

industrial guide **ASIA**

industrialguideASIA.com

COVER STORY
MANUFACTURING AUTOMOTIVE

FREE COPY

Volkswagen Plans 22 Millions Electric Vehicles in 10 Years

Robot Colleagues: Industrial Intelligence with Finesse and Sensitivity

Exclusive Interview with Hyundai Motor Group on Development of Autonomous Vehicles

REGIONAL PUBLIC HOLIDAY 2019
Available to Download Here



www.**IndustrialGuideAsia.com**

Excitedly Brought To You By:



For Press & Media Coverage
wizard@IndustrialGuideAsia.com



**A NEXT-GENERATION
INDUSTRIAL PARK**

nusajayatechpark.com

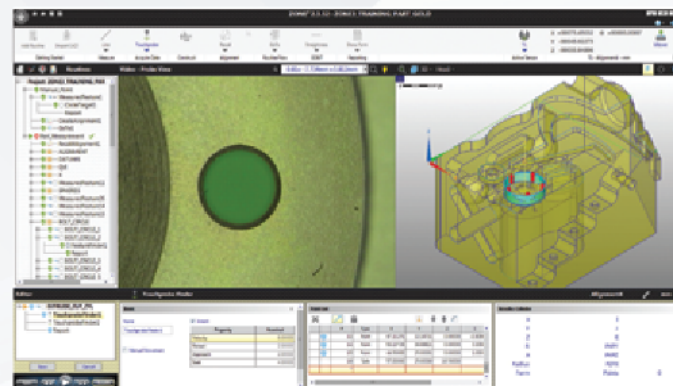


Find out more



The World Most Comprehensive Metrology Software

ZONE3 Metrology Software represents a totally new way of working with multisensor measurement systems. Its interface clearly displays relationships between parts, sensors, datum alignments, and machine tooling. ZONE3 uses CAD models and other innovative features to automatically and effortlessly generate measurement routines.



Unique High Capacity Benchtop Multisensor Measurement System

SmartScope® Flash™ CNC 300 is one of the most versatile benchtop systems OGP offers. With an expansive Z-axis of 250 mm to accommodate large parts, it combines state-of-the-art video and autofocus to deliver high productivity.



Optical Gaging (S) Pte Ltd
 21 Tannery Road, Singapore 347733
 Tel: +65 6741 8880 | Fax: +65 6741 8880
 Email: marketing@smartscope.com.sg
 Website: www.smartscope.com.sg





SPONSORSHIP OPPORTUNITY
AVAILABLE NOW!

DEWAN TAMAN MAWAR PASIR GUDANG, JOHOR

INDUSTRIAL AUTOMATION, PROCESS AND PACKAGING
ROBOTICS INDUSTRY, INDUSTRIAL 4.0, ENERGY SAVING
MECHANICAL EQUIPMENT, INSTRUMENT CONTROL

ABOUT INDUSTRIAL AUTOMATION FIESTA 2019

Industrial Automation Fiesta 2019 is the annual roadshow in Malaysia that will bring you practical insights into the latest strategies, tools, trends Industrial Automation, Robotics Automation, Logistics Automation, Material Handling, Pumps and Valves, Process and Packaging, Analytical and Laboratory, Test and Measurement to achieve and maximize productivity and operational efficiency in manufacturing, process industry and quality control and R&D.

Through expert led presentation and displays, we welcome leading industrial companies from around the world and all over Malaysia to exhibits and update technologies to the growing manufacturing, process industry and quality control and R&D at Johor, Malacca, Singapore, Batam (Indonesia) and its nearby industries.



Officially Supported By:





1

**ELECTRONICS IN THE
CONTROL CABINET**


2

INTERFACES


3

**CONNECTION
TECHNOLOGY**


4

I/O SYSTEMS
LUTZE
SYSTEMATIC TECHNOLOGY




FAULHABER

FAULHABER BXT

Power in new dimensions

Brushless Flat
DC-Servomotors



WE CREATE MOTION



FAULHABER Singapore Pte Ltd
info@faulhaber.com.sg
www.faulhaber.com/p/bxt/en

IN THIS ISSUE

- 01 **AUTOMATION INDUSTRY** (Page 6 - 16)
- 02 **INSIGHT OUT** (Page 18 - 25)
- 03 **SUCCESS STORIES** (Page 26)
- 04 **PRODUCT COMMUNIQUE** (Page 27 - 29)
- 05 **TECHNOLOGY FLASH** (Page 32 - 35)
- 06 **GREAT OPPORTUNITY** (Page 38 - 40)

1 SPIN YOUR BRAND AROUND THIS REGION
FROM AS LOW AS USD100
TALK TO US NOW

2 FOR EDITORIAL CONTRIBUTION
PLEASE EMAIL US AT
wizard@industrialguideasia.com

PROMOTION from **USD 2000**
onwards for **1** issue



Press & Media Coverage
Email Us at wizard@IndustrialGuideAsia.com

LOCK YOUR CALENDAR!!

APRIL 2019 FOR INTERESTING TOPICS IN 4.0 TECHNOLOGY & AUTOMATION

All rights reserved. No part of this publication may be reproduced in any form or by means without prior written permission from the Publisher as the copyright owner. Whilst every care is taken in compiling all data in this directory, the publisher should be notified in writing immediately by registered post of any omission, error or inaccuracy. All advertisements are acclaimed and accepted on the understanding that the Advertiser is authorized to publish the contents of the advertisements and in this respect, the Advertiser shall indemnify the publisher against all or any claims or suits for libel, violation of right of privacy and copyrights infringements.

NEXT EDITION

- 01 **SEPTEMBER 2019 : MEDICAL MANUFACTURING**
- 02 **DECEMBER 2019 : ROBOTICS**

Articles Contribution Are Welcome!

ONLINE AND PRINT COVERAGE

GET NOTICED!

ADVERTISE your name
card with us for
USD 100 per issue



industrial
guide ASIA
IndustrialGuideAsia.com

PUBLISHER

Orange Media Group
22 Sin Ming Lane, #06-76
Midview City 573969
Singapore
Tel: +65-6405 0110

No. 1 Jalan Bayu Puteri 2/1
Jalan Bayu Puteri
#21-09, Bayu Marina
80150 Johor Bahru
Malaysia
Tel: +607 336 5039 / +6016 218 1218

81 Cach Mang Thang B Phuong
Ben Thanh Quan 1 Ho Chi Minh City
Vietnam
Tel: 842 839253969

555/11 Unity Tower
Sai Udon Suk 29
Sukhumvit 103 Road
Bangna, Bangkok 10260
Thailand
Tel: +66-2-749 4475

EDITORIAL

Nicole Chang
VJ

SPECIAL FEATURE COVERAGE REPORTER

Ajay @ Nyl Nyl

ART

Sanibul Daniel Jamari

MARKETING & ADVERTISEMENT

Dav's Tan
Uly Lai
Angie Agustina
Siti Nur Hanis

INTERNET & IT

Haziq Harun
Eddy

FOR ADVERTISING ENQUIRIES

wizard@industrialguideasia.com

In collaboration with Taiwan's Yulon Group, and its subsidiaries car brand Luxgen and automotive electronics provider HAITEC, the companies showcase their vision of AI and autonomous driving technology.

Acer today unveiled its self-driving concept car at the Taiwan Automotive Technology Innovation Summit 2018, in collaboration with Yulon Group, one of Taiwan's top automakers and its subsidiaries automotive electronics provider HAITEC and car brand Luxgen. Integrating Acer's autonomous driving system with the Luxgen S3 electric vehicle platform, the two companies demonstrated their level 4-ready self-driving concept car, showcasing their shared vision of AI (artificial intelligence) and autonomous driving technology.

"Both the automotive and ICT industries are going through a paradigm shift; automation, connectivity, electrification, and 'servicification' are key trends of future development," said Edward Lin, Associate Vice President, Value Lab, Acer Inc. "In the realm of smart transportation, Acer already has a foothold in electronic ticketing, smart parking, connected car, and traffic prediction, and we're excited to work with Yulon Group to venture into self-driving cars."

Lin also added, "With Acer's strength across software, hardware, and services, we're in a great position to leverage our AI technology and fulfill the vision of Mobility as a Service (MaaS)."

"Autonomous driving is the future trend of the automotive industry, manufacturers around the world are stepping up from level 2 autonomous driving to level 3 and 4," said Jung-Kuei Chen, Vice President, Product Engineering Group II, HAITEC. "With Acer, we've jointly unveiled Taiwan's first self-driving concept car with ADAS (Advanced Driver Assistance Systems), IoV (Internet of Vehicles) and autonomous driving technology. Integrating Acer's expertise in AI and the cloud with HAITEC's self-developed open vehicle platform, we've achieved so much through our cross-industry collaboration."

The level 4-ready self-driving concept car is based on the Luxgen S3 electric vehicle platform, with Acer's autonomous driving system encompassing sensing, decision-making and control. Acer's self-driving system leverages AI and sensor fusion algorithms fed with data from real-time kinematic (RTK) positioning, cameras, Lidars, MMW radars, IMU (inertial measurement unit) and ultrasonic sensors. It also uses deep learning technology to conduct object recognition, and then implements dynamic vehicle control to realize autonomous driving.

Acer's self-driving system makes dynamic vehicle control decisions through AI models based on key data including image recognition, 3D Lidar obstacle detection, high-precision maps and real-time positioning to help the car steer, brake, cruise, maneuver, or park. It also has a cloud management system for car sharing services so that a control center can dispatch vehicles when users make transportation requests through their mobile device. The cloud management system can manage scheduling, monitoring, notification, and reporting, and allows safety monitoring and human intervention.



BMW Group and Daimler AG to Jointly Develop Next Generation Technologies for Automated Driving

07

The BMW Group and Daimler AG are to join forces on automated driving. Initially, the focus will be on advancing the development of next-generation technologies for driver assistance systems, automated driving on highways and parking features (up to SAE Level 4). The two companies have signed a Memorandum of Understanding to jointly develop this technology, which is key for future mobility. The BMW Group and Daimler AG view their partnership as a long-term, strategic cooperation and aim to make next-level technologies widely available by the middle of the coming decade.

“As we continue to pursue our strategy, we are combining the expertise of two technology leaders. At the BMW Group, long-term partnerships within a flexible, scalable, non-exclusive platform are fundamental to advancing the industrialisation of autonomous driving. Combining the key expertise of our two companies will boost our innovative strength and speed up the spread of this technology,” said Klaus Fröhlich, Member of the Board of Management of BMW AG, Development.

Ola Källenius, Member of the Board of Management of Daimler AG, responsible for Group Research and Mercedes-Benz Cars Development said: *“Autonomous driving is one of the most revolutionary trends for us at the moment, and the entire Daimler Group is working very hard on it. As always at Daimler, our top priority is safety. Instead of individual, stand-alone solutions, we want to develop a reliable overall system that offers noticeable added-value for customers. Working with the right partners, we want to make significant advances in enhancing the performance of this technology and bring it safely on the road.”*

The planned cooperation offers the BMW Group and Daimler AG a number of obvious advantages: the skills and experience of the individual partners and a scalable architecture will speed up and streamline the development of future technology generations. Besides the synergies, new technologies will be faster to market, with shorter innovation cycles. For both companies, the safety of vehicle occupants and other road users is of the utmost importance and a key reason for making the reliability of systems a key criterion for the collaboration. The two partners continue to pursue their goal of being the pace-setter in development.

