

The Automated Industrial Community

Hannover Messe 2018 will focus on mobility, integration and collaboration

Matthew Jaster, Senior Editor

"Integrated Industry: Connect & Collaborate" is the theme for Hannover Messe 2018 (April 23-27, 2018) and once again robotics, automation and motion control will play a large role in Germany. Robotic companies, system integrators and providers of gripper systems are breaking new ground in human/machine collaboration.

"The range of Industry 4.0 solutions coming out of the robotics industry at the moment is truly vast," said Arno Reich, global director automation for Hannover Messe. "That is why the robotics and automation showcase is a major attraction for all visitors at Hannover Messe. All areas of the manufacturing industry are improving their production processes and outputs by integrating industrial robots, mobile robots, automated guided vehicle systems and industrial image processing solutions. The applications of these technologies are growing all the time, thanks to innovations like touch-sensitive robotic technologies, pack-and-place solutions and barrier-free, collaborative robots."

Visitors should check out the Robotics, Automation and Vision

Application Park in Hall 17 as well as the Automation Forum in Hall 14. The forum lectures will have a dual-focus on R&D and in-factory applications.

Planning on attending the show this year in Hannover? Here are a few booths that will feature products and technologies regularly featured in PTE:

Siemens (Hall 9, Stand D35)

The technical prerequisites for the implementation of Industry 4.0 are readily available with the Siemens Digital Enterprise: the connection of the virtual and the real world of production along the entire value chain based on profound industry knowledge and unique expertise in the fields of electrification, automation, and digitalization. At the Siemens booth, attendees will see how the seamless interaction of automation hardware, software, and services is already paying off in many industries and in companies of all sizes. They will learn first-hand how the process and manufacturing industries are already benefiting from digitalization: from customized industry solutions for the simulation of machines and equipment with digital twins, from MindSphere, the open IoT system for more connectivity and data sharing,

and from comprehensive cyber security. (www.siemens.com)

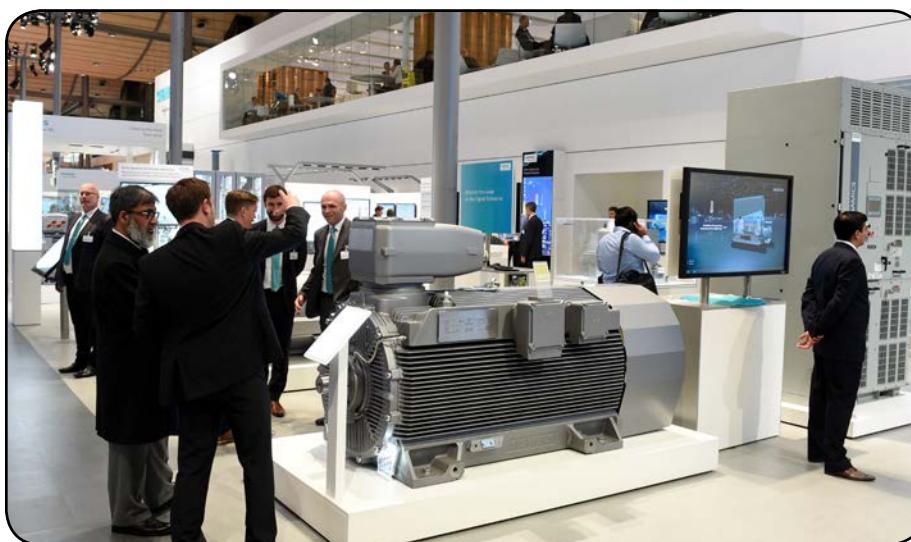
Schaeffler (Hall 22, Stand D49)

At the Hannover Messe 2018, Schaeffler will be presenting intelligent solution packages for machine monitoring and lubrication, illustrated using reference projects. One such customer is the Perlenbach water supply association, which supplies fresh drinking water to roughly 50,000 residents in seven municipalities of Germany's Eifel region every day. Ensuring fault-free and reliable operation would mean manning and monitoring the association's facilities 24 hours a day, since bearing defects in the centrifugal pumps could cause them to fail and compromise the security of the water supply. Perlenbach therefore decided to utilize a system that would continuously monitor



and lubricate the machinery. In Schaeffler, the water supply association found an expert partner to help implement a predictive maintenance system.

