Services for teaching, research and co-innovation

SAP University Alliances is a global program that provides more than 3,000 universities with free SAP software licenses for academic purposes. Within this program the SAP University Competence Centers (UCC) host SAP solutions for teaching, research and co-innovation.

In addition UCCs develop and manage academic teaching materials to assist lecturers and researchers. While UCCs assure 24/7 availability of complex system landscapes and support users closely, faculty members can fully concentrate on their core competences: teaching and research.

By using our scenario-based and practical curricula on latest SAP solutions, lecturers and students can reach their full potential. Our comprehensive teaching materials consist of presentations, case studies and hands-on exercises. Additional teaching tools facilitate continuous student assessments and foster group discussions.

Our experts can support you through all phases.

Contact

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SAP UCC

Industry 4.0

Teaching and Learning Environment SAP UCC

Also available:

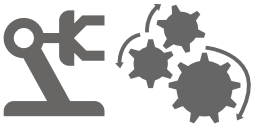
Global Bike Go | IoT | HANA | Development | TS410 | S/4HANA | ERPsim | Global Bike | Configuration | BW/4HANA | DWC

Industry 4.0 Teaching and Learning Environment

In cooperation with its industry partners, SAP UCC Magdeburg has developed various, comprehensive Industry 4.0/IoT teaching and learning environments, which help lecturers demonstrate current key points of digital manufacturing and digital supply chain management. Our flexible system landscape aims at students of engineering as well as business and computer science.

The curricula include an introduction to the complex topic of Internet of Things and present the influences that have led to the Industry 4.0 paradigm. Using practical case studies, students can then generate production orders in an Industry 4.0 landscape and process them virtually or in real life. Different scenarios are available depending on your learning objectives and the training plant used.

Research scenario



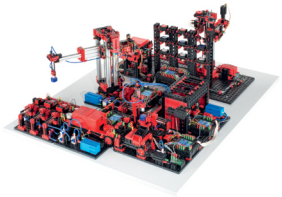
Individual scenario

This scenario includes an exclusive Industry 4.0 landscape. Basically, the SAP ME/MII provides and manages production orders for manufacturing plants and can be connected to an SAP S/4HANA client. Using the standardized OPC-UA protocol, various plants, e.g. from FESTO or ETS Didactic, can be connected to SAP ME/MII. This enables educational institutions to integrate individual Industry 4.0 scenarios in teaching and research.

Teaching scenarios

Virtual and physical scenario fischertechnik

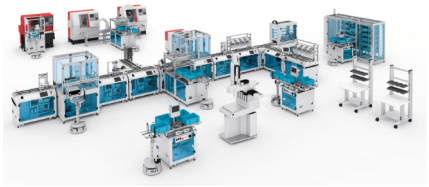
In combination with the fischertechnik factory simulation, this scenario based on the model company Global Bike allows lecturers and students to experience digital processes in cyber-physical systems using a physical miniature manufacturing plant. This setup offers an ideal solution in between a virtual simulation and a full-fledged industry plant.



Physical scenarios

FESTO

In combination with the CP Factory and MES4 from FESTO, this scenario covers comprehensive manufacturing processes. In a modular and flexible teaching system, processes are initiating by an individual production order, handed over to manufacturing until partial or full order confirmation in an ERP system. FESTO's ME system is connected to the sap4school IUS client, which makes this scenario currently available for vocational schools only. In addition, production simulations can be created using FESTO CIROS®.



ETS DIDACTIC GMBH

The CPS-i40® connectedFACTORY from ETS DIDACTIC represent a fully connected and modular production line. Automation standards such as Profinet, Profibus-DP and OPC-UA are used. In combination with SAP ME/MII and a connected sap4school IUS client, a complex process from the entry of a customer order in a web store to manufacturing and delivery can be simulated. This scenario was designed for vocational schools, but can also be used at universities. In addition, simulations can be created using SIEMENS NX.