Joint development work will be carried out via a scalable architecture covering several stages of automation, with Levels 3 and 4 enabling automated driving on highways. In addition, the two partners plan to discuss the possibility of extending their collaboration to cover higher levels of automation, both on highways and in urban areas. These considerations underline the sustainable, long-term nature of the cooperation, which includes the aim to create a scalable platform for automated driving. The development of current-generation technologies and ongoing collaborations of the two companies will remain unaffected and continue as before. Ongoing development of latest-generation technologies and existing collaborations will remain unaffected by the projected cooperation and go ahead as planned. The BMW Group and Daimler AG will also explore additional partnerships with other technology companies and automotive manufacturers that could contribute to the



WE ARE HERE TO **BUILD** YOUR BRAND
info@industrialguideasia.com



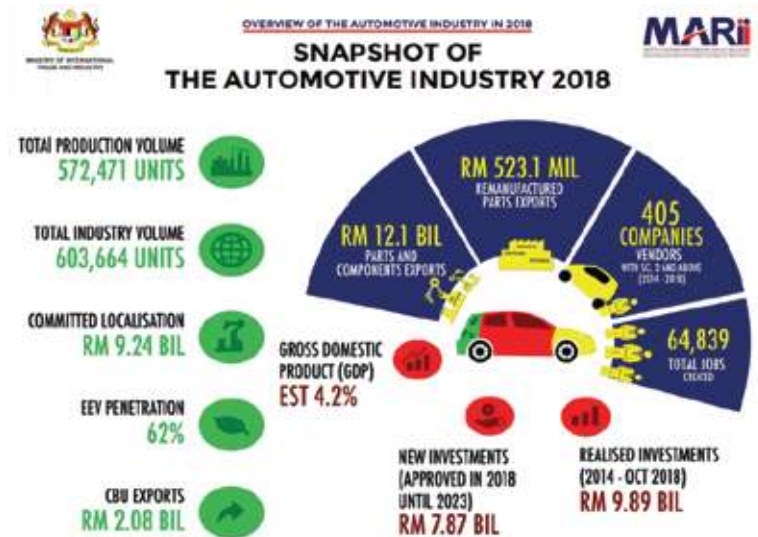
The Malaysia Automotive Robotics and IoT Institute (MARii) has provided some details about its autonomous vehicle test bed (AVTB) initiative, which is one of the technology access points it plans to develop in 2019.

At the institute's 2018 overview briefing session with the media today, Datuk Madani Sahari, CEO of MARii, explained the plan is to test various technologies relating to autonomous vehicles to assess its compatibility with the infrastructure and environment in Malaysia. "We will be testing all these technologies in these autonomous vehicles to ensure that they are safe and reliable according to local conditions in Malaysia," he said.

Madani added that MARii will work with other ministries and agencies such as Futurise, GreenTech, the road transport department (JPJ) and the Malaysian Institute of Road Safety Research (MIROS) to set up a test bed in Cyberjaya.

The institute is aiming to kick off the test bed in two stages this year, with the first half of 2019 comprising of planning, while the second half is when the testing phase begins. "We have visited similar autonomous test-bed facilities elsewhere, including Singapore, Europe and Japan," Madani said.

Autonomous vehicles is one aspect that will be incorporated into the upcoming review of the National Automotive Policy (NAP), with the other being electric vehicles. As reported in November last year, the new NAP was supposed to be revealed at the end of 2018, but that is only set to be revealed this year.



WE ARE HERE TO BUILD YOUR BRAND

- Advertise your products and services to potential buyers 24 hours a day to worldwide industries.
- Free posting of events and seminars on the website designed to promote Advertiser's events.
- Create your own catalogue by showcasing images of the products and services your company offers.

contact at : info@industrialguideasia.com



Nishi Nippon Railroad and Mitsubishi Corporation to Commence Commercial AI-Controlled Bus Transit Services in Fukuoka, Japan

Together with Nishi-Nippon Railroad Co. Ltd. (NNR), Mitsubishi Corporation (MC) has jointly established Next Mobility Co., Ltd (Next Mobility JV) to provide commercial on-demand-bus (ODB) transit services controlled by artificial intelligence.

Headquartered in Fukuoka Prefecture, NNR is one of Japan's largest bus operators, and its new joint venture with MC will commence operations in April 2019 (as planned) in Island City, which is located in Fukuoka City's Higashi-ward. Lacking profitability and drivers, many of Japan's public passenger road transportation (PPRT) providers are struggling to develop efficient and sustainable services. Island City is undergoing a wave of development, and with more residential, commercial and port facilities going up, traffic is getting heavier. There are concerns in the area about parking shortages, worsening traffic congestion and a lack of public transportation.



To help address these concerns, the AI-controlled ODB services provided by Next Mobility JV are being rolled out in Island City on a one-year, trial basis. The purpose of the trial will be to verify these services' effectiveness and commercial feasibility. By improving public transit and making it more readily available to citizens, we can encourage people to leave their cars at home and help to build more efficient and sustainable transportation networks.

AI-controlled ODB is a new concept of public bus transit services. The AI generates routes automatically and in real time based on passenger requests submitted through smartphone apps. It uses deep learning to accumulate operational data on rider destinations and traffic conditions, enabling the buses to run more efficiently the more they are used. Passengers can also use their smartphones to book rides and can even pay with their credit cards. The booking and dispatching system has been developed by Spare Labs Inc., a Canadian Company.

Nissan Motors Co., Ltd. has agreed to sponsor the project and provide its ten-passenger Nissan Caravans for the trial. They will be driven by taxi drivers dispatched from Fukuoka Nishitetsu Taxi Co., Ltd. Fukuoka City and companies located in Island City will also be supporting the project by promoting its use throughout the area. MC and NNR hope that this ODB service will ultimately help to realize a model for sustainable, efficient and seamless public transit, servicing both Island City and other areas throughout Japan.



**MAKE
YOUR
NEWS
KNOWN**

INFO@INDUSTRIALGUIDEASIA.COM

MIMF

**30TH MALAYSIA
INTERNATIONAL
MACHINERY
FAIR (MIMF)**



M'SIA - PLAS

马来西亚橡塑展

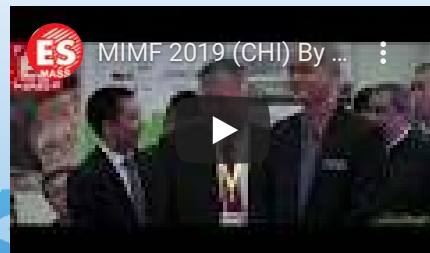
**MALAYSIA INTERNATIONAL
PLASTIC, MOULD & TOOLS EXHIBITION**

Special Feature

**马来西亚3P工业4.0论坛
Malaysia 3P Industry 4.0 Forum**

18-21 JULY 2019

PWTC Putra World Trade Centre
Kuala Lumpur, Malaysia



Organized by



马讯国际展览有限公司 (1107497A) Sdn Bhd
ES INTERNATIONAL EVENT
MANAGEMENT SDN BHD

Endorsed by



**马来西亚对外贸易发展局
MALAYSIA EXTERNAL TRADE
DEVELOPMENT CORPORATION**

The Specialized Exhibition for Your Industry



Es Event Management Sdn Bhd

+603 9132 1922

www.malaysiaplas.com.my
info@malaysiaplas.com.my

MIMF

30TH MALAYSIA
INTERNATIONAL
MACHINERY
FAIR (MIMF)



M'SIA - PACK & FOODPRO

马来西亚包装与食品加工展

MALAYSIA INTERNATIONAL PACKAGING
& FOOD PROCESSING EXHIBITION

18-21 JULY 2019

PWTC Putra World Trade Centre
Kuala Lumpur, Malaysia

+603 9132 1922  www.malaysiapack.com.my  info@malaysiapack.com.my

Volkswagen Plans 22 Million Electric Vehicles In Ten Years

12



The Volkswagen Group is forging ahead with the fundamental change of system in individual mobility and systematically aligning with electric drives. The Group is planning to launch almost 70 new electric models in the next ten years – instead of the 50 previously planned. As a result, the projected number of vehicles to be built on the Group's electric platforms in the next decade will increase from 15 million to 22 million. Expanding e-mobility is an important building block on the road to a CO2-neutral balance. Volkswagen has signed off a comprehensive decarbonization program aimed at achieving a fully CO2-neutral balance in all areas from fleet to production to administration by 2050. Volkswagen is thus fully committed to the Paris climate targets.

Dr. Herbert Diess, CEO of Volkswagen AG, said: “Volkswagen is taking on responsibility with regard to the key trends of the future – particularly in connection with climate protection. The targets of the Paris Agreement are our yardstick. We will be systematically aligning production and other stages in the value chain to CO2 neutrality in the coming years. That is how we will be making our contribution towards limiting global warming. Volkswagen is seeking to provide individual mobility for millions of people for years to come – individual mobility that is safer, cleaner and fully connected. In order to shoulder the investments needed for the electric offensive we must make further improvements in efficiency and performance in all areas.”

The Volkswagen Group has set milestones in all areas to be achieved in the coming years on the road to complete decarbonization by 2050. The measures follow three principles: first, effective and sustainable CO2 reduction. Second, switch to renewable energy sources for power supply. Third, compensate for remaining emissions that cannot be avoided. In order to improve the CO2 balance of vehicles throughout their lifecycle, for example, Volkswagen has already made a start on the supply chain. A detailed roadmap is currently being drawn up. There is particularly significant potential as regards steel and aluminum supplies.



Search / Buy / Connect / Update
@ www.IndustrialGuideAsia.com

The 2025 target is to reduce the CO2 footprint of the vehicle fleet by 30 percent across the lifecycle compared to 2015. Volkswagen is therefore electrifying the vehicle portfolio, with investment in this area alone amounting to more than €30 billion by 2023. The share of electric vehicles in the Group fleet is to rise to at least 40 percent by 2030.

The first of the new-generation electric vehicles go into production this year: the AUDI e-tron will be followed by the Porsche Taycan. Reservations for each of these models already total 20,000 units. And electric vehicles will be brought into the mainstream with the ramp up of the Volkswagen ID. Other models in this first wave will be the ID. CROZZ, the SEAT el-born, the ŠKODA Vision E, the ID. BUZZ, and the ID. VIZZION.

Everyone will Know
About Your **BUSINESS**



info@industrialguideasia.com

In order to support the electric offensive, LG Chem, SKI, CATL and Samsung were selected as strategic battery cell suppliers. In view of the constantly increasing demand, Volkswagen is also taking a close look at possible participation in battery cell manufacturing facilities in Europe. Looking further ahead, solid-state batteries also have great potential. The goal is to enable an industrial level of production with this technology together with our partner QuantumScape.

At the same time, CO2 emissions at all plants are to be cut 50 percent by 2025 compared with 2010. The conversion of the power station in Wolfsburg from coal to gas will reduce CO2 emissions by 1.5 million tonnes annually from 2023 onwards.

Audi's production activities at the Brussels site, for example, are already completely CO2-neutral. The Zwickau plant will not only be the lead factory for the Modular Electric Drive Toolkit (MEB); the ID. built there will be delivered to customers with a CO2-neutral balance.



The MEB lies at the heart of Volkswagen's electric offensive. The cost of e-mobility can be significantly lowered through partnerships to enable the widest possible spread of the MEB and the associated economies of scale. That makes individual mobility affordable and usable for the mainstream in the future as well. One example of such a partnership is the planned cooperation with Aachen-based e.GO Mobile AG recently announced at the Geneva International Motor Show.

To boost e-mobility further, we will be installing 400 fast-charging stations along Europe's major roads and highways by 2020 in collaboration with industry partners in IONITY. 100 of these will be located in Germany. That means there will be a station every 120 kilometers. Elli (Electric Life), Volkswagen's new subsidiary, will also offer wallboxes for charging at home, using green power – initially in Germany. In addition, there will be 3,500 charging points on employee car parks at all plants with further charging opportunities at dealerships.

