment in the US and Europe, towards ‘’Traffic Fatality Zero’’ and ‘’Sustainable Cities" but unfortunately, there are still unfixed matters in the US, including 5.9GHz. Furthermore, there are an increasing number of cases where technical theory for business is leading, but the top priority for V2X is to prevent accidents and reduce traffic fatalities. To put forward the current V2X deployment and its extensions, there will be several points to be solved as soon as possible among stakeholders. And they are as follows: • Normally, OEMs are in a competitive relationship, but cooperation is required in the ITS field, especially V2X. Different vehicle and infrastructure OEMs will not be able to realize actual V2X unless industry stakeholders use the established same standards and rules with government support. • 5.9GHz band for ITS in the world is very important for realizing safety, contributing to environmental improvement, and congestion elimination. • After confirming the above two points, stakeholders, including OEMs, will be able to put forward their own product plans in the future for realizing "safety" and contributing "climate crisis.

Organizer:
KEVIN (KUNIHIKO) ANEGAWA, TOYOTA Motor Corporation, Japan

Moderator:
PAUL SPAANDERMAN, CEO of InnoMo & Vice Chair of ETSI ITS TC, Monaco

Speakers:
JOHN KENNEY, Director and Sr. Principal Researcher, Toyota Motor North America, InfoTech Labs, United States
SUE BAI, Chief Engineer, Honda, United States
LI XI, CARIAD, China
NIELS PETER SKOV ANDERSEN, General Manager, C2CCC, Denmark

SIS34 CHINA VEHICLE&CITY INTEGRATION DEVELOPMENT CONFERENCE

Thursday, 19 October 2023 | 09:00-10:30 | <Room3>

Currently, the Intelligent Connected Vehicle industry is developing rapidly. However, the development of roadside infrastructure still faces constraints from various aspects such as policies and standards, whcih making it difficult to test and verify the infrastructure of smart cities and intelligent vehicles.
This conference aims to explore the development path of dual smart cities based on the China Vehicle City Integration Certification Index from three dimensions: urban transportation infrastructure coverage level, intelligent level, and empowerment level, in order to promote the large-scale construction and application of smart city transportation infrastructure.

Organizer:
ZHIQIANG YU, Intelligent Connected Technology of CAERI Co., Ltd., China

Moderator:
QIANG ZHANG, Intelligent Connected Technology of CAERI Co., Ltd., China

Speakers:
QIN XIA, Intelligent Connected Technology of CAERI Co., Ltd., China
XIANG REN, Intelligent Connected Technology of CAERI Co., Ltd., China
TBD

SIS35 ROADSIDE INFRASTRUCTURE SUPPORTED LOCATION-BASED SERVICES FOR URBAN CONNECTED AUTOMATED MOBILITY

Thursday, 19 October 2023 | 09:00-10:30 | <Room·4>

Methodology and standardization need to be discussed to provide roadside infrastructure supported location-based services with connected automated mobility including personal mobility, micro-electric mobility, urban automated shuttle, to be applicable in the specific urban roadway sections, such as signalized and/or unsignalized intersections, roundabout, weaving area, ramp metering zone, etc. The related issues which are under developed upon roadside infrastructure supported location-based services for urban connected automated mobility in ISO/TC204 WG17, Nomadic & Mobile Devices for ITS Services. are presented in this workshop.

Organizer:
YOUNG-JUN MOON, Korea Advanced Institute of Science & Technology (KAIST), Republic of Korea

Moderator:
YOUJUN CHOI, Korea Automotive Technology Institute (KATECH), Republic of Korea

Speakers:
YOUNG-JUN MOON, KAIST, Republic of Korea
MOHAMMED HIKMET, HMI Technology, New Zealand
KI-HUN JANG, ITS Korea, Republic of Korea
JIAN WAN, China Design Group, China

SIS36 INTELLIGENT CONNECTED URBAN TRANSPORT AND SMART GOVERNANCE

Thursday, 19 October 2023 | 09:00-10:30 | <Room·5>

All of the pathways to autonomous mobility identify a critical transition phase where different vehicles and mobility services co-exist on the same road network, especially in urban areas. The challenge that will arise during this phase revolves around the sector's ability to design a physical and digital network with intelligent technologies to support the residents and provide them with a safe, effective and efficiently integrated management systems of transport, logistics, public transportation, bicycle traffic and parking, etc.
Designed to support an interactive dialogue with transport officials and state authorities, agency executives, this session will be jointly hosted by the China Highway & Transportation Society (CHTS) and International Road Federation (IRF Global), as well as to inherit the intellect of the two organizations' cooperation experience during ITS World Congress. This forum will be further strengthened by input from Baidu, a major private stakeholder concerning China's connected mobility network practice, with a strategic review of deployment scenarios, engineering measures, and business models that are being developed by the sectors to assist this transition process, and ensure that public benefits from the intelligent connected urban transport and its smart governance are maximized.

Organizer:
XIUQIN DUAN, China Highway & Transportation Society, China

Moderator:
GONZALO ALCARAZ, International Road Federation (IRF), China

Speakers:
XIAOJING WANG, China ITS Industry Alliance, China
HAJIME AMANO, Mobility Innovation Alliance Japan and ITS Japan, Japan
QINGHUA SHI, Baidu, China
ZHIYUAN LIU, Southeast University, China
RONG LI, Zhijia Technology, China
JUNWEI BAO, Innovusion , China

SIS37 THE BEST PRACTICE FROM EXCELLENT PROJECTS OF SMART TRANSPORTATION INNOVATION COMPETITION IN THE YANGTZE RIVER DELTA

Thursday, 19 October 2023 | 11:00-12:30 | <Room·2>

This session will be combined with the latest innovation in the field of smart transportation practice and exploration, based on the outstanding achievements from The Innovation Competition in the Yangtze river delta of the 29th ITS World Congress, and integrate some key smart transportation practice cases, such as port safety supervision based on AI and Big data, smart construction based on BIM and GIS, which will drive the development of the digital transformation for our industry.

Organizer:
XUEWU DONG, Vice President of China Desigan Group, China

Moderator:
JIARONG XI, Assistant Vice President of China Desigan Group, China

Speakers:
RONG JI, Assistant Vice President of China Desigan Group, China
DUNDUN LI, General Manager of Suzhou Genland Ipark Technology Co., Ltd., China
YI HAN, Deputy General Manager of COSCO SHIPPING TECHNOLOGY Co.,Ltd. R&D Innovation Center, China
JIARONG XI, Assistant Vice President of China Desigan Group, China
XUSHENG ZHANG, Deputy Commander of Jiangsu Provincial Transportation Engineering Construction Bureau, Jiangyin-Jingjiang Yangtze Tunnel Construction Command Center, China

SIS38 MANAGING MIXED TRAFFIC WITH CONNECTED AND AUTOMATED VEHICLES: CHALLENGES AND OPPORTUNITIES

Thursday, 19 October 2023 | 11:00-12:30 | <Room·3>

With the emergence of connected and automated vehicles (CAVs), transportation agencies can collect, analyze, use, and disseminate multi-source data, enabling more informed decision-making processes for traffic management. Moreover, CAVs have opened up new opportunities for more flexible and real-time management and control measures to enhance system performance. However, the mixed traffic flow of CAVs and human-driven vehicles (HDVs) will exist on the road for a long time, and the related traffic control problems remain challenges. To maximize the benefits of CAVs, innovative traffic control strategies are needed. This special session aims to bring together researchers, practitioners, and industry experts to discuss traffic control strategies for mixed traffic with CAVs. The special session will provide a forum for experts to discuss innovative traffic control strategies, real-time monitoring and management systems, intelligent intersection control, cooperative driving and platooning, cybersecurity and privacy concerns, and policy and regulatory considerations related to CAVs in traffic control.

Organizer:
WANJING MA, Tongji University, China

Moderator:
ZICHENG SU, Tongji University, China

Speakers:
GUANGQUAN LU, Beihang University, China
CHUNHUI YU, Tongji University, China
WEI MA, The HongKong Polytechnic University, China
HUAN YU, Hong Kong University of Science and Technology (Guangzhou), China

SIS39 GLOBAL POLICY AND STANDARDIZATION FOR CYBERSECURITY ISSUES

Thursday, 19 October 2023 | 11:00-12:30 | <Room·4>

The V2X (including C-V2X) ensures the entire mobility safety on the connectivity between vehicles and everything including any moving subjects, i.e. vulnerable road users (VRU) in the roadways and roadsides, and allows for connections with numerous entities while its security is maintained by the use of public key identification (PKI). In order to preserve privacy, each vehicle is equipped with multiple pseudonym certificates to be utilized in V2X for making the system relatively more resilient against outsider attacks. So that it should be necessary to figure a way out to get the potential solutions ensuring that vehicles operate securely by exchanging the safety information with nearby V2X devices, and utilizing pseudonym certificate in V2X makes the system relatively more resilient against outsider attacks worldwide.
This session deals with a cybersecurity issue which is now widely discussed in the ITS markets, how to provide global policy and standardization in order to cover the entire mobility ecosystem to be compliant with and successfully implemented in vehicles, the infrastructure, and the all moving subjects including VRU.

Organizer:
EUISEOK KIM, Autocrypt Co. Ltd., Republic of Korea

Moderator:
YOUNG-JUN MOON, Korea Advanced Institute of Science & Technology (KAIST), Republic of Korea

Speakers:
TBD

SIS40 TRANSPORTATION 5.0: THE DAO TO SAFE, SECURE, AND SUSTAINABLE ITS FOR DEECO AND DESOC

Thursday, 19 October 2023 | 11:00-12:30 | <Room·5>

In this special session, we will explore the future of intelligent transportation systems (ITS) with a focus on society-centered approaches, also known as Transportation 5.0. The session aims to present a comprehensive argument for why a society-centered ITS is an inevitable course for future development, discussing the latest advancements in the cyber-physical-social system (CPSS) architecture and parallel system methodologies. The conference session will highlight cornerstone technologies that are shaping the future of ITS, including Knowledge Automation, Social Perception and Prescription, Software-defined Integrated Communication and Computing, Parallel Intelligent Techniques, Scenario Engineering, and Parallel Blockchain. Participants will gain insights into these technologies and understand their role in creating a more efficient, sustainable, and inclusive transportation system. In the final segment of the session, we will present our vision and expectations for the future of society-centered intelligent transportation systems, opening the floor for a thought-provoking discussion on the opportunities and challenges that lie ahead.

Organizer:
FEIYUE WANG, Institute of Automation, Chinese Academy of Sciences, China

Moderator:
BIN LI, Research Institute of Highway, China

Speakers:
FEIYUE WANG, Institute of Automation, Chinese Academy of Sciences, China
HONGHAI LI, Research and Development Center of Transport Industry of Autonomous Driving Technology, Research Institute of Highway High and Technology Group, China
BIN YU, Beihang University, China
LI LI, Tsinghua University, China
YILUN LIN, Shanghai AI Laboratory, China
SHIQIANG BAO, 51World, China
RICHARD YEO, ARRB（Australia Road Research Board）, Australia

SIS42 URBAN CONNECTED AUTOMATED SHUTTLE SYSTEMS AND SERVICES

Thursday, 19 October 2023 | 14:00-15:30 | <Room·3>

This session demonstrates the worldwide programs of on going programs in the cities with connected automated shuttle bus for utilizing first and/or last mile connectivity between different type of zones as a public or shared transport. Recently there are more than 50 cities in the world which have adopted a kind of automated driving shuttle to be tested as a new urban mobility to upgrade their conventional public transport systems. The potential feasibility of the connected automated shuttle bus would be discussed in this session with comparisons of different cases in the world in terms of connected and automated functions, mobility purposes, infrastructure cooperation, policies with regulation and legislation, etc.

Organizer:
YOUNG-JUN MOON, Korea Advanced Institute of Science & Technology (KAIST), Republic of Korea

Moderator:
DEAN ZABRIESZACH, HMI Technology, Inc., Australia

Speakers:
KYUOK KIM, KOTI, Republic of Korea
ROBERT SYKORA, Ohmio, Luxembourg
JAEKUN HA, ITS Korea, Republic of Korea
GIULLA RENZI, ICOOR c/o DISMI Univ. of Modena and Reggio Emilia, Italy

SIS43 INTELLIGENT ROADWAY INFRASTRUCTURE AND TRAFFIC SAFETY

Thursday, 19 October 2023 | 14:00-15:30 | <Room·4>

This session is dedicated to studying the impacts of intelligent roadway infrastructure on traffic safety. The purpose is to showcase new concepts and strategies, new technology and technology implementation to improve traffic safety while making the roadway and related infrastructure smarter. The session will help guide the research communities, the industry, the governments and the communities to work together to advance the goals of vision zero and social equity in traffic safety.

Organizer:
ZHONGYIN GUO, Tongji University, China

Moderator:
TBD

Speakers:
RONGGUI ZHOU, Development and Application of Highway Risk Assessment Technology in China, China
PETAR DAVCEV, Australia Road Research Board, Australia
JIANCHUAN CHENG, Southeast University, China
XIAOFEI WANG, South China University of Technology, China
NENGCHAO LIU, Wuhan University of Technology, China
JUNHUA WANG, Tongji University, China
XUESONG WANG, Tongji University, China

SIS44 MOBILITY ON DEMAND: THE RISE OF DISRUPTIVE TECHNOLOGIES, MODELS, AND SERVICES

Thursday, 19 October 2023 | 14:00-15:30 | <Room·5>

In response to fast-changing traffic needs, future city transport systems will have to introduce new mobility services and promote innovation, active transport infrastructure, effectiveness, safety, and accessibility. This session will explore the rise of mobility on demand, including technologies, models, and services such as on-demand transport, ride-sharing, intelligent controls, automated and connected driving, big-data analysis and prediction, artificial intelligence, computer science, and digital twins. Of particular interest are the impacts of emerging technologies on cities, in terms of monitoring, efficiency, safety, reliability, resource consumption, and the environment. Researches in the following areas of transportation are also welcome to be presented: multimodal and intermodal transportation, intelligent transportation systems, traffic and demand management, real-time operations, railways, traffic behavior analysis, resource and infrastructure management, pedestrians, and soft modes. This session will discuss how these technologies are reshaping the transportation landscape, and the generated ideas may further help cities reach goals of smart, safe, equitable, and sustainable transportation.

Organizer:
PEIXIN SHI, School of Rail Transportation, Soochow University, China

Moderator:
PEIXIN SHI, School of Rail Transportation, Soochow University, China

Speakers:
XIAOGUANG YANG, College of transportation engineer, Tongji University, China
YONGDONG LI, Department of Electrical Engineering, Tsinghua University, China
JINPING GUAN, School of Architecture, Harbin Institute of Technology (Shenzhen), China
HONG ZHOU, Jiangsu Traffic Control Digital Transportation Research Institute, China
RIHAO GUAN, Suzhou Public Transport Group Co., Ltd, China

SIS45 THE APPLICATION DEVELOPMENT OF SPECIFIC SCENARIO, POLICY AND REGULATION PROSPECTS OF SURFACE AUTONOMOUS DRIVING TECHNOLOGY

Thursday, 19 October 2023 | 16:00-17:30 | <Room·2>

Facing the application needs of digitization and intelligence in the water, land, and air transportation industry, this meeting focuses on exchanging and introducing the application achievements and typical cases of technologies such as autonomous driving, digital twins, and simulation in the development process of land and surface transportation, as well as the evolution and prospects of policies and regulations in corresponding scenarios. We are jointly committed to providing a more open, practical, and efficient solutions and service products in the field of intelligent transportation for the industry.

Organizer:
CHELSEA XIANG, ShaanXi ORCA Electronic Intelligent Technology Co.,Ltd (ORCAUBOAT), China

Moderator:
CHELSEA XIANG, ShaanXi ORCA Electronic Intelligent Technology Co.,Ltd (ORCAUBOAT), China

Speakers:
CHELSEA XIANG, ShaanXi ORCA Electronic Intelligent Technology Co.,Ltd (ORCAUBOAT), China
TBD, China Waterborne Transport Research Institute, China
TBD, 51WORLD, China
TBD, Valeo Group, France

SIS46 IN CABIN CHALLENGES: FROM REQUIREMENT TO HOMOLOGATION

Tuesday, 17 October 2023 | 14:00-15:30 | <Room·4>

Every occupant is just a passenger and is never required to be involved in driving. There is no one responsible in charge, and all the occupants are passengers. They are free from driving and vehicle control responsibilities. All occupants are free to perform other tasks of their interests, including relaxing during their commute. What should be the appropriate position of the camera for the in-cabin of a higher level of autonomous driving?

The absence of a vehicle in-charge requires a robust solution to ensure the security and safety of all occupants. Furthermore, the vehicle itself requires protection from any malicious behavior by the occupants. The safety of each occupant implies their physical protection. On the other hand, the security of occupants indicates their information protection. Moreover, the safety of a vehicle is meant for protection from its misuse, damage, and exploitation.

Stakeholders from both industries in the converging mobility eco-system face challenges, which cannot be solved by a single company or by a closed circle of a few companies. Close cooperation across a variety of disciplines and a diversity of stakeholders is needed to align technology evolution paths, to jointly evolve value networks and markets, and to build trust in autonomous systems. In particular, standards related activities help to reduce complexity and thus reduce risks and cost, facilitate economies of scale, enable interoperable building blocks of the end-to-end system, and ensure compliance with regulatory requirements.

The tech market is shifting to Vehicle, Tier1s and OEMs must scale their in-cabin teams to keep up with the technical and human factors demands of regulations, standards and consumers expectations of comfort and convenience. This technology demands highly skilled perception, optics, and human factors developers and engineers.

The focus will be more oriented to cockpit, UX, in-cabin teams. It is in their best interest to scale, it's the only way to keep up with the demands of an entirely new set of technology. The in-cabin technology includes lower range radar, new noise considerations, VCELS instead of lidar, facial recognition, human factors understanding, privacy, emotional detection, much of this is new for auto and they're going to put more people, more budget, more resource on it. If you are looking for a new role, this industry is a great place to look.

A broad, open, cross-industry dialogue is needed to exchange views, to debate and to agree upon common challenges and coordinated activities needed.

Organizer:
HADJ HAMMA TADJINE, IAV GmbH, Germany

Moderator:
HADJ HAMMA TADJINE, IAV GmbH, Germany

Speakers:
HADJ HAMMA TADJINE, IAV GmbH, Vice Chair Standards IEEE ITS, Germany
MENG LU, VP Standards Activities, IEEE Intelligent Transportation Systems Society., Netherland
PATRICK LAUFER, IAV GmbH, Germany
HEIKO RUTH, DXC Technology, Germany
BENEDIKT LAMONTAIN, University of Applied Sciences Magbeburg, Germany
BENEDIKT SCHONLAU, CEO Silliconally, Germany
MARCUS FUTTERLIEB, Harmann, Team Lead ReadyCare DMS/OMS Central Functions & System Test, Germany

SIS47 DEVELOPING HIGHWAY SYSTEMS FOR CONNECTED & AUTOMATED VEHICLES: ACHIEVING GLOBAL CONSENSUS

Thursday, 19 October 2023 | 16:00-17:30 | <Room·4>

All of the pathways to autonomous mobility identify a critical transition phase where different vehicles and mobility services co-exist on the same road network. The challenge that will arise during this phase revolves around the sector's ability to design a physical and digital road network to ensure that vehicles with a high degree of automation are integrated smoothly in current traffic, without jeopardizing safety and efficiency.
Designed to support an interactive dialogue with government leaders and highway agency executives, this panel jointly presented by the International Road Federation (IRF Global) & the China Highway & Transportation Society (CHTS) will offer a strategic review of deployment scenarios, engineering measures, global standardization requirements and business models that are being developed by the mobility sector to assist this transition process, and ensure that public benefits from autonomous vehicles are maximized.

