

“INDUSTRIE 4.0: Towards the Future of Manufacturing”
1st – 2nd November 2016

Programme Outline: 1st November 2016 (Day 1)

- 08:30am** **Registration Opens**
- 09:00am** **Opening Address** by the Embassy of the Federal Republic of Germany
Dr. Steffen Koch
Deputy Head of Mission
- German Academic Exchange Service (DAAD)**
Ms. Claudia Finner
Director
- 09:15am** **Welcome Address** by Agency for Science, Technology and Research (A*STAR)
Dr. Hazel Khoo
Deputy Executive Director
- Technical University of Munich Asia (TUM Asia)**
Dr. Markus Wächter
Managing Director
- 09:30am** **“Session 1: Challenges in Industry 4.0 and Smart Data” (30 mins)**
Prof. Dr.-Ing. Birgit Vogel-Heuser
Head of Chair and Director of Institute
Chair of Automation and Information Systems
Department of Mechanical Engineering
Technical University of Munich (TUM)
- 10:00am** **Question & Answer (15 mins)**
- 10:15am** **Morning Tea Break**
- 10:45am** **“Session 2: Future of Manufacturing – Challenges and Opportunities” (30 mins)**
Dr. David Low
Chief Executive Officer
Advanced Remanufacturing and Technology Centre (ARTC)
Agency for Science, Technology and Research (A*STAR)
- 11:15am** **Question & Answer (15 mins)**
- 11:30am** **PANEL DISCUSSION**
- “From Vision to Implementation –
What can Singapore Learn from Germany’s Industrie 4.0?” (45 minutes)**

Panellist(s):

- **Prof. Dr.-Ing. Birgit Vogel-Heuser**, Head of Chair and Director of Institute, Chair of Automation and Information Systems, Department of Mechanical Engineering, Technical University of Munich (TUM)

- **Dr. David Low**, Chief Executive Officer, Advanced Remanufacturing and Technology Centre (ARTC), Agency for Science, Technology and Research (A*STAR)
- **Mr Ulf Schneider**, President, Singapore Semiconductor Industry Association (SSIA), Singapore
- **Dr. Andreas Hauser**, Director, Digital Service, TÜV SÜD Asia Pacific Pte Ltd

Moderator:

- **Dr. Karthik Kumar**, Head, Chemicals, Materials and Energy Cluster, New Business Cluster, Science & Engineering Research Council, Agency for Science, Technology and Research (A*STAR)

12:15pm	Networking Lunch
01:30pm	“Session 3: Festo Technology Plant Scharnhausen on its way towards a digital factory – an adopters view on Industry 4.0” (25 mins) Dr. Lutz Seidenfaden Head of Competence Center Asia Festo Pte Ltd
01:55pm	Question & Answer (10 mins)
02:05pm	“Session 4: Material-critical Sensors and Transducers for Intelligent Manufacturing” (25 mins) Dr. Yao Kui Program Manager, Principal Scientist Institute Of Materials Research And Engineering (IMRE) Agency for Science, Technology and Research (A*STAR)
2:30pm	Question & Answer (10 mins)
02:40pm	Afternoon Tea Break
03:00pm	“Session 5: Visual Computing in Industry 4.0” (25 mins) Dr.-Ing. Marius Erdt Deputy Director Head, Visual and Medical Computing Fraunhofer IDM@NTU
03:25pm	Question & Answer (10 mins)
03:35pm	“Session 6: In situ programming and program verification for robotic automation” (25 mins) Dr. Martin Saerbeck Senior Scientist, Computing Science Institute of High Performance Computing (IHPC) Agency for Science, Technology and Research (A*STAR)
04:00pm	Question & Answer (10 mins)
04:10pm	Closing Remarks & Networking
05:00pm	End of Session

Programme Outline: 2nd November 2016 (Day 2)

08:30am	Registration
09:00am	“Session 7: Safety, Security, Reliability and Interoperability - Key Aspects for Migration to Industrie 4.0” (25 mins) Dr. Andreas Hauser Director, Digital Service TÜV SÜD Asia Pacific Pte Ltd
09:25am	Question & Answer (10mins)
09:35am	“Session 8: Two-factor Authentication for IoT Devices” (25 mins) Dr. Zhou Jianying Department Head Institute for Infocomm Research (I2R) Agency for Science, Technology and Research (A*STAR)
10:00am	Question & Answer (10 mins)
10:10am	Morning Tea Break
10:30am	Bus Departs for Site Visit
11:00am	Site Visit: Advanced Remanufacturing and Technology Centre (ARTC)
12:30pm	Networking Lunch
01:30pm	Bus Back to Event Venue
02:00pm	End of Session