Nissan and DOCOMO Test I2V Technology Using 5G in Moving Vehicle

Nissan and NTT DOCOMO, INC. are putting Nissan's Invisible-to-Visible technology through its field test in a moving vehicle, using DOCOMO's fifth-generation mobile communications connectivity.

The technology, first revealed at the CES trade show in Las Vegas in January, is being tested at Grandrive, Nissan's proving ground in Yokosuka, Japan.

Invisible-to-Visible, or I2V, is a future Nissan Intelligent Mobility technology that merges the real and virtual worlds. By combining information from sensors outside and inside the vehicle with data from the cloud, it helps drivers "see the invisible" – such as what's farther down the road, behind a building or around the corner.

I2V also connects drivers and passengers to the Metaverse, a virtual world where people can interact through avatars. Family, friends or others in a remote location can appear inside the car as three-dimensional, augmented-reality avatars to provide company or assistance.



For the field test, the companies are using DOCOMO's high-speed, large-capacity, low-latency mobile 5G connectivity to transmit avatar data wirelessly into the test vehicle, and in-car camera views from the vehicle, in real time. The test vehicle is based on Nissan's NV350 Caravan.

The companies will evaluate how the people inside the car and those represented through avatars sense each other's presence via the user interfaces. The usability of I2V's interactive communication features will also be assessed.

Nissan and DOCOMO plan to continue their joint field tests and research on I2V technology and its applications, and to offer novel connected-car experiences to customers in the future.

 **Search / Buy / Connect / Update**
@ www.IndustrialGuideAsia.com



WE ARE HERE TO BUILD YOUR BRAND
info@industrialguideasia.com

Circle K strengthens Electric Vehicle Initiative with High Power Charging Stations from ABB

Norway's energy station chain Circle K has signed a contract with ABB, a pioneering technology company focused in digital industries, for the supply of Terra High Power, 175 kW EV chargers in combination with Terra 54 CJG, 50 kW EV-chargers, which are the most installed and reliable EV chargers on the market today.

"ABB is committed to drive E-Mobility. Good access to fast, reliable and efficient EV-charging is essential to making electric cars a relevant alternative also outside the big cities. Circle K has energy stations all over the country, and by investing in fast chargers from ABB, they help to lower the threshold for choosing an electric vehicle," says Frank Muehlon, who is leading ABB's global business for E-Mobility Infrastructure.

The new Terra HP chargers offer a future proof solution. They can be upgraded to deliver 350 kW if needed. This will allow electric vehicle batteries to be charged with enough power to travel 200 kilometres in just 8 minutes of charging.

For Circle K, the high-power chargers will help them retain their customers as more switch from petrol and diesel cars to electric vehicles. While motorists previously depended on finding a gas station to fill the tank, electric car owners can power the batteries virtually anywhere, and often in combination with a shopping trip. For gas stations, it is therefore important to be able to offer an EV charging experience that is comparative to ordinary refuelling times.

ABB is a global leader in charging infrastructure with an installed base of close to 1000 EV charging stations in Norway, and products for all charging standards.

Globally, ABB has more than 10,500 DC chargers sold across 73 countries, more DC chargers than any other manufacturer. ABB offers standard chargers and high-power chargers for most applications in private and public environments. ABB's EV chargers combine maximum user safety with flexibility and many customization options.

The EV chargers, which will be delivered by April 2019, are part of the ABB Ability™ portfolio of connected solutions, the company's unified digital offering across different industries with over 210 solutions to date. ABB Ability™ delivers web-enabled connectivity that allows e-mobility charging network operators to perform several functions, including remote monitoring and configuring of charging points to resolve driver issues. ABB Ability™ also enables servicing of equipment with minimal downtime and the flexibility to connect to any charging network, back-office, payment or energy management solution.



SAE International Releases Updated Visual Chart for Its “Levels of Driving Automation” Standard for Self-Driving Vehicles

16

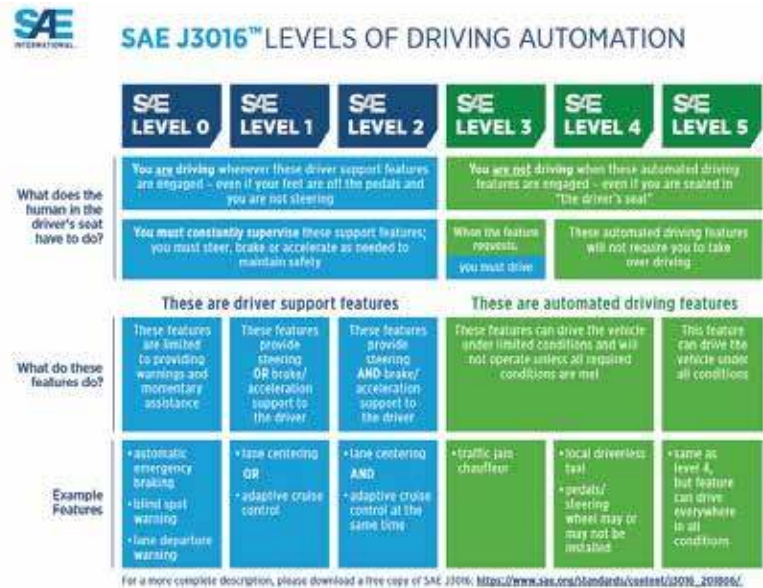


SAE International announces a new visual chart for use with its J3016™ “Levels of Driving Automation” standard that defines the six levels of driving automation, from no automation to full automation.

The new chart offers more “consumer-friendly” terms and definitions for the levels, which are frequently cited and referred to by industry and media. The infographic will help to eliminate confusion by providing clarity and using terms more commonly used by consumers.

“SAE J3016™: Taxonomy and Definitions for Terms Related to On-Road Motor Vehicle Automated Driving Systems” was issued, in part, to speed the delivery of an initial regulatory framework and best practices to guide manufacturers and other entities in the safe design, development, testing, and deployment of highly automated vehicles (HAVs).

The U.S. Department of Transportation (DoT) uses J3016’s six levels of automation for on-road motor vehicles in its “Federal Automated Vehicles Policy” and the document became a de facto global standard adopted by stakeholders in the automated vehicle technology.





Advance Canvas Industries Pte Ltd

Fabric bellows provide maximum protection in rugged industrial environments and prevent foreign particles from entering the hydraulic or pneumatic systems of the precision equipment inside.

Special Advantages:

- Safety
- Flexibility
- Durability
- Dust-proof
- Heat and Cold Resistant
- Oil and Chemical Resistant
- Custom designed for your specific needs
- Completely manufactured in Singapore



Applications:

- Rods, shafts, screws and other cylindrical-shaped components.
- Industrial robots, automated machines, scissors lift table
- Linear guide machines
- Precision equipment and custom-built machines

35 Kallang Place, Singapore 339163

Tel: (65) 6294 5192

Fax: (65) 6291 9392

Email: adcanvas@adcanvas.com.sg

Website: www.adcanvas.com.sg

Automation



Pushing Performance



M8 D-coded



VarioBoot RJ45



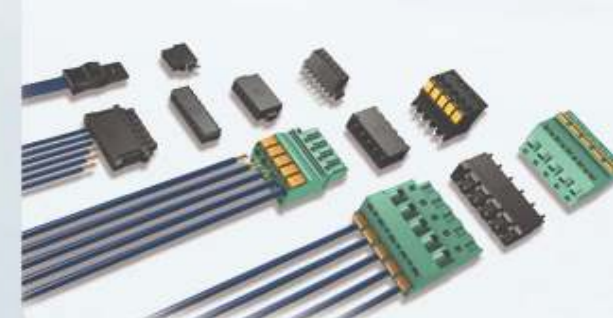
Han-Modular®



HARTING ix Industrial®



har-flex® / har-flexicon®



Han-Modular® Flexbox



Han® M23



HARTING PushPull



Flexible Solutions of the Future

HARTING offers connectivity solutions for device integration up to the flexible and modular world of automation technology. Connectors facilitate development, assembly, transport, production and maintenance processes. The product portfolio ranges from connectors for electrical signal and power transmission, interfaces for optical fibers and pneumatic lines as well as comprehensive solutions for Industrial Ethernet. HARTING products are designed to meet all required protection classes of industrial environments.

Find more information, phone +65 6225 5285 or write to sg@HARTING.com



Scan to learn more

Schneider Electric Launches First Smart Factory in The U.S. Demonstrating Quantifiable, Real-Time Benefits of Innovative EcoStruxure Solutions

18

In operation for more than 60 years and employing nearly 500 people, the Schneider Electric Lexington facility has embraced modernization and digitization as critical aspects of their continued success. Today the factory is smart and integrated, relying on digital tools such as augmented reality, which empowers operators to gain visibility into operations maintenance, driving a 20% reduction in mean time to repair on critical equipment, and process digitization eliminating paper work by 90%.

Schneider Electric has launched several Smart Factories around the globe in countries including Mexico, China, France, India, Indonesia and the Philippines. These are core in its Tailored Sustainable Connected 4.0 supply chain digital transformation where Schneider Electric leverages digitization across its supply chain operations to deliver end-to-end integration and visibility to enhance its performance.

"We understand the value of IIoT and the positive business impact that innovation and digitization can have on our operations – particularly in our global supply chain. As a living example of how our EcoStruxure solutions deliver benefits to our customers, we are gaining those same benefits in our operation and sharing that knowledge," said Mourad Tamoud, Executive Vice President, Global Supply Chain, Schneider Electric. *"With our latest Smart Factory showcase, we are able to demonstrate this value in real-time, show the solutions at work and share the tangible benefits that we ourselves are seeing from our own IIoT investment as we accelerate our Tailored Sustainable Connected 4.0 digital transformation."*

Digital transformation and modernization of a legacy facility

Modernizing a working facility that has been in operation for over half a century presented a challenge. Unlike a greenfield facility - one that is built new with the latest technologies incorporated from the beginning - modernizing this legacy brownfield facility needed to be done over time, requiring the Lexington team to strategically balance the need to embrace new, connected technologies with the needs of the business and a set operating budget. This successful digitization evolution took a step-by-step approach, adding new EcoStruxure technologies individually where they would provide the greatest value and connecting them with existing equipment.

As part of the Smart Factory program, Schneider Electric outlines that brownfield implementation for customers who may be facing the same challenges with their existing production facilities. The team is able to offer strategies and talk through the challenges they faced to help customers exploring IIoT connected technologies overcome those same hurdles toward their modernization goals. By sharing their experience in leveraging EcoStruxure solutions, visiting customers can better understand the value of the brownfield modernization and the resulting operational efficiencies.

The Lexington factory is a heavily-automated operation critical to the Company's supply chain, producing Load Centers and Safety Switches. The facility will now serve as both a working operation and a showcase for customers and partners to witness how digital transformation can help them make informed, data-driven decisions to bring about improved profitability, asset management performance, operational efficiency and a smarter productive workforce, while keeping the operations secure, agile and environmentally sustainable.



Unique Customer Value Through ABB Ability™ Offering of Digital Solutions Combined with Dassault Systèmes' 3D Experience Platform

19



ABB and Dassault Systèmes announced a wide spanning global partnership to offer customers in digital industries a unique software solutions portfolio ranging from product life cycle management to asset health solutions. The two companies will provide customers an end-to-end offering of advanced open digital solutions, enhancing competitiveness of industrial companies, while increasing flexibility, speed and productivity of their products' lifecycles, manufacturing and operations.