Organizer:
XIUQIN DUAN, China Highway & Transportation Society, China

Moderator:
NINA GUAN, China Highway & Transportation Society (CHTS), China

Speakers:
DERHORNG LEE, Zhejiang University - University of Illinois Urbana-Champaign Institute, Singapore
XINGHUA LI, China Transportation Institute at Tongji University, China
LIN WANG, Research Institute of Highway, Ministry of Transport of China, China
LEI ZHANG, Alibaba Cloud, China
SONG JIONGJIONG, AECOM Technical Serices, United States

SIS48 GLOBAL COMMERCIALIZATION POLICY AND STRATEGY FOR ITS

Thursday, 19 October 2023 | 16:00-17:30 | <Room·5>

This session demonstrates a more effective way of integrated global commercialization programs for ITS fulfilled by each region including EMEA, America, and Asia-Pacific by different approach of commercialization processes such as exploring market's demand, technology transfer, commercialization, education and consulting. How to build a global cooperative network between related countries with a mission to enable technology transfer and commercialization and provide a search engine with accurate information of ITS market supply, demand, and matching technologies is going to be discussed in this session between ITS AP, ERTICO, and ITS America, which could be expected to promote the ITS markets by local and/or regional business entities to be connected and networked globally.

Organizer:
MUN KEE CHOI, Korea Advanced Institute of Science & Technology (KAIST), Republic of Korea

Moderator:
YOUNG-JUN MOON, Korea Advanced Institute of Science & Technology (KAIST), Republic of Korea

Speakers:
SANKGI KIM, KAIST, Republic of Korea
YONGYAO YANG, Zhejiang SUPCON Information, China
DOOGON KIM, Seoul Robotics, Republic of Korea
WEI ZHANG, TECH Traffic Engineering Group Co., LTD., China

SIS49 HOW CAN INTELLIGENT CONNECTED VEHICLES ACHIEVE COMMERCIAL APPLICATION OF VEHICLE-ROAD COORDINATION?

Friday, 20 October 2023 | 11:00-12:30 | <Room·2 >

The session is jointly organized by TTS, Wuhan University of Technology and iSmartWays. The session will focus on the hot research direction of vehicle-road coordination commercial application in the field of intelligent vehicles, inviting authoritative experts and industry elites from well-known domestic and foreign vehicle enterprises, traffic safety research institutes, government departments, national intelligent transportation operators, public security traffic management departments, and industry-leading enterprises to jointly explore the opportunities and implementation paths of vehicle-road coordination commercial application from the perspective of whole vehicle manufacturers.

Organizer:
MANDY XIA,iSmartWays, China

Moderator:
YI HE, Wuhan University of Technology, China

Speakers:
XUFEI WANG, Dongfeng Motor Corporation, China
JINGTAO MA, TTS, China
YAN LI, Qualcomm, China
TONY QIU, iSmartWays, China

SIS50 EXPLORATION AND PRACTICE: INNOVATION OF SMART TRANSPORTATION TO DRIVE DIGITAL TRANSFORMATION

Friday, 20 October 2023 | 11:00-12:30 | <Room·3 >

This session will be based on several typical advanced applications integrated with AIoT technology, such as AIRoad, EICAD, smart Alops, Digital Twin, etc., to explore the important role of a large number of innovative applications of intelligent transportation in improving the construction and operational efficiency of the industry. These applications have been applied in multiple world-class highway projects and have contributed to improving efficiency. This session will also focus on the achievements of studying and applying digital twin innovative technologies for in-service highways, in order to improve the efficiency of highway construction and operation in further.

Organizer:
XUEWU DONG, Vice President of China Desigan Group, China

Moderator:
JIARONG XI, Assistant Vice President of China Desigan Group, China

Speakers:
HONG ZHOU, Jiangsu Communications Holdings Co., Ltd., China
BIN XIAO, Jiangsu Delauney Infomation Co., Ltd., China
SHUAI HUA, Section Manager, Traffic Engineering Construction Bureau of Jiangsu Province, China
SHANSHAN DING, China Design Group, China
GUODONG SHEN, Anhui Transport Consulting & Design Institute Co., Ltd., China

SIS51 DATA SHARING TO IMPROVE SAFETY AND MOBILITY IN CONNECTED TRANSPORTATION SYSTEM

Monday, 16 October 2023 | 16:00-17:30 | <Room·5>

As our transportation system becomes more connected, the operation and user experience are enhanced through data sharing among the stakeholders. This session aims to invite leading organizations to share their vision, experience, and technical approach, as well as the lessons learned. The speakers include governments, private entities, and safety and mobility system experts from the ground transportation, and air mobility industry in various global regions.

Organizer:
SUE BAI, Honda, United States

Moderator:
TBD

Speakers:
SUZANNE MURTHA, AECOM, United States
GIULIA RENZI, Interuniversity Consortium for Optimization and Operations Research, Italy
KAZUNORI FUJIMORI, Toyota, Japan
ERIC CHEN, Amazon, China

SIS53 SMART PARKING ASSISTS THE CONSTRUCTION OF SMART CITIES

Friday, 20 October 2023 | 14:00-15:30 | <Room·2>

The rapid development of smart parking in China has effectively promoted the development of smart cities. This forum focuses on the construction of smart parking platforms in China, the construction of urban level parking information platforms in Suzhou, the construction of parking index in Jiangsu Province, and the research results of parking information technology at the parking lot level，etc,

Organizer:
DASONG GU, Southeast University, China

Moderator:
DASONG GU, Southeast University, China

Speakers:
DUNDUN LI, suzhou genland ipark technology co.Ltd, China
XIAOQIANG WANG, Jiangsu Ninebit Information Systems Co., Ltd., China
MING LI, Jinling Institute of Technology, China
CHU ZHANG, Southeast University, China
SHUDANG DIAO, Beijing Intelligent Transportation Development Center, China

SIS54 HOW MICROSIMULATION CAN HELP TO FORESEE AND OPTIMIZE THE IMPACT OF CAV ON URBAN TRAFFIC

Friday, 20 October 2023 | 14:00-15:30 | <Room·3>

Microscopic simulation reflects the state of the art approach to create digital twins of specific traffic situation or in general traffic areas. It contains information about the traffic network, the control through signals etc. and the traffic participants and their behavior and interaction. In such a simulation the effect of different behaviors of automated vehicles as well as effects of their communication among each other or with a connected infrastructure can be modeled. This enables for a detailed evaluation of the impact of different technologies and strategies in various categories like traffic flow, environmental impact, road safety etc. The session brings together experts from Asia, Europe and the United Stated to share an international perspective. It combines the domains of automotive development, traffic planning as well as advanced traffic infrastructures.

Organizer:
SHEN CHANG, PTV Software Technology (Shanghai) Co., Ltd., China

Moderator:
SHEN CHANG, PTV Software Technology (Shanghai) Co., Ltd., China

Speakers:
MATTHIAS PFRIEM, PTV Planung Transport Verkehr GmbH, Germany
JIA HU, TONGJI UNIVERSITY, China
YOSHIAKI IRIE, TOYOTA MOTOR CORPORATION, Japan

SP01 CLIMATE GOALS AND ACTION PLANS IN TRANSPORT

Monday, 16 October 2023 | 14:00-15:30 | <Room·6>

Moderator: FAN ZHANG, Research Institute of Highway Ministry of Transport, China

Paper:

ID93	Research on Operating Cost of The Carbon Quota Accounting Based on The Time Division of New Energy Bus	SHUPEI GAO, Zhengzhou Tiamaes Technology, China
ID335	Assessing Progress Towards Achieving The Transport Dimension of The SDGs in China	XIAOFEI LIU, Research Institute of Highway, Ministry of Transport, China
ID438	Dynamic Calculation and Spatial-Temporal Distribution Characteristics of Vehicle Carbon Emissions	JUNYUE WANG, Beijing Jiaotong university, China
ID173	Modeling and Evaluating Multi-Objective Dynamic Eco-Routing System under Connected Environment	HAO YANG, McMaster University, Canada

SP02 ITS TECHNOLOGY FOR TRAFFIC SAFETY

Monday, 16 October 2023 | 14:00-15:30 | <Room·7>

Moderator: JIAN XING, Nippon Expressway Research Institute Co., Ltd., Japan

Paper:

ID283	Crash Risk Prediction of Mixed Traffic with Connected and Automated Vehicles Using BPNN	CHANGHAO RAN, Wuhan University of Technology, China
ID251	Simulation and Evaluation of the Lane Compression Strategy for the Upstream Section of the Tunnel Entrance -an example of Sanduling Tunnel in Wenzhou	YUXUAN LI, Beijing University Of Technology, China
ID321	Risk Identification and Influence Factor Analysis of Different Sections of High-Speed Tunnel Based on Multi-Source Data	JIANG YANG, Zhejiang University, China
ID371	Traffic Risk Distribution in Different Characteristic Sections of Highway Tunnel	RUI GUO, Beijing University of Technology, China

SP05 ENERGY, NOISE AND ENVIRONMENTAL IMPACTS

Tuesday, 17 October 2023 | 11:00-12:30 | <Room·6>

Moderator: HONGDAN WANG, Research Institute of Highway Ministry of Transport, China

Paper:

ID274	Construction of NOx Emission States Identification Method of Diesel Bus Based on Judgment Matrix: A Case Study of Nanjing	ZIXIN LIU, Southeast University, China
ID399	An Ensemble Energy Consumption Predicting Model Based on K-Means-Lstm for Logistic Vehicles in a Metropolitan Suburb	QIUYI ZHANG, Beijing University of Technology, China
ID342	Towards Energy-Efficient Mobility in Connected Vehicle Environments	YASHAR ZEIYNALI FARID, InfoTech Labs, Toyota Motor North America R&D, United States

SP06 MULTIMODAL TRAVEL INFORMATION AND PLANNING SERVICES & BIKE SHARING

Tuesday, 17 October 2023 | 11:00-12:30 | <Room·7>

Moderator: HUI XIAO, Big Data Research and Development Center, Rioh, Mot. China, China

Paper:

ID462	Research and Design of Control Strategies for Multiple Transportation Modes in Urban Road Networks	JIAXIN WANG, North China University of Technology, China
ID322	Temporal Correlation-Based Catchment Area Radius Analysis Between Subway and Docked Shared Bikes	YINING DI, Hong Kong Univeristy of Science and Technology, China
ID298	Last-mile Shared Mobility based on Vehicle-Road-Cloud Coordination, Concept, Technologies, and Scenarios	MENGCHI CAI, Tsinghua University, China
ID143	Multi-Task Supply-Demand Prediction and Reliability Analysis for Docked Bike-1 Sharing Systems via Transformer-Encoder-Based Neural Processes	ZIYI SHI, Zhejiang University, China

SP07 ELECTROMOBILITY & MOBILITY AS A SERVICE

Tuesday, 17 October 2023 | 14:00-15:30 | <Room·6>

Moderator: LI ZHAO, Research Institute of Highway Ministry of Transport, China

Paper:

ID443	Modeling of Energy Consumption for Electric Buses Considering The Impacts of SOC	XUE LEI, Beijing Jiaotong University, China
ID451	Analysis on Electric Vehicles' Inter-city Charging Choice Behavior and Charging Demand	ZHAOHUI WANG, Beijing Jiaotong University, China
ID464	Spatio-Temporal Characteristics and Causative Analysis of Electric Vehicle Collisions with Pedestrians	YAN ZHUANG, Beijing Jiaotong University, China
ID294	Research on the development path of MaaS platforms in China	WENKAI ZHAN, Guangdong University of Technology, China
ID151	Enhancing Road Cellular Traffic Prediction with Spatial-Temporal Joint Learning and Temporal Pattern Analysis	CHUNG-YI LIN, Chunghwa Telecom, Taiwan, China
ID468	Analysis and Modeling of Residents Travel Behavior under MaaS	DAQIAN WAN, Beijing Jiaotong University, China

SP08 MULTIMODAL JOURNEY PLANNER

Tuesday, 17 October 2023 | 14:00-15:30 | <Room·7>

Moderator: IN-HI KIM, KAIST, Republic of Korea

Paper:

ID324	Travel Time Prediction Method with Multi-Graph Traffic Network Model	MENGYUN XU, Wuhan University of Technology, China
ID234	Optimization of Personalized Route Recommendation Model Based on User Profile	QIANQIAN YE, Zhejiang University, China
ID255	Multi-Modal Travel Simulation and Travel Behavior Analysis: Case Study in Shanghai	YUE HU, Ministry of Education, Tongji University, China

SP11 SENSORS AND PERCEPTION METHODS FOR AUTOMATED VEHICLES

Wednesday, 18 October 2023 | 11:00-12:30 | <Room·6>

Moderator: NORIYUKI TSUKADA, Isuzu Motors Limited, Japan

Paper:

ID152	LaneCL: Lane Detection Based on Continual Learning for Multiple Scenarios	JIANLI LU, Tsinghua University, China
ID242	Full-Automatic Collection and Release of Pavement Performance Information	JIANTAO LI, Tsinghua University, China
ID410	Research on Operating State Reliability Monitoring of Sensing Devices	BICHENG XU, Shanghai JARI Zhaoxin Information Techbology Co., Ltd, China
ID202	Geometry Based Camera Calibration for Bev Transform Using Road Edge and Lane Marker	QIRUI ZHANG, Sensetime Japan, Japan

SP12 ITS IN AIRPORT GROUND OPERATIONS & WATERWAY TRANSPORT APPLICATIONS AND 5G SOLUTION

Wednesday, 18 October 2023 | 11:00-12:30 | <Room·7>

Moderator: LIN ZHANG, Beijing Jingwei Hirain Technologies Co., Inc., China

Paper:

ID277	Airport Ferry Bus Scheduling to Minimize Operational Cost and Service Delay	JIANZE SONG, Beijing Jiaotong Unviersity, China
ID348	Research on Dynamic Optimal Scheduling of airport special vehicles in complex operating environment	YONGHONG LIU, Tech Traffic Engineering Group Co.,Ltd, China
ID253	Research on the Dynamic Dispatching Meth-od of the Transport Capacity of the Tourist Bus in Guilin	JINCAN ZHANG, Hohai University, China
ID273	Optimal Design of Tourist Routes Under The Time-Sharing Reservation Strategy	YAN HAN, Beijing Key Laboratory of Traffic Engineering, China
ID472	Delay Characteristics of Inland Waterway Vessel Following	XUEJIAN YAO, Southeast University, China
ID199	A Tailored Optimization Methodology for Direct Transshipment	LIANGQI CHENG, Tsinghua University, China

SP13 NEW ADVANCES IN V2V, V2I AND V2X TECHNOLOGY

Wednesday, 18 October 2023 | 14:00-15:30 | <Room·6>

Moderator: ZHIJUN CHEN, Wuhan University of Technology, China

Paper:

ID212	Transportation Management System for Autonomous Commercial Vehicle	HUAJIAN LI, Research Institute of Highway Ministry of Transport, China
ID172	Curb Detection and Mapping via Robust Iterative Gaussian Process Regression	DI WANG, Suzhou Plus Inc, China
ID163	A Correlation Degree Calculation Approach for External and Internal Technologies in Autonomous Transportation Systems	KE HUANG, Sun Yat-sen University, China
ID206	Service Set Architecture for Autonomous Transportation System	SHUAI MA, Shanghai Jiao Tong University, China
ID278	Pedestrian-In-the-Loop Driving Risk Prediction: System Design and Real-World Implementation	RAJESH KUMAR MALHAN, DENSO, United States

SP14 CLOUD COMPUTING, EDGE COMPUTING, ARTIFICIAL INTELLIGENCE, DIGITAL TWINS, BLOCKCHAIN IN TRANSPORTATION & CYBERSECURITY AND DATA SECURITY FOR TRANSPORT

Wednesday, 18 October 2023 | 14:00-15:30 | <Room·7>

Moderator: JINPING GUAN, Harbin Institute of Technology (Shenzhen) and Massachusetts Institute of Technology, China

Paper:

ID329	A Two-Stage Multi-Label Classification Approach for Traffic Events Identification Using Sina Microblog Texts	ZIHAO HUANG, South China University of Technology, China
ID471	Research on The Application of Object Detection and Tracking Technology in Abnormal Event Detection on Highways	JIE WANG, Jinling Institute of Technology, China
ID407	Vehicle Trajectory Generation Based On Generation Adversarial Network	SIJIA XIANG, North China University of Technology, China

SP15 V2X COMMUNICATION TECHNOLOGIES AND COOPERATIVE SYSTEMS

Wednesday, 18 October 2023 | 16:00-17:30 | <Room·6>

Moderator: GONZALO ALCARAZ, International Road Federation (IRF), Switzerland

Paper:

ID114	Multi-Objective Resource Allocation for High-density V2V Underlaying Cellular Network Integrated NOMA	SHIQIAN GUO, South China University of Technology, China
ID266	Bus Priority Signal Control Method with Vehicle-Roadside-Cloud Cooperation	YUNFEI YANG, Tsinghua University, China
ID357	A Mobile Application for Road Sensing and V2X Services	JOAQUIM FERREIRA, Instituto de Telecomunicações, Portugal
ID442	Decentralized Longitudinal and Lateral Cooperative Motion Control for Connected and Automated Vehicles Merging at On-ramps	SHOUCAI JING, Chang'an University, China

SP16 REAL-TIME INFORMATION, INTELLIGENT TRAFFIC MANAGEMENT

Wednesday, 18 October 2023 | 16:00-17:30 | <Room·7>

Moderator: SADAHIRO KAWAHARA, JTEKT Corporation, Japan

Paper:

ID218	Signal Timing Estimation Using Point Detectors	XIAOQIN LUO, Wuhan Planning and Design Institute, China
ID450	Multi-Agent Based Model-Free Adaptive Coordinated Control for Single Intersection signal timing	XIAOYAN LA, North China University of Technology, China
ID453	Delay-based Effectiveness Evaluation of Arterial Signal Coordination	XINPENG LI, Tongji University, China
ID397	Design of The Complex Parking Lot Guidance System	GUANG YANG, Southeast University, China

