

Venue: Virtually on the Internet
Date: October 19, 2021 (Tuesday)

About the Conference

This is the second conference in its series which serves as a forum for in-depth discussion about mutual-interactions and dynamics between core technologies and business models in connected and automated mobility (CAM). This conference series is jointly organized by the Republic of Korea and the United Kingdom. Both countries have been putting continuous effort in promoting bilateral collaboration between researchers, developers, and entrepreneurs in the CAM industry.

The CAM technology will allow future vehicles to be rapidly equipped with diverse capabilities such as machine intelligence for self-driving and connectivity via wireless cellular networks. Successful development and mass-commercial deployment of CAM will raise a wide range of both technological and business issues related to communication and computing infrastructures, mobility service models and customer acceptance.

Distinguished speakers from both countries will present their definition of a specific problem of CAM and solutions. The conference will help the audience better understand the technical competence, business models and service deployment strategies of the two countries, and promote international collaboration in the CAM industry.

The anticipated audience will include entrepreneurs, industrial developers, senior managers, academic researchers related to this field.

Hosted by: The Korean Society of Automotive Engineers · 한국정보통신기술협회 Telecommunications Technology Association · British Embassy Seoul · cenex

Managed by: Automotive Semiconductor and System S/W Division

Sponsored by: Ministry of Science and ICT · British Embassy Seoul

Conference Organisers

Programme Co-Chairs

- Seongsoo Hong (Seoul National University, Korea)
- Robert Evans (Cenex, UK)

Programme Committee

- Jiwoong Choi (DGIST, Korea)
- Kangrim Choi (Korea Telecom, Korea)
- Youngsup Joo (Seoul National University, Korea)
- Yong Sin Kim (Korea University, Korea)
- Jiyoung Lee (British Embassy Seoul, Korea)
- Hyunsurk Ryu (Seoul National University, Korea)
- David Wong (Society of Motor Manufacturers and Traders (SMMT), UK)

Conference Programme

Seoul Time		Title / Speaker
09:40–10:00 (01:40–02:00)		**Opening** Seongsoo Hong *Professor, Seoul National University* **Welcome Speech** Simon Smith *British Ambassador to Seoul*
10:00–12:00 (02:00–04:00)	**Session I** Chair	**Market, Industry and Technologies for Future Mobility** Seongsoo Hong *(Professor, Seoul National University)*
	10:00–10:30 S1-1	Current Analysis and Future Outlook of UK Auto Industry David Wong *The Society of Motor Manufacturers & Traders (SMMT)*
	10:30–11:00 S1-2	Connected & Automated Mobility R&D Trends in UK Auto Industry Mike Bell *Group Strategy Director, Ricardo PLC*
	11:00–11:30 S1-3	Future Outlook of Korean Mobility Industry Doowon Cha *CEO, CHA Mobility Research Institute*
	11:30–12:00 S1-4	V2X Strategy for Future Mobility Won-Sun Chung *Director, Connected Convergence R&D Center, Korea Automotive Technology Institute*
12:00–13:30 (04:00–05:30)		Lunch Break
13:30–16:00 (05:30–08:00)	**Session II** Chair	**UK Technologies Enabling Future Mobility** Hyunsurk Ryu *(Professor, Seoul National University)*
	13:30–14:00 S2-1	Using Cooperative Infrastructure to Assist Automated Vehicle Making Oliver Howes *Senior Technical Consultant, TRL*
	14:00–14:30 S2-2	Ultra-durable Electric Powertrains for the CAVs of the Future: Insight from the RUBICON project Henry Tanner *Principal Engineer, Hexagon Manufacturing Intelligence* Victor Lejona *Technical Specialist, Cenex*
	14:30–15:00 S2-3	Improved Hazard Detection Through Training and Testing on dRISK Edge Case Scenarios Chess Stetson *CEO, dRISK*
	15:00–15:30 S2-4	CAV market quick wins – Automated Pods to Automated Logistics Tom Webster *Principal Engineer, Connected Places Catapult*
	15:30–16:00 S2-5	Project Endeavour: Using Simulation to Evaluate AV Ridesharing Services at Scale Dave Williams *Chief Product Officer, Immense*
	16:00–16:20	Q&A
16:20–16:30 (08:20–08:30)		Break
16:30–18:00 (08:30–10:00)	**Panel Session** Moderator	**Service and Business Models for Future Mobility** Seongsoo Hong *(Professor, Seoul National University)* Panelists: Youngsup Joo *Chaired Professor, Seoul National University* Kangrim Choi *VP, Korea Telecom* Mitch Choi *CEO, MOVV Corporation* Christopher S. Chang *Managing Director, Kakaomobility* Robert Evans *CEO, Cenex* Dave Williams *Chief Product Officer, Immense* Tom Webster *Principal Engineer, Connected Places Catapult*
18:00		**Closing**

