FUTURE CITIES WEEK

4th Annual Autonomous Vehicles ASIA 2020

3RD ANNUAL ELECTRIC VEHICLES ASIA 2020

SMART GRIDS & MICROGRIDS ASIA 2020

VIRTUAL SERIES

COMBINED AGENDA

Connecting Cities • Re-Defining Mobility • Transforming Energy

11 – 13 August 2020
Singapore

Rising social, technology and energy demands, coupled with climate change and economic restructuring, means that the city we all live in needs to be smarter, greener and more interconnected. At the forefront of Future Cities lies the future of smart mobility and smart energy – and this will be addressed by 3 co-located events on **Autonomous Vehicles Asia**, **Electric Vehicles Asia** as well as **Smart Grids & Microgrids Asia**.

Future Cities Week is Asia's leading stage for thought-provoking and actionable discussions on reshaping electricity distribution, electrifying transportation and re-inventing mobility. This conference will bring together government bodies, industry leaders, business decision-makers and innovative solution providers in a single platform.

Join us and discover how Asia is leveraging emerging technologies to build smarter, more sustainable and interconnected infrastructure that pave the way for radical solutions and relationships needed to drive forward connectivity – for a smarter city that we all need to live in.

Confirmed Speakers:

Juan Intan Kanggrawan, Head of Data Analytics, **Jakarta Smart City**
Dr Pasan Kulvanit, Project Manager – Autonomous Vehicles, **Ministry of Higher Education, Science, Research, Innovation, Thai Government (MHESI)**
Koen Cardon, Chief Executive Officer, **Katoen Natie – Singapore**
Rick Kundi, Automotive Solution Manager, **Keysight**
Marius Dupuis, Managing Director, **VIRES Simulations Technologie GmbH an MSC Software Company**
Jirapat Janjerdsak, Chief Technology Officer, **Airovr**
Stav Shvartz, Former Ford Autonomous Driving Strategy and BD Manager, **Ford China**
Terence Siew, President, **Electric Vehicles Association of Singapore**
Henrik Wigermo, Head of Government and External Affairs Southeast Asia (ASEAN), **BMW Group Asia**
Goh Chee Kiong, CEO, New Energies, **SP Group**
Tj Tham, Regional Head of Operations, **GrabWheels**
Vu Duc Thinh, Country Manager, **Lazada Express**
Vincent Chung, Business Development Manager, **Cornerstone EV Charging Service Limited**
Sujay Kumar Saha, Head - Demand Side Management, Home & Industry Automation, **The Tata Power Company Limited**
Surat Tanterdtid, Enterprise Architecture Chief, IT Strategic Planning, **Electricity Generating Authority of Thailand**
Chen-Yu Lee, Director, **Taipei Smart City Project Management Office**
Laurence Kwan, Director, **Sunseap Energy**
Jitendra Nalwaya, Vice President, **BSES Yamuna Power Limited**
Shiun Chen, Vice President, Rural Electrification, **Sarawak Energy**

FCW Virtual Conference Day One – Tuesday, 11 August 2020

4th Annual Autonomous Vehicles ASIA 2020

AUTONOMOUS TRANSPORTATION

Zooming into a Driverless Future 2030

Strategising Your 10-Year Race from Pilot to Deployment

The global autonomous vehicle market will reach $172.3B USD by 2024. Aligned with global projection of full self-driving capability by 2030, roadmaps are in place for organisations to roll out pilot projects out for autonomous vehicles here in Asia. However, many face roadblocks in moving pilot projects along the path from pilot to deployment of autonomous vehicles. From 5G connectivity, technology and infrastructure to addressing safety concerns and public perception, organisations continue to struggle with connecting the dots to progress toward full autonomy

Autonomous Vehicles Asia 2020 will bring together case studies to address critical issues involved in the path from pilot to deployment, to prepare for a driverless 2030.