SP17 SIMULATION AND MODELLING

Thursday, 19 October 2023 | 09:00-10:30 | <Room·6>

Moderator: KAREN CHEUNG, Managing Director, Aimsun Pte Ltd, Singapore

Paper:

ID338	Capacity Analysis of Mixed Traffic Flow at a Signalized Intersection	YUEHAI HU, Tongji University, China
ID428	Genetic Neural Network-Based Fault Diagnosis for Bus Systems	XIAOTIAN FU, North China University of Technology, China
ID465	The Study of Cooperative Merging Model Based on The Assignment Model for Connected and Automated Vehicles	WEI HUANG, Nanjing Tech University, China
ID292	The Macroscopic Evolutionary Model of Autonomous Transportation System Based on The Revised Petri Nets	SHUAI MA, Shanghai Jiao Tong University, China
ID323	Modified Macroscopic Parking Dynamics Modeling with Fuzzy-Based Real-Time Pricing	ZENGYU CHEN, North China University of Technology, China

SP18 FUTURE RAIL EXPERIENCE

Thursday, 19 October 2023 | 09:00-10:30 | <Room·7>

Moderator: SADAHIRO KAWAHARA, JTEKT Corporation, Japan

Paper:

ID241	Research on Collaborative Compilation Method of Service Train Operation Plan and Timetable Based on Multi-granularity Space-Time Network	XHI XHAO, Beijing Jiaotong University, China
ID454	Urban Rail Transit Short-Term Od Flow Prediction Considering Temporal-Spatial Characteristics and Probability	YUE WANG, Beijing Jiaotong University, China
ID378	Short-Term Passenger Flow Forecast of Urban Rail Transit Based on Particle Swarm Optimization Algorithm	SONG HU, Research Institute of Highway Ministry of Transport, China
ID350	Factors Recognition and Thershold Analysis of Congestion Propagation in Urban Rail Transit System	ZHIHUA XIONG, Beijing Jiaotong University, China

SP19 IMPACT, COST-BENEFIT AND RISK ASSESSMENT FOR AUTOMATED VEHICLES

Thursday, 19 October 2023 | 11:00-12:30 | <Room·6>

Moderator: JIAN XING, Nippon Expressway Research Institute Co., Ltd., Japan

Paper:

ID133	Designing a Connected and Automated Vehicle Testing and Evaluation Platform Using Odd a Case Study in Suzhou	CHUAN SUN, Suzhou Automotive Research Institute, Tsinghua University, China
ID84	Key Indicators of The Lateral Controllability in Hands-Free Automated Driving	LUOYI HUANG, Tongji University, China
ID130	A Lightweight Framework for Misbehavior Detection in Internet of Vehicles	YUJING GONG, South China University of Technology, China
ID315	Analysis of The Severity of Road Property Damage in Highway Accidents	WENHAN SHI, South China University of Technology, China

SP20 PREDICTIVE NETWORK MANAGEMENT, INFLUENCING TRAVELER BEHAVIOR, CITIZENS ENGAGEMENT AND CO-CREATION

Thursday, 19 October 2023 | 11:00-12:30 | <Room·7>

Moderator: ANDREW MEHAFFEY, HMI Technologies Pty Ltd, Australia

Paper:

ID182	Interpreting XGBoost for Traffic Flow Forecasting	XIAO ZHENG, The University of Melbourne, Australia
ID179	Difference in The Attention to Road Elements Against Driver Experience	HUI XU, CCDI (Suzhou) Exploration & Design Consultant CO., Ltd, China
ID459	An Improved Spatio-Temporal Network Traffic Flow Prediction Method Based on Impedance Matrix	WENHAO LI, Beijing University of Technology, China

SP21 PILOTS, TRIALS AND TESTS OF INTELLIGENT AND AUTONOMOUS VEHICLES

Thursday, 19 October 2023 | 14:00-15:30 | <Room·6>

Moderator: HONGHAI LI, Research Institute of Highway Ministry of Transport, China

Paper:

ID146	Rear-Vehicle Behavior Awareness System to Avoid Rear-End Collisions	SEYHAN UCAR, InfoTech Labs,Toyota North America R&D, United States
ID452	Lateral Control of Autonomous Vehicle with Data Dropout via an Enhanced Data-driven Model-free Adaptive Control Algorithm	YUHAO YAN, North China University of Technology, China
ID455	Path Tracking Control of Autonomous Vehicle under the Measurement Disturbance via a Novel Robust Model Free Adaptive Control Algorithm	GUANG LIN, North China University of Technology, China

SP23 NEXT GENERATION TRAFFIC MANGEMENT

Thursday, 19 October 2023 | 16:00-17:30 | <Room·6>

Moderator: MIKE RUDGE, Rudge Consulting, New Zealand

Paper:

ID209	Full Field Deformation Measurement of Traffic Bridge with a Smartphone	WENKANG DU, Hohai university, China
ID189	Localization of Optic Fiber Cables for Traffic Monitoring Using DFOS Data	HEMANT PRASAD SHIVSAGAR, NEC Corporation, Japan
ID406	SimIFW: An integrated Simulation Platform for Intelligent Freeway	CHENGDONG LI, Chang'an University, China
ID316	Urban Expressway Lane-Reservation Effect Analysis Based on Detected Data and Simulation	MIAO YANG, Tongji University, China

SP24 DATA ANALYTICS FOR TRAFFIC MONITORING AND MANAGEMENT

Thursday, 19 October 2023 | 16:00-17:30 | <Room·7>

Moderator: TAKAAKI SEGI, ITS Japan, Japan

Paper:

ID375	Resilience Analysis of Multi-Modal Transportation Networks, Taking Beijing-Tianjin-Hebei Region as an Example	SHUYAN ZHENG, Beijing University of Technology, China
ID191	Analysis of Lane-changing Characteristics Based on WUT-NGSIM Data	YANG ZHAO LI, Wuhan University of Technology, China
ID225	Using License Plate Recognition Data to Gain Insight into Urban Travel Time Distributions	XIAOQIN LUO, Wuhan Planning and Design Institute, China
ID232	Trip Purpose Prediction Based on Neural Topic Model with Multiple Source Data	QIANQIAN YE, Zhejiang University, China
ID252	Vehicle Spatial and Time Trajectory Filling Based On Dynamic Road Network	RUOJIAN LI, Zhejiang University, China

SP25 INTELLIGENT EMERGENCY AND INCIDENT MANAGEMENT

Friday, 20 October 2023 | 11:00-12:30 | <Room·6>

Moderator: QUAN YUAN, Tsinghua University, China

Paper:

ID347	Emergency Management Research for Early Transmission Path Interdiction of Major Emerging Infectious Diseases in Urban Bus Transit Networks	YUE PAN, Zhejiang University, China
ID166	Evaluation of The Operational Types of An Auxiliary Lane at Motorway Bottlenecks	JIAN XING, Nippon Expressway Research Institute Co., Ltd., Japan
ID295	Research on collaborative scheduling methods for multi- unmanned intelligent systems in water search and rescue scenarios	HANGXIONG ZHU, Guangdong University of Technology, China

TS01 MOBILITY AS A SERVICE

Monday, 16 October 2023 | 14:00-15:30 | <Room·8>

Moderator: JINPING GUAN, Harbin Institute of Technology (Shenzhen) and Massachusetts Institute of Technology, China

Paper:

ID231	The Impact of MaaS on Future Car Travel	YIFAN HU , Tongji University, China
ID238	Comparative Analysis of MaaS Platform Construction and Operation Modes in Different Cities of China	XIANGLONG LIU, China Academy of Transportation Sciences, China
ID475	Framework and Business Model Development of Highway Traveler Information System Based on MaaS	KUN CHEN, Transport Planning and Research Institute, Ministry of Transport, China
ID305	Study for Finding Mobility as A Service Users in Thailand	RATCHAKORN Pakpisutkul, Chulalongkorn University, Thailand
ID394	Maas Smart Travel	SORAWIT NARUPITI , TECH TRAFFIC ENGINEERING GROUP COMPANY LIMITED, China
ID233	Flexible Bus Optimal Dispatching Model Under Low Passenger Demand	XINYAN ZHANG , The Key Laboratory of Road and Traffic Engineering of the Ministry of Education, China
ID365	The Study Of A Shared Autonomous Vehicles Travel Service Strategy	MENG ZHANG , China Unicom Smart Connection Technology Limited South China Branch, China

TS02 V2X COMMUNICATION TECHNOLOGIES AND COOPERATIVE SYSTEMS (1)

Monday, 16 October 2023 | 14:00-15:30 | <Room·9>

Moderator: PAUL XIA, ITS Hong Kong, HKSAR, China

Paper:

ID144	A Communication Channel Allocation Method Considering Competition at The Intersection	YINING REN, Tongji University, China
ID247	A Cooperative Control Method of Autonomous Roundabout Based on Token Ring	YUXIN NIU , Research Institute of Highway, Ministry of Transport, China
ID447	Human-like Strategy in Multi-vehicle Interactions at Signal-free Intersections	DIAN JING, Beijing Jiaotong University, China

TS03 CLOUD COMPUTING, EDGE COMPUTING, ARTIFICIAL INTELLIGENCE, DIGITAL TWINS, BLOCKCHAIN IN TRANSPORTATION (1)

Monday, 16 October 2023 | 14:00-15:30 | <Room·10>

Moderator: JOHN PADDINGTON, ERTICO - ITS Europe, Belgium

Paper:

ID157	Research on Cloud Control Platform of Intelligent and Networked Public Transport Based on BIM Technology	XITONG XIA, Nanjing University of Science and Technology, China
ID82	Machine learning in traffic signals prediction: two intersections in Hanover	FENG XIE, Institute of Automation and Communication, Germany
ID97	Vehicle Allocation Method for Mixed Passenger Transportation and Parcel Delivery Service in On-demand Transport	AOI KOIZUKA, KDDI Corporation, Japan
ID118	Thermal Feasibility Verification by 1D Computer Aided Engineering	YUKI LIDA , Panasonic Automotive Systems Co., Ltd., Japan
ID155	Privacy-Preserving Data Sharing for Automotive Applications	LEI CHEN, RISE Research Institutes of Sweden, Sweden

TS04 CLIMATE GOALS AND ACTION PLANS IN TRANSPORT

Monday, 16 October 2023 | 16:00-17:30 | <Room·8>

Moderator: JUNSHENG FU, Technical Expert in in Localization and Road Estimation at Zenseact, Sweden

Paper:

ID373	Application of Photovoltaic Technology in Expressway Service Area	WANG LEI, Beijing, China Highway Engineering Consultants Corporation, Tech Traffic Engineering GR UP CO.,LTD, China
ID416	Research on the Digital Transformation Path of Transportation Industry for Carbon Peak and Carbon Neutrality	LILI ZHU, Research Institute of Highway Ministry of Transport, China
ID90	Decarbonising The Brenner Motorway: Vision, Challenges, Solutions	ILARIA DE BIASI, Autostrada del Brennero SpA, Italy
ID145	Solutionsplus – Boosting The Electrification of Public Transport by 5(6)G Enabled Carbon Credits	LI WAN , China-Link Invest (Li Wan SRL), Belgium
ID103	Sustainable Mobility For Flourishing Communities	MENG LU, Swarco Peek, Netherlands

TS05 V2X COMMUNICATION TECHNOLOGIES AND COOPERATIVE SYSTEMS (2)

Monday, 16 October 2023 | 16:00-17:30 | <Room·9>

Moderator: CHARLES KARL, Transport Futures, Australia

Paper:

ID176	SIP Second Term's Field Operational Test Result Traffic Signal Information Using V2N (Cloud and Other Technologies) Toward Social Implement	YUICHI TAKAYANAGI, Panasonic Connect Co.,Ltd, Japan
ID219	Construction of a Wireless Performance Evaluation Environment with Vehicle	SHIGEAKI SAKURAZAWA, Panasonic Automotive Systems, Japan
ID349	Research on The Application of Network Trust System for Cooperative Vehicle Infrastructure System	XINMING MEI, Beijing GOTEC ITS Technology Co.,Ltd, China

TS06 CLOUD COMPUTING, EDGE COMPUTING, ARTIFICIAL INTELLIGENCE, DIGITAL TWINS, BLOCKCHAIN IN TRANSPORTATION (2)

Monday, 16 October 2023 | 16:00-17:30 | <Room·10>

Moderator: HADJ HAMMA TADJINE, IAV, Germany

Paper:

ID235	Federated Learning for Automotive Applications	FLORIAN PINZEL , DENSO Automotive Deutschland GmbH, Germany
ID386	Digital twin simulation platform for Intelligent Cooperative vehicle-infrastructure Systems based on unity3D	XINGJIE YANG, Chang'an University, China
ID400	A Framework for Highway Asset Management System Based on Digital Twin	JIERUI ZHU, Research Institute of Highway Ministry of Transport, China

TS08 V2X COMMUNICATION TECHNOLOGIES AND COOPERATIVE SYSTEMS (3)

Tuesday, 17 October 2023 | 11:00-12:30 | <Room·9>

Moderator: FRED KALT, Yunex Traffic, Singapore

Paper:

ID123	CPM Significance Index for Redundancy Mitigation	TIM LEINMUELLER, Denso Automotive D. Gmhh, Germany
ID259	Practice and Application of VICAD Scenarios in Suzhou	TANGTAO YANG, Beijing VanJee Technology Co., Ltd., China
ID263	Implementation and Practice of Sensor Data Sharing Application based on C-V2X in China	HUI DENG, National Engineering Research Center of Mobile Communications and Vehicular Networks, China
ID320	Proposal of V2X System Intended to Complement ADAS	NORIYUKI TSUKADA, Isuzu Motors Limited, Japan
ID217	Autonomous Vehicle Mobility Services with Building Microservice Orchestration	FUKU HIMURO, Shimizu Corporation, Japan

TS09 ARTIFICIAL INTELLIGENCE & CROWDSOURCING AND BIG DATA ANALYTICS

Tuesday, 17 October 2023 | 11:00-12:30 | <Room·10>

Moderator: XIANG WANG, Soochow University, China

Paper:

ID466	Research On Space-Time And Network Characteristics Of Intercity Passenger Flow During The Spring Festival Transportation	HAIPENG WANG , Research Institute of Highway, Ministry of Transport, China
ID156	Safety-Affecting Factors Analysis Of National Trunk Highway System Based On The Interpretable Machine Learning Framework	QIANG ZHAO, VanJee Technology Co,Ltd, China
ID88	Research on Vehicle Type Identification Systems Using Advanced Image Processing Techniques	KENTA YAMAMOTO , Nippon Expressway Toll Technology Co., Ltd., Japan

TS10 ENERGY, NOISE AND ENVIRONMENTAL IMPACTS

Tuesday, 17 October 2023 | 14:00-15:30 | <Room·8>

Moderator: HONGDAN WANG, Research Institute of Highway Ministry of Transport, China

Paper:

ID86	Deep Learning Method for Traffic Noise Separation	MINMIN YUAN , Research institute of highway ministry of transport, PRC, China
ID194	Traffic Noise Prediction and Evaluation based on Acoustic Functional Zones at Night	WENHAO ZHANG , Beijing University of Technology, China
ID425	Unet-Based Evaluation of Road Traffic Noise Annoyance	XUEJIAN WANG, Guangzhou University, China
ID461	A Dispersion Model of Vehicle Exhaust Pollutants Near Major Roads in Shenzhen	QIUJIAN DONG, Shenzhen Urban Transport Planning Center Co., Ltd, China

TS11 V2X COMMUNICATION TECHNOLOGIES AND COOPERATIVE SYSTEMS (4)

Tuesday, 17 October 2023 | 14:00-15:30 | <Room·9>

Moderator: HENDRA TJIOE, Head of Sales, Yunex Traffic, Singapore

Paper:

ID392	Safety Maintenance and Effectiveness Enhancement for Highway On-Ramp Merging in Autonomous Driving with V2X-Enabled Cooperative Perception	FENG WEN , Continental Holding China Co., Ltd, China
ID351	Development Overview and Future Trends of Smart Highway	WANJUN LI, Research Institute of Highway Ministry of Transport, China
ID388	Research on Highway Video Cloud Networking Test Method Based on Video Image Quality Evaluation	WEI CUI, Beijing GOTEC ITS Technology Co., Ltd., China

TS12 AVAILABILITY, QUALITY AND VISUALIZATION OF DATA & NEW TYPE DETECTORS AND SENSORS

Tuesday, 17 October 2023 | 14:00-15:30 | <Room·10>

Moderator: HUI DENG, CICT Connected and Intelligent Technologies Co., Ltd, China

Paper:

ID135	Quantifying Volatility Characteristics of Passenger Flow in The Metro Stations Based on The Rolling-Window Analysis	ZHAO LIU, Nanjing Institute of Technology, China
ID243	A Meta-Learning Model For Estimating Mixed Traffic Flow Of Signalized Intersections Using Cellular Probe Data	CHUNG-YI LIN , chunghwa telecom, Taiwan, China
ID258	Audit Box: Vehicle Assessment And Jamming Attacks Detection In Ccam Environments	MANEL RODRÍGUEZ RECASENS , Applus IDIADA, Spain
ID138	A Multi-Path Pipeline Based Trust Routing For Bulk Data Transfer In Wireless Sensor Networks	XIAOHUAN LIU , CHINA ACADEMY OF RAILWAY SCIENCES, China

TS13 ELECTROMOBILITY AND EV CHARGING INFRASTRUCTURE

Tuesday, 17 October 2023 | 16:00-17:30 | <Room·8>

Moderator: JOHN PADDINGTON, ERTICO - ITS Europe, Belgium

Paper:

ID244	Joint Optimization of Bow-type Fast Charger Locations and Battery Capacity for Electric Buses	LIBING LIU, Tongji University School of Transportation Engineering, China
ID359	Research on Braking Control Strategy of Distributed Electric Vehicle Based on Vehicle Velocity Prediction	MEIYING LI, Chang'an University, China
ID445	International Standard for Electric Road System	JUNICHI HIROSE, Highway Industry Development Organization, Japan
ID246	Vulnerability Assesment of The Charging Process Between Vehicle and Charging Point	MIGUEL MARTINEZ MONTOYA, Applus Idiada, Spain

TS14 SIMULATION AND MODELLING

Tuesday, 17 October 2023 | 16:00-17:30 | <Room·9>

Moderator: ALAN QUEK, Regional Head, Business Development Southeast Asia, Aimsun Pte Ltd, Singapore

Paper:

ID168	Trajectory Optimization at Signalized Intersections Based on Polynomial Functions	WANG MENG, Beijing Jiaotong University, China
ID264	Research on Multi-entity Co-simulation of Intelligent Vehicle Based on Distributed Message-oriented Middleware	LIPING PENG , Research Institute of Highway Ministry of Transport, China
ID470	Performance of Mixed Autonomy Traffic Flow in Weaving Sections: A Simulation-based Evaluation of Efficiency and Safety	DAQIAN WAN , Beijing Jiaotong University, China

