

# Information Registration

The course is taught in English. Participants can be awarded with 4 ECTS credit points on completion of the Industry 4.0 Summer School.

**Registration deadline** | June 30, 2020

The registration fee is 350 Euro and includes online lectures and practical courses. Participants also receive a digital course transcript.

All Participants should have a good proficiency in English as the course is completely taught in English.

## Online Participation

All lectures will be broadcasted live and captured for the online course. Thus, it is possible to access the course content independently from time changes and location.

The practical sessions will be done remotely by accessing the hardware in our laboratory.

## Registration

You can register online via  
[eveeno.com/Industrie40\\_summerschool](https://eveeno.com/Industrie40_summerschool)

**For more information and the preliminary timetable (CEST)**, please refer to our Industry 4.0 homepage:  
[fhac.de/aaa/Industry4.0](https://fhac.de/aaa/Industry4.0)

**If you have any questions**, please contact us via email:  
[4.0Industry@fh-aachen.de](mailto:4.0Industry@fh-aachen.de)



# Online Industry 4.0 Summer School

**20<sup>th</sup> – 31<sup>st</sup> July 2020**



FH Aachen | Bayernallee 11 | 52066 Aachen | [www.fh-aachen.de](http://www.fh-aachen.de)  
Herausgeber | Der Rektor  
Gestaltung und Satz | Stabsstelle für Presse-, Öffentlichkeitsarbeit und Marketing  
Bilder | FH Aachen, Fachbereich Maschinenbau und Mechatronik



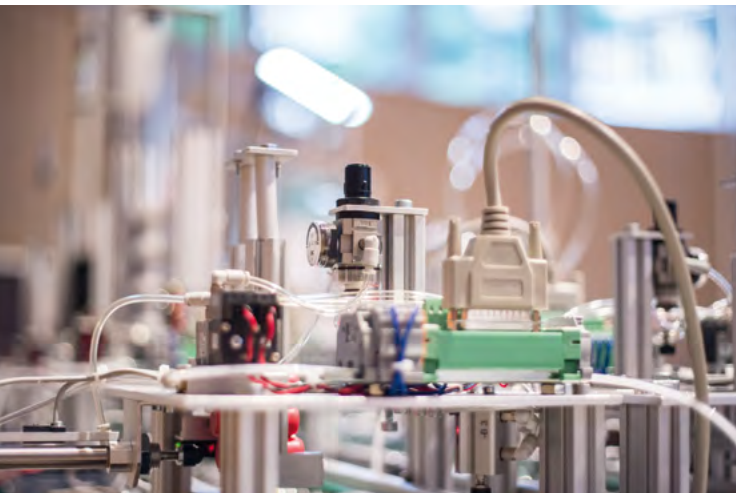
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# What is Industry 4.0?

Being sustainable is one of the most important objectives of European production facilities. With Industry 4.0, the German government, in cooperation with trade associations, universities, and the industry, has launched an initiative that aims to establish Germany as a leading provider of Cyber-Physical Systems. Accordingly, Industry 4.0 is not a technology, but a work plan that pertains to all production areas.

New challenges are to be met and activities coordinated, starting with processes and digitally networked systems, to people and machines, through to systems and products. The Industry 4.0 platform achieves this with a holistic and coordinated strategy. Industry 4.0 is a long-term development strategy that is only gradually gaining ground in industrial production and has different effects in different Industries.

In the past few years, the key areas of work have been identified and published in various strategic publications. RAMI 4.0 has been developed as an architectural reference model that covers all areas of the digital value creation chain. Based on this, we are now able to develop new forms of production.



## Industry 4.0 Summer School

The Industry 4.0 Summer School provides insight into the objectives and strategies of Industry 4.0, shows the current status of activities and gives hints on how to benefit from the ideas linked to Industry 4.0 today.

In addition to a theoretical introduction to Industry 4.0, the main technologies and processes for the implementation of Industry 4.0 are introduced and addressed in detail in a workshop.

- > Learn why Industry 4.0 is so important for European industry and what the idea behind the catch phrase I4.0 is.
- > Analyse the development strategy for Industry 4.0 and the required actions.
- > Look through the entire digital value creation chain from the intelligent sensor through to cloud services.
- > Understand which technologies make a machine, system or factory Industry 4.0 capable in industrial communication.
- > Discover the significance of IT, IT infrastructure and IT security in the context of Industry 4.0 for an automation system.



## Preliminary programme 20<sup>th</sup> July – 31<sup>st</sup> July

### First week: 20<sup>th</sup> until 27<sup>th</sup> July

<b>20<sup>th</sup> July</b>	Registration, Introduction to Industry 4.0, Get-together
<b>21<sup>st</sup> July</b>	<i>In the Morning:</i> Process Management & Organization; Business Process Modelling <i>In the Afternoon:</i> Factory Planning
<b>22<sup>nd</sup> July</b>	<i>In the Morning:</i> Production Management <i>In the Afternoon:</i> Lean Management & Lean Production
<b>23<sup>rd</sup> July</b>	Digital Lean Lab
<b>24<sup>th</sup> July</b>	<i>In the Morning:</i> Mastering Complex Systems, Communication in I4.0 <i>In the Afternoon:</i> PLC Programming

### Second week: 27<sup>th</sup> July until 31<sup>st</sup>

<b>27<sup>th</sup> July</b>	<i>In the Morning:</i> RAMI, Communication in I4.0 <i>In the Afternoon:</i> Edge Cloud
<b>28<sup>th</sup> July</b>	<i>In the Morning:</i> Roadmap Industry 4.0, Basics on Cloud System <i>In the Afternoon:</i> ESP8266
<b>29<sup>th</sup> July</b>	Digital Factory visit
<b>30<sup>th</sup> July</b>	<i>In the Morning:</i> Security & Safety, FH Cloud
<b>31<sup>st</sup> July</b>	<i>In the Morning:</i> Exam