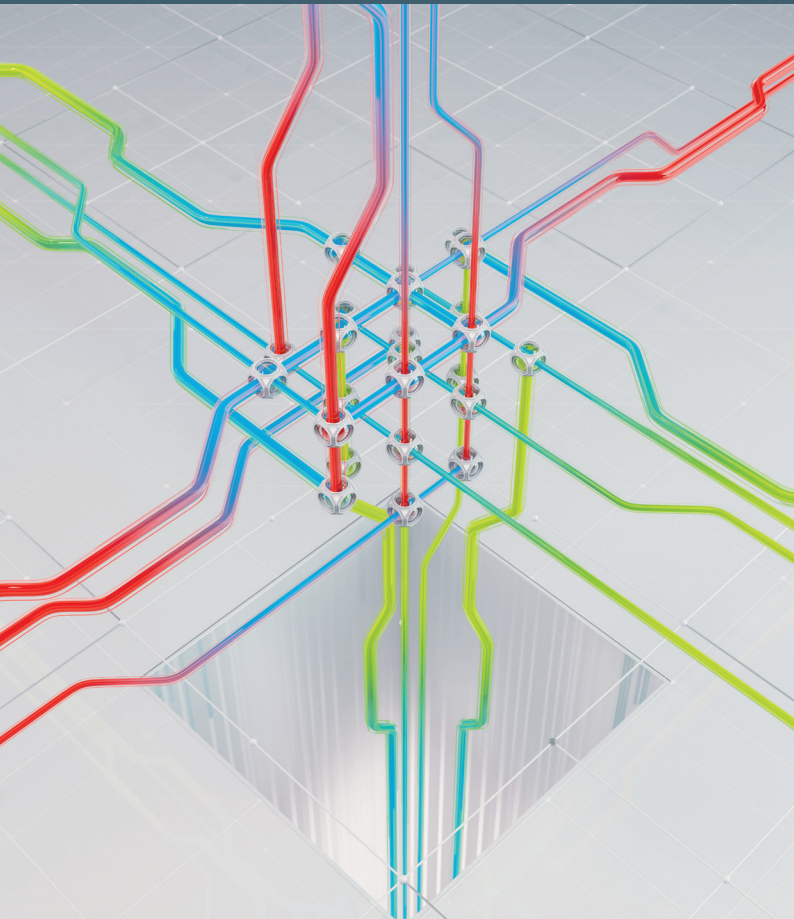




Fraunhofer

HANNOVER MESSE | APRIL 24-28, 2017

INTO A NETWORKED FUTURE TOGETHER



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WWW.FRAUNHOFER.DE/HM2017

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Communications

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Photo acknowledgments

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München 2017

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Visit our website www.fraunhofer.de/hm2017
or read our exciting HANNOVER MESSE news
at the booth and learn more about Fraunhofer
exhibits and other highlights at the fair.

DISCUSSION

MONDAY, APRIL 24 TUESDAY, APRIL 25

Fraunhofer-Gesellschaft
Press conference
“Into a networked future together”

Time

2.00 – 3.00 pm

Location

Convention Center, Room 12

Speaker

Prof. Dr. Reimund Neugebauer
President of the
Fraunhofer-Gesellschaft

Host

Fraunhofer-Gesellschaft

Fraunhofer-Gesellschaft
Press conference
“Numeric simulation”

Time

10.00 – 11.00 am

Location

Hall 7, Booth D11

Speaker

Andreas Burblies,
Spokesman of the Fraunhofer
Simulation Alliance

Topic

Numeric simulation

Host

Fraunhofer Simulation Alliance

Digital press kit

Our digital press kit includes all press events, press information, photographs and films of our exhibits at HANNOVER MESSE 2017.

Our experts will be happy to give you an interview. Please contact us in advance.