10:00		**Chairperson Welcome & Opening Address** **Stav Shvartz,** Former Ford Autonomous Driving Strategy and BD Manager, **Ford China**
10:10	**Enablement**	**Exploring Urban Planning and Infrastructure Readiness for Autonomous Transport Enablement** • Building the right infrastructure through data and analytics around the impacts from autonomous vehicles on urban development • Integrating autonomous mobility solutions into urban planning to support needs, social, economical and environmental sustainability • Integrating the concept of autonomous vehicle into national and transport policy for sustainable urban development **Juan Intan Kanggrawan,** Head of Data Analytics, **Jakarta Smart City**
10:50	**Security**	**Validating the Security of Your Autonomous Vehicle in the World of 5G** • Knowing how automotive could be targeted for cyber-attacks and how these attacks could be performed • Identifying the potential loopholes of your automotive design • Addressing how these loopholes can be addressed to prevent cyber-attacks **Rick Kundi,** Automotive Solution Manager, **Keysight**
11:30	**Simulation**	**Expanding Autonomous Driving Simulation – Finding the Right Scale** • Exploring new and advanced methods of simulating systems and environments for autonomous driving • Identifying the different aspects of scaling simulation execution and fidelity in order to achieve better results faster • Creating a dynamic content in driving simulations to meet the growing need to harmonise the timing and behavior of dynamic traffic entities **Marius Dupuis,** Managing Director, **VIRES Simulations Technologie GmbH an MSC Software Company**

12:10	Robo Tuk Tuk	**Identifying Key Steps Towards Readiness for On-Road Trials – Thailand's Three-Wheeler Robo Tuk Tuk** • Planning the phases of infrastructure implementation to monitor the trials' progress and support on-road tests • Designing the safety framework to address safety for all road users • Working with key participants to continuously develop and strengthen their expertise and capabilities to accelerate readiness for on-road trials **Jirapat Janjerdsak,** Chief Technology Officer, **Airovr** **Dr Pasan Kulvanit,** Project Manager – Autonomous Vehicles, **Ministry of Higher Education, Science, Research, Innovation, Thai Government (MHESI)**
12:50	Testing Bed	**Solving the Shortage of Truck Drivers and Reducing Labor Cost with Robo Trucks** • Exploring the economic viability of autonomous and semi-autonomous trucks in addressing the shortage of truck drivers • Combining human drivers and AI to reduce fuel usage and increase run time • Exploring the limitation and benefits of level 4 semi-autonomous trucks and its initial real-world application **Koen Cardon,** Chief Executive Officer, **Katoen Natie – Singapore**
13:30		**End of FCW Virtual Conference Day One**

Premium Content! Virtual Masterclass A	
14:30 – 17:30	**Mile by Mile: Setting Up Your Test-Bed** Safety of passengers is highly prioritised in the development of Autonomous Vehicles. Test-bed aids the facilitation of more accurate research, subsequently ensuring functional and operational safety and security in the driverless cars. Pioneering test-bed acts as a pilot programme and can gradually expand to operational services. The aim is to gain public and transport regulators trust in self-driven road vehicles. • Defining private, semi-public, public test-beds and considerations involved in expansion of test area • Exploring dual function of testing the most critical functionality in the real world, while at the same time validating that the simulation in the virtual world is correct • Identifying scenario-based methodology to analyse country's traffic conditions and driver behavior **Mahesh Shinde,** General Manager, HEAD – ERC (INDOOR TESTING), **Tata Motors**

FCW Virtual Conference Day Two – Wednesday, 12 August 2020

3RD ANNUAL ELECTRIC VEHICLES ASIA 2020

E-MOBILITY

Powering the Next Wave of Electric Vehicles in Asia

Ensuring EV-Ready Infrastructure | Addressing Consumer Concerns | Driving Mass E-Mobility

Due to looming environmental concerns including pollution and traffic congestion in Asia, a large focus is now on the Asian market with 56% of EV sales coming from East Asia and 37% of Southeast Asia open to EV purchase. As a result, governments in the region including Singapore, Malaysia, Thailand, Philippines and Indonesia, are pushing for EV initiatives as a more energy-efficient, cost-effective and sustainable solution in public and private transport.