TS15 INNOVATIVE USE OF ETC INFRASTRUCTURE FOR OTHER APPLICATIONS

Tuesday, 17 October 2023 | 16:00-17:30 | <Room·10>

Moderator: TAKEHIKO BARADA, ITS Japan, Japan

Paper:

ID301	Innovative Use of ETC Infrastructure for Other Applications	KOKI TATEO, ITS Head Quarters, Mitsubishi Heavy Industries Machinery Systems, Ltd., Japan
ID358	ETC Extended Service Application Research	XU YU SHENG, Beijing CCCC Guotong Intelligent Transportation System Technology Co., Ltd, China
ID381	Research on Intelligent Ventilation Control Technology for Highway Tunnels Based on ETC Gantry Data	ZHAOZHI TANG, Jiaoke Transport Consultants Ltd, China
ID387	Research on Rapid Warning Model of Expressway Congestion Abnormal Events Based on ETC Gantry System	CHONGKE PAN, Jiaoke Transport Consultants Ltd., China
ID89	Expressway Toll Calculation By Graphillion	SHION SONODA , NIPPON EXPRESSWAY TOLL TECHNOLOGY CO., LTD., Japan
ID279	Based On Analysis Of Global Vehicle Classification Criteria To Achieve Accurate Toll Collection With Lidar	PING WANG , VanJee Technology Co, Ltd., China

TS16 MOBILITY FOR AGEING POPULATION

Wednesday, 18 October 2023 | 11:00-12:30 | <Room·8>

Moderator: TOSHIO ITO, Hyper Digital Twins Co., Ltd., Japan

Paper:

ID421	Exploring the Critical Factors that Affect Green Travel Satisfaction Among Urban Elderly Population: A Case Study from Datong, China	YUQING LIU, Research Institute of Highway Ministry of Transport, China
ID431	Accuracy Evaluation of Driving Trajectory of Automated Electric Wheelchair Using DTW	XINGYANG ZHANG, Shibaura Institute of Technology, Japan
ID142	A Radar Detecting Pedestrians with Wide Vertical Coverage	RYOSUKE SASAKURA , Sumitomo Electric Industries, Ltd., Japan

TS17 PILOTS, TRIALS AND TESTS OF INTELLIGENT AND AUTONOMOUS VEHICLES

Wednesday, 18 October 2023 | 11:00-12:30 | <Room·9>

Moderator: GONZALO ALCARAZ, International Road Federation (IRF), Switzerland

Paper:

ID91	The Brenner Motorway as a Living Lab for Testing CCAM	ILARIA DE BIASI, Autostrada del Brennero SpA, Italy
ID318	Implementation and Validation of Misbehavior Detection for V2X Systems	SEUNGYOUNG PARK, AUTOCRYPT, Co., Ltd. / Kangwon National University, Korea
ID404	The Use of Cooperative Driving Technology with Human Drivers	DAMIAN HORTON, Eloy, United Kingdom
D297	Interlaboratory Comparison for The Execution of Euro NCAP ADAS Tests	ALVARO ESQUER , Idiada Automotive Technology S.A., Spain

TS18 TRANSPORT INFRASTRUCTURE PREDICTIVE MAINTENANCE

Wednesday, 18 October 2023 | 11:00-12:30 | <Room·10>

Moderator: FRED KALT, Managing Director, Yunex Traffic, Singapore

Paper:

ID175	Digital Operation and Maintenance System of Highway Infrastructure	YISHUN LI , Tongji University, China
ID261	Intelligent Operation And Maintenance Of Urban Rail Transit	DANLEI LU , Beijing Subway, China
ID353	Industry References on Key Technologies for Digitization of Highway Electromechanical Facilities	HENGYU LI, Research Institute of Highway Ministry of Transport, China
ID267	Study on Thermal Insulation Design and Heating Performance of Highway Toll Booth in Cold Region	JUN WANG, Harbin Transportation Research Institute Transportation Engineering Co.LTD, China

TS19 NEXT GENERATION HUMAN MACHINE INTERFACE AND HUMAN FACTORS

Wednesday, 18 October 2023 | 14:00-15:30 | <Room·8>

Moderator: NAOKAZU OZAKI, ITS Japan, Japan

Paper:

ID281	Study on Contactless UI Operated Gesture Recognition in Omnidirectional Cameras	KOTA OGAWA, Systems Engineering and Science, Shibaura Institute of Technology, Japan
ID131	Behavior Analysis of Running Vehicles at The Lane Reduction Section Owing to Roadwork Lane Restriction on An Expressway	HIROYUKI OMIYA , Highway Planning Inc., Japan
ID174	Machine Embodied Interactive Intelligence	JIALUN YIN, Tsinghua University, China
ID328	A Feasibility Study of Distribution System Utilizing a Smart Speaker for Expressway Traffic Information	KAZUYA HIROTA, Keio University, Japan

TS20 ITS POLICY AND STRATEGY & STANDARDIZATION

Wednesday, 18 October 2023 | 14:00-15:30 | <Room·9>

Moderator: WOLFGANG TREINEN, Berlin Partner for Business and Technology, Germany

Paper:

ID275	Malaysian Its Journey - Policies Challenges	AHMAD ZULHELMI AB HAMID, Malaysian Communications And Multimedia Commission (MCMC), Malaysia
ID374	Recent Developments of ITS in China	RU LI, China ITS Industry Alliance, China
ID169	Research on the Architecture of Cooperative Intelligent Transportation System in China	FAN ZHANG, RIOH High Science and Technology Group, China
ID120	Failsafe Operation: Considerations for Homologation Procedure	CARLOS LUJAN, IDIADA Automotive, Spain
ID334	Standardization Evaluation and Index System Construction of National Highway Network Operation	MINGYUE YAN , Highway Monitoring & Emergency Response Center, Ministry of Transport of the P.R.C, China
ID331	A Review of Standardization Approaches for Vehicle Data Specifications	FLORIAN PINZEL, DENSO Automotive Germany GmbH, Germany

TS24 ITS TECHNOLOGY FOR TRAFFIC SAFETY (1)

Wednesday, 18 October 2023 | 16:00-17:30 | <Room·10>

Moderator: HENDRA TJIOE, Head of Sales, Yunex Traffic, Singapore

Paper:

ID165	Event Detection by Image Processing of CCTV Camera Images	HIROYUKI KAMEOKA, Central Nippon Expressway Company Limited, Japan
ID167	An Analysis of The Effectiveness of Countermeasures to Prevent Wrong-Way Driving on Expressways	HIROAKI SAKAMOTO, Nippon Expressway Research Institute Co., Ltd. (NEXCO-RI), Japan
ID216	Configuration And Responsibilities Of Safety Inspector For Autonomous	HUAJIAN LI , Research Institute of Highway Ministry of Transport, China
ID411	A Centralized Management Software for Traffic Enforcement Subsystems	AHMET ŞAHAN, ASELSAN, Turkey
ID382	Early Warning and Control Technology for Severe Weather on Highways	YUANYUAN HA , JIAOKE TRANSPORT CONSULTANTS LTD, China

TS25 SENSORS AND PERCEPTION METHODS FOR AUTOMATED VEHICLES (1)

Thursday, 19 October 2023 | 09:00-10:30 | <Room· 8>

Moderator: NOBUYUKI OZAKI, Nagoya University, Japan

Paper:

ID296	Infrastructure-Based Automated Driving System for Mobility Scooter	SHELL YAMAUCHI, Shibaura Institute of Technology, Japan
ID230	A Lane Detetion Based on Machine Vision for Lane Departure Warning System	LANDA GAO, Institute of Highway Science, Ministry of Transport, China
ID239	An Improved Method Based on Fusion of Image and Lidar for 3D Vehicle Detection in Foggy Environment	SHAOKANG NIU, Chang'an University, China
ID248	CareFusion: You Can Never be too Careful in Lidar and Camera Fusion	ZHAO CHEN, South China University of Technology, China
ID256	Estimation of Object Detection Uncertainty by Cross-Matching Through Occupancy Grid Map	XINYU JIAO, Tsinghua University, China
ID430	Integration Of Indoor And Outdoor Navigation For First Responders Among Moving Obstacles	ZHIYONG WANG , South China university of technology, China

TS26 DATA COLLECTION AND FUSION TECHNOLOGIES

Thursday, 19 October 2023 | 09:00-10:30 | <Room·9>

Moderator: MASAFUMI KOBAYASHI, Sumitomo Electric Industries, ltd., Japan

Paper:

ID96	A Novel Traffic Signals Control Algorithm on Urban Roads Intersection	HUANJIONG ZHANG, ZRIT, China
ID110	Implementing Additional Measures for Smoother Traffic Using Probe Data and Simulation	KENTA TABUCHI, Okayama Prefectural Police Headquarters, Japan
ID141	Understanding Traffic Conditions In Road Networks Using Object Detection Data From Drive Recorders	HIDENORI GOTO , Oriental Consultants Co., Ltd., Japan
ID214	Multi-Sensor Fusion Perception Based On Lidar And Camera	LE FU , Beijing Wanji Technology Co., China
ID362	Research On The Reusability Of Data Throughout The Construction Period Of Digitized Highway Infrastructure	SHUYUN NIU , Research Institute of Highway Ministry of Transport, China
ID240	A Method To Correct The Camera External Parameters For Pavement Detection	KAIXING ZHANG , Research Institute of Highway Ministry of Transport, China

TS27 ITS TECHNOLOGY FOR TRAFFIC SAFETY (2)

Thursday, 19 October 2023 | 09:00-10:30 | <Room·10>

Moderator: HENDRA TJIOE, Head of Sales, Yunex Traffic, Singapore

Paper:

ID367	Reseach on Ventilator Wind Rate Regulationg System of Highway Tunnel Based on Linear Active Disturbance Rejction Control	LIUYUAN XIANG, Beijing GOTEC ITS Technology Co., Ltd, China
ID434	Research on A New Mode of Expressway Service Status Perception Based on Energy Self-Consistent Conditions	QIAN REN, Beijing GoTec ITS Technology Co., Ltd., China
ID220	Tunnel Monitoring System based on Lidar and Video Fusion	HAO ZHOU , VanJee Technology Co, Ltd., China
ID366	The Assessment of Smart Expressway Information Release Credibility Based on Analytical Hierarchy Process (AHP) and Fuzzy Synthetic Evaluation	CHENYANG LYU, Beijing GOTEC ITS Technology Co.,Ltd, China
ID417	The Discussion Of Construction Solutions For Smart Tunnel In The New Era	LIYANG LU , Research Institute of Highway Ministry of Transport, China
ID125	Impact Of Maneuvering Angle In Vehicle Lane Changes On Highway Traffic Safety And Operation	WEI LEI , Hebei Provincial Communications Planning, Design and Research Institute Co., Ltd., China

TS28 SENSORS AND PERCEPTION METHODS FOR AUTOMATED VEHICLES (2)

Thursday, 19 October 2023 | 11:00-12:30 | <Room·8>

Moderator: NOBUYUKI OZAKI, Nagoya University, Japan

Paper:

ID383	Research on Video Visibility Detection Technology and Application in Henan Zhuxin Expressway	LI ZHANG, Beijing GOTEC ITS Technology Co., Ltd., China
ID280	Estimation of Driver Arousal Level Using Camera and Millimeter-wave RAa and Millimeter-wave Radar	KATSUKI KUBO, Shibaura Institute of Technology, Japan
ID300	Simultaneous of Clustering and Tracking by Time-Series Optimization Filter for Point Cloud of Lidar	SHUNCONG SHEN, Shibaura Institute of Technology, Japan
ID376	Object Recognition by Infrastructure-based Pont Cloud using Machine Learning	TOSHIO ITO, Hyper Digital Twins Co., Ltd., Japan

TS30 ITS TECHNOLOGY FOR TRAFFIC SAFETY (3)

Thursday, 19 October 2023 | 11:00-12:30 | <Room·10>

Moderator: FRED KALT, Managing Director, Yunex Traffic, Singapore

Paper:

ID272	Systematic Evaluation of Lane Change Risk for Multi-vehicle types on Freeways using High-resolution Data	XINYI ZHANG , South China University of Technology, China
ID417	The Discussion of Construction Solutions for Smart Tunnel in the New Era	LIYANG LU, Research Institute of Highway Ministry of Transport, China
ID360	Research and Application of Key Technologies for Active Safety Management Based on Intelligent Road Studs	YAOCHUAN GAO, Tech Traffic Engineering Group Co.,Ltd, China
ID125	Impact of Maneuvering Angle in Vehicle Lane Changes on Highway Traffic Safety and Operation	WEI LEI , Hebei Provincial Communications Planning, Design and Research Institute Co., Ltd., China

TS31 NEW ADVANCES IN V2V, V2I AND V2X TECHNOLOGY

Thursday, 19 October 2023 | 14:00-15:30 | <Room·8>

Moderator: SUKU PHULL, THA Department for Transport, United Kingdom

Paper:

ID139	Field Operational Test for Verifying Effectiveness of Merging Support Information Provision System	TOSHIMASA NAKAGAWA, National Institute for Land and Infrastructure Management, Japan
ID122	A Holistic View on Predictive-QoS in Vehicular Networks	TIM LEINMUELLER, Denso Automotive D. GMHH, Germany
ID313	The Global Expansion and Development Of ITS & V2X	DENGJIANG WANG , Vanjee Technology, China
ID325	Exclusive and Controlled 5G Network for Development of Connected and Automated Vehicle Technologies	MAURO CARLOS DA SILVA , Idiada Automotive Technology, Spain

TS33 SMART PARKING&BICYCLE SHARING

Thursday, 19 October 2023 | 14:00-15:30 | <Room·10>

Moderator: CHOY HIN LEE, ITS Malaysia, Malaysia

Paper:

ID195	Location Selection Of Bicycle Sharing Delivery Points Based On Rebalancing Supply And Demand	HANQIANG QIAN , Beijing University of Technology, China
ID102	Standardized Specifications for Double-Connected Truck Parking Reservation System with DSRC on Expressways	NAOTO UENO, NEXCO Research Institure, Japan
ID303	Dynamic Allocation Model for Shared Parking Spaces in a Region	ZHENG SHUO, Dalian Jiaotong University, China
ID432	Smart Parking in Public Service Utilities – a holistic design approach of Automated Parking System (APS) in hospital	PETER KWONG FUNG, Yeefung Technology Limited, China

TS34 RAILWAY AND WATERWAY TRANSPORT APPLICATIONS AND 5G SOLUTION

Thursday, 19 October 2023 | 16:00-17:30 | <Room·9>

Moderator: LEI CAI, Research Institute of Highway Ministry of Transport, China

Paper:

ID268	Communication Based Train Protection System to Enhance The Operational Safety for Taiwan Railways	HUI-SHENG FENG, Taiwan Railways Administration, Taiwan, China
ID307	Application of Intelligent Railway Transport on 5G and C-V2X Network	CHUNKUAN LU, Compal Electronics Incorporation, Taiwan, China
ID424	Reducing Queuing and Crowding in Urban Rail Transit Systems: A Novel Departure Time Booking Strategy	ZHIYONG LIU, Beijing Jiaotong University, China
ID160	Exploration on The Preparation of Whole Life Cycle Design Standards in Rail Transit Industry	JIABIN ZHU, Suzhou Rail Transit Construction Co., Ltd, China
ID395	Analysis and design of key technologies for intelligent navigation of ships	DAN ZHOU, Water Transport Research Institute of the Ministry of Transport, China

TS35 NEXT GENERATION TRAFFIC MANAGEMENT

Thursday, 19 October 2023 | 16:00-17:30 | <Room·9>

Moderator: GONZALO ALCARAZ, International Road Federation (IRF), Switzerland

Paper:

ID109	Opitimising Signal Control at Continuous-Flow Intersections Considering Traffic Progression	YINING HU, University of New South Wales (UNSW), Australia
ID226	Coordinated Optimization Setting of Speed Limit Section of Long Tunnel Group in Mountainous Expressway Based on Driving Behavior Characteristics	SUN LING, National ITS Research Center, China
ID236	A Scalable Data-Driven Predictive Traffic Management Solution	LUCA PAONE, PTV GROUP, Italy
ID412	Data Dictionary for Highway Electromechanical Equipment in China: Integrating WSR Method and Conceptual Information Model	XI-YAO LI, Research Institute of Highway Ministry of Transport, China
ID284	Application Case of Intelligent Traffic Signal-Control on Fragile Roads in Kaohsiung City	CHIH-HUA CHANG , CECI Engineering Consultants, Inc., Taiwan, China
ID149	A Patented Invention, Synergistic Traffic Intersection & Dual-Modes Proximate Crossover Zone	VALIANT LEUNG YUK YUEN, SYNERGISTIC TRAFFIC , Australia

TS36 FUTURE METROPOLITAN TRANSPORT & DISRUPTIVE INNOVATIONS IN DIGITAL TRANSPORT

Thursday, 19 October 2023 | 16:00-17:30 | <Room·10>

Moderator: JOHN PADDINGTON, ERTICO-ITS Europe, Belgium

Paper:

ID237	Experiences Building An Environment Friendly ITS in The City of Huainan	ELMAR BROCKFELD, German Aerospace Center, Germany
ID186	PRT and The Future City with Sustainable Mobility	JIAXIANG WANG, Futurepolis (Suzhou Industrial Park) Planning and Architecture L.L.C., China
ID289	Magnetic Force Characteristics of Combined Layout YBaCuO Arrays for HTS Maglev Systems	YEYING BAO, Suzhou Railway and Aviation Development Center, China
ID126	Installation of Light Emitting Pedestrian Crossing Studs Related to Traffic Signal Operation at Main Intersections in Tokyo	YUYA KOBAYASHI, Metropolitan Police Department, Japan
ID162	Research on The New Generation Intelligent Rail Transit Operation and Control Management System	ZHANSHENG WANG , Suzhou Rail Transit Construction Co., Ltd, China

TS37 PLATOONING

Friday, 20 October 2023 | 11:00-12:30 | <Room·7>

Moderator: TIM LEINMÜLLER, Denso Automotive Deutschland GmbH, Germany

Paper:

ID148	A Hybrid Control Methodology for Vehicle Platooning Based on Linearized Decoupled Control Law	HUATAO JIANG, sirun, China
ID449	Application of Arithmetic Optimizer Algorithm to Manage Platooning of Future Transportation Systems	LIPING PENG , Research Institute of Highway, Ministry of Transport, China
ID116	Platooning Regulatory Framework	ORIOL FLIX , Applus IDIADA, Spain
ID222	Design of Control Algorithms for Vehicle Infrastructure Cooperative Truck Platoon and Simulation Verification	SUN LING, National ITS Research Center, China

TS38 MULTIMODAL JOURNEY PLANNER & SMART AND GREEN VEHICLE ROUTING

Friday, 20 October 2023 | 11:00-12:30 | <Room·8>

Moderator: GONGBIN QIAN, ITS Establishment, Nanjing, China

Paper:

