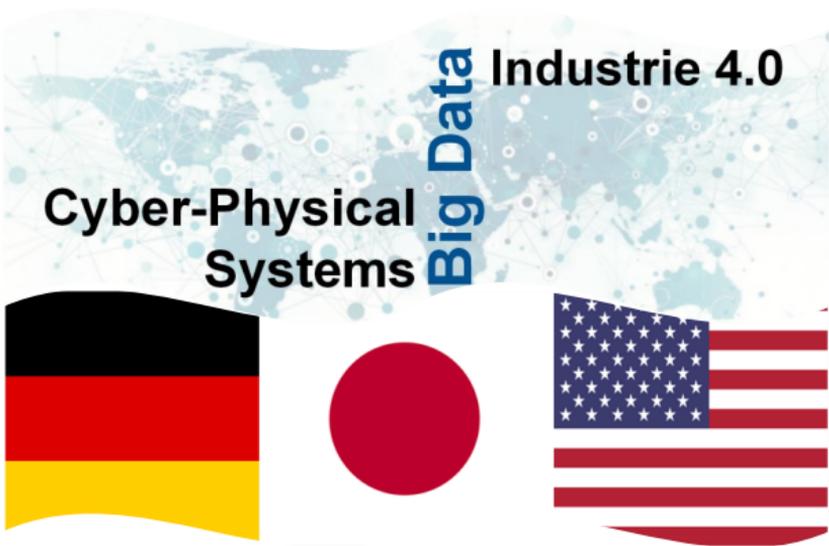




# Workshop Program

**4th German-U.S.-Japanese Workshop  
on  
Industry 4.0,  
Cyber-Physical Systems, and  
Big Data**

Technical University of Munich,  
Garching near Munich,  
21<sup>st</sup> April 2017



## Overview

In today's competitive business environment, companies are facing challenges in dealing with big data issues for rapid decision making for improved productivity. Many manufacturing systems are not ready to manage big data due to the lack of smart analytics tools. Germany is leading a transformation toward 4th Generation Industrial Revolution (Industry 4.0) based on Cyber-Physical Systems for the next wave of manufacturing and service innovation. In the U.S., a new wave of transformative technologies in industrial internet, predictive analytics, and CPS are accelerating the new industry transformation. And Japan has several industry-government-academia collaborative activities such as IVI (Industrial Value Chain Initiative) and RRI (Robot Revolution Initiative) towards the next generation "Mono-zukuri" (product development and production).

As more software and embedded intelligence are integrated in industrial products and systems, predictive technologies can further intertwine intelligent algorithms with electronics and tether-free intelligence to predict product performance degradation and autonomously manage and optimize product service needs.

This workshop will address the trends of industrial transformation in big data environment as well as the readiness of smart agent and predictive informatics tools to realize the vision of CPS-enabled Industry 4.0 production systems.

Key government leaders, industry executives, and academics scholars from both Germany, U.S. and Japan will present new initiatives, testbeds, applications, and research advances.

The objective of this industry forum is to demonstrate the ready-to-deploy technologies as well as to discuss the collaborative opportunities in future manufacturing and maintenance.

## Program for 21 April 2017 (*Tentative*)

- 08:00 am **Registration**
- 08:15 am Opening Greeting: Dr. Vogel-Heuser (Professor, Technische Universität München)
- 08:30 am Greeting from City of Munich, Embassy and others
- 08:45 am Keynote Lecture 0: Hosting university from CRC 786 (Prof. Vogel-Heuser)
- 09:10 am Keynote Lecture 1: General view towards Industry 4.0 (Prof. Epple, RWTH Aachen)
- 09:40 am Keynote Lecture 2: Benedikt Rauscher (Pepperl+Fuchs GmbH) & Tim Kaufmann (SAP) - "Connecting the industrial world – End to end communication from field devices to the ERP"
- 10:10 am Keynote Lecture 3: Mayui Noborisaka Ph.D (R&D Relations Group, Strategic R&D Planning Dept. Mitsubishi Electric Corporation Information Technology R&D Center)
- 10:30 am Keynote Lecture 4: "Overall Trend for I4.0/CPS in Japan":  
- Prof. Shirasaka (Keio University) - 10 min  
- Mr. Fukumoto (Evangelist, IVI:Industrial Value Chain Initiative) - 20 min
- 11:00 am **Panel 1: "Topic 1" e.g. Industry practices**  
Moderator: Prof. Vogel-Heuser  
List of participants: (e.g. TUM LS-FML, CHIRON Verw, VDMA, ZVEI, Festo, WAGO, KROHNE etc.)
- 11:45 am **Lunch Break**
- 12:50 pm Keynote Lecture 5: Marc Mattingley-Scott (IBM) – "Cognitive Computing and IoT as drivers of Hyperconvergence"
- 01:10 pm Keynote Lecture 6: Dr. Jay Lee (Honor professor, University of Cincinnati) – "Integrated CPS and AI for Smart Industrial Systems with Case Studies"

- 01:30 pm Keynote Lecture 7: Frank Knafla (Phoenix Contact Electronics GmbH & Co.) “PROFICLOUD – Cloud-based automation – the step towards the Internet of Things”
- 01:50 pm Keynote Lecture 8: Ser Yong Lim (SIMTech)  
“MCT – an Integrated Platform of Industry 4.0 and Industrial Internet System for Singapore Future of Manufacturing”
- 02:10 pm **Panel 2: “Topic 2” e.g. IT support and IoT for Industry 4.0**  
Moderator:  
List of participants: (e.g. inIT, SAP, FORCAM, Advantech, PTC Parametric Technology GmbH, SIMTech, iTiD)
- 03:00 pm **Break**
- 03:20 pm Keynote Lecture 9: Dr. Shuo-Yan Chou (National University of Taiwan, (NTUST))
- 03:40 pm Keynote Lecture 10: reserved spot for Japanese partners
- 04:00 pm Keynote Lecture 11: reserved spot for Japanese partners
- 04:20 pm Keynote Lecture 12: Prof. Niggemann
- 04:40 pm Keynote Lecture 13: Prof. Fottner (TUM Logistics)
- 05:00 pm **Break**
- 05:15 pm **Panel 3: “Topic 3” e.g. “Innovations support for I4.0”**  
Moderator: Jay Lee  
List of participants: (VDI/VDE, IBM, SIMTech, SAP, Advantech, BASF, Bayer, Festo, Evonik etc.)
- 06:30 pm Closing Greeting: Prof. Vogel-Heuser
- 06:45 pm **Networking Dinner**
- 08:45 pm Close

## Host and co-organizers

Prof. Vogel– Heuser (Technical University of Munich,  
Institute of Automation and Information Systems)

E-Mail: vogel-heuser@ais.mw.tum.de

TUM & TUM Asia

## Accommodation

### **Hotel König Ludwig II. (Garching near Munich)**

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### **Hotel am Park (Garching near Munich)**

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Website: <http://www.hotel-am-park.com/>

### **Hotel Garni Maria's Inn (Garching near Munich)**

E-mail: info@marias-inn.de

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### **Motel One (Munich-Garching)**

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Website: <https://www.motel-one.com/>

## Sponsorship

## Contact

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## Registration for the workshop:

<https://www.ais.mw.tum.de/veranstaltungen/aktuelle-veranstaltungen/4th-german-us-japanese-workshop-2017/>

Registration deadline — **1<sup>st</sup> of April 2017**

## Workshop Location

**Technical University of Munich,  
Institute of Automation and Information Systems**

MW 1801 (Ernst-Schmidt Lecture Hall), 85748 Boltzmannstr. 15, Garching near Munich, Germany