Contact

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presse@zv.fraunhofer.de

www.fraunhofer.de/presse-HMI2017



INTO A NETWORKED FUTURE TOGETHER

TUESDAY, APRIL 25

HALL 2 | BOOTH C16/22

“PLUGandWORK technology”

Time

9.30 – 10.15 am

Speaker | Institute

Dr. Olaf Sauer, Fraunhofer IOSB

“Quality assurance and transparency for screwing processes with low-cost sensor systems”

Time

10.45 – 11.30 am

Speaker | Institute

Jochen Seitz, Fraunhofer IIS

“Digital system house IWU”

Time

2.00 – 2.45 pm

Speaker | Institute

Dr. Ulrike Beyer, Fraunhofer IWU

“Industrial data space: Presentation of the reference architec- ture model for sovereign data exchange in eco systems”

Time

3.15 – 4.45 pm

Company | Institute

Industrial Data Space Association
and Fraunhofer-Gesellschaft

INTO A NETWORKED FUTURE TOGETHER

WEDNESDAY, APRIL 26

HALL 2 | BOOTH C16/22

**“Acoustic i4.0 technologies for condition monitoring
and quality assurance”**

Time

9.30 – 10.15 am

Speaker | Institute

Danilo Hollosi, Fraunhofer IDMT

**“On the road to human-robot cooperation for smart
factories”**

Time

10.45 – 11.30 am

Speaker | Institute

Dr. Mohamad Bdiwi, Fraunhofer IWU

**“Smart factory – component sensor technology for
optimizing production processes”**

Time

2.00 – 2.45 pm

Speaker | Institute

Dr. Saskia Biehl, Fraunhofer IST

**“Digitalization of processes – from smart container to
smart factory”**

Time

3.15 – 4.00 pm

Speaker | Institute

Karin Loidl, Fraunhofer IIS

INTO A NETWORKED FUTURE TOGETHER

THURSDAY, APRIL 27

HALL 2 | BOOTH C16/22

“Efficient coupling of SOEC and Fischer-Tropsch synthesis”

Time

9.30 – 10.15 am

Speaker | Institute

Dr. Stefan Megel, Fraunhofer IKTS

“Industry 5.0!?! Technology foresight for the industrial generation after the next”

Time

10.45 – 11.30 am

Speaker | Institute

Dr. Martin Brüchert, Fraunhofer INT

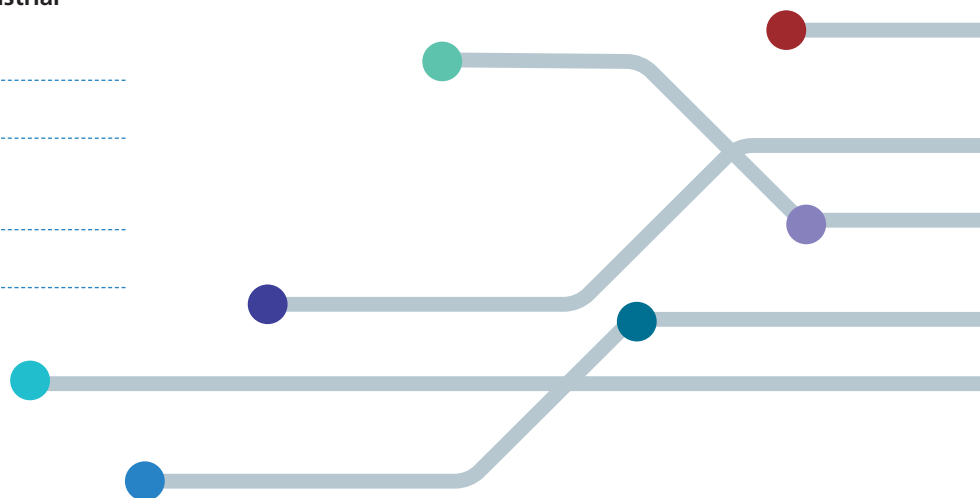
“IC4F – industrial communication for factories”

