

FACTSHEET

SINGAPORE INTERNATIONAL ROBO EXPO (SIRE)

The Singapore International Robo Expo (SIRE) is the next regional marketplace to discover business opportunities, projects and funding availabilities for the adoption of robotics and automation solutions. Themed *Forging the Future of Robotics Solutions*, SIRE aims to be the strategic platform for governments, the private sector and the academia to discourse and share industry best practices, network and forge partnerships, and explore funding opportunities for the adoption of robotics solutions.

The inaugural Singapore International Robo Expo (SIRE), organised by Experia Events and co-organised by the Singapore Industrial Automation Association (SIAA), will be held from 1 to 2 November 2016, at Sands Expo and Convention Centre, Marina Bay Sands.

Highlights of SIRE 2016

1. EXPO

The exhibition component of SIRE provides an avenue for both local and international enterprises to showcase their latest robotics solutions for industries ranging from manufacturing to healthcare and service sectors.

SIRE has attracted encouraging support interest from some 30 exhibitors, including leading industry players such as ABB, Murata, Panasonic, SICK Pte Ltd, ST Kinetics and Tech Avenue. Emerging SMEs such as H3 Dynamics, Design Tech Technologies and SMP Robotics Singapore will also showcase their innovations at the exhibition. See **ANNEX A** for the full list of exhibitors.

The Republic of South Korea and Singapore country pavilions will showcase the innovative robotics and automation solutions from the respective countries with the Korea pavilion led by the Korea Institute for Robot Industry Advancement.

Attendees will get an up close and personal look at the latest commercial and consumer robots at the **Demo Zone**. This includes live demonstrations of the world's only autonomous outdoor security robot – the SMP S5 PTZ – developed by SMP Robotics – together with other models

from its S5-Rover series of security robots, which is being presented in Asia Pacific for the first time.

The **Institute of Learning (IHL) Zone** will showcase research and projects by local institutes.

2. Singapore International Robo Convention

The full-day convention at SIRE will merge the commercial expertise of the most innovative and forward-thinking companies with the ingenuity and technical expertise of the world's finest academics.

Attendees will gain insight into the landscape of the robotics ecosystem, keep abreast of know-hows in the adoption of robotic technology, and engage in solution-based discourse, network and explore business partnership.

Please refer to **ANNEX B** for full conference programme.

3. Co-located event: France Singapore Innovation Days

Business France, the national agency supporting the international development of the French economy, will be holding the France Singapore Innovation Days on the second day of SIRE. The organisation will lead a delegation of French and International companies to search for business and networking opportunities with local firms and conduct trainings and workshops.

Please refer to **ANNEX C** for the full programme.

4. Dedicated Networking Platform

Participating companies will be able to tap on a highly customised business matchmaking and networking platforms to meet and seek opportunities for collaborations. Organisations such as the delegation of companies led by KIRIA and other participating companies will be optimising their use for the platform.

ANNEX A – Exhibitor Listing

Company Name	Booth Number
ABB Pte Ltd	B12
Dynamic Stabilization Systems Ltd	Demo Zone
Flare Dynamics	Demo Zone
HutCabb Services	E12
Kurve Automation	A16
Panasonic	D16
PBA Systems Pte Ltd	E14, E16, F16
Robotics Application Centre of Excellence	F14
SMP Robotics Singapore Pte Ltd	D12
ST Kinetics	B16
Unmanned Systems Asia 2017	F12
Institute of Higher Learning Zone	
Institute of Technical Education (ITE)	G06
Nanyang Polytechnic	G12
Ngee Ann Polytechnic	G02
Republic Polytechnic	G10
Singapore Institute of Manufacturing Technology (SIMTECH)	G08
Korea Pavilion by KIRIA	
AIRO Inc	E02
DMBH Co Ltd	E02
Dream C&G Co Ltd	E02
Future Robot Co Ltd	E02
JiNi Co Ltd	E02
RF Co Ltd	E02
ROLabs Ltd	E02
Singapore Pavilion	
CEI Limited	A12
DesignTech Technologies Singapore Pte Ltd	A02
H3 Dynamics Holdings Pte Ltd	B07
Murata Machinery Singapore	A04
SICK Pte Ltd	B09
SIIX-AGT Medtech Pte Ltd	A06
Singapore Industrial Automation Association	A08
Tech Avenue Pte Ltd	B01
Trade Media	
Asian Scientist Publishing Pte Ltd	D14
Infinite Trade Media	E13

ANNEX B – Singapore International Robo Convention Programme

Tuesday, 1 November 2016

Theatre, Hall B, Level 1, Sands Expo and Convention Centre, Marina Bay Sands Singapore

Opening Keynote

9:30AM – 10:10AM

Robotics: Where Are We Now, Where Are We Going?

The global robotics market is rapidly developing and there is an urgent need for businesses to be aware about the available opportunities and make informed decisions whilst reducing risks. Delve into a detailed taxonomic framework on the various classes of robots as well as the up-and-coming robotic sectors, such as unmanned aerial systems, consumer robotics and mobile service robots in this session. Participants will also be able to better understand the type of businesses, technologies and social issues (the Internet of Things, machine learning, cloud computing), along with recent innovations that will further accelerate the proliferation of robotic technology into homes, the workplace and public spaces in Asia. Mr Dan Kara from ABI research will also extract the latest information from its robotics study for his keynote.