ID101	Extension of Line-line Spatial Relationship Considering Line Direction –A case Study of Bus Transfer	DONGDONG ZHENG, Zhengzhou Tiamaes Technology Co.,ltd, China
ID161	Algorithm for Visualization of Traffic Congestion State Using Integrated Probe Data Developed for The VICS Experimental Service	SHINYA ADACHI, Vehicle Information and Communication System Center, Japan
ID180	Prediction of Travel Delay during Traffic Incidents	CHONG CHEE CHUNG, ST Engineering Urban Solutions, Singapore
ID257	Fast Matrix Queries and Application to Routing Optimization Problems	JEAN-SEBASTIEN GONSETTE, AISIN Europe, Belgium
ID310	Study on the Layout and Parking Area Optimization of Road Transport Channels for Dangerous Goods in Suzhou	ZHANG GUOQIANG, Suzhou Transportation Bureau, China

TS39 ITS INFRASTRUCTURE FOR AUTOMATED VEHICLES

Friday, 20 October 2023 | 11:00-12:30 | <Room·9>

Moderator: JINPING GUAN, Harbin Institute of Technology (Shenzhen) and Massachusetts Institute of Technology, China

Paper:

ID260	SSP: Small Object Detection from Sparse Point Clouds of Roadside LiDAR for Vehicle-to-infrastructure Cooperating System	JUANJUAN LI, Vanjee Technology, China
ID308	Smart Road and Edge Infrastructure Enabling Cooperative Intelligent Transport Systems	LING LIU, Intel, China
ID469	Preparing CAV Infrastructure in Building the Cooperative and Automated Transportation Ecosystem	JIONGJIONG SONG , AECOM, United States
ID476	Increasing The ODD Attribute Value Awareness of Automated Driving Systems with Infrastructure Support	HIRONAO KAWASHIMA, Mobility Culture Research Center, Keio University Keio University, Japan
ID448	International Standard for Automated Mobility	JUNICHI HIROSE, Highway Industry Development Organization, Japan

TS40 DATA ANALYTICS FOR TRAFFIC MONITORING AND MANAGEMENT

Friday, 20 October 2023 | 11:00-12:30 | <Room·10>

Moderator: HANLOU DIAO, China Design Group Co.,Ltd., China

Paper:

ID159	Large-Scale Microscopic Traffic Simulation Based on License Plate Recognition Data and OpenStreetMap	WENBIN YAO, Zhejiang University, China
ID171	A Traffic Incident Detection Method Based on YOLOv5 + DeepSORT for Freeway	XIANHUI ZONG, Nanjing University of Science and Technology, China
ID271	Improvement in Corridor Level Traffic Volume Predictions by Integrating the Signal and Phase Timing Data	RAJESH KUMAR MALHAN , DENSO International America Inc., United States
ID314	Multi-Objective Tracking Algorithm for Urban Traffic Via Adaptive Multi-Level Approach	ZHAOCI LUO , VanJee Technology Co.,Ltd, China
ID227	K-means++ Clustering Method Based on License Plate Recognition Data to Analysis Residents Travel Features: a Case Study of Suzhou	KEXIN WANG, Soochow University, China
ID309	VIDEO DATA ANALYTICS IN TRAFFIC MONITORING AND MANAGEMENT: A CASE STUDY IN HONG KONG	LUI, STEVEN YEE MING, AECOM Asia Co. Ltd., China

TS42 TECHNOLOGIES FOR TRAVEL DEMAND MANAGEMENT

Friday, 20 October 2023 | 14:00-15:30 | <Room·6>

Moderator: HAYASHI ITO , ITS Japan, Japan

Paper:

ID154	Stpa For Safety Analysis Of Autonomous Vehicles In Mixed Traffic Systems	LEI CHEN, RISE Research Institutes of Sweden, Sweden
ID203	Congestion Judgment Method at Entrances and Exits of Large-scale Parking Lots Based on Average Vehicle Delay	QIANYI HU, Southeast University, China
ID221	Analysis on Railway Station Choice Behavior Affected by Urban Transport Accessibility in A City with Multiple Stations	KANGYU LIANG, School of Traffic and Transportation, Beijing Jiaotong University, China
ID433	Identification of Urban Residents' Travel Activity Pattern A Case Study of Hangzhou City	YINAN LEI WEI , Zhejiang University, China

TS45 POLICY AND REGULATION FOR CONNECTED AND AUTONOMOUS VEHICLES

Friday, 20 October 2023 | 14:00-15:30 | <Room·9>

Moderator: WOLFGANG TREINEN, Berlin Partner for Business and Technology, Germany

Paper:

ID467	Research on the Framework of Cooperative Automated Driving System Based on Game Theory	XIAOHAN YANG, Jiaoke Transport Consultants Ltd., China
ID336	Research on the Implementation of Ethics Based on Driver Choice Behavior in Automated Driving	KAITO KUSAKARI, Shibaura Institute of Technology, Japan
ID121	Automated Driving Challenges and Approaches: Platooning Use-Case	CARLOS LUJAN, IDIADA Automotive, Spain
ID170	Development Status and Policy Suggestions of Vehicle-Road Collaborative Automatic Driving in China	GENG RUI, Highway Science Research Institute of the Ministry of Transport, China
ID115	Type Approval Approach for Automated Driving Vehicles: Beyond the Traditional Homologation Methodology	CARLOS LUJAN, Applus IDIADA, Spain

IS01 SUSTAINABLE AND TRANSFORMATIONAL DEVELOPMENT OF TRANSPORT & POLICY, STANDARDS AND HARMONIZATION

Tuesday, 17 October 2023 | 14:00-17:00 | <Room·11>

Paper:

ID119	Typical Case of Operation and Maintenance for High-Speed Railway Core System	XINJUN GAO, Signal and Communication Research Institute, China
ID439	A Prediction Method for the Complexity Degree of Traffic Scenarios	YAN FENG, Research and Development Center of Transport Industry of Autonomous Driving Technology, RIOH High Science and Technology Group, Ministry of Transport, PRC, China
ID385	Optimization of Delivery Routes for Takeout Under Time-Varying Road Networks	JIACI WANG, Sanya Science and Education Innovation Park, Wuhan University of Technology, Sanya 572024, PR China, China
ID327	Short-term traffic flow prediction and timing optimization at signalized intersections based on SG-LSTM and particle	LEI YANG, Dalian Jiaotong University, China
ID269	Collaborative optimization model for bus speed guidance and signal control on the networked environment	TIAN XIN, South China University of Technology, China
ID302	Research on new framework based on existing smart expressway construction guides	ZHUOCHENG YANG, Beijing GOTEC ITS Technology Co.,Ltd, China
ID330	Research on the improvement of measurement service guarantee capability of intelligent transportation	XIN SHI, China Academy of Transportation Sciences, MOT, China
ID205	Evaluation of measurement uncertainty of brake fluid moisture measuring instrument	YIXU WANG, Research institute of highway ministry of transport, China
ID286	Measurement and comparison of asphalt viscosity measured by dynamic shear rheometer	MIAO NA, Institute of Highway Science, China

IS02 CONNECTED, COOPERATIVE AND AUTOMATED MOBILITY & SMART CITY

Wednesday, 18 October 2023 | 14:00-17:00 | <Room·11>

Paper:

ID207	A Review of Data-Driven Lane-Changing Decision Modeling for Connected and Automated Vehicles	ZHENGWEN FAN, Nanjing University of Science and Technology, China
ID456	Research on signal reliability of communication equipment on medium and large operating vehicles	ZHANG YUN, Research Institute of Highway Ministry of Transport, China
ID245	Research on path tracking control strategy for In-Wheel Motor Driven electric vehicle with Integrated Stability	HAICHUAN ZHANG, Chang'an University, China
ID250	Multi-generational Evolutionary Approach of Autonomous Transportation System	HAONAN TUO, Central South University, China
ID409	Study on the evolution mechanism of lane change decision in urban expressway diversion area	SUCHUAN XU, Suzhou University of Science and Technology, China
ID477	Application and Comparison of Nine Point Logic Control and PID Control Algorithms in Smart Grid Decision Making	ZHIXIN OU, Anhui Communications Vocational & Technical College Department, China
ID299	A Lateral Control Method for a 4-Wheel Steering Sightseeing Vehicle	YINING XING, Tsinghua University, China
ID158	Research on Visualized Application of Inland Waterway Management Based on Multi-source 3D Fusion	WU LV QING, Suzhou Port and Shipping Development Center, China
ID441	A Soft-attention based Spatial-temporal Neural Network Model for Traffic Flow Prediction	RUI ZHENG, Beijing Jiatong University, China
ID326	Analyzing Crash Severity at Intersections: A Random Parameters with Heterogeneity-in-means approach	YIYUE LUO, Intelligent Transportation Systems Research Center, Wuhan University of Technology, China

IS03 INTELLIGENT AND DIGITAL TRANSPORT INFRASTRUCTURE & INTEGRATED TRANSPORT SYSTEMS

Thursday, 19 October 2023 | 14:00-17:00 | <Room·11>

Paper:

ID276	Global Synergistic Dual-Modes Sustainable Traffic System	VALIANT YUK YUEN LEUNG , Synergistic Traffic, Australia
ID478	Research on the Least Square Algorithm for Correcting High Voltage Arc Edge Discharge Parameters	ZHIXIN OU, Anhui Communications Vocational & Technical College Department, China
ID197	Research and implementation of Intelligent construction and management system for the ecological revetment of inland waterways based on 3D printing	YUQI YANG, Suzhou Port and Shipping Development Center , China
ID361	The Construction Situation and Development Suggestions in China of Smart Highway	XIAOLIN CHE, Research Institute of Highway Ministry of Transport, China
ID345	Highway Life-cycle Cost Analysis under the Autonomous Vehicles Scenario	KAIDI LIANG, Southeast University, Australia
ID223	Mode measurement of cable based on a new subpixel edge detection operator	KUN XIE, Hohai University, China
ID402	Traffic congestion traceability analysis based on capacity matching degree	DE GAO, Beijing Jiaotong University, China
ID479	Evaluation on Variable Lanes of Xiehe Road in Shanghai	XI CHEN, Shanghai Urban Construction Design & Research Institute (Group)Co., Ltd., China
ID423	Vessel Flow Forecasting in Yangtze River Multi-Bridge Area Using Inferential Generative Model	JIE MAN, Wuhan University of Technology, China
ID339	Research on multimodal transport service platform based on blockchain	GUANYA HAO, Nanjing University of Science and Technology, China

Suzhou welcomes you to the

29th ITS WORLD CONGRESS

The Congress meticulously crafted a selection of technical tour paths, with the aim of offering visitors an alternative lens through which they may gain a comprehensive understanding of China's intelligent transportation industry,guiding participants towards obtaining a firsthand encounter with the pioneering and sophisticated nature of China's intelligent transportation development,ultimately, showcasing how smart transportation enhances urban services by providing convenience and practicality. We have identified 9 technical visit routes for this congress. These routes will offer a comprehensive and one-of-a-kind experience of the most prominent intelligent transportation application scenarios in Suzhou and the wider Yangtze River Delta region.

Remarks:

The designated location for departure and arrival of all technical tours is the square of Hall C, Suzhou International Expo Center.

Booking: Kindly proceed with a purchase while completing the registration process, or alternatively, avail yourself of the opportunity to access the personal center page on the right side of the screen to explore further purchasing options. Should the number of participants in a single technical tours route be insufficient, the organizing committee reserves the right to either cancel the visit or implement alternative arrangements as deemed suitable. In the event of any modifications, the organizing committee shall promptly notify you via email. Your understanding in this matter is greatly appreciated.

Please arrive at the designated location at least 5 minutes before scheduled time. The shuttle service will depart on schedule.

INTELLIGENT TRAFFIC CONTROL

SUZHOU TRANSPORTATION OPERATION COMMAND CENTER (TOCC) AND BUS CENTRALIZED SCHEDULING AND COMMAND CENTER

Suzhou Transportation Operation Command Center（TOCC） serves as the central hub for the management and coordination of Suzhou's transportation system. It functions as the highly intelligent core, accumulating an extensive array of surveillance videos and vast data pertaining to highways, waterways, ports, and public transportation, totaling over 50000. The Transportation Operations and Control Center (TOCC) implements a comprehensive system encompassing perceptual awareness and early signal detection, timely reporting while on duty, consultative protocol for ongoing problem resolution, and post-assessment measures for continuous improvement within the urban transportation domain. TOCC combines coordination and monitoring to establish a self-contained emergency response system within the realm of transportation, to achieve the quality improvement of comprehensive transportation emergency management.

The Bus Centralized Scheduling and Command Center functions as the primary information hub for managing Suzhou's bus services, incorporating two distinct platforms known as Suzhou Bus Operation Management and Bus Real-time Data Supervision. Thus, this arrangement establishes a unified center with two accompanying platforms. The center encompasses seven core functions, specifically the coordination of operation schedules, supervision of vehicles, scheduling of emergencies, real-time management of passenger flow, management of stations, analysis of operations, and dissemination of information. By implementing meticulous operational planning and scheduling, the center consistently provides accurate and effective information regarding bus services to improve the quality and attractiveness of the service for passengers.

Region	Suzhou	**Description**	INTELLIGENT TRAFFIC CONTROL
Duration of the visit(inclusive of time spent in transit)	90 mins	**No.of visitors (single tour)**	30
Visit location	Suzhou Transportation Operation Command Center (TOCC), Bus Centralized Scheduling and Command Center		
Date & Time	2023-10-16 13:00-14:30 (English version) 15:00-16:30 (Chinese version)	2023-10-19	13:00-14:30 (English version) 15:00-16:30 (Chinese version)

INTELLIGENT TRAFFIC CONTROL

TRAFFIC ADMINISTRATION DIVISION OF SUZHOU MUNICIPAL PUBLIC SECURITY BUREAU

It is scheduled to pay a field visit to the Department of Motor Vehicles within the traffic police detachment and the Intelligent Network and Urban Traffic Service Joint Innovation Laboratory to observe the utilization of data-driven approaches in enhancing public security traffic management, urban traffic organization, intelligent traffic signal control, and innovative traffic management services.

Over the past few years, the DMV of the Suzhou Public Security Bureau has diligently enhanced its technological, service, and police camp culture. Through the integration of motor vehicle inspection and registration processes, a streamlined assembly line approach has been implemented. Additionally, a one-stop service for motor vehicle registration model has been established, along with the creation of a smart lobby for vehicle driving management business and a self-service office. These efforts have resulted in an elevated service standard, increased operational efficiency, and the realization of an innovative traffic management service model.

The Intelligent Network and Urban Traffic Service Joint Innovation Laboratory constitutes a collaborative innovation platform established by the Road and Transport Authority of Suzhou Municipal Public Security Bureau in partnership with universities, scientific research institutions, and technology companies. Through the utilization of the collaborative laboratory, the co-constructing entities effectively combine their resources and leverage each other's strengths. Together, they undertake research endeavors focused on data-driven traffic management and intelligent traffic signal control, aiming to facilitate the mutually beneficial integration of network connectivity and traffic administration.

Region	Suzhou	**Description**	Intelligent traffic control
Duration of the visit(inclusive of time spent in transit)	120 mins	**No.of visitors (single tour)**	30
Visit location	DMV of the Suzhou Public Security Bureau, Intelligent Network and the Urban Traffic Service Joint Innovation Laboratory of the Suzhou Public Security Bureau		
Date & Time	2023-10-16 13:00-15:00 (English version)	2023-10-19 13:00-15:00 (Chinese version)	

INTELLIGENT HIGHWAY

CHINA'S ROUTE FOR SMART HIGHWAY TOUR

The tour includes a visit to the G2/G42 Traffic Command and Control Center located in Suzhou, specifically at the Yangchenghu Service Area. The purpose of this visit is to demonstrate the intelligent operation and management scenarios of expressways, highlighting features such as high-speed brain, collaborative cloud scheduling, intelligent capacity expansion, and intelligent service area.

The Suzhou section of the G2/G42 Expressway is renowned for its exceptional intelligence and superior quality, standing out as one of China's most advanced and impeccably constructed expressways. Through the utilization of a comprehensive data display board, active traffic management techniques, free-flow ramp toll systems, and various other applications, the advancements in intelligent motorway technology have considerably enhanced the efficiency and safety of driving experiences for the general populace.

The G2/G42 Traffic Command and Control Center in Suzhou has successfully integrated and employed nine district management systems, including the highway command control system and the event detection system. This integration has significantly enhanced the efficiency of highway monitoring, command and analysis, as well as decision-making processes.

Embracing the traditional Water Town ambiance of Jiangnan and the artistic charm of Poetic and Picturesque ink paintings, the Yangchenghu service area seamlessly incorporates the design philosophy of 'One Street, Three Gardens'. Visitors have the opportunity to appreciate the picturesque surroundings of Suzhou without necessarily venturing into the city itself. This region has been lauded as a prominent destination for highway tourism, earning the title of "China's most exquisite garden service area."

Region	Expressway	**Description**	INTELLIGENT HIGHWAY
Duration of the visit(inclusive of time spent in transit)	120 mins	**No.of visitors (single tour)**	30
Visit location	G2/G42 Traffic Command and Control Center in SUZHOU, YANGCHENGHU Service Area		
Date & Time	2023-10-18 13:00-15:00 (English version) 15:00-17:00 (Chinese version)	2023-10-19	13:00-15:00 (English version) 15:00-17:00 (Chinese version)

INTELLIGENT RAIL TRANSPORTATION SYSTEM

GANGTIAN ROAD STATION ON SUZHOU RAIL TRANSIT

The primary focus of the smart station will encompass showcasing the intelligent brain cockpit, panoramic operation management, emergency linkage management, standardized equipment room installation management, intelligent security screening, and energy conservation management, among others.

The Gangtian Road Station on Suzhou Rail Transit Line 6 serves as the pioneering demonstration station for the implementation of the "Digital Smart Brain for Urban Rail Transit." This initiative aims to showcase the entirety of Suzhou's distinct smart brain capabilities, emphasizing the passenger-centric, station-centric, and equipment-centric functionalities. The implementation of automatic station opening and closing, as well as maintenance possession granting and surrendering to the dispatching system, enables the unmanned management of stations during nighttime hours. This pioneering achievement in the industry not only ensures efficient operations but also facilitates the integration of monitoring, automatic inspection, and emergency linkage management. Consequently, there is a substantial reduction in the requirement for human resources.

Region	Rail Transit	**Description**	INTELLIGENT RAIL TRANSPORTATION SYSTEM
Duration of the visit(inclusive of time spent in transit)	150 mins	**No.of visitors (single tour)**	30
Visit location	Gangtian Road Station on Suzhou Rail Transit Line 6		
Date & Time	2023-10-16 13:00-15:30 (English version) 15:00-17:00 (Chinese version)	2023-10-17	13:00-15:30 (English version) 15:00-17:00 (Chinese version)

INTELLIGENT CONNECTED VEHICLES/ SMART CULTURAL TOURISM

THE TAIHU LAKE ECOLOGICAL ISLAND AUTONOMOUS DRIVING PROJECT IN WUZHONG DISTRICT

It is scheduled to embark on a visit to Taihu Lake Ecological Island. The purpose of the visit is chiefly to showcase the practical implementation of autonomous driving technology in various scenic locations, transportation hubs, and urban road networks.