The partnership will combine the strengths of ABB Ability™ digital solutions and Dassault Systèmes' 3DEXPERIENCE platform, and build on both companies' strong installed base, deep domain expertise and global customer access. ABB has already adopted the 3DEXPERIENCE platform to model and simulate its solutions before delivering them to its customers. With this partnership, ABB will develop and provide customers with advanced digital twins, enabling customers to run ABB's solutions and their operations with improved overall efficiency, flexibility and sustainability.

The companies will, in a staged approach, focus on factory automation and robotics, process industry automation, as well as electrification solutions for smart buildings. The first joint solutions will be showcased at the upcoming industrial Hannover Messe trade fair in Germany, April 1-5, 2019.

"This game-changing partnership will serve our customers to lead in innovation and growth, fundamentally transforming their entire value chain to tap the vast opportunities of industrial digitalization. Together, we are offering an open, end-to-end digital portfolio - from digital twin to asset health - that gives our customers a competitive edge, building on our combined offering, domain expertise and global reach," said ABB CEO Ulrich Spiesshofer. "ABB is adding Dassault Systèmes to its strong partner network for industrial digitalization, including Microsoft, HPE and IBM. We look very much forward to working with the entire global Dassault Systèmes team to drive innovation and customer value."

"The Industry of the 21st century is no longer determined simply by the ability to manufacture goods. Today's leaders will be determined by superior mastery of technical know-how. This is the new competitive differentiator and it's happening now due to a convergence of digital technologies that are transforming every aspect of industrial business," said Bernard Charlès, Vice Chairman and CEO, Dassault Systèmes. "In this industry renaissance, a platform approach enables the real and virtual worlds to inform and reinforce one another. Our partnership with ABB will draw from decades of combined expertise to help customers make the most of this powerful and dynamic trend."

In today's highly automated industries, digital factory modeling and flexible, robotized manufacturing systems help businesses to generate more design iterations at a quicker rate with more robust designs. This, in turn, helps to accelerate the shift from mass production to mass customization, where goods are manufactured in a greater variety and in smaller batches and in shorter product life cycles. For many manufacturers, the cost of downtime has dramatically increased in recent years as just-in-time delivery has become the norm. An hour of downtime at a modern production site can cost more than \$1 million.

ABB has already a strong digital solution offering within the industry through its offering ABB AbilityTM. It was launched in 2017 and offers more than 210 digital solutions to plan, build and operate industrial operations with higher productivity and safety at lower costs.

Dassault Systèmes works with companies of all sizes in 11 industries to help them meet new challenges in today's Industry Renaissance. The 3DEXPERIENCE platform integrates all the technologies and capabilities that leverage knowledge and know-how into one cohesive digital innovation environment that delivers digital continuity from concept to manufacturing to ownership and back. Industrial companies can integrate the platform's 3D applications to create a digital twin that captures insights and expertise from across their entire ecosystem, to measure, assess and predict the performance of an industrial asset and help optimize its operation in an intelligent way.

Scharnhausen Technology Plant Shaping The Future to Be Versatile

20

The Scharnhausen Technology Plant is at the forefront of automation for the future and the leading Festo factory for the production of valves, valve terminals and electronics. The factory is characterised by productive and energy-efficient processes, top-quality products and a pronounced customer focus, as well as sustainable and green fabrication.

ACTING TOGETHER is the guiding principle of the Scharnhausen Technology Plant: cooperation across multiple divisions and close coordination are major factors. This could already be seen during the planning phase, when employees from purchasing, development, IT, logistics, production and human resources worked together, designed the complex factory architecture in the shortest time and turned it into reality. The central location and outstanding infrastructure ensure that the plant is ideally networked with the Festo headquarters, the social environment of the employees and the customers worldwide.

Focus on people

For Festo, however, the most important success factor for adding value in the production of the future continues to be people. The Festo employees are motivated, sensitised and appropriately

qualified for the change in the production world. The Learning Factory integrated with the factory, where employees get practical training, also contributes towards this.

Industry 4.0 in practice

With the new factory, Festo meets current challenges like Industry 4.0 and global competition. Many of the aspects of Industry 4.0 are already a reality in the Technology Plant. For example, employees cooperate in safe interaction with a flexible robot, which takes over assembly tasks that are ergonomically disadvantageous. An holistic energy transparency system will mean that all energy flows and consumption in the factory can be tracked in future. And for service engineers, alongside their usual tools, the tablet represents the principal working tool: with the help of an app, they are able to detect and rectify machine faults as soon as possible and directly on-site.



<p>THK Linear Motion Systems</p>	<p>COOL MUSCLE 2 Integrated AC Servo System</p>	<p>Mitsubishi Industrial Fluidics Miniature Actuator Direct Motor Drive Ball Screws Miniature Ball Screws</p>
<p>耀迅国际私人有限公司 ELSHIN INTERNATIONAL PTE LTD No. 1 Kaki Bukit Ave 3 (02H-1) #06-12 Singapore 410087 E-mail: elshin@singnet.com.sg Website: www.elshin.com TEL: (65) 6286 7707 FAX: (65) 6747 2477 ● IMPORTER ● DISTRIBUTOR ● STOCKIST</p>		
<p>Instrumentation Gears</p>	<p>Motion Control Clutches NPM</p>	<p>YAMAHA Distributed Control with PAC - Motionnet+ & EtherCAT® Kingzero AC Servo System</p>

Industrial Transformation ASIA-PACIFIC 2019

Asia-Pacific's Leading Event for Industry 4.0

22-24 October 2019
Singapore EXPO

www.industrial-transformation.com

We help companies in Asia-Pacific start, scale & sustain their transformation journey.

CONNECT WITH US.
CONNECT WITH ASIA-PACIFIC.



**Scan and pre-register
your visit today.**



Organised By



International Partner



Deutsche Messe

**HANNOVER
MESSE**
event

**Industrial
Transformation**
ASIA-PACIFIC

Exclusive Interview with Hyundai Motor Group on Development of Autonomous Vehicles

As one of the fast developing technology automotive manufacturer, Hyundai Motor Group have make their move in developing autonomous vehicle to ensure that they are not left behind in creating technologies that will benefits people around the world. Recently, Hyundai Motor Group have sucessfully invent two world first invention which are the Multi Collision Airbag System and CVVD Engine Technology that can improved vehicle performance & produce less emission. Due to Hyundai Motor Group excellent achievement, Orange Media (M) Sdn. Bhd. decided to conduct an e-mail interview with them regarding their development of autonomous car. The interview script are as below:

Editor: Why make autonomous vehicles?

Hyundai Motor Group: The most important reason is safety. Reports show that driver-caused accidents make up almost 90% of all traffic accidents, and Hyundai Motor Company believe this figure can be dramatically reduced with autonomous driving technology. We also aim to enhance the quality of life of mobility challenged drivers by providing freedom of driving through this technology. Autonomous driving will significantly decrease social costs by reducing the number of accidents, pollution, and traffic congestion.

Editor: Is the manufacturing of autonomous vehicles any different than the manufacturing of non-autonomous vehicles? Are there any extra steps?

Hyundai Motor Group: Quality inspection may vary, but at Hyundai we make sure that all vehicles we produce have the best quality, including autonomous vehicles.

Editor: What OS/firmware and hardware do the vehicles need to operate? Is it stable and safe?

Hyundai Motor Group: Hyundai Motor is currently developing software according to global standards to meet all safety regulations and requirements. We are also working with specialized companies for camera, radar, and lidar to make sure we have only the best hardware. So both software and hardware are under development with safety and reliability as our top priority.

Editor: Can autonomous vehicles get hacked? If not, what other security features does it provide? Would it speed?

Hyundai Motor Group: To protect autonomous vehicles from outside hacking, Hyundai Motor is developing various security technologies to implement across a number of systems, from server to terminal, vehicle network, and embedded system to minimize



WE ARE HERE TO **BUILD** YOUR BRAND
info@industrialguideasia.com

Exclusive Interview with Hyundai Motor Group on Development of Autonomous Vehicles (cont..)

Editor: In the event of mechanical failure like engine breakdown mid-drive, how does an autonomous vehicle solve that problem?

Hyundai Motor Group: The system is being developed with redundancy so the backup system will take over in the event of a mechanical failure while the vehicle is operating.

Editor: How much real world testing is required for autonomous vehicles? Are simulations enough?

Hyundai Motor Group: Testing with real vehicles on real roads are essential in developing autonomous technology. However, there are some ambiguities when it comes to the time and distance of the tests. Although simulations with accumulated data are also important, there seems to be varying views when it comes to how much real world testing is needed.



Editor: How many areas already have these autonomous vehicles on the road? Are there any special laws in response to these on the road?

Hyundai Motor Group: Many companies are developing and testing autonomous vehicles all over the world, and Hyundai Motor is also working on our vehicles mainly within our R&D facilities. Each country has their own licenses and guidelines to make sure real-road tests of autonomous vehicles are conducted safely. Hyundai Motor complies with the relevant standards, laws, and regulations and listens to the voices from various areas of society regarding autonomous technology, and continues to make improvements where they are necessary.

Editor: Does Hyundai have any notable large-scale plans on vehicle autonomy in the future such as a cab service or more affordable vehicles?

Hyundai Motor Group: Hyundai Motor Group is working on Robo Taxis with the goal of launching the pilot service in smart cities by 2021. We will seek partnerships with global industry leaders to develop autonomous driving technologies that are both innovative and safe. We also plan to create our own mobility service by bringing together all relevant capabilities. We will develop business opportunities that integrate manufacturing with service, and expand our global reach through partnerships with third-party specialists.

WE ARE HERE TO BUILD YOUR BRAND

- Advertise your products and services to potential buyers **24 hours a day to worldwide industries.**
- **Free posting of events and seminars** on the website designed to promote Advertiser's events.
- **Create your own catalogue** by showcasing images of the products and services your company offers.



contact at:

info@industrialguides.co.uk

Snippets with Dr Wilfried Schafer, Managing Director of The VDW (Association of German Machine Tool Builders) For EMO 2019

24

1) What do you foresee the i4.0 wave influence on the current metalworking scene in Asia?

I think it took some time from a general understanding what is i4.0 all about, it has a very different interpretation, some people were talking about Automation, some others about connection machine, but connecting machine is not really new, it is state of the art. I think the aspect of the focus is to find new functions and solutions based on data that you take out of the machine, out of the process or out of production chain which offer new possibility and new optimization for the customer, this can be vertical and also to connect the machine to the IT structure and then you will find new correlation with the data or if something is going wrong with the predictive maintenance or you can optimise the process which you do not see without the function that you have before, something that is more and more coming but to do so you need to have modals, you need to analyse the data that is sufficient to set up a new function, so this step by step is now being introduced by companies and the other one is to optimise the production chain as such as a horizontal based and there is also optimisation potential in the process, let's say working on the order, incoming order, then production, documentation, sales activity, logistic, all these level has potential for digitalisation and optimisation. This is now step by step being introduced, it is not so easy because we do not start from scratch and we set up a new production site which then we can in store all the new aspects, the company have production, they have old machine and old function and system functionality. Things must be combined and integrated, that is why is not taking off fast like this.

2) What do you think, have the European fully embrace the i4.0?

I4.0 started off in Germany but of course this is the discussion through our European continents but also widely call IOT internationally and also in the America, people are talking about it in all these areas whereas production takes place, we have customers from all around the world and there is co-production from European and Mexicans, production of American agriculture machine like the Caterpillar in Asia, everybody and everywhere, machine in Japan deliver to Europe and China, there is a mixed up, so everybody is in contact with the same, it is not just European aspects, it depends on the customer requirement wherever he is. There is no statistic of European company engaging on this, we have been discussing on this since four to five years ago and company are on different stages



3) How many years do you think this technology will overtake Asia, as many companies are not embracing this as yet, many are looking into process from implementation level and costing point of view.

