

SPS IPC Drives 2018, Hall 11

Siemens extends Digital Enterprise offering with future technologies for Industrie 4.0

- **Integration of artificial intelligence and edge computing into Digital Enterprise portfolio**
- **Networking concepts from factory floors to corporate offices**
- **Growing ecosystem surrounding MindSphere**

By expanding its Digital Enterprise portfolio and integrating future technologies, Siemens is driving forward the digital transformation of the discrete and process industries. “An ever-increasing number of industrial enterprises, particularly SMEs, are well on the way towards Industrie 4.0, and are already improving their competitive standing with digital solutions,” explained Klaus Helmrich, Member of the Management Board of Siemens AG, at the SPS IPC Drives. “This applies to all sectors of industry with rapidly changing market demands in which products have to be manufactured ever more quickly, flexibly and in diminishing quantities. With the further integration of technologies such as artificial intelligence (AI) and edge computing into our portfolio, we’re paving the way for the future of industry.”

Siemens will be present at the fair with an array of innovations and industry-specific applications, ranging from automation and edge devices using artificial intelligence in applications such as machine tools, production machinery and process plants through to integrated networking concepts from factory floors to corporate offices. These all help to drive forward the use of innovative automation and software solutions.

Industrial Edge is a concept devised by Siemens for the discrete and process industries to enable data processing on the machine level as the optimal complement to cloud computing with the open IoT operating system MindSphere. Users benefit from the integration and flexibility the system allows for the analysis of

data either on the field level or in the cloud, depending on requirements.

Siemens is providing further support to its customers undertaking their digital transformation with the integration of AI technologies. Initial AI applications have already been successfully implemented in Siemens' own facilities: At the Siemens Electronics Factory in Amberg, for instance. Here, Edge devices working with AI are used to implement predictive maintenance measures, reducing unscheduled machine downtimes due to motor bearing damage on printed circuit board milling machines by 100 percent. Siemens is additionally launching a new module with an integrated AI-enabled chip for the Simatic S7-1500 controller. This enables functions such as quality controls and robot-based handling processes to be optimized through the use of machine learning algorithms.

Innovations featured at the show include the Sinamics G120X converter series, which has been optimized for pump and fan applications in the infrastructure industry. Using Sinamics Connect 300, these devices can also be linked to MindSphere, enabling users to optimize their processes and maintenance strategies by analyzing operating data gathered from converters, drive trains and machines. Sidrive IQ is a digital platform offered by Siemens for the analysis and utilization of data from drive systems. On the basis of networked Siemens drive systems, this cloud-based application is now also available for motors and converters in the medium and high voltage ranges.

Siemens will also be showcasing three new application packages for MindSphere: Connect & Monitor, Analyze & Predict, Digitalize & Transform, all including comprehensive advisory services. These new packages will allow even faster, simpler implementation of IoT projects by users, for instance by speeding up the connection, analysis and optimization of assets and by predicting and preventing unscheduled plant downtimes. They will also simplify the development of new services and business models. The growing ecosystem surrounding MindSphere is set to additionally benefit users by enabling a high level of flexibility in the choice of infrastructure (Amazon Web Services, Microsoft Azure, Alibaba Cloud). By acquiring Mendix and its low-code platform, Siemens is supporting in particular small and medium-sized enterprises to develop their own applications. The number of members affiliated to the MindSphere World user organization continues to grow, currently numbering 37 in Germany and 18 in Italy.

Klaus Helmrich explained the significance of cooperation in the Industrie 4.0 age using examples such as the recent Siemens affiliation with the Aruba in the field of communication networks. Siemens has joined forces with Aruba, a Hewlett Packard Enterprise, in a strategic partnership for integrated networks. On the basis of their complementary product portfolios, they will be providing support to customers in the implementation of integrated communication networks, all the way from factory floors to corporate offices.

Another example cited by Helmrich was the company's extended cooperation with Bentley Systems. Both companies recently announced their joint development of PlantSight Cloud Services, based on their highly complementary software portfolios. These services will afford users anytime access to 1D/2D/3D data using a simple web portal – making a continuously updated digital twin of a plant available to all users. Given the long service life of process plants and on-going investment projects, this offers a decisive benefit particularly to plant operators.

As the digital transformation progresses, cyber security is becoming a major success factor for an increasing number of companies. Here, Siemens offers a holistic industrial security concept based on products and services. As framework conditions and security requirements can vary, specifically tailored solutions are required for different sectors of industry – from discrete manufacturing through to the process industries. Siemens is the first company in the world to achieve TÜV SÜD certification for the secure system integration of process automation and drive solutions in compliance with the international IEC 62443-2-4 standard. The Digital Industry Services offered by Siemens are designed to support customers as they work towards customized implementation of the Digital Enterprise – from consulting through implementation to data analytics.

This press release and a press picture are available at <http://www.siemens.com/press/PR2018110080DFEN>

Additional information about Siemens at SPS IPC Drives 2018 is available at www.siemens.com/sps-ipc-drives and www.siemens.com/press/sps2018

Contact for journalists:

Dr. David Petry

Phone: +49 9131 726616; E-mail: david.petry@siemens.com

Follow us on **social media:**

Twitter: [www.twitter.com/siemens_press](https://twitter.com/siemens_press) and [www.twitter.com/SiemensIndustry](https://twitter.com/SiemensIndustry)

Blog: <https://blogs.siemens.com/mediaservice-industries-en>

Siemens AG (Berlin and Munich) is a global technology powerhouse that has stood for engineering excellence, innovation, quality, reliability and internationality for more than 170 years. The company is active around the globe, focusing on the areas of electrification, automation and digitalization. One of the largest producers of energy-efficient, resource-saving technologies, Siemens is a leading supplier of efficient power generation and power transmission solutions and a pioneer in infrastructure solutions as well as automation, drive and software solutions for industry. With its publicly listed subsidiary Siemens Healthineers AG, the company is also a leading provider of medical imaging equipment – such as computed tomography and magnetic resonance imaging systems – and a leader in laboratory diagnostics as well as clinical IT. In fiscal 2018, which ended on September 30, 2018, Siemens generated revenue of €83.0 billion and net income of €6.1 billion. At the end of September 2018, the company had around 379,000 employees worldwide. Further information is available on the Internet at www.siemens.com.