The core of the Taihu Lake Ecological Island consists of various application scenarios spanning across 84 square kilometers. There are a total of 93 designated points, encompassing a network of 200 kilometers of two-way roads specifically designed for autonomous driving. The range of autonomous vehicles available includes Minibus, Robotaxi, unmanned retail vehicles, logistics vehicles, security vehicles, sweepers, rovers, and others, forming a comprehensive series of models. The ecological island will be developed as a pioneering cultural tourism autonomous driving ecological demonstration zone in the country, incorporating the innovative "double wisdom model" that synergistically integrates smart cultural tourism and intelligent network industry.

Region	Wuzhong District		**Description**	INTELLIGENT CONNECTED VEHICLES/ SMART CULTURAL TOURISM	
Duration of the visit(inclusive of time spent in transit)	150 mins		**No.of visitors (single tour)**	20	
Visit location	Taihu Lake Ecological Island				
Date & Time	2023-10-17	13:00-15:30 (English version) 15:00-17:30 (Chinese version)	2023-10-19	13:00-15:30 (English version) 15:00-17:30 (Chinese version)	

INTELLIGENT CONNECTED VEHICLES/ INTELLIGENT TRAFFIC CONTROL

THE TACTICAL JOURNEY THROUGH THE INTELLIGENT URBAN MOBILITY INFRASTRUCTURE IN SUZHOU'S HIGH SPEED RAIL NEW TOWN

The exhibition of the Intelligent Urban Mobility Infrastructure in Suzhou's High-Speed Rail New Town offers a comprehensive display of the nation's cutting-edge autonomous vehicle transportation solutions. The itinerary includes notable road segments such as South Tiancheng Road, enabling passengers to partake in the exceptional experience of riding in a 'Lightweight-equipped/ADAS Car on Smart Road' featuring the world's sole roadside perception L4 networked autonomous driving system. During the journey, visitors will have the opportunity to witness the practical implementation of the cooperative vehicle infrastructure system and Autonomous Driving in the High-speed Rail New Town. These situations encompass the use of Robotaxis, Robobuses, autonomous sweepers, unmanned garbage trucks, unmanned security vehicles, unmanned cleaning ships, and several other applications. The aforementioned pathway also traverses the Intelligent Control Center within the Yangtze River Delta Intelligent Connected Vehicle Industry Demonstration Zone. This control center will serve as a showcase for the cloud-based platform at the city-level, which supports business operations pertaining to intelligent connected vehicles at the city-level.

Region	Xiangcheng DIstrict	**Description**	INTELLIGENT CONNECTED VEHICLES/ INTELLIGENT TRAFFIC CONTROL
Duration of the visit(inclusive of time spent in transit)	150 mins	**No.of visitors (single tour)**	20
Visit location	Yangtze River Delta Intelligent Connected Vehicle Industry Demonstration Zone Intelligent Control Center, Suzhoubei Railway Station, South Tiancheng Road, The start-up area of Yangtze River Delta International R & D community, Suzhou International Conference Hotel, etc.		
Date & Time	2023-10-17 13:00-15:30 (English version) 15:00-17:30 (Chinese version)	2023-10-18	13:00-15:30 (English version) 15:00-17:30 (Chinese version)

INTELLIGENT PORT/ SMART CONSTRUCTION SITE

SMART CONSTRUCTION SITE AND AUTOMATED BULK & GENERAL CARGO TERMINAL IN ZHANGJIAGANG

It is scheduled to visit the A1 section of the ZhangJinggao Yangtze River Bridge intelligent Management command center, the steel cloud factory intelligent control center, and the concrete cloud factory intelligent control center, where visitors can learn about the use of big data, the Internet of Things, cloud computing, digital twins, virtual construction, and other technologies in the bridge engineering industry.

Furthermore, guests will be granted a comprehensive tour of the unmanned automated bulk and general cargo terminal belonging to Zhangjiagang Port Group. This tour will showcase the practical implementation of cutting-edge technologies such as 5G, big data, and artificial intelligence within the automated terminal with an intelligent control technology system established to oversee the entire production process of the dry bulk cargo terminal. This system aims to achieve complete automation and unmanned operation for all operational aspects, including unloading, horizontal transportation, storage yard management, stripping, loading, and more. The project has been honored with the second prize in the inaugural State-owned Enterprise Digital Scene Innovation Professional Competition organized by the State-owned Assets Supervision and Administration Commission of the State Council, as well as the first prize in the Innovation competition at the 29th ITS World Congress.

Region	Zhangjiagang	**Description**	INTELLIGENT PORT/ SMART CONSTRUCTION SITE
Duration of the visit(inclusive of time spent in transit)	450 mins	**No.of visitors (single tour)**	30
Visit location	Zhangjiagang Port Group Automated Bulk Cargo Terminal, Smart Site of Zhangjinggao Yangtze River Bridge		
Date & Time	2023-10-21 9:30-17:00 ((English & Chinese version)		

INTELLIGENT CONNECTED VEHICLES/ SMART PARKING

5G VEHICLE NETWORKING DEMONSTRATION PROJECT IN CHANGSHU CITY

The itinerary includes a planned visit to the central region of the Changshu Section of the Suzhou 5G vehicle networking application demonstration project, the Jingdong (JD) unmanned logistics global research and development center, and Suzhou Genland Ipark Technology Co., Ltd.

The primary objective of the Changshu segment within the Suzhou 5G Vehicle-to-Everything Urban Verification and Application Project is to establish an intelligent road ecosystem integrating advanced sensing, communication, and computing functionalities, implementing more than 50 application scenarios for vehicle-to-everything (V2X) technology. These scenarios will primarily revolve around intelligent public transportation, encompassing features such as displaying traffic light information on rear screens, detecting pedestrians in the front, and warning surrounding vehicles through "ghost sensors," and utilizing See Through technology. Additionally, it is aimed to provide signal light status notifications, introduce holographic intersections that require large screen displays, and showcase various unique demonstration applications for V2X technology.

In 2020, JD Logistics and Changshu City forged a comprehensive partnership and commenced the execution of a municipal-level intelligent delivery initiative in Changshu. The objective is to develop a comprehensive and efficient solution for urban last-mile delivery, creating a scalable and replicable commercial model for unmanned delivery operations. This endeavor played a crucial role in the establishment of the world's pioneer intelligent delivery metropolis.

Suzhou Genland Ipark Technology Co., Ltd. is regarded as a leading service provider in urban parking operations, offering a range of services including the development and management of city-wide platforms, customized solutions for diverse contexts, research and publication of parking whitepapers, analysis of parking big data, and comprehensive consultation services.

Region	Changshu	**Description**	INTELLIGENT CONNECTED VEHICLES/ SMART PARKING
Duration of the visit(inclusive of time spent in transit)	420 mins	**No.of visitors (single tour)**	20
Visit location	China Intelligent Vehicle Comprehensive Technology Research and Testing Center		
Date & Time	2023-10-21 9:30-16:30 ((English & Chinese version)		

INTELLIGENT TRAFFIC CONTROL/ INTELLIGENT PORT

TAICANG CITY INTELLIGENT TRAFFIC CONTROL AND AUTOMATED CONTAINER TERMINAL

The center is committed to enhancing the quality of traffic safety management. Through the application of digital and intelligent techniques, it effectively consolidates the preexisting data assets of the public security traffic management agency. It encompasses a wide range of business domains, including the continuous monitoring of traffic patterns and the efficient coordination of emergency response and dispatch. The process of integration has successfully enabled the incorporation of various features, including but not limited to data fusion, display, analysis, and monitoring. These functionalities significantly contribute to domains such as traffic conditions, safety situations, command and dispatch, intelligent parking, asset management, patrol supervision, and holographic intersections.

Taicang Port Phase IV represents the pioneering implementation of a fully automated terminal project within Jiangsu Province and the wider Yangtze River basin. The location presents a panoramic view of the awe-inspiring Yangtze River estuary, the cutting-edge shore bridge operated through advanced 5G communication and unmanned horizontal transport machinery, a fleet of 28 automated rail-mounted container gantry cranes utilized for efficient yard operations, and the seamless functioning of the state-of-the-art Terminal Operating System （TOS）for the innovative wharf.

Region	Taicang	**Description**	INTELLIGENT TRAFFIC CONTROL/ INTELLIGENT PORT
Duration of the visit(inclusive of time spent in transit)	450 mins	**No.of visitors (single tour)**	20
Visit location	Taicang Digital City Operations, Jiangsu Port Group Container Company Taicang Phase IV Container Automation Terminal		
Date & Time	2023-10-21 9:30-17:00 (English & Chinese version)		

The 29th ITS World Congress has openly solicited 9 demonstrations in the innovative field of intelligent transportation from both domestic and international technology manufacturers and scientific research institutes. At the congress, there are live demonstrations conducted within a dedicated area spanning nearly 15,000 square meters, located in the southwestern vicinity of the primary venue. As a prominent highlight of the congress, the demonstrations present to the public the most technologically advanced and innovative products, equipment, solutions, or services available.

There are presently 9 demonstrations included in this congress, encompassing "New Technologies, New Products and New Scenarios" of future intelligent transportation.

New Technologies:

New technologies showcase advanced technologies such as laser radar, driver detection systems, cloud-based control platforms, etc., and offer intelligent technical assistance to enhance driving safety, facilitate autonomous driving, and optimize urban smart mobility.

New Products:

New products showcase the potential of cutting-edge solutions, such as unmanned flying car, autonomous cruise boat, self-driving vehicles, and automated transportation robots, in enhancing logistics transportation capabilities and elevating the standards of traffic management.

New Scenarios:

New scenarios showcase a broader range of unmanned traffic scenarios encompassing water tourism, logistics distribution, connectivity security, road inspection, and other related domains.

XPENG X2 ELECTRIC FLYING CAR FLIGHT DEMONSTRATION

XPENG AEROHT

The XPENG X2 is the fifth-generation flying car independently developed and manufactured by XPENG AEROHT. It has a complete carbon fiber structure, accentuated by a cutting-edge aesthetic merged with an array of advanced features. These features include automated driving capabilities, radar-based distance measurement, obstacle detection and avoidance systems, a comprehensive parachute system, and a host of other equipment. This suite of technologies enables the X2 to deliver holistic services encompassing both driving convenience and safety protection.

The XPENG X2 is a two-seater flying car and adopts an enclosed cockpit for the first time. It does not produce any carbon dioxide emissions during flight and is a step forward in the pursuit of urban green transportation. It will be suitable for future low-altitude city flights and is perfect for short-distance city journeys such as sightseeing and medical transportation. The XPENG X2 is equipped with two driving modes: manual and autonomous. During the autonomous flight, passengers can enjoy a safe and intelligent flying experience with simple start, return and landing operations at the touch of a button.

THE AUTONOMOUS CRUISE ORCAUBOAT "XI"

SHAANXI ORCA ELECTRONIC INTELLIGENT TECHNOLOGY CO., LTD. (ORCAUBOAT)

The ORCAUBOAT "Xi" stands as a testament to the pioneering endeavors within our nation as it emerges as the first Level 4 autonomous cruise boat. It utilizes water surface unmanned driving technology to prioritize the advancement of intelligent water travel for tourists, aiming to foster the practical integration of smart tourism and intelligent water transportation, suitable for inland river, inland lake sightseeing excursions as well as barge and other scenarios.

The autonomous cruise ORCAUBOAT "Xi" is furnished with an intelligent interaction system, capable of providing real-time displays of ship and scenic spot information. Furthermore, it can intelligently deliver voice announcements related to the sights, offering tourists a cutting-edge technological voyage experience. It can cater to diverse customer tour preferences by offering water sightseeing experiences. A range of activities such as sightseeing, waterfront dining, corporate engagements, educational pursuits, and more, has the potential to enhance the boat's utilization rate. Simultaneously, cruise boat operators are equipped with a sophisticated management APP that enables real-time monitoring and efficient administration of the boat's operations, leading to a substantial reduction in overall boat management expenditures.

"CHENGFENG" HIGH-LEVEL DRIVER ASSISTANCE SOLUTIONS

QCRAFT

In response to the diverse demands in automobile manufacturing industry pertaining to mass production and varying levels of pre-installation support for driving, QCraft is dedicated to becoming the premier Tier-1 provider of high-level driver assistance solutions. In collaboration with our industry's ecological partners, encompassing both upstream and downstream stakeholders, QCraft introduces "Chengfeng" High-level Driver Assistance Solutions that feature Urban+Highway NOA (Navigate on Autopilot) and are adaptive to diverse computing platform. This innovative approach not only ensure that customers in China have access to more appropriate road scenes, but also provide significant advantages related to mass production and implementation. In addition to offering a highly cost-effective solution, this product also enhances the overall driving experience for end consumers by incorporating advanced assisted driving features, which greatly resonates with their preferences and usage patterns.

The QCraft "Chengfeng" High-Level Driver Assistance Solutions, adaptable and customizable to offer flexible feature configurations to meet the needs of mass production, provides highly cost-effective driving and parking solution series that are all compatible to single Horizon Robotics Journey®5 chips:

Chengfeng Max: Equipped with 1 laser lidar, featuring Urban NOA;

Chengfeng Pro: Vision based solution, featuring Highway NOA and extendable to Urban NOA;

Chengfeng Air: Extremely cost-effective, vision based solution, and featuring Highway NOA.

INTELLIGENT URBAN MOBILITY SYSTEM AND DEMONSTRATION FOR SMART CITY

TSINGHUA UNIVERSITY

This project aims to improve the riding comfort and travel convenience of urban residents, and is oriented to the travel needs of smart cities. Based on the "vehicle-road-cloud integration" architecture, it develops passenger cars, shuttle buses, delivery vehicles, sweepers, sightseeing vehicles, patrol vehicles and other types of vehicles. We have developed roadside sensing units and smart travel APPs, and built a cloud digital twin system to open up data communication between smart vehicles, smart roadside, cloud control platforms, and smart mobile terminals, achieving an integrated intelligent transportation system consisting of intelligent vehicle domain, intelligent road domain, data cloud domain, and communication network domain.

INTELLIGENT INSPECTION AND CLEANING UAV OF ROADS AND BRIDGES

SUZHOU ZHONGFEI REMOTE SENSING TECHNOLOGY SERVICE CO., LTD.

This inspection equipment possesses the capability to efficiently collect and assess multi-dimensional indicators of pavement performance, allowing for high-frequency, swift, and cost-effective evaluation. Moreover, it can seamlessly present the statistical information of road and bridge diseases through integration with artificial intelligence platforms, offering intuitive insights.

This cleaning apparatus constitutes a sizable six-rotor unmanned aerial vehicle (UAV) capable of integrating advanced features such as high-definition cameras, high-pressure cleaning capabilities, searchlights, throwers, and more. These components enable the equipment to operate in both manual and fully autonomous modes, offering versatility and efficiency in cleaning operations. It utilizes a self-organizing network architecture, combines digital and image transmission capabilities within its integrated communication link, and features autonomous take-off and landing capabilities. Additionally, it includes multiple mission mounting interfaces that can be utilized for expanding its functionality.

Zw1 series of Zhongfei's cleaning Unmanned Aerial Vehicles (UAVs)

AUTONOMOUS VEHICLE DYNAMIC DEMONSTRATION

SUZHOU INTELLIGENT CONNECTED TECHNOLOGY DEVELOPMENT CO., LTD.

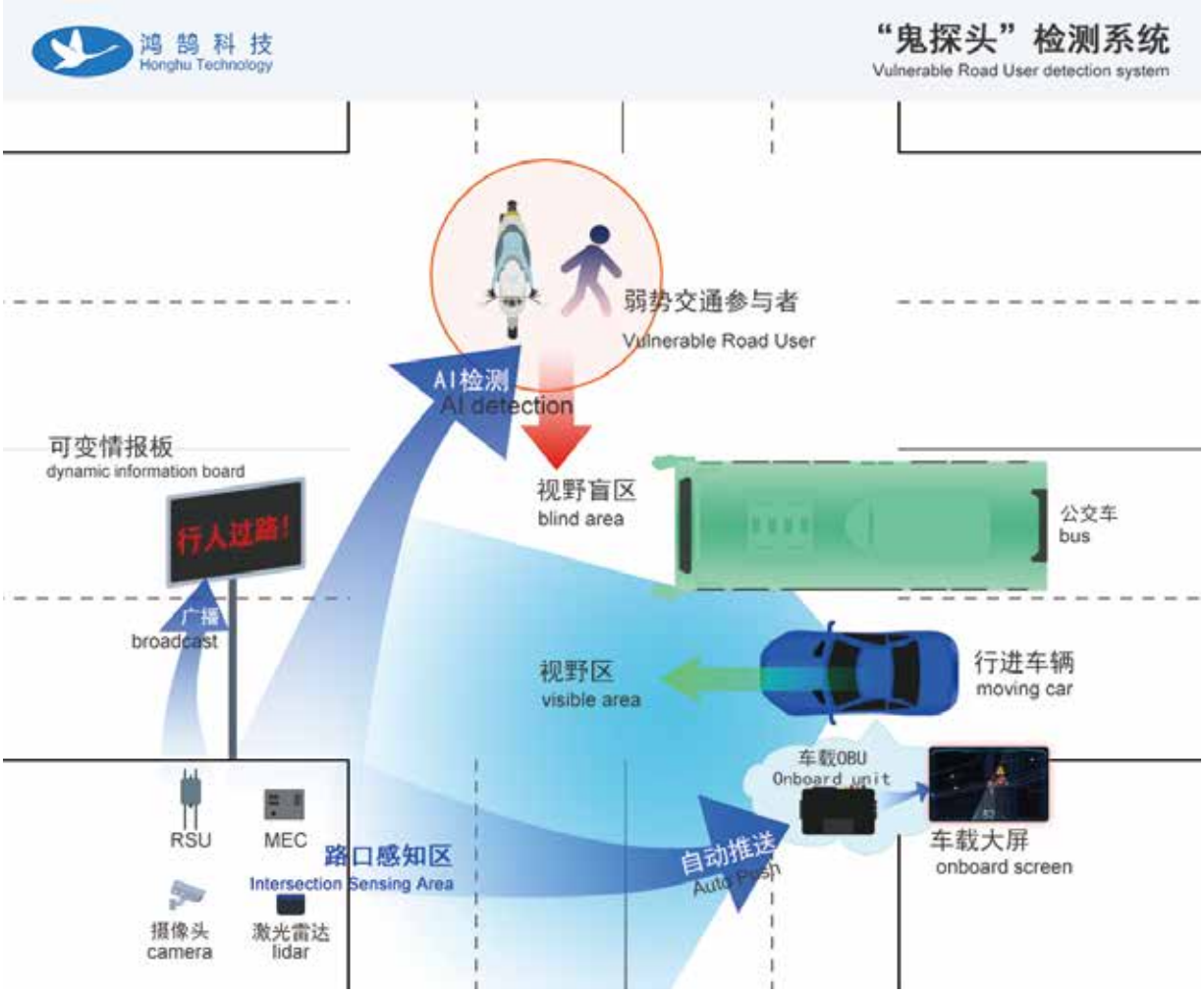
The presence of a wide range of autonomous vehicles showcases the extensive incorporation of intelligent connectivity into the everyday lives of individuals, thereby transforming their travel preferences and overall lifestyles through the integration of artificial intelligence and connectivity. As a result, this evolution delivers heightened levels of safety, convenience, and effectiveness.