Time

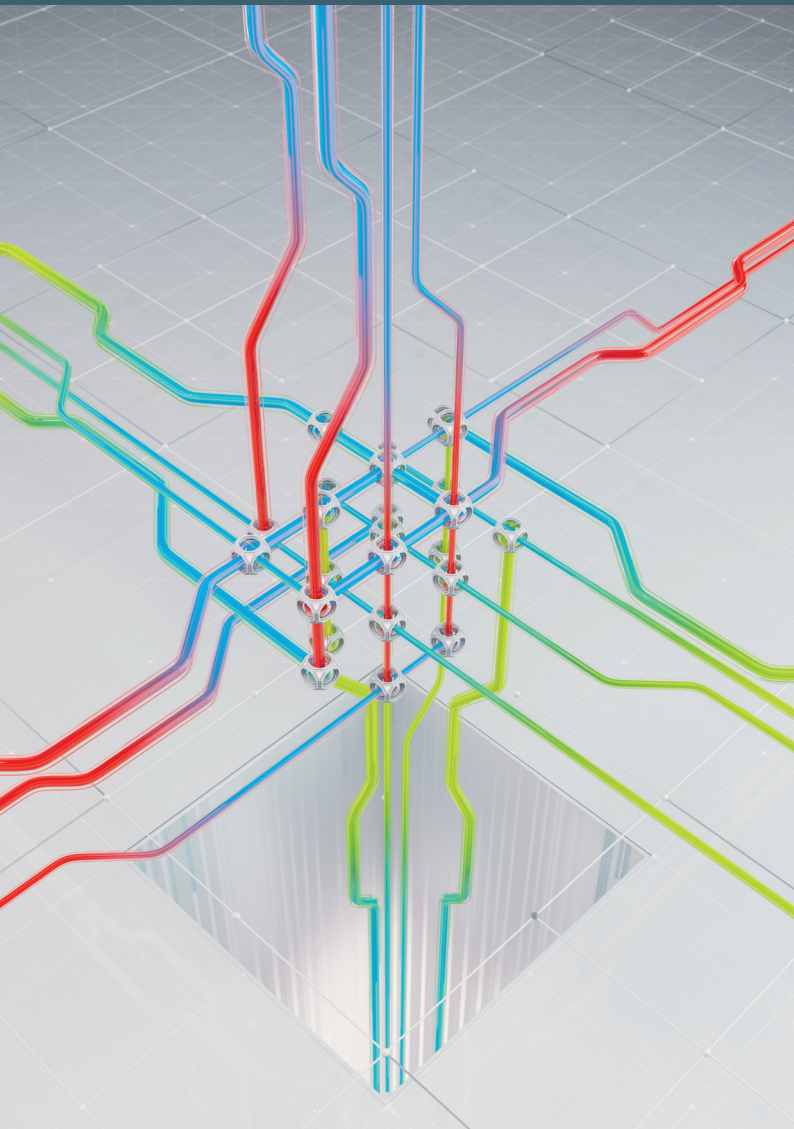
2.00 – 2.45 pm

Speaker | Institute

Julius Schulz-Zander, Fraunhofer HHI



INTO A NETWORKED FUTURE TOGETHER



INDUSTRIE 4.0

The progress of digitalization is no longer an issue restricted to research. Today, companies are faced with the challenge to make concrete use of the added value potential offered by digital transformation. At the joint Fraunhofer booths you get to experience innovative solutions how to integrate Industrie 4.0 in a company. Data acquisition by means of networked sensors, analyzing and linking big data, just as machine learning today do not only contribute to improved production processes but also open up new possibilities for developing new business models. The adaptronics area introduces you to versatile fields of application for sensor and actuator systems for networked and efficient production. The surface engineering area presents innovative coating methods that facilitate the fitting of sensors on surfaces that would not qualify otherwise. The simulation joint booth showcases the added value of computer-aided simulation processes for Industrie 4.0. The Fraunhofer Group for Production finally supports the integration and optimization of digitized processes. It identifies the potentials of digitalization in your own company and how they may be implemented individually.

Fraunhofer's interdisciplinary system research makes the interrelations of digital transformation accessible and shows innovative products for a networked future.