Registration

This conference is a virtual conference (online live streaming) and the registration fee is **FREE.**

한국자동차공학회 회원 및 비회원
사전등록 바로 가기

Please note that your personal information will be used only to provide our conference access to the participant.

Contact

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Programme Co-Chairs


Seongsoo Hong

Professor, Seoul National University

Seongsoo Hong earned his B.S. and M.S. degrees in computer engineering from Seoul National University, Korea, in 1986 and 1988, respectively. He received his Ph.D. degree in computer science from the University of Maryland, College Park, in 1994. He is currently a professor in the Department of Electrical and Computer Engineering at Seoul National University. His current research interests include embedded and real-time systems design, real-time operating systems, software architecture for embedded and real-time systems and cross-layer optimization of complex multi-layered software systems. He is the steering committee of IEEE RTCSA. He served as a general co-chair of IEEE RTCSA 2006 and CASES 2006 and as a program committee co-chair of IEEE RTAS 2005, RTCSA 2003, IEEE ISORC 2002 and ACM LCTES 2001. He has served on numerous program committees, including IEEE RTSS and ACM OOPSLA. He is a member of the National Academy of Engineering of Korea. He is currently a senior member of the IEEE and a senior member of the ACM.


Robert Evans

CEO, Cenex

Robert Evans is CEO of Cenex (www.cenex.co.uk), a not-for-profit consultancy and research organisation with a strategic focus on supporting supply chain and market development for Automated, Connected, Electric and Shared (ACES) mobility.
During his 15 years as CEO, Robert has overseen the development and delivery of a range of low carbon vehicle technology projects including for electric, hydrogen and gas vehicles and recharging\refuelling infrastructure projects. He has also established Cenex-LCV (www.cenex-lcv.co.uk) and Cenex-CAM (www.cenex-cam.co.uk) as major UK technology showcasing and networking events for the low carbon vehicle and connected automated mobility communities.
Cenex is recognised for its role in technology transfer, helping assist with the trialling of new technologies as a means of moving from product development research and laboratory test and validation, through to market introduction. Cenex' research and consultancy projects help de-risk the application of new technologies with first customers and provide an evidence base that can shape policy and market development. Prior to joining Cenex, Robert developed international markets for energy, environmental and automotive technologies, including fuel cells and vehicle emissions control.

Speakers


Simon Smith

British Ambassador to Seoul

Simon Smith has been British Ambassador to the Republic of Korea since March 2018. He began his career in the Diplomatic Service in 1986, and has also worked at the British Embassies in Kiev, Vienna, Tokyo and Moscow. Simon is from Bristol, and studied German and French at Oxford University.


