



SIEMENS

Ingenuity for life



Teaching made easy

Comprehensive support on
the way to Industrie 4.0

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Knowledge & technology – the keystones to success in digitalization

Siemens Automation Cooperates with Education (SCE)

Digitalization is quickly and radically changing our world. What does this mean for education?

In the world of Industrie 4.0, companies can expect a host of new opportunities and challenges. New systems are verified on the spot through simulations. Automated mass production processes can make every product on the conveyor belt a unique product. New products are now market-ready much faster. Siemens is shaping this transformation as a technology leader in the field of automation and process lifecycle management (PLM).

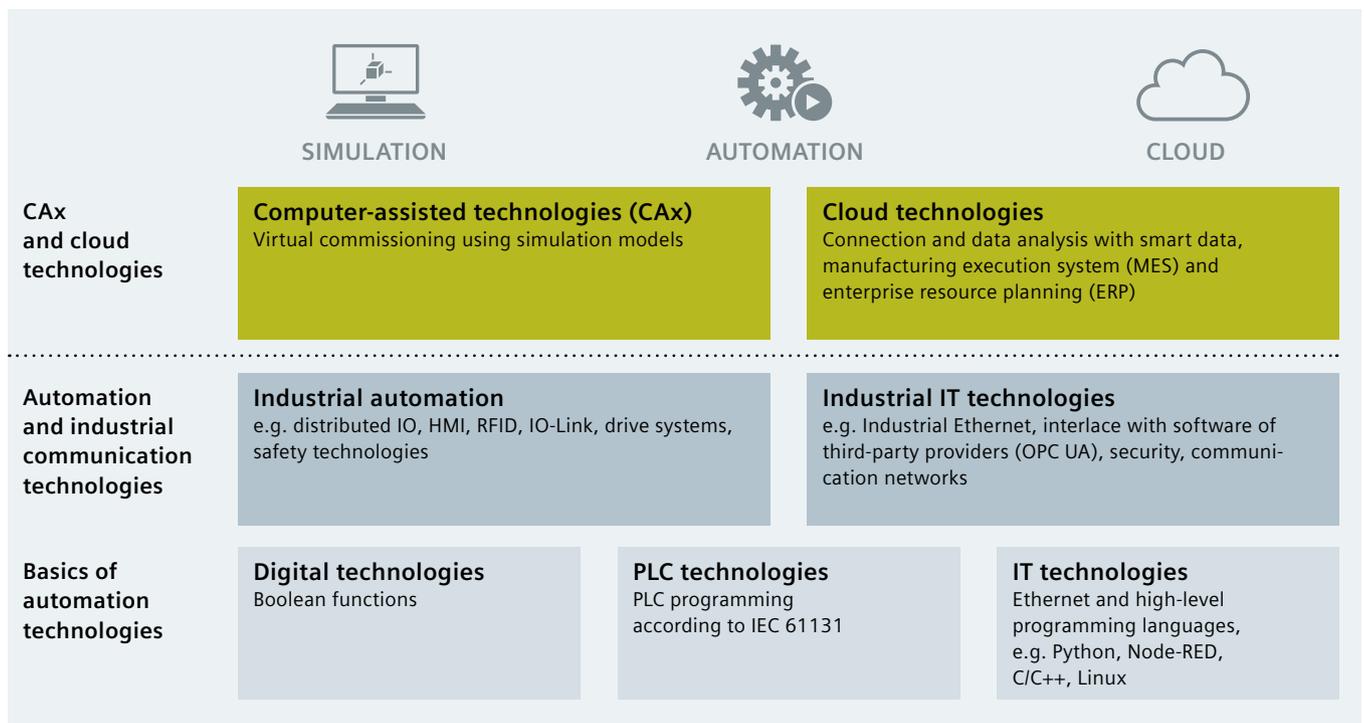
These new digitalization processes are changing the know-how requirements for employees. Many educational institutions are facing the challenge of conveying Industrie 4.0 know-how as part of their teaching and training. The Siemens Automation Cooperates with Education (SCE) program is supporting educators on the way to Industrie 4.0.

The SCE digitalization concept for educators

The SCE digitalization concept presented here shows how digitalization can be implemented in educational institutions – from vocational schools to universities.

Digitalization (or Industrie 4.0) know-how is now introduced through CAx and cloud technologies. It is founded on the basics of automation, such as digital technologies, PLC and information technologies, and on advanced automation and industrial communication technologies.

The level of digitalization knowledge can be weighted, depending on the vocational field or branch of study – e.g. mechanical engineering, automation engineering or computer science.



As part of their project work, students at Vocational School 2 in Wolfsburg, Germany, have implemented the three levels of the SCE Industrie 4.0 concept. A virtual twin created with the Siemens NX Mechatronics Designer (MCD) CAD software was used for the design and virtual commissioning. This enables fast and efficient assembly of the real automation system, e.g. with SIMATIC S7-1500/ET 200SP/RFID, for use in classes. Production data, such as the number of bottles filled, production date and system parameters, are uploaded to a cloud using SIMATIC IOT2000.

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The SCE offers

Learning and training documents

More than 100 didactically prepared learning and training documents are available through SCE and incorporate the digitalization concept. They are designed for use in classes, but can also be customized or used for individual study. These documents are available for free download, most of them in 7 languages.

[siemens.com/sce/documents](https://www.siemens.com/sce/documents)

Educator courses

Excellent teaching content is needed to introduce students to digitalization. For this purpose, SCE holds educator courses in certain regions. Based on our learning and training documents and through practical exercises, educators acquire the latest Industrie 4.0 know-how.

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Trainer packages

The 90 SCE trainer packages help educators teaching and implementing the SCE digitalization concept. Trainer packages comprise specially compiled, genuine Siemens hardware and software products. The trainer packages are based on the learning and training documents and are offered to schools, colleges and universities at special terms.

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Support for your projects / textbooks

We support you on selected projects with advice and assistance from SCE contact partners.

As a special service, we support textbook authors. We maintain a list of textbooks on the SCE website.

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Partnerships for proliferation of Industrie 4.0 in education



Partnership with WorldSkills

As a technology powerhouse, we support vocational training of students around the world. Since 2010, we have partnered with WorldSkills as a Global Industry Partner in order to amplify this cause.

WorldSkills is an international organization whose mission is to raise the profile and recognition of skilled people, and show how important vocational skills are in achieving economic growth and personal success. Every two years, WorldSkills hosts the world championships of skills.

Siemens provides the competitors with automation products, such as SIMATIC S7-1500 and LOGO!, for the disciplines: industrial control, electrical installations, Polymechanics/Automation and manufacturing technology.

The next international skill competitions are scheduled for Kazan/Russia, in 2019 and Shanghai/China, in 2021. Additionally, we support selected continental and regional competitions.

siemens.com/worldskills

Partnerships with educators

We provide support to educators and educational organizations in the form of one-on-one advice through SCE contact partners and Siemens experts as well as long-term cooperation.

siemens.com/sce/contact

Partnerships with producers of learning systems

For practical training in classrooms and labs, numerous producers of learning systems offer a wide range of complete didactic solutions based on SCE trainer packages.

siemens.com/sce/partner

Information portal

To facilitate your teaching assignment and/or for self-study, we offer educators and students a comprehensive SCE information portal. At this portal you have quick access to all SCE offers, e.g. learning and training documents, including projects, Getting Started information, videos, manuals, trial software and newsletters.

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Your personal SCE contact partner



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