Together with the Concept8 lubricator, the preconfigured SmartQB condition monitoring system ensures fault-free operation. The stand-alone complete solution detects irregularities in electric motors, pumps, fans, and the rolling bearings that all of them contain. The SmartQB identifies the potential cause of failure—whether it's bearing damage, imbalance, friction, a temperature increase, or changes to the vibration pattern—and gives a clear text notification of the findings. The integration of the system, which was developed in



partnership with Mitsubishi Electric, into the control room visualization means that maintenance personnel are informed of incipient damage at an early stage and can immediately initiate maintenance measures and procure any replacement parts that might be needed. (www.schaeffler.com)

Beckhoff Automation (Hall 9, Stand F06)

Beckhoff provides the foundational technologies and tools needed today to implement Industrie 4.0 concepts and Internet of Things (IoT) connectivity, all via PC-based control. TwinCAT engineering and control software packages are available for the creation of applications such as Big Data, pattern recognition as well as condition or power monitoring, in addition to traditional control tasks—which can sustainably increase production and engineering efficiency as a result.

The Beckhoff AM80xx, AM81xx, AM85xx and AM88xx servomotor series represent robust, durable and high-performance synchronous servomotors, made in Germany. The AM80xx motors are ideal for applications with highest demands on dynamics and performance. The AM88xx series is the equivalent with stainless steel housing and shaft for use under IP 67 or IP 69K conditions. The AM85xx series offers an increased rotor moment of inertia for applications with large loads and high synchronism requirements. The AM81xx motors enable compact drive solutions in combination with the EL7201-0010 servo terminal. All motors of the AM8xxx series require only one motor connecting cable, since the feedback system's encoder information is transmitted digitally via two cores of the motor cable. The One Cable Technology (OCT) leads to a considerable saving in material and reduces installation and engineering costs. (www.beckhoff.com)

B&R Automation (Hall 9, Stand D26)

B&R combines state-of-the-art technology with advanced engineering to provide customers in virtually every industry with complete solutions for machine and factory automation, mo-



tion control, HMI and integrated safety technology. Here are some highlights from the upcoming Hannover Fair.



HMI Solutions

With mapp View, B&R now offers direct access to the wide world of web technology right from the engineering environment. For the first time, automation engineers have all the tools they need to create powerful and intuitive HMI solutions - and they don't have to know HTML5, CSS and JavaScript do to it. This solution relies 100% on web standards to ensure content can be viewed optimally on any output device or even customized for specific users or user groups. What makes mapp View unique is the way it integrates web technology right into the engineering environment. While mapp View is built on HTML5, CSS3 and JavaScript, automation programmers never need to deal with these languages. All GUI functionality is encapsulated in modular control ele-

ments called widgets, which are simply dragged and dropped into place and configured. Since content and layout are separated, designs can be adjusted at any time or even used on other machines. Automation engineers have all the tools they need to create powerful and intuitive HMI solutions.

ACOPOSmotor

The ACOPOSmulti has always been extremely modular, and it was the next logical step to merge inverters with the motor to create 8DI ACOPOSmotor modules that can deliver power directly where it is needed. This allows configurable modules to become easily connected mechatronic devices. It also makes it possible to reduce delivery times, free up valuable floor space and simplify commissioning.

Stainless Steel Motors

Maximum hygiene for foodstuffs and pharmaceuticals: The new stainless steel motors in the 8JSB series feature a hygienic design that allows efficient cleaning in the areas of foodstuffs production and medical engineering. With a smooth surface and IP69K protection, these motors satisfy the requirements of EHEDG, 3A and FDA hygiene standards, making them the optimal choice for harsh environmental conditions or in areas where machines are working with aseptic processes. These motors are characterized by the highest power density in this class.

(www.br-automation.com) **PTE**