

# Industry 4.0 – introduction and hands-on experience

## Context

Industry 4.0 is the digitization of a company's physical assets and the company's integration into digital ecosystems with its value chain partners, from suppliers to customers. It uses smart technology and real-time data to increase flexibility, customization, efficiency and productivity, and to reduce time, costs and innovation cycles. Industry 4.0 will require innovation on two fronts: smart products and smart processes. It will also require substantial change to the workforce, which will need to be trained and skilled to work in an Industry 4.0 environment; this is one of the biggest challenges of the fourth industrial revolution.

## Program

In this workshop different aspects and perspectives on Industry 4.0 and its relevance for academia and industry are highlighted. Topics are ranging from *advanced manufacturing to 4D printing and artificial intelligence for Industry 4.0*. Hands-on experience will be provided in form of a small case study. During the afternoon, you will have the chance to interact real-live with a model smart factory (CP lab) as provided by one of the world pioneers on educational systems for Industry 4.0: [FESTO Didactic Ltd.](http://www.festo.com) The day will be concluded by an interactive discussion with all participants about opportunities and challenges on industry 4.0

### **Morning – oral presentations & start hands-on workshop**

- ✓ Different components and perspectives on Industry 4.0 and its relevance for academia and industry will be detailed during the presentation sessions.
- ✓ The hands-on Industry 4.0 experience will be presented in form of a case study.

### **Afternoon – hands-on workshop & discussion**

The [CP Lab](#) consists of 8 individual stations, each mounted with a different application, that are connected together to form an industrial pallet circulating system. It is equipped with a full range of sensors, actuators and RFID technology as well as a Manufacturing Execution System (MES) that coordinates the plant. *Support is provided by FESTO Didactic staff and academic speakers*

### **Key take-aways:**

- ✓ Advance your technical skills
- ✓ Network with colleagues and industrial partners
- ✓ Learn interactively about the challenges and solutions that will prepare industry and academia for the advent of Industry 4.0

