

Nuremberg, May 22, 2018

**automatica 2018, Hall A5, Booth 331**

## Siemens showcases user-oriented solutions for the digital future of manufacturing

- **Booth slogan: “Digital Enterprise – Implement now!”**
- **User-oriented Digital Enterprise solutions for manufacturing sharpen competitive edge of end users and machine builders**
- **Wide-ranging practically-oriented exhibits and models visualize digital progress along the entire value chain**

Siemens will be exhibiting at the automatica 2018 with an array of integrated and user-oriented Digital Enterprise solutions designed to sharpen the competitive edge of both end users and machine builders. Exhibiting under the banner “Digital Enterprise – Implement now!”, Siemens will be focusing on ways in which industrial enterprises of all sizes can benefit from the digital transformation – along the entire value chain from product design and production planning through the engineering process to new services. With product variants changing at an ever faster pace, today’s machines have to offer not only greater flexibility but also a higher degree of automation through the use of handling and assembly systems – a process supported by integrating robotics into production machinery. At the same time, automated engineering and the simulation of machines and product lines are enabling an ever shorter time to market.

Exhibiting at the automatica for the first time this year, Siemens will be showcasing whole new possibilities for handling systems and robot integration through simulation, engineering and machine connectivity with its world leading portfolio of automation, drive technology and software. The featured solutions for digitalized manufacturing are bringing about increasing convergence of the virtual and real production worlds, opening up exciting new potential for improving productivity through the simulation of plants and machines, as well as new scope for

connectivity. The technologies on show for improving the efficiency and economy of production processes include solutions for virtual commissioning, the integration of robotics into machine building and intuitive robot programming in the engineering portal. Visitors will also learn how they can use the open IoT operating system MindSphere from Siemens and MindApps to implement cloud-based solutions such as totally new maintenance concepts to boost the productivity and availability of their plants and machines.

The Digital Enterprise provides the manufacturing industry with an integrated range of software and hardware solutions for the seamless integration and digitalization of the entire value chain. The result is a digital twin which uses a data model to depict the product, the process and the manufacturing. To ensure that both machine users and machine builders are able to fully leverage the benefits of digitalization, a shared database encompasses everything from product design and production planning through engineering and production to services.

This integrated approach from the perspective of the product manufacturer will be illustrated at the show using the example of an industrial laptop from design through production to utilization of the data, encompassing product design, testing and simulation, moving on through production planning and engineering to production execution and finally services. Companies reap major benefits from this integrated approach, which allows them to step up collaboration from any location and at any time – for instance through the rapid, intuitive and secure detection, logging and fixing of problems from within a virtual reality meeting. Immersion into the digital twin using a VR headset allows engineers to carry out a thorough technical check of plants or machines, saving time when it comes to physical commissioning.

Sinumerik Run MyRobot from Siemens provides a solution for linking robots to machine tools, ranging from simple connection or convenient integration through performing handling tasks to full system integration of the robot kinematics. While the CNC takes charge of robot path control, the robot can be integrated into the existing CAD/CAM-CNC process chain and IT infrastructure. The benefits for users include greater path control accuracy, more flexibility and also improved productivity in manufacturing.

Machine customization is becoming an ever more important aspect for machine users. To ensure efficient assembly despite a high degree of customization, production must be structured for flexibility. Major potential exists here specifically in the field of material handling. Automatic guided vehicle systems can play a significant role in implementing a flexible production strategy. Digital Enterprise solutions also benefit the machine building sector by enabling the end-to-end digitalization of every phase of a machine's life cycle – starting with concept design through engineering and commissioning to services.

A customer application example featured at the fair is an assembly machine for consumer electronics by Bozhon Precision Industry Technology. The machine was engineered and commissioned using a digital twin located in Germany, while the physical machine was being simultaneously built in China. Almost 80 percent of the machine's functional features were validated using virtual commissioning, resulting in faster, more efficient production and a shorter time to market.

Using a model of the Sinamics S210 servo drive system comprising a converter and specifically developed Simotics S-1FK2 servo motors as well as OCC (One Cable Connection), Siemens will be demonstrating solutions for robotics and handling automation. In conjunction with a servo motor, rapid sampling and smart control algorithms for the converter, a high-grade encoder system, and the combination of low rotor inertia and high overload capability, the featured drive system achieves outstanding dynamic performance and precision.

Siemens will also be showcasing a range of kinematic applications for the handling market using a model at the show. The "Sigmatic Safe Kinematics" software library makes it possible to safely monitor selected kinematic motions in space, for instance to protect machine operators at work. This is achieved by monitoring the speed of selected points, for example the tool center point, and freely configurable zones such as the working and protection areas.



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This press release and a press picture are available at

[www.siemens.com/press/PR2018050177DFEN](http://www.siemens.com/press/PR2018050177DFEN)

For further information, refer to [www.siemens.com/automatica](http://www.siemens.com/automatica)

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