Speaker:

Mr. Dan Kara

Research Director, Robotics, ABI Research

Insights 1

10:10AM – 10:30AM

The Singapore National Robotics Programme

Speaker:

Mr. Haryanto Tan

Head, Precision Engineering Cluster Group, EDB Singapore

Morning Tea Break

10:30AM – 10:50AM

Keynote Session 1

10:50AM – 11:10AM

Rise of the Service Robots

The widespread availability of service robots has resulted in several developments that allowed robots to become mobile, interactive machines. This session will highlight the impacts of service robots on current and future needs, and illustrated with examples of the actual deployment of such solutions.

Speaker:

Dr. Shin Kyung-Chul

Chief Executive Officer, Yujin Robot Co Ltd

Insights 2	11:10AM – 11:30AM
<p><u>The Singapore Scenario: Harnessing the Potential of Robotics – The Opportunities and Challenges</u></p> <p>The global economy is becoming more increasingly interconnected, diverse and complex. It is vital to muster resources, innovate, scale up and internationalise. This session uses Singapore as a discussion point and highlights her critical needs, the availability of opportunities in robotics and challenges for large scale adoption.</p> <p>Speaker: Assoc. Prof. Ang Wei Tech Associate Chair (Research), School of Mechanical & Aerospace Engineering, Nanyang Technological University</p>	
Opening Plenary	11:30AM – 12:45PM
<p><u>Small Actions, Big Impact: Shaping the Mindset and Managing Expectations</u></p> <p>Debunking myths and getting the facts right is very important to maximise adoption of robotics. In this session, discover the gaps in technology, system integration and initial adoption expectations.</p> <p>Moderator: Mr. Lim Swee Cheang Vice-Dean, School of Continuing And Lifelong Education (SCALE), National University of Singapore</p> <p>Panelists: Mr. Dan Kara, Research Director, Robotics, ABI Research Dr. Shin Kyung-Chul, Chief Executive Officer, Yujin Robot Co Ltd Assoc. Prof. Ang Wei Tech, Associate Chair (Research), School of Mechanical & Aerospace Engineering, Nanyang Technological University Assoc. Prof. Dr.-Ing. Wolfgang MUELLER-WITTIG, Director, Fraunhofer IDM Centre, Nanyang Technological University Prof Axel Michael Thallemer, Deputy Head, National University of Singapore</p>	
Lunch	12:45PM – 2:00PM
Keynote Session 2	2:00PM – 2:20PM
<p><u>The Robot Solutions – Powered by Industry 4.0</u></p> <p>In this session, participants will find out more about self-building robots, gain insights to the seamless Industry 4.0 integration in the form of Cloud Robotics and how it can be implemented for consumer and commercial purposes.</p> <p>Speaker: Prof. Dr.-Ing. Sami Haddadin CEO, KBee AG</p>	

Insights 3	2:20PM – 2:40PM
<p><u>Industry 4.0 and its relevance for Singapore</u></p> <p>Industry 4.0 harnesses the inter-connectivity of machines, processes and products. How this revolution does powers businesses as they strive to remain competitive and agile? Discover the relevancy of Industry 4.0 to Singapore</p> <p>Speaker: Assoc. Prof. Dr.-Ing. Wolfgang MUELLER-WITTIG Director, Fraunhofer IDM Centre, Nanyang Technological University</p>	
Insights 4	2:40PM – 3:00PM
<p><u>Safety of Collaborative Robots</u></p> <p>With the rising need for enhanced ergonomics, shorter operation cycles, cost efficiency and improved quality, the combined humans robots efforts must be conducted safely. Through proper monitoring and effective control, robots would not have to be perceived as a source of hazard be caged and separated from the endangered but used effectively as a collaborative tool alongside humans.</p> <p>In this session, challenges in the safety of robotics deployment will be discussed as well as the types of safety measures in structured and unstructured environments. Apart from understanding the safety of industrial robots designed for collaborative operation, participants will also learn how robots can work safely in close interaction proximity with humans in workspaces in the service, hospitality and medical care sectors.</p> <p>Speaker: Mr. Clement Yew National Product Manager, SICK Pte. Ltd.</p>	
Afternoon Tea Break	3:00PM – 3:30PM
Keynote Session 3	3:30PM – 3:50PM
<p><u>Collaboration: The New Business Paradigm</u></p> <p>This session discusses the necessary collaborations within the robotics community to accelerate the introduction and commercialisation of innovations to market. Apart from actual examples of collaborative robotics projects that were fruitful, successful international collaborations that made it to the commercial markets will be shared and further discussed.</p> <p>Speaker: Ms. Catherine Simon President, InnoEcho</p>	