However, challenges such as establishing EV-ready infrastructure, low uptake of EVs due to consumer concerns and the slow electrification of mass transport still stand in the way of actualising full-scale EV adoption. How can we resolve consumer adoption concerns and realise returns on infrastructure investments to quicken EV adoption?

Electric Vehicles Asia returns in 2020 to navigate roadblocks and maximize opportunities for Asia's EV market by ensuring EV-ready infrastructure, addressing consumer concerns to increase demand and driving mass e-mobility through case studies by vehicle OEMs, power utilities, independent charging station operators, ride-sharing and transport companies.

10:00	Opening Remarks from Chairperson **Terence Siew**, President, **Electric Vehicles Association of Singapore**
10:10	**Overcoming Barriers in EV Adoption to Encourage Market Demand** • Understanding key factors that influence consumers' purchase and usage of EVs • Identifying international best practices to improve market demand and charging infrastructure buildup • Developing strategies to ensure flexibility, profitability and sustainability from OEM perspective **Henrik Wigermo**, Head of Government and External Affairs Southeast Asia (ASEAN), **BMW Group Asia**
10:50	**Overcoming Urban Carpark Infrastructure Limitations with Optimal EV Charging Strategies** • Incorporating EVs into the modern carpark design and navigating space limitations • Anticipating position errors and hazards to prevent when charging • Leveraging innovative public charging stations to optimize EV usage **Vincent Chung**, Business Development Manager, **Cornerstone EV Charging Service Limited**
11:30	**Commercialising Fleets through Enhanced Electric Vehicle Fleet Management** • Optimising maintenance networks of electric bicycles to save delivery cost and time • Increasing the scalability of e-logistics to meet growing e-commerce demands • Planning development for electrically-run three-wheeler vehicles for better logistics infrastructure **Vu Duc Thinh**, Country Manager, **Lazada Express**
12:10	**Human-scale Mini EVs – Personal Mobility Devices Evolving the Personal E-Mobility Scene** • Transforming cities with human-scale transportation through Personal Mobility Devices • Reinforcing safety and standards as a strong foundation for the micromobility industry • Providing on-demand mobility and infrastructure access tailored to user needs **Tj Tham**, Regional Head of Operations, **GrabWheels**
12:50	**Developing Capabilities to Scale Up a Pervasive Public EV Charging Network** • Addressing key considerations in building an extensive charging network in high urban density areas • Facilitating the charging ecosystem through fast charge technology and charging information sharing • Reducing range anxiety through strategically distributed charging stations **Goh Chee Kiong**, CEO, New Energies, **SP Group**

13:30	**End of FCW Virtual Conference Day Two**

Premium Content! Virtual Masterclass B	
14:30 – 17:30	**Mass E-Mobility Workshop** **Adopting EVs for Business Benefit – How to Incorporate EVs into your Mobility Platform** What can business emporiums stand to gain from switching to the Electric Vehicle lane? Whatever your business is, the deployment of EVs in first and last-mile logistics can reduce the cost of delivery and improve margins significantly. However, converting first and last-mile delivery fleet into electrified models is not without its own unique set of challenges. Ensuring adequate charging infrastructure, meeting power demand, and managing scale and mission-focused operations are some important considerations in the equation for commercialising EVs. Find out how EVs can make better business sense by building a proper ecosystem with a robust supply chain for more efficient business operations. • Co-design concepts with local ecosystem partners for electric vehicles best suited for your business • Restructure a sustainable last-mile delivery network with strategic infrastructure planning • Navigate challenges in incorporating electric models into fleets of corporate vehicles **Vu Duc Thinh**, Country Manager, **Lazada Express**

FCW Virtual Conference Day Three – Thursday, 13 August 2020

SMART GRIDS & MICROGRIDS ASIA 2020

SMART GRIDS & MICROGRIDS ASIA 2020

Connecting Intelligent Power Grids in Asia

Reinforcing Grid Reliability | Managing Demand of Energy Usage | Ensuring Constant Power Supply to Localised and Remote Areas

As the world's fastest-growing energy market, Asia is projected to see a surge in power demand of up to 60% by 2040. To cope with this rising power demand, Asia's electricity market is now open and this has prompted countries to invest in smart grids and microgrids as an effective means to meet the growing electricity demand.