FUTURE FACTORY

JOINT BOOTH

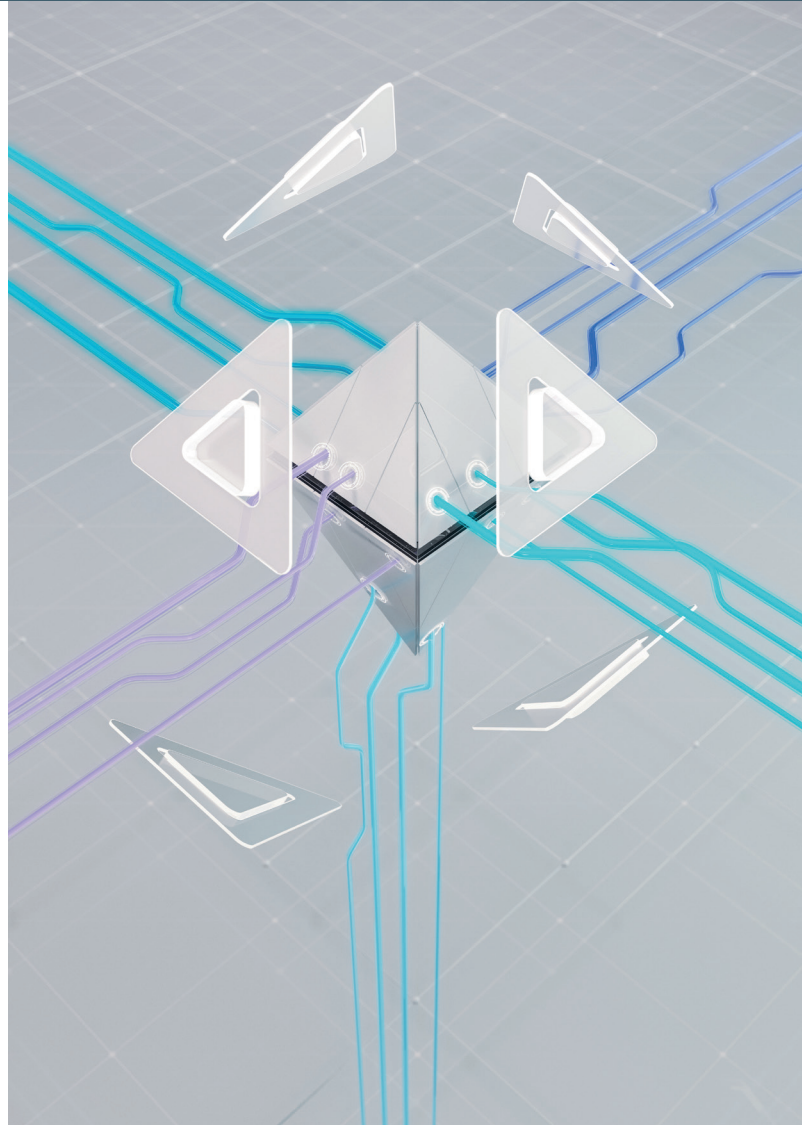
HALL 2 | BOOTH C16/22

INTO A NETWORKED FUTURE TOGETHER

Industrie 4.0 has become a reality today in many areas. And implementing smart networked production poses new challenges for companies: How to integrate Industrie 4.0 technology into existing facilities? How to realize production of lot sizes as small as one without rebuilding complete facilities? How to manage and process large volumes of sensitive data securely?

One key to Industrie 4.0 added value is the production of small series and unique items under mass-production conditions. The Fraunhofer initiative "Industrial Data Space" presents different data services that help to create a secure data space. So that companies remain in control of their data and may use it securely for smart services, innovative offerings and automated business processes. Digital twins of production facilities may avoid expensive prototypes or high-cost test runs. In addition, they allow for influencing the manufacturing process directly at any time; virtual changes are passed on to real production.

All around topics such as the shortening of latencies, tactile internet, and changes in the working world, you will see the greater picture of Industrie 4.0 and find concrete solutions for implementation.



FUTURE FACTORY

JOINT BOOTH



INDUSTRIE 4.0 AND WORKING WORLDS

HALL 2 | BOOTH C16/22

Fraunhofer exhibition partners

19 Fraunhofer Institute for Applied and Integrated Security AISEC

IoT solutions | Trusted IoT connector | Secure networking | Physical protection of devices
www.aisec.fraunhofer.de

17 **33** Fraunhofer Institute for Digital Media Technology IDMT

Acoustic condition monitoring | End-of-line testing | Machine learning | Signal analysis and processing | Virtual acoustic product development | Audio-visual 3D technologies | Acoustic event recognition | Speech control
www.idmt.fraunhofer.de

24 Fraunhofer Institute for Factory Operation and Automation IFF

Industrie 4.0 | Process industry | Assistance systems | Smart production | Virtual reality
www.iff.fraunhofer.de