As I mentioned, when customers are thinking about a new production activity, they would have think about whether would it worthwhile to introduce new functionality on all around digitalisation and in this new production and this is to say that customer driven aspects but also the suppliers like the machine tools suppliers, controllers suppliers like the Asian manufacturers Mitsubishi, Fanuc, if they have a new function based on digitalisation, they will go to all their Asian clients and introduce their solutions, even on their existing 5 or 6 years old machine. This is driven from both sides, from demands and offer of opportunities all around the digitalisation topics.





4) UMATI is proposed by VDW, could you please tell us more on this of the 50 companies in this joint movement?

We started discussion on November 2016 with the association board, with the 50 major German companies, the questions were What Could the Association do to support the i4.0? And a lot of people were talking about business models, but this thinking about the business models is a question of a company, it is a question on strategic and competitiveness, so we cannot work on business models, we were looking at the problems and pre-competitive on the association can support to the industry and pretty fast we found out that the major problem is to connect the machine to a IT platform. This does not exist with production, because back in the days, a Siemens product will only connect to Siemens, it cannot connect to Microsoft products, it has different languages and its interpretation, that was an issue because the machine tool builders is not selling a platform to the customer because they may have decided to use whatever kind of IT system which is different, so the machine tools builders has to introduce their existing IT environment to their customers side, so they tell us that they needed a standard protocol for what we call it a virtual USB cable, so we started this in 2017 with the described 20 use cases like status monitoring of a machine, error monitoring of a machine, so these are various situations which are of interest of the customers which they will like to know and these situations are described by the perimeters so the status by the machine for example the Machine is On, this is one status, Waiting another, these are aspects which have to be communicated by data through an IT Systems. So out of these situations, we have described 100 perimeters at the moments, which is not the final set, this is only the version one. We do not do it on our own, this is a standardisation project, the OPC Foundation which was

found in 1985 is an International Foundation, they have specific information models with some layers, like transportation layers which already unify, and can be used and can connect instantly to some specification sectors, now we have a specification based on OPC for Machine tools, the Industrial Vision has theirs, the Robotics and meanwhile some specification hundreds of perimeters for the plastic industry too. So a lot of people in the machinery production sectors are working on the OPC, we decided that somebody has to write the first draft paper and we did this, 100 perimeters, we also created a joint interest working groups which each different bodies come together from all over the world, it has to be Open because it is an Open Standard. From manufacturer to end users, everybody potentially interested is invited to participate, they don't have to, but they are invited for this good purpose. We offer the draft and they send us comments and we do paperwork and currently we have 50 companies to work on this and when reaching an agreement, we will send to OPC for them to publish as a standard. We hope to reach this by end of this year, we started this in February, but then we cannot say how long it will be because it involved a large group of community. This is the normal standardisation process which will end up in a final piece of paper. What we want to do, is we want to support this use and in EMO we are already showing it live and these 50 companies that will connect the machine somewhere in the fairground to a central datahub so the IT people can show what they can use with the data. This is a Live Demonstration for UMATI. We have various company from all over the world participating in this from China, Japan, Austria, Spain, Switzerland, Taiwan and so forth.

5) You said that EMO is an event nobody can afford to miss, will you consider bringing this event to Asia?

No, well because there are many trade fairs in Asia already, there is JIMTOF in Japan, there is TIMTOS in Taiwan and show in each country. The first EMO was in 1975, since then EMO has developed to be the largest event in the world, so in the odd years where there is not many shows going on it will be EMO, whereas the Even years all the shows around the world will be in various countries, we have discussed between the association on the structure and on the benefits on the marketing companies and their interest. We will not put EMO in the even years as it will harm the other events going on in the world and the structure will not work anymore.

Lamborghini Launch New Factory in Sant'Agata Bolognese

Automobili Lamborghini's ongoing strategic investment programme, aligned with the launch of its new Super SUV the Urus, sees its production site now doubled with the creation of substantial new facilities and technologies at its factory headquarters in Sant'Agata Bolognese, Italy. As well as expanding the site from 80,000 to 160,000 m², the Urus will also bring about a substantial increase in the company's production capacity, doubling it to 7,000 units a year.

A new point of reference in the luxury automobile industry

The new production facility houses a new assembly line dedicated to Urus, the new finishing department for all Lamborghini models, and a new office building with LEED Platinum certification: the highest standard in the world for energy and environmental certification in building design and construction. A new test track has also been built with thirteen different surfaces specific to SUVs, as well as a new logistics warehouse, a second trigeneration power plant, and the new energy hub for centralized production of all the energy carriers.

Ranieri Niccoli, Chief Manufacturing Officer, commented: "With our third model, we wanted to introduce the most innovative production technologies and smart factory concepts, supporting and complementing the activities of our workforce. Urus ushers in a new model of factory, which we call Manifattura Lamborghini, a new point of reference in the luxury automobile industry. The substantial resultant benefits include greater production flexibility, better information accessibility, and the interconnection of systems: strengthening the professionalism of craftsmanship that has always distinguished us and supporting the doubling of our production volumes."



The creation of new buildings and the installation of innovative technologies involved more than 600 enterprises working on the project with a total of 3,600 external workers.

The factory expansion was completed in a record time of just 18 months, during which the company operated at full production capacity and achieved record sales in 2016 (+7% over the previous year). The project was achieved without neglecting Lamborghini's commitment to environmental sustainability: the entire production facility in Sant'Agata Bolognese maintains the carbon neutral certification obtained in 2015.



Search / Buy / Connect / Update
@ www.IndustrialGuideAsia.com

WE ARE HERE TO BUILD YOUR BRAND

- Advertise your products and services to potential buyers **24 hours a day** to worldwide industries.
- **Free posting of events and seminars** on the website designed to promote Advertiser's events.
- **Create your own catalogue** by showcasing images of the products and services your company offers.



contact at: info@industrialguideasia.com

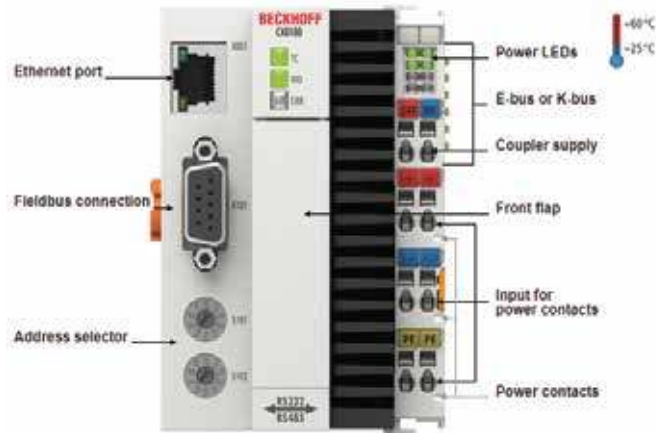
CX8180 | Embedded PC for RS232/RS 485



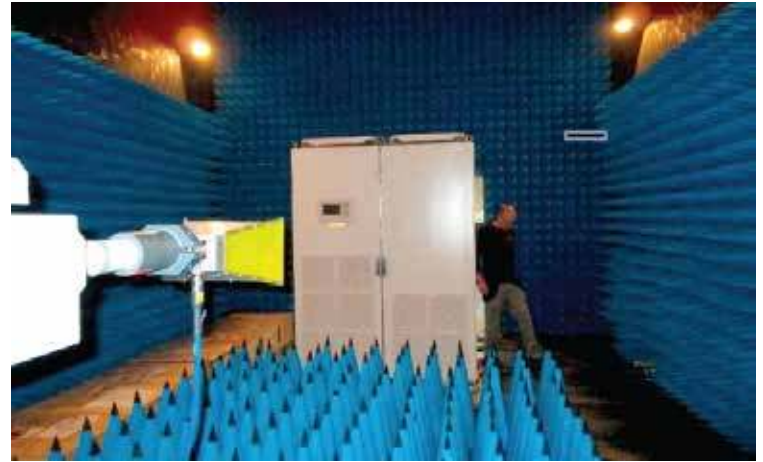
The CX8180 has two serial interfaces: one with RS232 and one with RS485 physics. Both serial interfaces are on the D-sub socket. They are not bound to a particular protocol and can be used

with the appropriate TwinCAT 3 functions for different serial communication protocols.

E-bus or K-bus terminals can be attached as required; the CX8180 automatically recognises the type of I/O system connected during the start-up phase. The control system is programmed with TwinCAT 3 via the Ethernet interface. TwinCAT 3 licenses must be ordered via the TwinCAT 3 price list.



Powerline DPA UPS passes EMC Certification



The modular UPS designed for use in industrial applications, has passed stringent electromagnetic test ensuring minimal disturbance to other equipment surrounding the railway environment.

ABB PowerLine DPA is a proven UPS delivering quality electrical power from 20kVA to 120kVA for railway signaling and rail infrastructure throughout the world that might be subjected to rough conditions such as dust, water condensation, excessive humidity (up to 95 percent), corrosive air contamination and rough manhandling. Its fail safe electrical and mechanical design make ABB PowerLine DPA ideal for railway applications."



Robot Colleagues: Industrial Intelligence with Finesse and Sensitivity

HARTING's "HAI4You" Smart Factory demonstrates the full vertical integration of a toy car from the customer to the versatile product manufacturing, divided into self-sufficient yet fully networked production cells. The activities in each production cell are carried out by a collaborative Kuka lightweight robot. Goods are transported between the cells by a mobile Kuka iiwa robot.

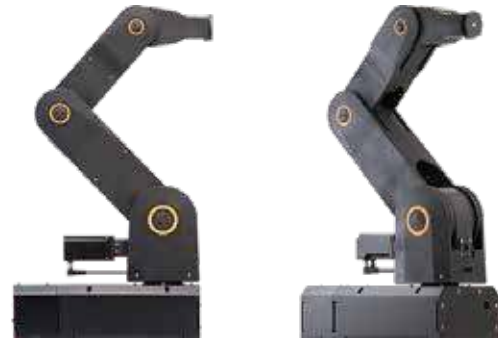
PerFact Innovation, has Created Digital twins of The Facility and The Robots



PerFact Innovation, a partner company in the MICA.network, has additionally created digital twins of the facility and the robots. This generates a digital image of production processes that can be used to visualise and simplify remote maintenance and condition monitoring. The company Expleo reads out the torque forces on the robot grippers in order to detect signs of wear. For this, the data stored in the Microsoft Azure cloud is evaluated and compared with historical data. The facility at the HARTING stand will demonstrate the entire spectrum of modern production methods and connectivity that are associated with the trade fair's theme: Integrated Industry – Industrial Intelligence.

Robolink® Low-cost Robots

Quick and easy automation - the versatile robolink modular system. The robolink modular system enables you to automate your processes individually and cost-effectively. For example with the numerous possible combinations that robolink Apiro offers you with its various joints and new sizes. Or with the online tool "robolink Designer", which helps you to configure your customised articulated robot and simulate its movement. Also new to the product range is a robolink 4 or 5-axis robotic arm, which is faster and more cost-effective than its predecessors. The cables on this model are routed in the housing and an integrated control unit makes it ready for use immediately.



 **Search / Buy / Connect / Update**
@ www.IndustrialGuideAsia.com



MAKE YOUR **NEWS** KNOWN
info@industrialguideasia.com

SG61 -- New Wire-actuated Encoder for Measuring Lengths Up to 6 Metre

SIKO presents the new SG61 wire-actuated encoder, which can be used for measuring lengths up to 6 m. On the basis of 30 years of experience in development and production, a wire-actuated sensor has been designed that impresses with its compactness, sturdiness and flexibility.