However, the power grid market still face challenges such as grid reliability and stability in light of power disturbances due to natural disasters and cyberattacks, imbalance of power demand and supply and the lack of constant electricity supply to localised and remote areas due to power outages.

As part of **Future Cities Week 2020**, **Smart Grids & Microgrids Asia 2020** is therefore the destination to address these challenges through innovative discussions on reinforcing grid reliability, managing demand of energy usage and ensuring a constant power supply to localized and remote areas.

10:00	Opening Remarks from Chairperson **Chen-Yu Lee**, Director, **Taipei Smart City Project Management Office**
10:10	**Securing Future Energy through Grid Resiliency, Energy Efficiency and Security in Supply** • Leveraging effective strategies to maintain power and grid reliability • Securing energy supply to meet growing power demand for future generations • Navigating future challenges and mapping out directions for smart power grids
10:50	**Making Buildings Smarter & Achieving Energy Efficiency to Meet Growing Electricity Demands** • Integrating grid-interactive buildings for greater energy flexibility • Levelling load matching through energy storage technologies for more resilient & profitable buildings • Improving demand management & revenue potential through smart controls & inverters **Sujay Kumar Saha**, Head – Demand Side Management, Home & Industry Automation, **The Tata Power Company Limited**
11:30	**Electrifying Rural Areas to Extend Existing Grid Networks and Improve Connectivity** • Maximising connectivity through expansion of high voltage distribution network • Navigating challenges to harnessing renewable alternative systems in powering remote areas • Providing off-grid plans for more sustainable and affordable electricity generating system operations **Shiun Chen**, Vice President, Rural Electrification, **Sarawak Energy**
12:10	**Overcoming Challenges in Microgrid Implementation in Thailand** • Ensuring constant 24-hour electricity supply throughout difficult weather conditions • Leveraging the potential of renewable energies to reduce maintenance costs • Overcoming infrastructure gaps through self-sufficient and energy-efficient technologies **Surat Tanterdtid**, Enterprise Architecture Chief, IT Strategic Planning, **Electricity Generating Authority of Thailand**
12:50	**Industry Power Panel** **Understanding Smart Grids and Building Sustainable Microgrids for the Future** • Eliminating power disturbances and intermittencies through reliability improvement plans

	• Futureproofing the grid to increase overall electricity supply independently of the larger grid • Designing a holistic microgrid and scaling up innovative microgrid models to realise full project potential **Laurence Kwan**, Director, **Sunseap Energy** **Jitendra Nalwaya**, Vice President, **BSES Yamuna Power Limited** **Reji Kumar Pillai**, Chairman, **Global Smart Grid Federation**
13:30	**End of FCW Virtual Conference Day Two**

Premium Content! Virtual Masterclass C	
14:30 – 17:30	**Smart Grid Project Financing Workshop** **Identifying Best Practices and Financing Mechanisms to Support Project Deployment** To fully capitalise on the potential benefits of smart grids, the energy sector will need to overcome the financial challenge of providing large amounts of funds to support the full lifecycle of smart grid development. How can project stakeholders can increase financial security throughout the project schedule through suitable business models, increasing technological maturity of solutions and gaining consumer acceptance? Find out how you can secure the confidence of financiers by understanding current financial metrics and funding trends, reducing risks and increasing project competitiveness. • Understanding key factors to improve access to capital and support energy investment • Evaluating financing mechanisms to increase bankability of smart grid projects • Identifying the best project financing structure and securities **Chen-Yu Lee**, Director, **Taipei Smart City Project Management Office**