"GHOST PROBE" DETECTION SYSTEM

JIANGSU HONGHU ELECTRONIC TECHNOLOGY CO., LTD.

The detection system named "Ghost Probe" employs lidars and cameras to collect data on different vehicles and pedestrians traversing the roadway, and outputs the information to the edge computing device, which seamlessly incorporates and analyzes obstacle information, subsequently generates and delivers the outcomes to the roadside unit (RSU). The RSU utilizes V2X technology to provide feedback to adjacent vehicles in proximity, so as to mitigate the occurrence of inadvertent incidents caused by unattended or unidentified sensors.

Our system offers key features such as minimal latency, superior recognition accuracy, roadside acousto-optic alarm and vehicle-side alarm. When a pedestrian proceeds to cross the road, the vehicular human-computer interaction system will proactively emit an audio-visual collision alert to increase awareness among vulnerable traffic participants. Similarly, a visual display situated on the roadside will display pictorial, textual, and auditory cues to notify the driver of the presence of a pedestrian crossing the road.

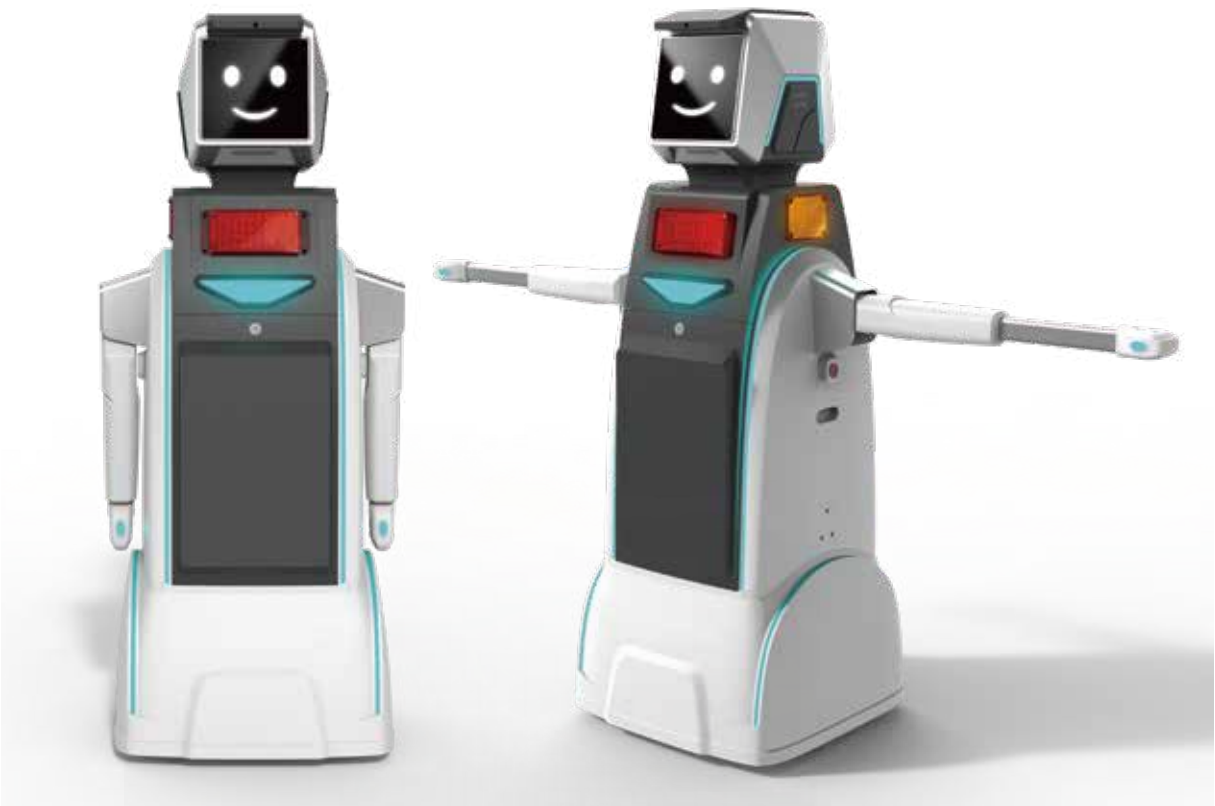


MONOLITHIC SELF-MOVING TRAFFIC BARRIER ROBOT

NANJING LANTAI TRANSPORTATION FACILITIES CO., LTD.

The showcased traffic barrier robot leverages cutting-edge technologies including multi-sensor fusion, high-precision navigation, wireless mesh AD-Hoc network, and cloud computing. This advanced robot offers a wide array of features such as face recognition, dangerous event alerting, voice interaction, autonomous mobility, arm command, and long-term video recording. The meticulously designed humanoid visual representation impeccably embodies the essence of science, technology, and futurism.

The primary applications of the product include lane containment, accident response, and emergency management at construction sites. It can also encompass the extension of services to include campus patrols and the provision of traffic safety guidance at school entrances. It is imperative to effectively execute the Ministry of Public Security's objective to "diminish and manage traffic accidents" and to collaboratively address the prevention and control measures of law enforcement institutions and schools.



AUTOMOTIVE WIDE FOV SHORT-RANGE LIDAR ML-30S+

ZVISION TECHNOLOGIES CO., LTD.

ZVISION Technologies have developed an automotive short-range lidar product with wide field of view (FOV) known as ML-30s+. The company leverages cutting-edge technology and effectively aligns it with current market needs to deliver automotive lidar products, characterized by superior performance, compact design, and large-scale production capabilities. These products serve as a dependable and steadfast solution for enabling autonomous driving applications, offering unparalleled 3D vision capabilities.

The ML-30s+ offers an extended horizontal FOV, enabling the detection of vehicles approaching from the adjacent lane at a distance of 1.4 meters earlier compared to a 120° angle of observation. It also effectively provides comprehensive coverage of blind zones from all angles, and the blind zone reduction offered by the 140° FOV splicing solution is twice as effective compared to the 120° solution.

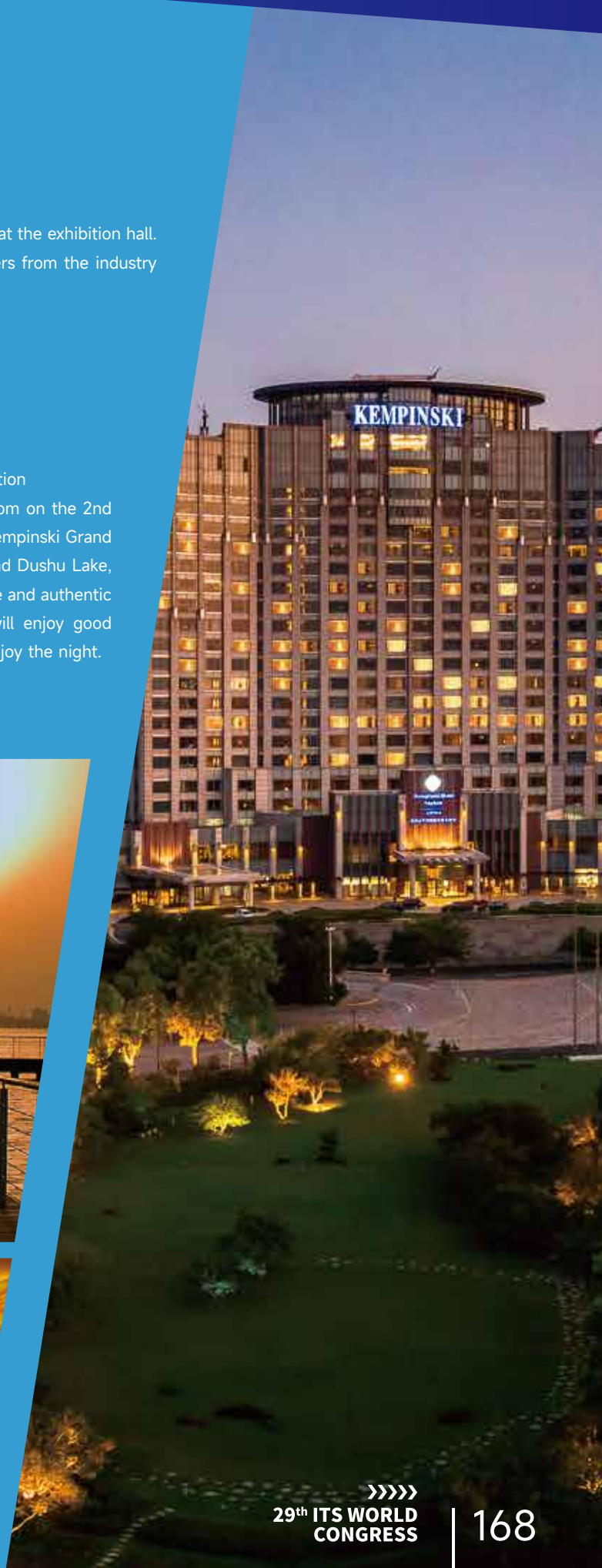
The ML-30s+ offers an expansive vertical FOV, characterized by an asymmetrical design. Notably, it boasts a significant 50° FOV below the horizontal plane, which currently stands as the industry's largest among horizontally aligned devices. The vehicle demonstrates a substantial decrease in blind spots on the road surrounding its body, enabling it to effectively detect and respond to curbs, bricks, low safety guardrails, and other common road obstacles such as ground locks, stone piers, and cones. It effectively fulfills the ground sensing requirements of the vehicle for diverse urban roads, low-speed scenarios like automatic parking, and complex road conditions encountered during driving initiations.

WELCOME RECEPTION

Date and Time: Monday, 16 October 2023, 16:30 – 17:30
Venue: Exhibition Hall, Suzhou International Expo Center
Tickets: Included in Delegate Registration
Starting at 16:30, join your colleagues at the Welcome Reception held at the exhibition hall. The Welcome Reception is an excellent opportunity to meet with peers from the industry and network with our commercial partners and exhibitors.

GALA DINNER

Date and Time: Thursday, 19 October 2023, 18:30 – 21:00
Venue: Kempinski Hotel Suzhou
Tickets: RMB 350 per person to be purchased at the time of registration
Join us and enjoy a dinner experience at the Kempinski Grand Ballroom on the 2nd floor, the largest banquet hall in the Suzhou Park hotel circle, at the Kempinski Grand Hotel in Jinji Lake, Suzhou. The hotel is located between Jinji Lake and Dushu Lake, where you can enjoy the scenery of Shuanghu Lake and enjoy exquisite and authentic cuisine against the sunset. As the evening party unfolds, guests will enjoy good companionship, charming performances, and wonderful music, and enjoy the night.



EXHIBITORS LIST

Booth	EXHIBITOR
BA01	Suzhou NIO Sales and Services Co., Ltd.
BA02	Innovusion
BA03	Suzhou Intelligent Transportation Information Technology Co. LTD
BA04	Suzhou Industrial Park
BA05	Beijing Baidu Netcom Science Technology Co., Ltd.
BA06	VanJee Technology Co, Ltd.
BA07	Tesla
BA08	Tianyijiaotong Technology Ltd.
BA09	GUANGDONG ITS ASSOCIATION
BA10	Shanghai Municipal Engineering Design Institute (Group) Co., Ltd.
BA11-1	CHINA DESIGN GROUP CO.,LTD.
BA11-2	Jiangsu Province Comprehensive Transportation Society (Association)
BA12	Yunex Traffic
BA13	Beijing Sinoits Tech Co., Ltd.
BA14	Gangneung City, Korea
BA15	ITS Korea
BB01	Beijing LiangDao Intelligent Automotive Technology Co. ,Ltd.
BB02	Autotoll Limited
BB04	Traffic Police of Kunshan Public Security Bureau
BB05	Lianyungang Port Holding Group Co., Ltd
BB06	Hebei Jixiangtong Electronic Technology Co.
BB08	China United Network Communications Group Corporation Limited
BB10	Beijing Nebulas Interconnection Technology Co., Ltd
BB11	Chengdu Guimu Robot Co., Ltd.
BC01	PTV Planung Transport Verkehr GmbH
BC04	Transpeed Technology Co., Ltd
BC05	NANJING DINGJI TECHNOLOGY CO.,LTD.
BC06	Nanjing Lantai traffic facilities Co., Ltd
BD001	NEZHA SMART PORT & SHIPPING TECHNOLOGY (SHANGHAI) CO., LTD
BD005	JIANGSU TECHNOLOGY INNOVATION & C-V2X ACADEMY
BD006	BYTETREE.AI
BD007	EASYWAY(SZ)ELECTRONICS TECH.CO.,LTD.
BD008	Rohde & Schwarz (China) Technology Co., Ltd.
BD009	Xi'an Yunshi Aviation Technology Co., Ltd
BD010	Shanghai MAXIEYE Automotive Technology Co.,Ltd.
BD012	Qing Yi (Shanghai) Intelligent Technology Co., Ltd.
BD013	Coovally-AI Intelligent Traffic Detection Platform
BD015	China Railway Siyuan Survey And Design Group Co., LTD
BD017	Suzhou Huachang Energy Technology Co., Ltd.
BD020	Intertraffic
BD021	Suzhou Ruisite Intelligent Manufacturing Co., Ltd
BD022	Suzhou Belief Data Technology Co.Ltd,

Booth	EXHIBITOR
CA01	Suzhou Rail Transit Group Co., Ltd.
CA02	TOYOTA Motor Corporation
CA03	Suzhou Xiangcheng
CA04	Z-Truck
CA05	ITS JAPAN
CB01	JSTI GROUP
CB02	Honda Motor Co.,Ltd
CB03	Panasonic Automotive Systems Co.,Ltd
CB04	Chebada (Suzhou) Network Technology Co., Ltd.
CB05	Jiangsu Boyuxin Information Technology Co., Ltd
CB06	AISIN CORPORATION
CB07	DENSO CORPORATION
CB12	Zhijia Technology Limited
CB13	China Mobile
CB14	Nanjing City Urban Lighting Construction and Operation Group Co., Ltd.
CB15	Suzhou Seecar Information System Co. Ltd.
CC01	Blickfeld GmbH SAFESTREAM Project; Landkreis Kelheim
CC02	Nan Jing Intelligent Transportation Information Co. Ltd.
CC03	Shenzhen Port Group Co., Ltd.
CC04	ITS Asia-Pacific
CC05	ITS Singapore
CC06	Jiangsu ACTION Transportation Technology Co., Ltd
CC08	Huali iSmartWays Technology Inc.
CD001	FORUM8 Co.,Ltd.
CD013	smartmicro
CD014	ComNav Technology Ltd
CD057	Avalue Technology
CD062	Suzhou Safesoft Information Technology Co.,Ltd.
CD067	Earth View Image Inc.
CD072	Router Technologies (Hangzhou) Inc.
CD077	Hangzhou Golong Technology Co., Ltd
CD079	Vector Automotive Technology (Shanghai) Co., Ltd.
CD080	Wutong Chain Digital Technology Research Institute (Suzhou) Co., Ltd.
CD081	Shanghai PanQi Information Technology Co., LTD
CD087	AECOM Asia Co. Ltd.
CD088	5GAA - 5G Automotive Association e.V.
CD089	Jiangsu Feiliks International Logistics Inc.
CD090	Nanjing rui jie intelligence traffic Institute of science and technology co.,LTD
CD091	CMST Nanjing Intelligent Logistics Technology Co., Ltd.
CD092	Suzhou Qingyan Haoyuan Automobile Technology Co., Ltd
CD099	Suzhou Lvkon Transmission S&T Co., Ltd.

Booth	EXHIBITOR
CD100	Jiangsu Feng Rui Lanpu digital technology Co., LTD
CD101	JIANGSU LUYUXING TRANSPORTATION TECHNOLOGY CO., LTD
CD102	SEVEN ITS
CD107	Changzhou Highway Development Center
CD108	Ningbo Lubao Technology Industrial Group Co., Ltd
CD111	Roads & Transport Authority
CD112	Beijing Intelly Technology Co., Ltd
CD117	Beijing Ruixing Electronics Technology Co., Ltd.
CD118	SuZhou Exinova Robot Technology Co., Ltd
CD119	Suzhou Genland Ipark Technology Co.,Ltd.
CD121	Shenzhen Seewor Technology Co., Ltd
CD123	CHINA HIGHWAY AND TRANSPORTATION SOCIETY/World Transport Convention
CD124	Nantong Smart Communication Technology Co.,Ltd.
CD125	Jiangsu Zhizhen Technology Co., Ltd.
CD126	Bvision Intelligent Technology Co., Ltd
CD127	Kingfar International Inc.
CD128	Innoviz Technologies
CD129	Vehicle road cooperation technology(chengdu)co.,ltd.
CD130	Nanjing Highway Development (Group) Co., Ltd.
CD131	Hongyuan Shipping Co., Ltd.
CD132	Jiangsu Pingshan Transportation Facilities Co., Ltd
CD133	OTN Intelligent Technology (Suzhou) Co., Ltd.
CD134	Zhangjiagang Jincheng IoT Smart City Development and Operation Co., Ltd
CD135	Hunan Xiangxu Traffic & Lighting Hi-Tech Co.,Ltd
CD136	Nanjing Changmiao Technology Co. , Ltd.
CD137	Qingtao (Kunshan) Energy Development Co., Ltd.
CD138	WuHan Zhongheng Broadran Technology Co.,Ltd
CD139	Suzhou software testing center Co.,Ltd.
CD140	Jiangsu Jeacar Electronics Co., LTD
CD141	ZHANGJIAGANG E-PORT CO.,LTD
CD142	China ITS Journal
CD143	OTT HydroMet
CD144	South Surveying & Mapping Technology CO., LTD.
DA03	CRRC ZHUZHOU LOCOMOTIVE CO.,LTD.
DC01	Zelos (Suzhou) Technology Co., Ltd.
DC02	Neolix Technologies Co., Ltd
DC03	Suzhou Haitong Robotic System Co., LTD
DC04	HGJ Logistics Technology Co.,Ltd
DC05	NANJING LES INFORMATION TECHNOLOGY CO.,LTD
DC06	ITS Indonesia
DC07	Taizhou Green and Low Carbon Smart Port
DC08	Suzhou Keda Technology CO.,Ltd.