Compact and robust

The measurement length and a housing that is as compact as possible are important factors when choosing sensors in intralogistics and for mobile machines. The new SG61 wire-actuated encoder is truly eye-catching with an installation depth of 70mm x 85mm x 105mm and no compromises in terms of sturdiness! The robust aluminum housing, coupled with impact-resistant plastic, survives even the harshest of operating conditions. Factors such as temperatures between -40 and +80°C, high shock and vibration loads, dirt, dust and water pose no limitations for the wire-actuated encoder.

For outdoor applications in low temperature ranges, there is also a variant with integrated water drain holes – this avoids the problem of water freezing in minus temperatures and increases the service life.

Flexible application thanks to variety of interfaces and Wire-Flex technology

The flexible 58 mm flange system of the SG61 allows the customer to decide which interface should be used. Almost any interface is compatible with the wire-actuated encoder, whether it's an incremental interface such as HTL or TTL, or an absolute interface such as analog, SSI, CANopen, SEA J1939, CANopen Safety, Fieldbus or Ethernet. And that's not where the flexibility of the wire-actuated sensor ends: the wire outlet also offers all of the advantages of Wire-Flex technology.

This makes it possible to ensure that the wear on the wire is kept to a minimum, even if it pulls out at an angle. The conical shape of the wire outlet and the various types of wire mean that any deposits on the wire can be removed easily. Mechanical tolerances for the machine or vehicle can be offset automatically, even in harsh ambient conditions, which preserves the function and service life of the system.

Suitable for position detection

The SG61 encoder provides increased safety in combination with the redundant SIKO WV58MR safety rotary encoder and can be used in the overall system in applications up to performance level d (PLd). This is made possible by the mechanical design and software specially designed for the purpose. Not only the electronics but also the mechanics are monitored, which means that dangerous conditions can be detected at an early stage – making it particularly suitable for mobile machines for any application.



WE ARE HERE TO BUILD YOUR BRAND

- Advertise your products and services to potential buyers **24 hours a day to worldwide industries.**
- **Free posting of events and seminars** on the website designed to promote Advertiser's events.
- **Create your own catalogue** by showcasing images of the products and services your company offers.

contact at : info@industrialguideasia.com



Search / Buy / Connect / Update
@ www.IndustrialGuideAsia.com

25 & 26 Nov 2019 :
The Westin Desaru Coast Resort
(Convention Hall)

26 Nov 2019 :
Golf Tournament
(The ELS Club)



Attending Countries :

- Canada
- Australia
- Thailand
- Japan
- South Korea
- Singapore
- Nigeria
- Venezuela
- Philippine
- Indonesia
- New Zealand
- Vietnam
- United Kingdom
- Holland
- Myanmar
- Taiwan
- German
- Brunei



Attendance Includes :

Corporate Management- Chairman/ Director/ Managing Director/ Proprietor / General Manager / Head of Unit / Chief of Unit / Manager=30%

30%

Maintenance / Project / Production / Operation / Plant Operator / Engineer / Technician= 35%

35%

Assistant Manager / Marketing / Sales=10%

10%

Procurement / Purchasing / Sourcing=5%

5%

Health / Safety / Environmental=20%

20%



Introduction :

Oil & Gas Roadshow (oGR) is introduced in assisting oil & gas and other heavy industry companies to meet with local oil & gas end users, engineering companies, OEMs, contractors and suppliers. The IR is aiming at the maximum interaction among industry personnel from Plant Engineering, Production, Maintenance, R&D & Project Engineering, QA/QC, Facility Management, Integrity, Safety, Environmental, Purchasing and other engineering related departments to get updates on technologies being applied to the oil & gas, offshore, deepwater & subsea engineering, petrochemical, chemical processing, power, fertilizer, oil palm, pulp & paper, marine & shipbuilding, steel mill and various heavy industries.

With reference to the success of the past Oil & Gas Roadshows, we are pleased to bring to you the oGR @ Johor and with industry focus :

oGR @ Johor is featuring Oil & Gas, Offshore, Marine & Shipbuilding, Deepwater & Subsea Engineering, Petrochemical, Chemical Processing, Power and Oil Palm Mill & Processing.

Organised by



Officially Supported by



Visitor Profile Of Oil & Gas Roadshow :

from Oil & Gas, petrochemical, Chemical Processing, Power & Energy and Marine, Offshore & Shipbuilding

- Chemical plant/ factory
- Drilling contractor
- Education & training
- Electrical / utility board
- Engineering construction & contracting services
- Environmental protection / solution control
- Geological / geophysical seismic & services
- Inspection / maintenance equipment
- Laboratory & Testing Services
- Manufacturer's representative / vendor
- Marine support & distribution
- Offshore platforms / supplies / services
- Oil & gas exploration, production
- Marine support & distribution
- Offshore platforms / supplies / services
- Petrochemical plant
- Pipelines operation / installation
- Plant engineering & construction
- Power & Energy
- Project consultancy
- Repair services (including welding shops)
- Research & development
- Rig / fabricator / operator
- Security
- Trade associations
- Transportation, storage & handling
- Marine & Installation
- Deepwater operations

Oil & Gas Roadshow Pre-Promotional Activities :

The Oil & Gas Roadshow be supported by early promotion plan. The activities include:

- Online advertising in www.oilandgasroadshow.com
- Invitations sent to local industry area.
- Email updates in targeted local industries.
- Telemarketing to invite attendants.
- Road bunting around the covered areas to bring up show's publicity.
- Email shots will be conducted to the subscribers of industrial news online.
- Print advertisement in the Industrial Guide Asia, Oil & Gas Industry Section and Marine, Offshore & Shipbuilding Industry Section.

THE PREMIER EVENT FOR OIL AND GAS FIESTA 2019

**14 & 15
NOVEMBER 2019**

**IMPERIAL HOTEL
VUNG TAU VIETNAM**



SPECIAL COVERAGE ON INSTRUMENTATION AND PROCESS SAFETY

Industries' Focus

**Coatings Technology
Welding Technology
Heavy Equipment**

- Oil & Gas
- Offshore, Marine & Shipbuilding
- Subsea Engineering
- Deepwater Technology
- Petrochemical & Chemical Processing
- Fertilizer Processing

Excitedly Brought
To You By:

ALL CORP
Listen · Execute · Outreach



Officially Supported:



**Singapore
Manufacturing
Federation**
新加坡制造商总会

www.IndustrialRoadshow.com

Car Assistance Systems - Personalized and Versatile

Structuring our everyday lives is often an amazing feat of organization that involves juggling work and personal commitments, and nowadays we have a wide variety of utilities and sources of information available to us to help us with this. Sometimes the choice seems almost limitless, which makes it difficult for us to find the right tool to use at the right time. So, having a reliable assistant at our side that is ready to support us and that even learns our personal preferences is increasingly important. With such multifaceted everyday lives, the assistance systems that help us will have to be highly personalized and highly adaptive.

Playing a particularly important role in our lives will be systems that reduce the burden on the driver – be it in terms of communication, finding a charging station for electric vehicles, or calculating the remaining battery range.

What form could future assistance systems specially tailored to the user take? And what do such systems need in order for them to be able to provide optimal recommendations? Bosch Research is working on personalized assistance systems whose interaction with the driver takes into consideration the current situation and context in order to provide appropriate recommendations – and this assistance is always mindful of the preferences and needs of the driver. To this end, Bosch is developing suitable algorithms and methodologies.

Assistance systems in the cockpit – linking innovations with one another
Existing and new challenges will have to be solved for future mobility. When developing new mobility solutions, it is not enough to just build vehicles with alternative powertrains – work will also have to be done on the infrastructure and on features that make driving a personalized experience with added comfort and convenience. Bosch Research is taking up these existing and future challenges and is working on user-oriented, innovative solutions as well as on connected mobility.

What this means specifically is that Bosch is completely rethinking personalized assistance systems and digital cockpits that make driving safer and more comfortable and convenient. How can systems become truly useful assistants that reduce the burden on drivers by doing the groundwork for them, thus optimizing future mobility?

When making recommendations to the driver, assistance systems must be aware of what services, products, facilities, and options are currently available and must also take the time and location into consideration. Thanks to connections with other applications and the associated data sharing options (e.g. access to the smartphone contacts or social media, like Facebook or Twitter), the in-car assistance system is able to learn continuously. This allows it to adapt itself optimally to the driver's current interests and wishes, ensuring the assistant gets to know its user very well.



MAKE YOUR **NEWS** HEARD
nfo@industrialguideasia.com



 Search / Buy / Connect / Update
@ www.IndustrialGuideAsia.com

PTC
MDA
ASIA

POWER TRANSMISSION AND CONTROL 2019

www.ptc-asia.com

Driven to be **SMART**



International Trade Show for Hydraulics,
Pneumatics, Seals, Gears, Motors,
Chains, Belts, Bearings and Springs

23-26 Oct. 2019

Shanghai New Int'l Expo Centre

Scan code to
pre-register,
enjoy 5 benefits



- Free ticket (value RMB 50)
- Fast pass
- Business match-making
- Small gift
- Free rights to concurrent conferences

Please Contact



Deutsche Messe



Hannover Milano Fairs Shanghai Ltd

Tel: +86-21-5045 6700
Fax: +86-21-5045 9355 / 6886 2355
E-mail: ptc-asia@hmf-china.com
website: www.ptc-asia.com

For Visitor:

Ms. Alison Du
Tel: +86-21-5045 6700 * 559
E-mail: alison.du@hmf-china.com



Using Production Technology to Drive Innovation in Germany

In no other western industrialized nation is economic performance more tied to the manufacture of goods than in Germany, where half of all jobs are linked to production. It is important to safeguard the strong and pioneering position German production technology – and the research that goes into it – has carved out for itself over decades. And taking a European perspective, this position also needs to be expanded.

In a time of ever scarcer and more expensive energy and resources, Germany must find ways of generating maximum added value from dwindling resources if it wishes to maintain its competitive edge in the future. Putting the focus on resources will improve the sustainability of tomorrow's production and lead not only to improved products, technologies and production systems, but also to new approaches to operations in manufacturing companies.

A key feature of production in the future is to make the absolute most of materials and to reprocess them within a closed-loop recycling management system. The Fraunhofer-Gesellschaft is tackling these issues by addressing resource-efficient production, production using no new raw materials, Industry 4.0, urban production, and factory workstations of the future. The point is to make German production more sustainable, which requires more than just hypothetical solutions. In the long run, a paradigm shift is needed – away from »maximum profit from minimum capital investment« and toward »maximum added value from minimum resources.«

Purpose of the E³ Production Lighthouse Project

Taking a holistic view, the aim is to research how to better plan, implement and monitor the flow of materials, energy and information in emissions-neutral E³ factories carrying out ergonomic, energy- and resource-efficient production. This relies on implementing integrative solutions and utilizing synergies for all future production processes – under heavy workloads and with equal or higher output – in order to drastically reduce consumption of energy and resources. Moreover, these processes must be designed so that they can be appraised and scheduled.

In the E³ production lighthouse project, this starts with working up E³ methods and tools with which to evaluate new concepts and demonstrators that are then to be researched and developed into products in the next project phase. Considering the evaluated findings together with national and international trends in production science creates the conditions necessary in Germany to transform the investigation of production science issues into systematic research. At the same time, this provides a suitable backdrop for related initiatives on a European level.

With its E³ production lighthouse project, Fraunhofer is helping the German federal government achieve its national sustainability strategy, enabling SMEs and large companies to adopt E³ production, and strengthening the Fraunhofer-Gesellschaft's production technology expertise.