Industry Case Study 1 – Operationalising Autonomous Vehicles	3:50PM – 4:10PM
Speaker: Dr. Lee Shiang Long President of Defence Business, ST Kinetics	
Industry Case Study 2 – F&B Service Robots in China	4:10PM – 4:30PM
Speaker: Mr. Gavin Pathross Chief Digital Officer, Yum! Brands Inc	
Industry Case Study 3 – Affordable Healthcare Robotics for Hospitals	4:30PM – 4:50PM
Speaker: Mr. Ivan Khoo CEO, SIIX-AGT Medtech Pte Ltd	
Closing Plenary	4:50PM – 5:50PM
<p><u>The Robotics Ecosystem: Forging the Future of Robotics Solutions</u></p> <p>Robotics will be a critical part of how we solve the big problems of the future. This session will provide participants with a clearer perspective of the robotics ecosystem, highlighting the key viable considerations in robotics adoption, how to obtain funding to kick-start projects and learning how to change rules or laws to support this revolutionary technology.</p> <p>Moderator: Mr. Oliver Tian President, Singapore Industrial Automation Association</p> <p>Panellists: Prof. Dr.-Ing. Sami Haddadin, CEO, KBee AG Ms. Catherine Simon, President, InnoEcho Mr. John Lu, Director, SPRING Singapore Dr. Lee Shiang Long, President of Defence Business at ST Kinetics</p>	

ANNEX C – France Singapore Innovation Days Conference Programme

Wednesday, 2 November 2016	
Theatre, Hall B, Level 1, Sands Expo and Convention Centre, Marina Bay Sands Singapore	
Opening Address	9:00AM – 9:15AM
IoT & Smart City : Constraints and limitations of a fast implementation	9:15AM – 10:45AM
<p>Keynotes – Overview: IoT, M2M, Big Data etc Gilbert REVEILLON (CNCCEF, <i>ICTT & Digital Economy President</i>)</p> <p>Roundtable – How LPWAN can enable IoT? <u>Moderator</u> : Fredrick LIAU (Betamovement – Chief Innovative) <u>Speakers</u>: Arnaud BLANDIN (Pufferfish Partners – <i>Managing Director</i>); Henri BONG (Unabiz – <i>CEO</i>); Arnaud BOULAY (Kerlink – <i>Sales Director APAC</i>); Loo Cheng CHAN (Singtel – <i>Vice President Business Development</i>); Sylvain REMY (Essec Institute of Sustainable Development & Smart Cities – <i>Director</i>)</p> <p>IPAL Presentation of City4Age project Dr. Mounir MOKHTARI (IPAL – <i>Director</i>; Institut Mines Télécom – <i>Professor</i>)</p> <p>French Company Pitch – KALIOP (open sources software providers) Pierre DENISET (Kuzzle – <i>CEO</i>)</p>	
Coffee & Networking Break	10:45AM – 11:30AM
Cybersecurity : Should data protection be your new priority?	11:30AM – 1:00PM
<p>Panelists Presentations <u>Moderator</u>: Dr. Magda Lilia CHELLY (Responsible Cyber – <i>Managing Director</i>) <u>Speakers</u>: Darren CERASI (Deloitte Forensic SEA – <i>Partner</i>); Luc PALMAROLE (Sopra Steria – <i>Network and Security Advisor</i>); Charles THOORIS (Secure IC – <i>Head of Sales</i>); Riswi WUN (<i>RHT Taylor Wessing – Partner Intellectual Property and technology</i>)</p> <p>Use Cases & roundtable Cyber Awareness & Hygiene Practices – Dr. Magda CHELLY Embedded System Attack (timing attacks) – Charles THOORIS + Secure IC solutions présentations Industrial Attack: the Ukrainian Power Grid Case – Luc PALMAROLE Financial System Attack: the Bangladesh Central Bank Case – Darren CERASI & Riswi WUN</p>	

Networking and Lunch	1:00PM – 2:30PM
Robotics & A.I : "From threat to value. How the opportunities offered by robotics outpaced the threats it posed?"	2:30PM – 4:00PM
<p>Keynotes: Artificial Intelligence – Kevyn YONG (Essec Business School – <i>Dean</i>) Robotics: “friends or foes” – Serge GENETET (Arkadin – <i>Executive Vice President, Managing Director APAC</i>)</p> <p>Use Cases: Robotics in ... Aeronautics: The Hangar of the Future – Cyrille SCHWOB (Airbus – <i>Head R&T Development Asia Pacific</i>) Defense: Transforming Naval Mine Warfare, an example of the robotic revolution – Marc PINTO (ECA Group – <i>Program Manager Integrated Robotic System</i>) Logistic: The Robotic Ruck – Fabien BARDINET (Balyo – <i>CEO & Aldebaran co founder</i>) + Balyo solutions présentations Chemicals & Fragrances: The Industrial Nose – Julien VENTURINI (Aryballe – <i>Business Development Director</i>) + Aryballe solutions présentations</p> <p>Roundtable Moderator: Kevyn Yong</p>	
Closing Statement	4:15PM – 4:30PM

For more information, visit us at www.sire.com.sg and follow us on Twitter [@SIRE2016](https://twitter.com/SIRE2016), [Facebook](#) and [LinkedIn](#)