David Wong

The Society of Motor Manufacturers & Traders (SMMT)

David Wong is Senior Technology and Innovation Manager at SMMT, the UK's automotive industry body with more than 800 members including all major vehicle manufacturers, component suppliers, aftermarket businesses, technology and engineering firms, and mobility start-ups. David is SMMT's lead on connected and automated vehicles, electric and fuel cell vehicles, autotech and future mobility innovation. In addition to automotive companies, David often works with stakeholders from technology, transport, telecoms, energy, legal, insurance, infrastructure and government on policy, strategy and market development issues. He is also SMMT's interface with the start-up community and leads open innovation initiatives to connect the industry with autotech and mobility start-ups from all over the world. David also sits on the UK Automotive Council Technology Group and the multi-sectoral EV Energy Taskforce, and is a Non-Executive Director of Cenex. He was a member of the UK Department for Digital, Culture, Media and Sport's Future Communications Challenge Group, which advised the UK Government on 5G strategy.


Mike Bell

Group Strategy Director, Ricardo PLC

Dr Bell is Group Strategy Director at Ricardo plc and is focused on transportation and sustainable energy technology. He is a commercially-focused technology leader with over 25 years' business, product and transformation experience. Dr Bell has held director positions within Laird plc, Canonical Ltd and Jaguar Land Rover prior to joining Ricardo. His experience includes leading sales & marketing, technology, engineering and programme delivery within North America, China, Europe, Russia and Asia Pacific in multiple industry verticals: automotive, electronics, utilities and oil & gas. He has a BSc and PhD in Computer Science from the University of Liverpool.


Doowon Cha

CEO, CHA Mobility Research Institute

Doowon Cha, Head of CHA Mobility Research Institute
Dr. Cha is a policy expert and futurist in the mobility area. He is an author of the scholarly book 'The Future of Mobility'(2018), and co-author of 'Job Killer- The Future of Jobs Changing by Robot and AI'(2016) He received his Ph.D. in human factors for vehicle and automated highway system at Ajou University in 2002. He was a leader of the human-machine interface team at Hyundai MOBIS, and a policy advisor and research fellow at Korea Institute of Science and Technology Evaluation and Planning(KISTEP), an adjunct researcher at Korea Institue of Industrial Technology. He served as the expert member of the Mobiliy Innovation Committee under the Ministry of Land, Infrastructure and Transport, and currently participainted in the the New Industry Regulatory Innovation Committee of Office for Government Policy Coordination-Prime Minister's Secretariat, Mid- and Long-Term Strategy Committee under the Ministry of Economy and Finance,and so on. His main research interests include the mobility policy and business model, user-experience design, safety, and regulation reform. In addition to the national science and technology, innovation policy, and sharing economy.


Won-Sun Chung

Director, Connected Convergence R&D Center, Korea Automotive Technology Institute

Dr. Chung has charge of the Connected Convergence R&D Center at the Korea Automotive Technology Institute.
His main research areas are the study on the virtual traffic environment of connected cars for driver convenience and safety, the development of various communication scenarios for the safety of V2X & C-V2X, and the research on vehicle security technology through detection and analysis of misbehavior between vehicle communication.
Also, Dr. Chung is supporting the Korean government policy for the connected car industry, V2X communication data integration strategy for government standards, and standardization of security and certification for V2X communication.


Oliver Howes

Senior Technical Consultant, Smart Mobility Living Lab: London (TRL)

Oliver Howes is a Senior Technical Consultant for Smart Mobility Living Lab: London (SMLL) which is a TRL company. SMLL is the world's most advanced urban testbed for accelerating the creation of new mobility solutions that are clean, efficient, safe, reliable, and convenient for everyone. Oliver has previous experience in vehicle testing, vehicle emissions certification and manufacturing before moving into the transportation and new mobility industry. Since joining SMLL, he played a key role in the design and build of the test facility which launched in 2020. He has also technically authored guidance documentation for safety case development of connected and automated vehicles (CAVs), developed a systems safety case framework for CAVs and run a number of new mobility technology trials within the SMLL test facility.


Henry Tanner

Principal Engineer, Hexagon Manufacturing Intelligence

Henry is a Principal Engineer for R&D projects at Hexagon Manufacturing Intelligence. His background is in electrified mechanical drivelines/transmissions for the automotive, aerospace, marine and wind industry. He recently won a grant from Innovate UK for the Rubicon project, which aims to understand how autonomous mobility will affect drivetrain and vehicle design.