WE ARE HERE TO BUILD YOUR BRAND

- Advertise your products and services to potential buyers **24 hours a day to worldwide industries.**
- **Free posting of events and seminars** on the website designed to promote Advertisers' events.
- **Create your own catalogue** by showcasing images of the products and services your company offers.



ARC Reduces Costs and Empowers Digital Maintenance with API PRO

Replacing costly paper-based workflows

With digitalization as the goal, ARC Amager Ressource center knew that its choice of maintenance system would play a key role in reducing costs and increasing efficiency. “We wanted to start over completely with the way our maintenance was done going forward. Our system requirements were concerned with making workflows as digital as possible, to minimize use of inefficient and costly paper-based workflows,” says Hans Christian Laurenz, engineer and maintenance technician at ARC. “With the brand new facility and API PRO, we get a much leaner internal maintenance process.” ARC scoured the market for maintenance systems and here, API PRO stood out as the solution which came the closest to the desired all-digital workflow. “OPTIWARE guaranteed that their system would integrate seamlessly with the other IT systems we use at ARC, and that was a major reason why API PRO was selected.” - Hans Christian Laurenz

Reducing maintenance costs with API PRO

Supported by API PRO, ARC was able to dramatically reduce its total cost for work in the maintenance process, increasing the efficiency on the floor as well as in the maintenance office. “With the brand new facility and with the help of API PRO, we will get a much leaner internal maintenance process.” In the new facility a large part of the actual maintenance work will be executed by external suppliers. “Now we will train our partners in using API PRO, so that we get the fully digital workflows we want.” - Hans Christian Laurenz

The power of mobility For internal craftsmen and external suppliers alike, API PRO makes it faster and easier to specify maintenance tasks and capture data on the move. “The ability to use mobile devices, which both our own people and external partners bring with them to their tasks and use to record the work done, was a major reason why we chose API PRO. If you want 100 per cent digitally supported maintenance, you must be able to take the system anywhere, and API PRO allows us to do that.” - Hans Christian Laurenz

Driving a digital transformation

With API PRO, ARC’s workflow is increasingly digital. Current plans include bringing 16,000 - 20,000 components into API PRO and connecting the system to ARC’s technical facilities to receive operating data directly. With all maintenance centralized and digitalized, ARC is able to increase its visibility over maintenance events and ensure they are completed appropriately. ARC use API PRO for a number of tasks: operation, maintenance, procurement, inventory, and spare parts. Each of these areas is tailored to ARC and integrated with related systems. In addition to reducing costs, the switch to a digital workflow with API PRO played a key role in eliminating costly and time-consuming errors in manual processing.

Unlocking the value of data in maintenance

Digitalizing maintenance is much about building and maintaining knowledge of your facilities, both in the present and by utilising historical data. For Laurenz, API PRO plays a key role in ARC’s asset management strategy. “We have to make digital maintenance work. We must not fall back into the old way of working. With a brand-new and very valuable plant, we cannot afford to lose important knowledge, and that is what API PRO will support, by gathering all relevant data going forward.” - Hans Christian Laurenz



**MAKE YOUR BRAND
KNOWN**

info@industrialguideasia.com



The 6th International Processing & Packaging Exhibition for Myanmar

PROPAK MYANMAR

12 – 14 September 2019 | Yangon



Myanmar Expo (ME), Yangon, Myanmar

The Premier
Processing & Packaging
Event for Myanmar

Organised by



www.propakmyanmar.com

    @ OES_ProPak



20: YOUR FUTURE 20 STARTS HERE

THE ALL-VESSEL EVENT | 18-20 MARCH 2020

MARINA BAY SANDS, SINGAPORE, HALLS A, B, C, D, E & F
www.apmaritime.com | #AsiaPacificMaritime  

APM is the premier exhibition and conference in Asia showcasing a complete overview of the vessel sectors – services and solutions, technology, vessel equipment, supplies, and many more.
Gear up for the future at APM 2020!

NUMBER OF VISITORS



14,158
trade visitors
from Asia

NUMBER OF BRANDS



1,432
brands with
69%
international
participation

NUMBER OF OFFICIAL PAVILIONS



18
official
pavilions

LEADS GENERATED



67%
of exhibitors
generated new
sales leads

EXHIBITOR SATISFACTION



Over 84%
of exhibitors
were very
satisfied

NUMBER OF EDITIONS



A proven
track
record of
15 editions

Contact us to discuss your
participation at **APM 2020**

E: apm.sales@reedexpo.com.sg
T: +65 6780 4586

Organised by:



Endorsed by:



Supported by:



Held in:



Gold Sponsor:



2019 Sino-Swiss Business Incubation Competition

SSBICom 2019 is a search for innovative Switzerland-based companies and start-ups that have unique potential to grow in the Chinese market. The chosen companies will be rewarded with a valuable professional China market entrance package and a complimentary base in one of China's leading business innovation districts, Chongqing Liangjiang New Area's SinoSwiss Technopark.

WIN CHINA MARKET ENTRANCE

The chosen companies will receive a valuable package of professional services and benefits including:

Business setup support

Legal consultancy
Strategic planning
Commercial registration assistance
Tax consultancy
HR services Market research support



Rent-free office space

1st Prize: Free rent for maximum 500 square meter office for 3 years
2nd Prize: Free rent for maximum 500 square meter office for 2 years
3rd Prize: Free rent for maximum 500 square meter office for 1 year

Partner identification and financing

Identification of a strategic partner
Identification of financial support or investment
Chongqing preparation seminar (in Switzerland)
Chongqing Study Tour

Visit <http://www.cluecompetition.com/competition.php>
for more information about this competition

 **Search / Buy / Connect / Update**
@ www.IndustrialGuideAsia.com

Smart India Hackthon 2019



Smart India Hackathon 2019 is a nationwide initiative to provide students a platform to solve some of pressing problems we face in our daily lives, and thus inculcate a culture of product innovation and a mindset of problem solving.

The last edition of the hackathon saw over 5 million+ students from various engineering colleges compete for the top prize at 35+ locations.

In SIH 2019, the students would also have the opportunity to work on challenges faced within the private sector organisations and create world class solutions for some of the top companies in the world, thus helping the Private sector hire the best minds from across the nation.

What is SIH2019?

- An initiative by Ministry of HRD, AICTE, Persistent Systems, i4c and Rambhau Mhalgi Prabodhini
- Involves 1 Lakh+ technical students, 3000+ technical institutions, 200+ organizations from across India
- World's biggest Software and Hardware hackathon
- 3rd edition of highly successful Smart India Hackathon initiative
- Technology Students across India compete to creatively solve problems and offer technical solutions
- Harness expertise of students from IISc, IITs, NITs and AICTE/UGC approved institutions

Visit <https://www.sih.gov.in/sih2019> for more information about this competition.

The 3rd China (Shenzhen) Innovation & Entrepreneurship International Competition



The 3rd China (Shenzhen) Innovation & Entrepreneurship International Competition has officially been launched on 1st December, 2018. Registration is open from 1st December, 2018 to 28th February, 2019.

This competition brings wide global innovation connection and great opportunities to start-ups. In this year, it will continue but pursue further connection between cities and regions across the world. A total of ten overseas divisions are involved in this competition.

While, around 40 venture capital organisations will participate in the international competition. Leading by a number of renowned investments organisations, including Shenzhen Capital Group, Shenzhen Green Pine Capital, Oriental Fortune Capital, Cowincapital and Green Orange Capital directly connect with the competition, and form a venture capital fund pool of RMB 25 billion (3.2 billion Euros) to carry out portfolio investment on outstanding projects.

During the division competitions, investment organizations and investors from Shenzhen will serve as judges and supervisors engaging in project connections in different divisions. All participating projects will be provided with social capital investment opportunities through the investment connection service platform of the competition.

Visit <https://www.tuspark.co.uk/news-edit/2019/1/8/the-3rd-china-shenzhen-innovation-amp-entrepreneurship-international-competition-has-officially-been-launched> for more information about this competition.

Nokia Open Innovation Challenge 2019

39



Nokia Open Innovation Challenge offers the opportunity for the bright minded companies to propose the best-in-class products and solutions within the Industrial Automation domain to international jury. The jury will then select the most advanced and innovative candidates to attend the final event in November held at Nokia headquarters. In the final event, these finalists will present their innovative products or solutions to the executive level jury who will then select the winners.

The next generation industrial revolution will not only affect traditional industry operators, but also every single business which has requirements for automation and optimized services. These enterprises are making the leap to a new era of higher productivity and quality with the next generation of connectivity and applications.

NOIC is about evolution and revolution. We are looking for innovations which may already be established, but will reach new heights of interest within the industry given the right support from Nokia; or innovations which are totally new ideas and concepts, but might need some tuning to fit the requirements of potential customers.

Strive to have an innovative mindset. Big innovations have been done and developed when people have looked beyond the obvious. Think big and out of the box.

Visit <https://www.nokia.com/innovation/open-innovation-challenge-2019/> for more information about this competition.

RAMP 2019 Competition



Introduction to the competition

This competition focuses on the modeling of manufacturing processes for system-level sustainability assessment. Models can span from traditional scale down to nanoscale processes and be based on mechanical, electrical, chemical, biochemical, and bio technologies. Any process type - including batch, continuous, and discrete event - is acceptable. Since sustainability is a balance of competing objectives including cost and time as well as environmental considerations, many different types of process performance metrics may be considered. In addition, the use of the models for system-level sustainability performance is encouraged.

Objective

The purpose of the competition is create a venue to foster interest in characterizing manufacturing processes – leading to a common set of descriptive models and performance metrics that support effective and consistent system level analysis and comparisons spanning various manufacturing processes and resources. This year's Theme is Model Reusability.

Similar to the 2018 competition, the building blocks of each submission are the Unit Manufacturing Process (UMP) models, which represent Reusable Abstractions of Manufacturing Processes (RAMP). Visit <https://event.asme.org/MSEC/Program/RAMP-2019-Competition> for more information about this competition

Light & Disruption Competition



In the modern word, complexity and uncertainty seem ever-present. How do we maintain relative order and a sense of calm? We rely on the power of interconnectivity. When different systems, processes and people work seamlessly in conjunction with

one another, this is when our towns and cities flourish. But what happens when something goes wrong?

Conflict, disruption and environmental changes can leave us vulnerable, but we're never entirely powerless. This forms the challenge of CLUE edition 05: to explore how light can help to prevent challenging situations and crisis or manage emergencies when they occur. In testing circumstances, how can we unlock the extraordinary potential of light for brighter lives and a better world?

During an incident or emergency, it's understandable that confusion, disorientation and even panic are likely responses. That's why, in this edition, we are asking young students and professionals to imagine the ways in which lighting can make a difference - big or small

We encourage contributors to think of prevention - how illumination can help to anticipate and address problems before they even start - as well as the way in which it might assist during an incident. How can light help the people affected by a crisis? What role can it play in aiding emergency responders? And how can it help in the aftermath of an incident?