25 Fraunhofer Institute for Integrated Circuits IIS

Positioning in production and warehouses | Assisted assembly and warehouse management | Intelligent tool tracking | Container management 4.0 | Intelligent locating of ground conveyors | Mobile commissioning systems | Measurement services for positioning and networking
www.iis.fraunhofer.de

23 Fraunhofer Institute for Machine Tools and Forming Technology IWU

Digital system house IWU | Smart production | Industrie 4.0 | Condition monitoring | Predictive maintenance
www.iwu.fraunhofer.de

31 Fraunhofer Institute for Nondestructive Testing IZFP

3D SmartInspect | Quality control | Digitalization | Augmented reality | Intelligent inspection assistance | Efficiency | Digital inspection memory
www.izfp.fraunhofer.de

28 Fraunhofer Institute for Optronics, System Technologies and Image Exploitation IOSB

Industrie 4.0 | IT security | Plug and work | Human-machine interaction | Industrial Internet of Things (IIoT)
www.iosb.fraunhofer.de

29 Fraunhofer Institute for Production Technology IPT

Networked, adaptive production | Smart manufacturing network | Digital twin | Service-oriented architecture | Smart glasses & tablets | Integrated systems | Self-adaptive process chains
www.ipt.fraunhofer.de

FUTURE FACTORY

JOINT BOOTH

INDUSTRIE 4.0 AND WORKING WORLDS

HALL 2 | BOOTH C16/22

18 Fraunhofer Institute for Secure Information Technology SIT

Cyber security | Anomaly detection | Integrity check | Protecting PLC components | Securing industrial control systems (ICS)

www.sit.fraunhofer.de

16 Fraunhofer Institute for Software and Systems Engineering ISST

Industrial data space | Sovereign data management | Digital value added chains | Networked supply chains | Sample application logistics

www.isst.fraunhofer.de

21 Fraunhofer Institute for Technological Trend Analysis INT

Technology foresight | Research and technology consultancy | Future production technologies | Industry 5.0 | Technology intelligence | Technology scouting | Planning and decision support

www.int.fraunhofer.de

20 Fraunhofer Institute for Telecommunications, Heinrich-Hertz-Institut, HHI

Wireless communication systems and networks | 5G | Industrial communication | Massive MIMO technology | Machine learning for wireless networks

www.hhi.fraunhofer.de

26 Fraunhofer Group for Production

Industrie 4.0 | Flexible manufacturing | Cloud computing | Assistance systems | Digital twins | Predictive maintenance

www.produktion.fraunhofer.de

34 Fraunhofer Academy

Cyber security training lab | Corporate learning | Educational technology

www.academy.fraunhofer.de

30 Fraunhofer-Gesellschaft, Recruiting

Career | Job offers | Vocational training | Internships | Theses | PhD | Programs for pupils and students

www.fraunhofer.de/career

27 Fraunhofer Industrie 4.0 Community and Corporate Business Development

Fraunhofer shell model of Industrie 4.0 value creation | Industrie 4.0 in a nutshell | Fraunhofer know-how distillate of Industrie 4.0 transformation

www.fraunhofer.de

32 Fraunhofer "Electricity as a Raw Material" Lighthouse Project

(represented by Fraunhofer UMSICHT) Power-to-chemicals | Electrochemistry | Sector coupling | Decentralized H₂O₂ production | Products from CO₂ | Process design | Sustainability

www.umsicht.fraunhofer.de

FUTURE FACTORY

JOINT BOOTH

INDUSTRIE 4.0 AND WORKING WORLDS

HIGH PERFORMANCE CENTERS | HALL 2 | BOOTH C16/22

15 Fraunhofer Industrial Data Space Initiative | Industrial Data Space e.V.
Sovereignty over data and services | Secure data supply chain | Light-weight data integration | Decentralized data management
www.fraunhofer.de | www.industrialdataspace.org

Exhibition partners

Fasihi GmbH
www.fasihi.net

IPT Pergande GmbH
www.pergande.de

22 Innovation Alliance 3Dsensation
(represented by Fraunhofer IOF and Fraunhofer IWU)
Human-machine interaction | Machine vision | Robot-assisted production of the future
www.3d-sensation.de

HIGH PERFORMANCE CENTERS – IDEAL TRANSFER OF RESEARCH

With the High Performance Centers, Fraunhofer contributes to a sustainable development of research sites with outstanding competences in the relevant research areas.