Victor Lejona

Technical Specialist, Cenex

Victor is a qualified Mechanical Engineer and a Technical Specialist at Cenex. His role focuses on the development of software tools to assess the economic and environmental performance of low emission vehicles. He also leads the monitoring and data analysis of vehicle trials to evaluate the feasibility of innovative low carbon technologies.


Chess Stetson

CEO, dRISK

Chess completed his doctoral and post-doctoral work in Computation and Neural Systems at Caltech, and previously earned an AB in Physics from Harvard. He has more than a dozen peer-reviewed publications in experimental and computational neuroscience, 3 patents issued and 3 pending, and has spent years building and refining dRISK's core knowledge graph IP and providing AI/ML solutions to Fortune 500 companies, large integrated healthcare providers, financial services firms and autonomous vehicle companies. He also occasionally appears as a neuroscience expert on National Geographic's Brain Games.


Tom Webster

Principal Engineer, Connected Places Catapult

Tom is a Principal engineer at Connected Places Catapult where he works in the Future Mobility Technologies team helping to deliver a range of collaborative research and innovation projects.
His recent UK Autonomous Vehicle (AV) project experience includes:

- Department for Transport research for a GB automated vehicle safety and security approval scheme: Supporting the work-package defining a codified behavioural ruleset for AVs
- CertiCAV: Supporting the CAVPASS programme with a framework approach for the assurance of Highly Automated Vehicles.
- BSI Connected and Automated Vehicles Standards Roadmap: helping stakeholders with guidance on current practice and gaps for future thinking and development.

Previously Tom worked at the Centre of Excellence for Testing & Research of AVs – NTU (CETRAN), developing the regulatory and support processes for the safe and effective deployment of self-driving vehicles in Singapore. Here he was involved in many AV activities including: virtual testing, driving code of conduct standards and cybersecurity standards.
Tom has a background in traffic engineering where he developed an understanding of the relationships between the traffic environment/infrastructure, road user behaviour, and risk


Dave Williams

Chief Product Officer, Immense

Dr Dave Williams is Solutions Director at Immense. A Chartered Engineer, he has more than 15 years' experience in the public and private sectors, working across highways, public transport, aviation and environment. At Immense, Dave leads the Product & Solutions team, working with early stage clients and collaborators to shape the future of their innovative Simulation-as-a-Service platform.

Panelists



Youngsup Joo

Chaired Professor, Seoul National University

Dr. Joo is Chaired Professor engaged at Seoul National University, Chairman of Korea ICT Convergence Network and also a senior member of the National Academy of Engineering of Korea. He had served for the Korean government as Minister responsible for SMEs and start-ups, Member of the National Economic Advisory Council, a consultative body for the Korea President, and Managing Director at Office of Strategic R&D Planning, Ministry of Knowledge Economy (now MOTIE). He also had been engaged with Seoul National University as Visiting Professor and Chairman of Industry-University Collaboration Committee at College of Engineering. Prior to that, he had spent 30 years with the industry, mostly in the automotive and electronics industry, and took many leadership positions including CEO at Hyundai Autonet, Bontec, and GE Thermometrics Korea and Asia Pacific.

He received a Ph.D. degree in industrial engineering from Pennsylvania State University, an M.S. degree in production engineering from Korea Advanced Institute of Science and Technology, and a B.S. degree in mechanical engineering from Seoul National University.



Kangrim Choi

Senior Vice President, Head of Connected Car Business Center, KT

Kangrim Choi is a Senior Vice President of KT Corp., formerly well known as Korea Telecom. Mr. Choi is currently responsible for managing Autonomous Driving & Connected Mobility business based on the 5G, AI, Big Data and KT's Mobility Platform, which is one of key new business domains of KT, in the 'AI/DX Convergence Business Group', which plans and controls corporate-level strategic initiatives. Before becoming Head of Connected Car Business Center, he was Director of IoT & New Business Strategy Team at KT from 2013, where he was responsible for business modeling, platform development and new service launch.