The particular situation you want to tackle is entirely up to you. What can you bring to the table? Visit <http://www.cluecompetition.com/competition.php> for more information about this competition



BALLUFF
sensors worldwide

Sensor and System Expertise from the Specialist

In the interests of our customers

Specialization and versatility are not mutually exclusive for us. Productivity is ensured for the future only if innovation becomes an everyday aspect and we question what is regarded as valid today. All solutions from Balluff are designed for the productivity of our partners and developed from the standpoints of standardization, durability, dynamics, range and efficiency.



www.balluff.com.sg



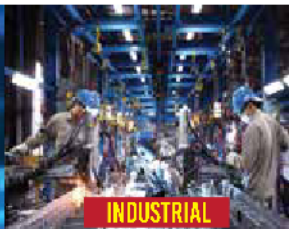


VETTRI VEL CO. LTD

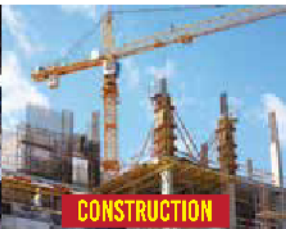
ONE STOP **SOLUTION** FOR YOUR **INDUSTRY**



SYSTEM INTEGRATION



INDUSTRIAL



CONSTRUCTION



MARINE / PROCESS



AUTOMATIVE

OUR **SERVICES** AND **SOLUTION** TO YOU RIGHT TO YOUR DOOR

From Manufacturer to Retailer

- ♦ Shipping
- ♦ Cargo clearance
- ♦ Logistic / transportation
- ♦ Marketing & promotion

Extensive Networks

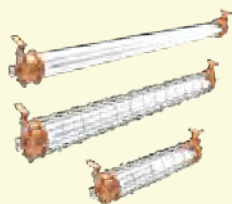
- ♦ Local Myanmar coverage
- ♦ Shawbawgyigone retails zone
- ♦ South / north Dagon industrial
- ♦ Retails zone, Bayinnaung
- ♦ Automobile retails market zone
- ♦ Thilawa industrial zone
- ♦ And to your locations

Overseas Network

- ♦ Singapore
- ♦ Malaysia
- ♦ Vietnam
- ♦ Thailand
- ♦ Japan
- ♦ Dubai
- ♦ China

WEBSITE: WWW.VVMYANMAR.COM

HOTLINE: (+95) 9771 066 643



Ex-BAC&BACE Series



Ex-BJG Series



Ex-BCT&BCTE(D) Series



Ex-BLP Series



Ex-BCL Series



Ex-BNIH Series

- CORE BUSINESS** : EX IECEX certified: LIGHTINGS ALL RANGES, JUNCTION BOX, POWER PANEL, CABLE GLANDS, CABLE TRAY (SS), SUBSEA SERVICES
- CORE EXPERTISE** : MARINE SERVICES, OFFSHORE/MARINE CABLE(ALL RANGE), AIR COMPRESSOR SYSTEM (FULL RANGE)
- CORE SERVICES** : OFFSHORE / ONSHORE MARINE SERVICES, ELECTRICAL ENGINEERING SERVICES (PNEUMATICS, HYDRAULIC, COMPRESSOR SYSTEM)



Events Calendar

JULY 2019

10 - 11 JULY 2019

SABAH OIL & GAS CONFERENCE &
EXHIBITION 2019

*Grand Ballroom, Magellan Sutera Resort,
Kota Kinabalu, Sabah*

17 - 18 JULY 2019

INDO WATER 2019

Jakarta Convention Centre

17-18 JULY 2019

BEYOND PARADIGM SUMMIT 2019

MITEC, Kuala Lumpur

18 - 21 JULY 2019

MALAYSIA INTERNATIONAL PLASTIC
MOULD & DIE EXHIBITION

PWTC, Kuala Lumpur

18 - 21 JULY 2019

MALAYSIA PACK & FOOD PPO 2019

PWTC, Kuala Lumpur

AUGUST 2019

14 - 16 AUGUST 2019

VIETNAM MANUFACTURING EXPO 2019

I.C.E Hanoi, Vietnam

21- 24 AUGUST 2019

TAIWAN AUTOMATION INTELLIGENCE &
ROBOT SHOW 2019

Taipei Nangang Exhibition Center, Hall 2

22 - 25 AUGUST 2019

CAMBODIA INTERNATIONAL MACHINERY
INDUSTRY FAIR

Phnom Penh, Cambodia

28 - 30 AUGUST 2019

INAMARINE 2019

JIExpo Kemayoran, Jakarta, Indonesia

SEPTEMBER 2019

03- 06 SEPTEMBER 2019

SPE OFFSHORE EUROPE

Aberdeen, UK

11 - 14 SEPTEMBER 2019

ELECTRIC, POWER & RENEWABLE
ENERGY INDONESIA 2019

JIExpo, Kemayoran, Jakarta, Indonesia

11 - 13 SEPTEMBER 2019

NEPCON VIETNAM 2019

I.C.E. , Hanoi, Vietnam

12 - 14 SEPTEMBER 2019

PROPAK MYANMAR 2019

Myanmar Expo, Yangon

16 - 21 SEPTEMBER 2019

EMO HANNOVER

Hannover, Germany



Search / Buy / Connect / Update
@ www.IndustrialGuideAsia.com



WE ARE HERE TO

BUILD YOUR BRAND

info@industrialguideasia.com



Events Calendar

SEPTEMBER 2019

18 - 21 SEPTEMBER 2019

OIL & GAS INDONESIA 2019
Jakarta, Indonesia

18 - 21 SEPTEMBER 2019

MINING INDONESIA 2019
Jakarta, Indonesia

18 - 21 SEPTEMBER 2019

TUBE SOUTHEAST ASIA 2019
Bangkok, Thailand

18 - 21 SEPTEMBER 2019

WIRE SOUTHEAST ASIA 2019
Bangkok, Thailand

18 - 21 SEPTEMBER 2019

MARINTEC INDONESIA
Jakarta, Indonesia

23 - 24 SEPTEMBER 2019

INDUSTRIAL AUTOMATION FIESTA 2019
*Dewan Taman Mawar, Pasir Gudang,
Johor Bahru, Malaysia*

OCTOBER 2019

9- 12 OCTOBER 2019

INTERNATIONAL FURNITURE
MANUFACTURING COMPONENTS
JIIExpo, Kemoyan, Indonesia

15 - 17 OCTOBER 2019

INTERNATIONAL TRADE FAIR FOR
LABORATORY EQUIPMENT & TECHNOLOGIES
PWTC, Kuala Lumpur, Malaysia

10 -12 OCTOBER 2019

METALEX VIETNAM 2019
SECC, HCMC, Vietnam

NOVEMBER 2019

14 - 15 NOVEMBER 2019

OIL & AS FIESTA VIETNAM
Imperial Hotel Vung Tau, Vietnam

25 - 26 NOVEMBER 2019

OIL & GAS FIESTA PENDERANG
*The Westin Desaru Coast Resort
Convention Hall, Pengerang, Johor, Malaysia*

DECEMBER 2019

4 -7 DECEMBER 2019

MANUFACTURING INDONESIA 2019
Jakarta International Expo, Indonesia



**WE ARE HERE
TO BUILD
YOUR COMPANY**

INFO@INDUSTRIALGUIDEASIA.COM

2019



Search / Buy / Connect / Update
@ www.IndustrialGuideAsia.com



Technical Meeting Ind...

INDOWATER 2019 EXPO & FORUM

**THE 15th INDONESIA'S NO.1
INTERNATIONAL WATER, WASTEWATER
AND RECYCLING TECHNOLOGY EVENT**

**THE BIGGEST AND MOST COMPREHENSIVE
TECHNOLOGY EVENT IN INDONESIA**

17 - 19 JULY 2019
Jakarta Convention Center, Jakarta - Indonesia

Incorporating with

**INDO
SANTECH
2019 EXPO & FORUM**

**INDO
POOLTECH
2019 EXPO & FORUM**

**INDORENERGY
2019 EXPO & FORUM**

**INDO WASTE
2019 EXPO & FORUM**



For further information, please contact

Samuel Octaviano Wajong
Project Manager
Mobile : +62 819 3838 5599

samuel@napindo.com

Ayuningtyas
Sales Administrator
Mobile : +62 817 0005 594

ayu@napindo.com

ORGANISED BY



PT NAPINDO MEDIA ASHATAMA
Tel : (+62-21) 865 0962, 864 4756 / 85
Fax : (+62 21) 865 0963
E-mail : info@napindo.com
Website : www.napindo.com

www.indowater.com | info@indowater.com
 Indo Water Expo & Forum @IndoWater @IndoWaterExpo

OFFICIAL PUBLICATION

Water & Wastewater Asia

SUPPORTING PUBLICATIONS

Water

Green

QWI

Kota Industri

WATER

labsatu

Indotrading

EXPO

orange

CIMIF | CTG

The 8th Cambodia International
Machinery Industry Fair

The 8th Cambodia International
Textile & Garment Industry Exhibition

Your Reliable Source for High-Grade Industrial Machinery

22–25 August 2019

Diamond Island Convention & Exhibition Center
Phnom Penh, Cambodia

www.chanchao.com.tw/Cambodia-expo

Contacts

International:

Tel: +886-2-26596000

Fax: +886-2-26597000

Mr. Akai Lin (ext. 176)

E-Mail: akai@chanchao.com.tw

Cambodia:

Tel: +855 10 280257

Mr. Sambath Srun

E-mail:

sambathsrn010@gmail.com



Endorsed By:



Organize By:



ALL CORP
Listen · Create · Deliver



Tatmadaw Hall, Yangon, Myanmar
29 November - 1 December 2019
9 am - 5 pm

Contact Us:

+959 3033 1405

+607-336 5039 / +6016-218 12185



dagonexhibitions@gmail.com



info@IndustrialRoadshow.com

www.electricityandenergy.com

Winner Group (S) Pte Ltd, established since 2007 as a marine services contractor by a team of professionals with more than 20 years of passion and experiences in ship building and repairing projects, specializing in Hot/Cold Insulation and HVAC System Installation.

We are dedicated to efficiently commence our task with utmost safety, quality and with cost efficiency to meet your requirements and satisfaction. Our tools and equipment are up to date with the latest cutting edge technology ensuring excellence in our labour.

HVAC System Installation

- Design, Fabrication and Installation of Spiral/Rectangular Ducting System including Thermal Insulation and Jacketing.
- Supply Equipment, Installation, Testing and Commissioning of Air-Conditioning and Refrigerator System

HOT & COLD Insulation & Boiler Refractory

- Thermal & A60 Insulation
- Sound Barrier Insulation
- In-situ Polyurethane Foaming
- Pre-Fabricated Cadding and Mattress
- Boiler Refractory and Contracting



'Your Preferred Marine & Offshore Partner'



WWW.WINNERMARINE.COM

CONNECT
WITH US

WINNER GROUP (S) PTE LTD

1 Sunview Road #02-38/39, Singapore 627615

www.winnermarine.com

admin@winnermarine.com

(65) 6561 6934



HOW TO REGISTER YOUR BASIC LISTING ON WWW.INDUSTRIALGUIDEASIA.COM AND START YOUR EXPOSURE AROUND THIS REGION

Step 1 : Visit our website at www.industrialguideasia.com



Step 2 : click on the **SIGN UP / LOG IN** that is located on the top right hand corner.

Step 3 : click on the **SIGN UP** button.



Step 4 : Fill in your particulars and press the **SIGN UP** button.



Step 5 : After you have **SIGN UP**, You will see your name on the top right hand corner.

Step 6 : Click on your name.



Step 7 : Click on the **COMPANY MANAGER**.



Step 8 : Click on the **ADD** button.



Step 9 : Fill up your **COMPANY DETAIL**

Step 10 : After you are done filling up your company detail press **SAVE**



FREE LISTING!





Reliable connector systems

Providing latest technology and highest quality in products and customized solutions.

Based on the patented Multilam Technology, Stäubli Electrical Connectors offers electrical connectors for various Industrial Applications, Automation, Renewable Energies, Medical Devices, Test & Measurement equipment, and customized solutions for individual requirements.

www.staubli.com/electrical

Multi-Contact

MC

As of January 2017, original MC4 inventor Multi-Contact conducts its business and services as Stäubli Electrical Connectors.

Meet us at the global top events or contact us!

Phone: +65 626 609 00

ec.sg@staubli.com



STÄUBLI