Their aim is to facilitate close cooperation of university and non-university research and the industry and to develop end-to-end roadmaps of the partners involved for the areas of research and education, advanced training, careers and promotion of young scientists, infrastructure, innovation and transfer. High Performance Centers optimize the transfer of research results into all industrial sectors, while spin-offs and technology start-ups, but also small and medium-sized enterprises benefit the most from the exchange with research.

www.fraunhofer.de/de/institute/kooperationen/leistungszentren.html

FUTURE FACTORY

JOINT BOOTH

HIGH PERFORMANCE CENTERS

HALL 2 | BOOTH C16/22

9 High Performance Center Digital Transformation

Internet of Things | 5G testbed |
Cyber physical systems |
Industrie 4.0 | Engineering a
connected world

www.digitale-vernetzung.org

4 High Performance Center Connected Secure Systems

Data models | Wireless com-
munication | IoT | Car2X sen-
sors | Cloud | Secure data pro-
cessing | Networked systems

www.leistungszentrum-systeme.de

(under construction)

7 High Performance Center Electronic Systems

Cooperation models for
strategic research partnerships |
Interorganizational develop-
ment program for high poten-
tials in research and industry |
Power electronics | Low-power
electronics

www.lze.bayern

6 High Performance Center Functional Integration for Micro-/Nanoelectronics

Industrie 4.0 | More than Moore
(MtM) | Internet of Things (IoT)

www.leistungszentrum-mikronano.de

5 High Performance Center Photonics

Optical components and
systems | Photonics solutions
for aerospace | Quantum
technology

www.leistungszentrum-photonik.de

8 High Performance Center Smart Production

(in the course of formation)
Smart factory | Digitalization
in production | Industrie 4.0 |
Smart materials | Interdisciplin-
ary research

www.leistungszentrum-smart-production.de (under

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3 High Performance Center Sustainability

Sustainable energy systems

| Sustainable materials |

Resilience engineering | X-ray

instrumented vehicle crash

www.leistungszentrum-nachhaltigkeit.de

FUTURE FACTORY

JOINT BOOTH

ADAPTRONICS

HALL 2 | BOOTH C16/22

ADAPTRONICS FOR THE INTERNET OF THINGS

For automating processes in production and logistics, machines and products need to be in constant exchange. Sensors and actuators are basic components of the Internet of Things. The Fraunhofer Adaptronics Alliance shows how sensor and actuator systems contribute to interactive networking.

Also in smart factories, sensors ensure a constant exchange of information. They collect data about actual conditions such as the utilization of a machine or the temperature, speed or vibrations of a product and pass it on. Actuators process the data and may therefore actively influence and optimize the conditions. In the adaptronics area, you learn how to realize self-adapting facilities: From a robot that controls motion sequences with a precision of 0.1 millimeters to thin-film sensor systems on tool surfaces, the Fraunhofer Adaptronics Alliance shows how adaptronics technology can make an increasing automation of production facilities work.

Fraunhofer exhibition partners

Fraunhofer Adaptronics Alliance

Adaptronics | Monitoring | Energy harvesting | Active systems | Intelligent materials
www.adaptronik.fraunhofer.de

12 Fraunhofer Institute for Silicate Research ISC

Renewable energy systems | Smart materials | Actuator systems | Sensor systems | Silicones
www.isc.fraunhofer.de

14 Fraunhofer Institute for Integrated Circuits IIS

Energy harvesting | Energy self-sufficient sensors | Power management | Thermoelectric energy supply
www.iis.fraunhofer.de

10 Fraunhofer Institute for Structural Durability and System Reliability LBF

Vibration absorption | Industrie 4.0 | Hardware in the loop | Active systems | OpenAdaptronics
www.lbf.fraunhofer.de

13 Fraunhofer Institute for Machine Tools and Forming Technology IWU

Shape memory sensor systems | Shape memory actuator systems | Ultrasound-aided chipping | Ultrasound oscillation systems | High-performance processing
www.iwu.fraunhofer.de

11 Fraunhofer Institute for Surface Engineering and Thin Films IST

Smart factory | Smart washer | Thin-film sensor systems | Component sensor technology
www.ist.fraunhofer.de

