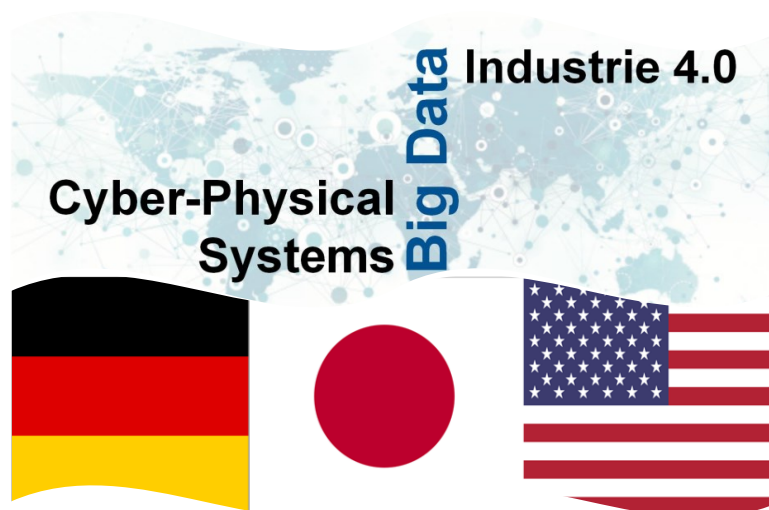




Workshop Program

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

Technical University of Munich,
Garching near Munich,
21st 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 (TUM AIS)
- 08:30 am Greeting from City of Munich, Embassy and others
- 08:45 am Keynote Lecture 1: Hosting university from SFB 786 (Dr. Vogel-Heuser)
- 09:10 am Keynote Lecture 2: Dr. Epple—General view towards Industry 4.0 (RWTH Aachen)
- 09:40 am Keynote Lecture 3: Benedikt Rauscher (Pepperl+Fuchs GmbH) & Timothy Kaufmann (SAP) - “Connecting the industrial world – End to end communication from field devices to the ERP”
- 10:10 am Keynote Lecture 4: Mayui Noborisaka (R&D Relations Group, Strategic R&D Planning Dept. Mitsubishi Electric Corporation Information Technology R&D Center)
- 10:30 am Keynote Lecture 5: “Overall Trend for I4.0/CPS in Japan”:
- Dr. Shirasaka (Keio University) - 10 min
- Isao Fukumoto (Toshiba Corp., IVI: Industrial Value Chain Initiative) - 20 min
- 11:00 am **Panel 1: Industry practices**
Moderator: Dr. Shirasaka (Keio University)
List of participants: (e.g. TUM LS-FML, Mitsubishi, SIMTech, FORCAM, ZVEI, WAGO, VDI/VDE, Toshiba, Yanmar, etc.)
- 11:45 am **Lunch Break**
- 12:50 pm Keynote Lecture 6: Marc Mattingley-Scott (IBM) – “Cognitive Computing and IoT as drivers of Hyperconvergence”
- 01:10 pm Keynote Lecture 7: Dr. Jay Lee (University of Cincinnati) – “Integrated CPS and AI for Smart Industrial Systems with Case Studies”

- 01:30 pm Keynote Lecture 8: Frank Knafla (Phoenix Contact Electronics GmbH & Co.) “PROFICLOUD – Cloud-based automation – the step towards the Internet of Things”
- 01:50 pm Keynote Lecture 9: Dr. 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: IT support and IoT for Industry 4.0**
Moderator: Dr. Jay Lee
List of participants: (e.g. inIT, SAP, FORCAM, Phoenix Contact Electronics GmbH, SIMTech, iTiD)
- 03:00 pm **Break**
- 03:20 pm Keynote Lecture 10: Dr. Shuo-Yan Chou (National Taiwan University of Science and Technology, (NTUST))
- 03:40 pm Keynote Lecture 11: Dr. Okuyama (Yanmar)
- 04:00 pm Keynote Lecture 12: Jürgen Vischer (FORCAM) - “Which support do you really need in production?”
- 04:20 pm Keynote Lecture 13: Ulrich Hempten (WAGO)
- 04:40 pm Keynote Lecture 14: Dr. Johannes Fottner (TUM Logistics)
- 05:00 pm **Break**
- 05:15 pm **Panel 3: Innovations support for I4.0**
Moderator: Dr. Birgit Vogel-Heuser (TUM)
List of participants: (IBM, SIMTech, SAP, inIT, Yanmar, NTUST, WAGO, etc.)
- 06:30 pm Closing Greeting: Dr. Birgit Vogel-Heuser
- 06:45 pm **Networking Dinner**
- 08:45 pm Close

Host and co-organizers

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

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

Victoria Karaseva (TUM, AIS)

E-Mail: Victoria.karaseva@tum.de

TUM & TUM Asia

Accommodation

Hotel König Ludwig II. (Garching near Munich)

Phone: +49 89 320 50 46

E-mail: hotel@hkl.de

Website: <http://www.hkl.de/>

Hotel am Park (Garching near Munich)

Phone: +49 89 320 40 84

E-mail: info@hotel-am-park.com

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

Hotel Garni Maria's Inn (Garching near Munich)

E-mail: info@marias-inn.de

Website: <http://www.marias-inn.de/>

Motel One (Munich-Garching)

Phone: +49 89 360 35 25

E-Mail: muenchen-garching@motel-one.com

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

Sponsorship

Contact

E-Mail: Industry2017@ais.mw.tum.de

Tel.: +49 (0) 89 289 16437

+49 (0) 89 289 16400

Registration for the workshop:

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

Registration deadline — **7th 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