Booth	EXHIBITOR
DC09	Nanjing modern Multimodal Transportation Laboratory
DC10	Suzhou Planning&Design Research Institute Co., Ltd
DC12	Tsinghua University
DC13	EASTTRANS
DC22	JiangSu DianKa Technology Co., Ltd

Booth	DEMONSTOR
FLYING DEMO ZONE	XPENG AEROHT
AUTONOMOUS DRIVING ZONE	SUZHOU ICV TECH
	Tsinghua University
	ZVISION Technologies Co., Ltd.
AUTONOMOUS CRUISE ZONE	ShaanXi ORCA Electronic Intelligent Technology Co.,Ltd (ORCAUBOAT), China
STATIC DEMO ZONE	Jiangsu Honghu Electronic Technology Co., Ltd.
	Nanjing Lantai Traffic Facilities Co., Ltd
	QCraft
	Suzhou Zhongfei Remote Sensing Technology Service Co., Ltd.

Innovation Zone

The congress has set up an innovation zone in the exhibition hall on the level 1, Hall C, which is used to carry out industrial recommendation activities, promote Suzhou's industrial policies, etc. It is also convenient for participants to display and exchange, publicize and promote, and attract investment.

Suzhou International Expo Centre

Suzhou Jinji Lake International Convention Centre

1st Floor


LOGISTICS CHANNEL
EXHIBITION HALL C1
Dining Area
CA04
CA03
CB15
CB12
CB13
CC08
CD119
CD121
Innovation Zone
MAIN CHANNEL
DA03
DA05
DC24
DC12
DC13
DC06
DC26
DC08
DC09
DC10
DC01
DC02
DC03
DC05
REST AREA
ENTRANCE
EXHIBITION HALL D1
Dining Area

GETTING TO SUZHOU

International / Domestic Cities → **Shanghai Hongqiao** → **Suzhou**

1. Shanghai Hongqiao International Airport **Terminal T1**
2. Shanghai Hongqiao International Airport **Terminal T2**

Method 1
Metro: 2 stops, about 10 mins
Method 2
Taxi : About 7.5km, 15 mins CNY30

Walk
About 840m
about 15 mins

2. Shanghai Hongqiao Railway Station

High-speed rail
About 30-40 mins
CNY39

3. Suzhou Railway Station

Method 1
Metro: 10 stops
about 35 mins

4. Suzhou International Expo Center

Method 2
Taxi: about 12 km
30 mins, CNY40

International / Domestic Cities → **Shanghai Pudong** → **Suzhou**

1. Shanghai Pudong International Airport
2. Suzhou International Expo Center

Walk to the second floor of Pudong Airport T2 and take the airport coach bus to Suzhou International Expo Center, about 2 hours and 10 minutes
Shuttle schedule: 11:30/13:20/15:20/17:20 Prices:CNY100
• There are two ways to buy tickets: in person or by following the official account "Airport Bus."

International / Domestic Cities → **Wuxi Shuofang** → **Suzhou**

1. Wuxi Shuofang International Airport

Method 2
Taxi: About 44 km
54 mins, CNY180

2. Suzhou Railway Station
2. Suzhou International Expo Center

Method 1 Walk to the airport bus platform outside Gate 7 on the first floor of the terminal building, take the airport coach bus, and arrive at Suzhou Railway Station, about 45 minutes
Shuttle schedule: 09:10/10:00/10:30/11:00/11:30/12:00/12:30/13:00/13:30/14:00/15:00/15:30/15:50/16:10/16:50/17:20/18:00/19:00/20:30 Prices: CNY50
Tickets: Purchase tickets in person or by following the Wuxi Passenger Transport and Bus Butler APP's official Wechat account.

For more information, please visit the website:
www.itsworldcongress2023.com

Taxi
By Taxi to Venue

Railway Station	Duration	Metro
Suzhou North	30 mins	✓
Suzhou	20 mins	✓
Suzhou SIP	5 mins	✓

Metro
By Metro to Venue

Take Line 1 and get off at Wenhuabolanzhongxin Station(No.3 Exit).

Pick up service

We will arrange a shuttle bus to take you from Shanghai Pudong International Airport to Suzhou International Expo Center. At the arrival exit of the airport, a volunteer will greet you with a sign. Please check the following General Assembly pick up card.
Departure time on October 14 is 18:00.
Departure time on October 15 is 15:00.
If you unfortunately miss the shuttle bus on time, you may have to go to Suzhou on your own.

Shuttle

Daily Information:
Dates: 16 – 20 Oct, 2023
In regard to the shuttle service between the official recommended hotel and the venue, a circular shuttle service will be arranged between part of the official accommodation hotels and the venue.

For more information, please visit the website:
www.itsworldcongress2023.com

Suzhou Intemational Expo Cenler

Venue Hotel

No.	Hotel	Address	Tel	To Venue
1	Novotel Suzhou SIP	688 Suzhou Avenue East , Suzhou	86-512-62882800	100meters
2	Hyatt Regency Suzhou	No.88 Huachi Street, Suzhou Industrial Park, Suzhou	86-512-62881234	1.1km
3	InterContinental Suzhou	No.288 Wangdun Road, Jinji Lakeside, Suzhou Industrial Park, Suzhou	86-512-62858888	0.8km
4	Shangri-La Yuanqu Suzhou	No.99 Si'an Street, Suzhou Industrial Park, Suzhou	86-512-62639999	1.1km
5	Kempinski Hotel Suzhou	No.1 Guobin Road, Suzhou Industrial Park, Suzhou	86-512-62897888	8.9km
6	Crowne Plaza Suzhou	No.168 Xinggang Street, Jinji Lake, Suzhou Industrial Park, Suzhou	86-512-67616688	4.1km
7	Courtyard by Marriott Suzhou	No. 188 Xinghai Street, Suzhou Industrial Park, Suzhou	86-512-67066666	4.1km

REGISTRATION DESK HOURS

The Registration Desk will be situated at Suzhou International Expo Center.

1. For Moderators and Speakers
Registration Area: Level 1, Hall A.
The opening hours are as follows:

Sunday, 15 October 2023	09:00 – 20:00
Monday, 16 October 2023	06:45 – 18:00
Tuesday, 17 October 2023	06:45 – 18:00
Wednesday, 18 October 2023	06:45 – 18:00
Thursday, 19 October 2023	06:45 – 18:00
Friday, 20 October 2023	06:45 – 14:00

2.For Session Audience
Registration Area: Level 1, Hall A.
The opening hours are as follows:

Sunday, 15 October 2023	09:00 – 18:00
Monday, 16 October 2023	08:00 – 18:00
Tuesday, 17 October 2023	08:00 – 18:00
Wednesday, 18 October 2023	08:00 – 18:00
Thursday, 19 October 2023	08:00 – 18:00
Friday, 20 October 2023	08:00 – 16:00

3. For Exhibition Staff&Visitors and Demonstrators
Registration Area: Level 1, Hall B.
The opening hours are as follows:

Sunday, 15 October 2023	08:00 – 18:00
Monday, 16 October 2023	08:00 – 18:00
Tuesday, 17 October 2023	08:00 – 18:00
Wednesday, 18 October 2023	08:00 – 18:00
Thursday, 19 October 2023	08:00 – 18:00
Friday, 20 October 2023	08:00 – 15:30

IMPORTANT NOTE

The final programme manual has been updated as of October 5, 2023, and the programme will ultimately be based on the official website.

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ITS
CTRLPA 肯卓
KUNLONG
连云港港
PORT OF LIANYUNGANG
清华大学
Tsinghua University
TESLA
智加科技
中储智运
中国移动
China Mobile
苏州轨道交通
Suzhou Rail Transit
苏州规划
SZPD
AISIN
星云互联
云通数达
YUNTONGSHUDA
Blickfeld
LiDAR／scan your world
SZSTC
苏州市软件评测中心有限公司
理工睿行
Radar Technology
津发科技
KINGFAR
OTN
欧梯恩智能科技（苏州）有限公司
BROADRAN
CETC 莱斯信息
DENSO
Crafting the Core
顶基科技
FORUM8
GANGNEUNG
2024 Jakarta
The 19th ITS Asia Pacific Forum
28 - 30th May, 2024
ITS Japan
ITS KOREA
ITS Singapore
JEACAR车视觉
PANQI
SAFESTREAM
绿控传动
www.lvkon.com
Panasonic
umovity
Mobility for Humanity
smartmicro
EXINOVA
艾氪英诺
爱可吉
action
avalue
Technology Inc.
巴士管家
BUS STEWARD
百度智能云
BYTETREE
柏川数据
万集科技
镭眸
LEIMOU
Bvision
博视
博宇鑫科技
BOYUXIN
畅巡科技 CMtech
车路通科技
重目机器人
GUIMU ROBOT
东交
EASTTRANS
工程智慧领航者
its
广东省智能交通协会
ITS GD
EV-Image
海管家
HGJ.COM
国朗
GOLONG
冀翔通
JIXIANGTONG
宏远航运
HONGYUAN
湘旭交安


卓视智通 SINOITS
利通科技 Leatop Technology
GCI 广州交信投
羊城通 YANG CHENG TONG
INNOVIZ TECHNOLOGIES
山东翔辉自动化 Morning Sunlight Automation Company Limited
AECOM
RTA
华昌能源科技 Huachang Energy Technology
华砺智行 ISMARTWAYS
ZFRT
江南爱停车 GENLAND IPARK
FEILIKS 飞力达
江苏公路 JIANGSU HIGHWAY
江苏省综合交通运输学会
港城e停车
九识 ZELOS
KEDACOM
科创车联网
Autotoll Smart Solutions
China unicom 中国联通 创新·与智慧同行
LiangDao
路与行
ROHDE&SCHWARZ Make ideas real
SOUTH 南方测绘
南京路灯 NANJING LUDENG
南京智慧交通
智慧交通
ROABY
COOVALLY
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NIO 蔚来
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先导(苏州)数字产业投资有限公司
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新石器无人车 NEOLIX
YUNEX TRAFFIC
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苏州智能交通
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CRRC 中国中车
ITSJ 中国交通信息化
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ACKNOWLEDGEMENTS

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JSTI GROUP Co., Ltd.

Stock Name: JSTI Stock Code: 300284

JSTI GROUP Co., Ltd.(JSTI) is an infrastructure comprehensive solution provider, which was established in 1978. JSTI is committed to clients by providing innovative and leading solutions, striving to build an international scientific and technological enterprise with high-quality and sustainable development. On January 10th, 2012, JSTI was officially listed on the Shenzhen Stock Exchange and initiated public offering of A-shares.(Stock code:300284) .In May 2015, "JSTI Group Co., Ltd." was officially inaugurated. In 2016, it made strategic alliance with world's leading engineering design consulting service provider: Spain Eptisa Servicios de Ingenieria,S.L.（Eptisa）company.

JSTI has over 8500 employees and 108 subsidiaries. Until now, JST has set up branches in more than 20 countries around the world and is carrying out projects in more than 60 countries.

In the future, JSTI will continue to be locally based and globally focused to build a business center with data base and positive design, a management knowledge and ability precipitation as the management center, and a digitalization and industrialization as the dual boosters, as a breakthrough of the upper limit of capacity, build the industry's most influential intelligent technology platform, and promote the industry's high-quality and sustainable development.

Scientific and Technological Innovations

JSTI insists on independent scientific and technological innovation, has applied for and been approved the establishment of two state-level scientific research platforms:"National Engineering Research Center for Advanced Road Materials"and"State Key Laboratory of Safety,Durability and Healthy Operation of Long Span Bridges". And also has been approved the establishment of 7 ministerial-level platforms and 21 provincial-level platforms, covering the fields of highway engineering, intelligent transport, traffic safely, waterway engineering, environmental protection, energy saving, and long-term performance observation of infrastructure.

Enterprise Honors

Innovation-oriented Enterprise
(the Ministry of Science and Technology of the People's Republic of China, the State-owned Assets Supervision and Administration Commission of the State Council and the All-China Federation of Trade Unions,in 2011)

National Intellectual Property Demonstration Enterprises
(the State Intellectual Property Office,in 2017)

National Center for Enterprise Technology
the National Development and Reform Commission, the Ministry of Science and Technology, the (Ministry of Finance, the General Administration of Customs and the State Administration of Taxation in 2018)

National Model Enterprise for the Importation of Intelligence
(National Bureau of Foreign Experts,in 2004/2008/2013/2020)

Typical Exemplary Test and Inspection Organization
(Ministry of Transport,in 2010)

Jiangsu Provincial Governor Quality Award
(the People's Government of Jiangsu Province,in 2022)
(the first enterprise to win the honor in the transportation field of Jiangsu Province)

Typical Projects


All-Terrain Road Design
【Highway from Maruthu to Mao County in Sichuan Province】


Economic & Social Development Consultation
【Morocco: Technical Assistance for The Central Project Management Unit for The Modernization Of Irrigated Agriculture in The Areas Of Gharb, Haouz And Souss-Massa】


Strategic Research, Transportation Planning and Policy Advisory
【The 14th Five-Year Plan for Transportation Development of Gansu】


Investment & Financing Solutions & Project Investment Analysis
【Zhongshan to Kaiping Expressway Project】


Design of Large-scale Hydro Project and Port & Waterway Engineering
【Bolivia: Development Of The Design And Tender Documents For The Construction Of The Rositas Hydropower Plant】


Urban Infrastructure Design
【Xiamen Health Trail Project for Landscape Enhancement】


Environmental Consulting & Environmental Governance
【Environment Supervision in the Qinghai Hualshitsa-Jiuzhi(Provincial Border) Highway Construction】


Construction, Industry and Energy Management
【Brazil: Detailed Design Implementation of 2016 Rio Olympic Games International Telecommunication Center (architecture)】


Design of Railway and Urban Rail Transit
【General Contracting Design of Nanying New Modern Tram】


Sustainable Pavement Technology and New material Research and Development
【Ecological Restoration Project of Line S103 from Xining to Ganchaimiao in Qinghai Province】


Comprehensive Inspection
【Detection & Test Center of HongKong-Zhuhai-Macao Bridge】


Smart City & Smart Transportation
【India: Smart City】

JSTI GROUP Co., Ltd.
No 8 Fuchunjiang East Street, Nanjing, Jiangsu

Innovusion

Innovusion is the world leading provider of image-grade LiDAR for safe autonomous driving and smart transportation solutions. Our partnerships encompass pioneers in autonomous driving, smart city, smart highway, smart port, smart shipping, smart railway, smart mining and robotics. These companies choose us for our industry-leading technology and production expertise.

So, how can we help you today?

Come and explore the incredible world of LiDAR technology at Innovusion's Booth BA02 !

APPLICATIONS

ADAS/AD

SMART CITY

SMART HIGHWAY

ROBO

SMART PORT

SMART SHIPPING

SMART RAILWAY

SMART MINING

華設設計集團
CHINA DESIGN GROUP

TOP 100 ENTERPRISES IN THE NATIONAL 5 RANKING

ENR TOP 150 GLOBAL DESIGN FIRMS 49 RANKING

WeChat official account

WeChat video account

CHINA DESIGN GROUP

Tiktok qr code

Make the world more connectible
Make the cities more livable

TO BECOME A PROMINENT TECHNOLOGY SERVICES PROVIDER IN TRANSPORTATION DEVELOPMENT AND URBAN CONSTRUCTION

Founded in 1960, China Design Group (hereinafter referred to as CDG), formally known as Jiangsu Provincial Transportation Planning and Design Institute, has emerged as a leading full-process and became a publicly traded entity on the Shanghai Stock Exchange in 2014 (China Design Group, 603018), making it the first independently listed engineering design company in the A-share market.

With a global workforce exceeding 6,300, CDG has extensively expanded its influence in two crucial infrastructure domains: transportation and urban–rural development. Leveraging its exceptional qualifications and extensive expertise, the group prioritises cross-disciplinary and inter-industry integration and development, broadening its horizons from Jiangsu to the entire nation of China. The shift encompasses planning and design as well as full lifecycle services, venturing into emerging sectors such as intelligence, environmental protection, new energy, prefabricated construction and commercial consumption. CDG takes pride in owning numerous industry-leading and technical brands in various segmented markets, including transportation planning, all-terrain expressways, kilometre-long cross-river bridges, ultra-long underwater tunnels, waterway ports, urban expressways, urban rail transit and water conservancy affairs. Consequently, CDG stands alone as the sole engineering consulting and design group in China with comprehensive design capabilities across the entire transportation sector, encompassing roads, railways, water transport and aviation.

High-tech enterprise

AAA

AAA certified enterprise in the quality management system of China's engineering survey and design industry

Holds prestigious qualifications in various fields, including Comprehensive Class A Qualification in Consulting, Survey, Design and Urban and Rural Planning.

Received over 590 national, provincial and ministerial-level awards in consulting, survey, design and science and technology, honoured with more than ten international awards.

About DiDi

DiDi Global Inc. is a leading mobility technology platform. It offers a wide range of app-based services across Asia Pacific, Latin America, and other global markets, including ride hailing, taxi hailing, designated driving, and other forms of shared mobility as well as certain energy and vehicle services, food delivery, and intra-city freight services.

DiDi provides car owners, drivers, and delivery partners with flexible work and income opportunities. It is committed to collaborating with policymakers, the taxi industry, the automobile industry, and the communities to solve the world's transportation, environmental, and employment challenges through the use of AI technology and localized smart transportation innovations. DiDi strives to create better life experiences and greater social value, by building a safe, inclusive, and sustainable transportation and local services ecosystem for cities of the future.

DiDi

Scan the QR code
to download DiDi APP

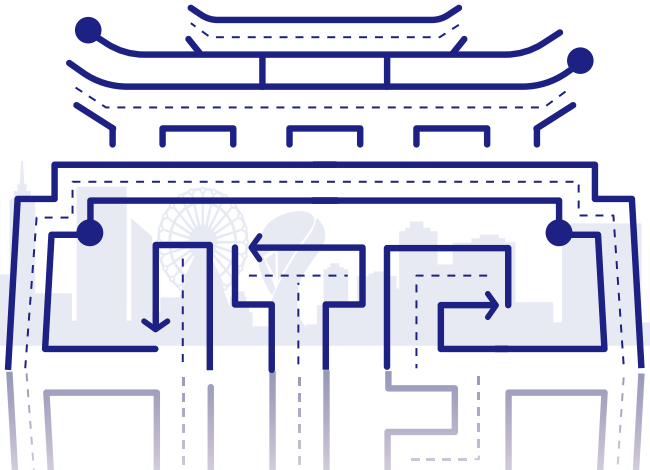
Suzhou·2023
29th ITS World Congress

第29届智能交通世界大会
29th ITS WORLD CONGRESS

29th ITS WORLD
CONGRESS

智能交通 美好生活
Driving Towards Intelligent Society —Quality Life

2023 10.16 — 10.20



CHINA 中国 苏州 SUZHOU

Suzhou · 2023
29th ITS World Congress

Official Website
Scan to enter

Time: October 16-20, 2023

Address: Suzhou International Expo Center

Website:
https:// www.itsworldcongress2023.com

Contact:
General Information Email: info@itswc2023.com
Registration Information Email: registration@itswc2023.com
Moderators/Speakers Team Email: speaker@itswc2023.com