Prior to joining KT, Mr. Choi was a research engineer at General Motors and Hyundai Motor Company, where he became knowledgeable about automotive industry. Mr. Choi received his master's degree in Industrial & Systems Engineering from Georgia Institute of Technology in the U.S. and an M.S. & B.S. in Mechanical Engineering from Hanyang University in Seoul, Korea.



Christopher S. Chang

Managing Director, Kakao Mobility

Dr. Christopher S. Chang is a Managing Director of Kakao mobility, the leading mobility platform company in the Republic of Korea. He has been in charge of strategy and business development/operation for the mobility technology innovation and emerging businesses including autonomous vehicle based mobility services and data business.

Before his role at Kakao mobility, he worked for Hyundai Motor Company where he spearheaded smart city related projects focusing on the domains of mobility and energy. He led strategic planning, development, and operations of the projects such as iMOD service (an AI based demand responsive shuttle service in Incheon Metropolitan City, awarded smart city challenge grant from Ministry of Land, Infrastructure and Transport), and BotRide service (a robotaxi service in Irvine, California; the 1st self-driving car based taxi service among the automotive manufacturers). In addition, his team established the "human-centered smart city philosophy" that has been a core of Hyundai Motor Group's mobility vision.

Before his tenure in Hyundai Motor Company, he had been with Samsung Electronics, Qualcomm, and NASA-JPL. He holds a Bachelor of Science degree in Electrical Engineering from Seoul National University, Master of Science and Ph.D. degrees in Electrical Engineering from CALTECH.



Mitch Choi

CEO, MOVV Corporation

Mitch Choi is the founder and CEO of MOVV(Move as a VIP), a global private mobility service platform. Prior to MOVV, Mitch spent 17 years at Samsung Electronics, where he served in various positions for R&D, corporate development and partnership. Mitch holds an MBA from MIT Sloan School of Management and a BS in Electrical Engineering from Seoul National University.



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CEO, Cenex

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Session Chairs



Seongsoo Hong

Professor, Seoul National University

Seongsoo Hong earned his B.S. and M.S. degrees in computer engineering from Seoul National University, Korea, in 1986 and 1988, respectively. He received his Ph.D. degree in computer science from the University of Maryland, College Park, in 1994. He is currently a professor in the Department of Electrical and Computer Engineering at Seoul National University. His current research interests include embedded and real-time systems design, real-time operating systems, software architecture for embedded and real-time systems and cross-layer optimization of complex multi-layered software systems. He is the steering committee of IEEE RTCSA. He served as a general co-chair of IEEE RTCSA 2006 and CASES 2006 and as a program committee co-chair of IEEE RTAS 2005, RTCSA 2003, IEEE ISORC 2002 and ACM LCTES 2001. He has served on numerous program committees, including IEEE RTSS and ACM OOPSLA. He is a member of the National Academy of Engineering of Korea. He is currently a senior member of the IEEE and a senior member of the ACM.



Hyunsurk Ryu

Professor, Seoul National University

Hyunsurk Ryu is Industrial Collaboration Professor at ECE department of Seoul National University. Before that, he was Master at the S.LSI business unit of Samsung Electronics. He has 23 years of industry experience. His main research interest is on the event driven imaging and signal processing to achieve short latency image recognition application, which is critical for continuous and robust decision-making application. He was leader on various new sensor projects, dynamic vision sensor, time of flight imaging sensor, human motion recognition, etc. He contributed IEEE802.1 standard in the area of QoS enhancing LAN/MAN technology, IEEE802.1AVB. He received his B.S., M.S., and Ph.D degrees in physics from POSTECH in South Korea by statistical and digital signal processing research for optical system.