FUTURE FACTORY

JOINT BOOTH

ADAPTRONICS | HALL 2 | BOOTH C16/22

SURFACES | HALL 2 | BOOTH C16/22

Exhibition partners

37 ETO MAGNETIC GmbH
www.etogroup.com

35 Ingpus GmbH
www.ingpus.de

**38 Otto Bock HealthCare
Deutschland GmbH**
www.ottobock.de

36 smart³ e.V.
www.smarthoch3.de

Contact

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Phone +49 6151 705-236
hmi2017@
adaptronik.fraunhofer.de

Fraunhofer Adaptronics
Alliance
Postfach 10 05 61
64205 Darmstadt
www.adaptronik.fraunhofer.de

NETWORKED THROUGH SURFACE ENGINEERING

As a cross section technology, surface engineering is a key starting point for innovation in a number of industries. In the surface area, Fraunhofer Institutes demonstrate possible surface coating applications in the Industrie 4.0 environment.

Transmission procedures such as RFID serve the identification and positioning of objects and play a key role in the smart networking of production processes. We introduce you to the potentials of surface engineering and how it may contribute to the Internet of Things with numerous possibilities for production and processing. For instance, even temperature-sensitive plastic, paper or thinnest glass surfaces are coated in special plasma processes and are therefore equipped with different characteristics such as hydrophoby or anti-icing properties. By means of metallization, circuit paths may be integrated or antennae set up. Furthermore, you get to know sensory thin-film systems that are directly applied to the surface of tools and components. Key figures of production facilities may therefore be captured in spatial resolution and processed. At our booth, you gain comprehensive insight into surface engineering as part of the great Industrie 4.0 idea.

FUTURE FACTORY

JOINT BOOTH

SURFACES

FLOOR PLAN | HALL 2 | BOOTH C16/22

Fraunhofer exhibition partners

1 Fraunhofer Institute for Interfacial Engineering and Biotechnology IGB

Functionalized surfaces | Resource efficiency | Coatings | Damage analysis | Plasma processes

www.igb.fraunhofer.de

2 Fraunhofer Institute for Surface Engineering and Thin Films IST

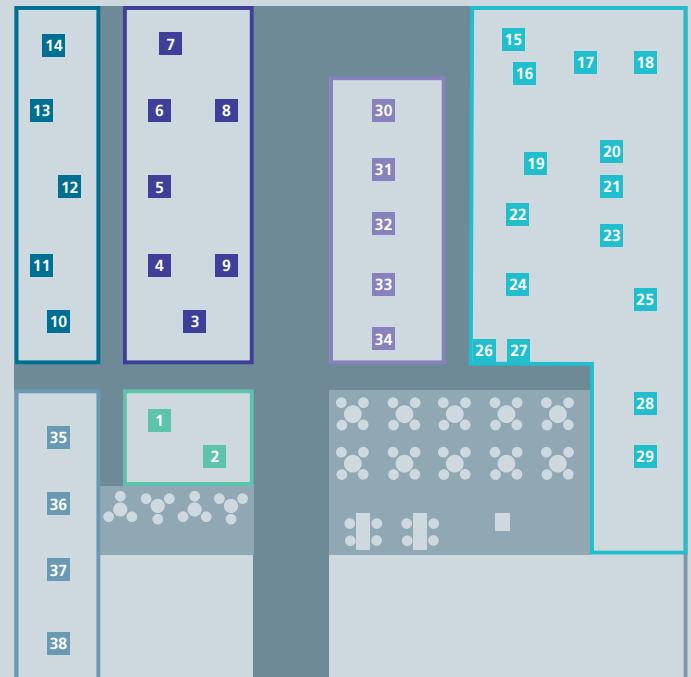
Plasma Technology | Development of sources and systems | Functional coatings | Surface treatment/modification

www.ist.fraunhofer.de

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Fraunhofer Institute for Surface Engineering and Thin Films IST
Bienroder Weg 54 E
38108 Braunschweig
www.ist.fraunhofer.de



- Surfaces
- High Performance Centers
- Adaptronics
- Industrie 4.0
- Working worlds
- External partners

SIMULATION

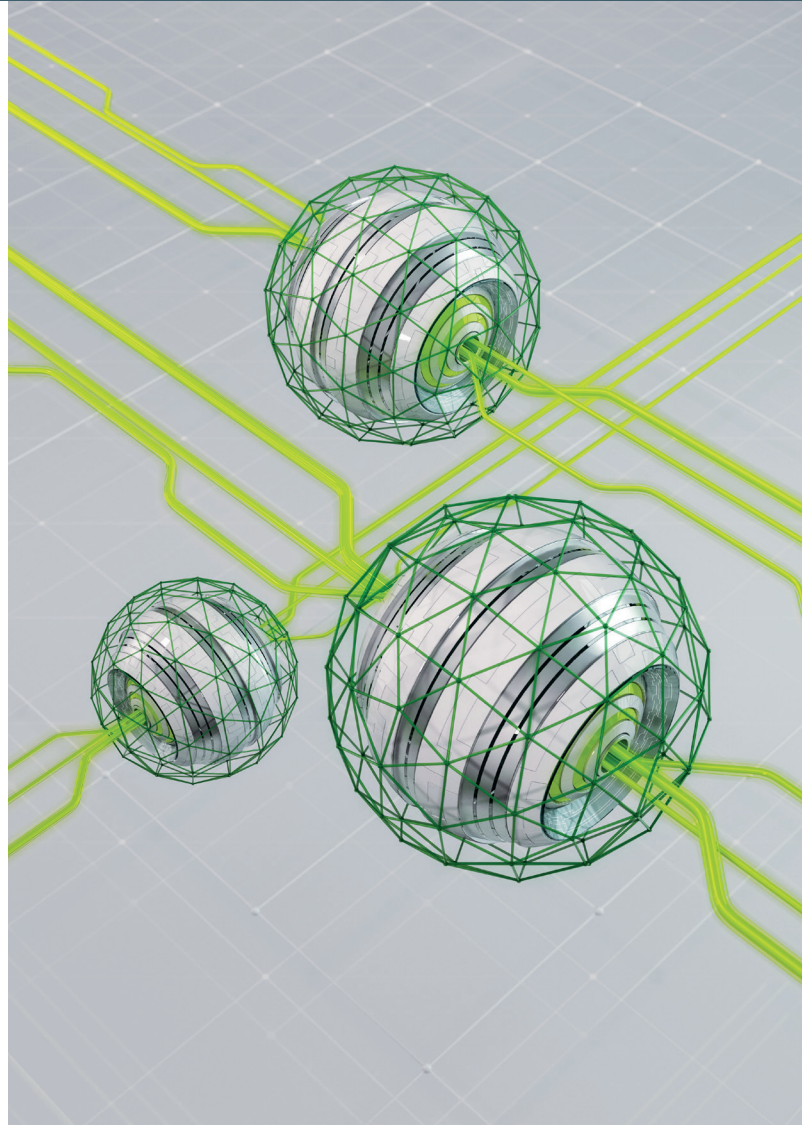
JOINT BOOTH

HALL 7 | BOOTH D11

SIMULATION AND INDUSTRIE 4.0

Industrial development is characterized by high dynamics asking for shorter development times from the idea to the final product as well as for prompt optimization of existing products. The implementation of computer-aided simulation processes is key in this regard. Within its 69 institutes and research establishments, Fraunhofer disposes of a wide range of application-oriented simulation solutions for production and logistics, production engineering, component behavior and fluid mechanics.

The Fraunhofer Simulation Alliance presents competences and services in the area of numeric simulation engineering. Learn more about new developments in the fields of software and material developments, production engineering, product design and component analysis, production and logistics, as well as Industrie 4.0 applications.



SIMULATION

JOINT BOOTH

HALL 7 | BOOTH D11

Fraunhofer exhibition partners

1 Fraunhofer Simulation Alliance

Product design and component analysis | Production and logistics | Services | Software development | Material modeling | Production engineering

www.simulation.fraunhofer.de

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Fraunhofer Simulation Alliance

Wiener Strasse 12
28359 Bremen

www.simulation.fraunhofer.de

5 Fraunhofer Institute for Computer Graphics Research IGD

Visual computing as a service | Interactive simulation | Additive manufacturing | Virtual & augmented reality | Cyberphysical equivalence | Assistance systems in production | Visual control panel

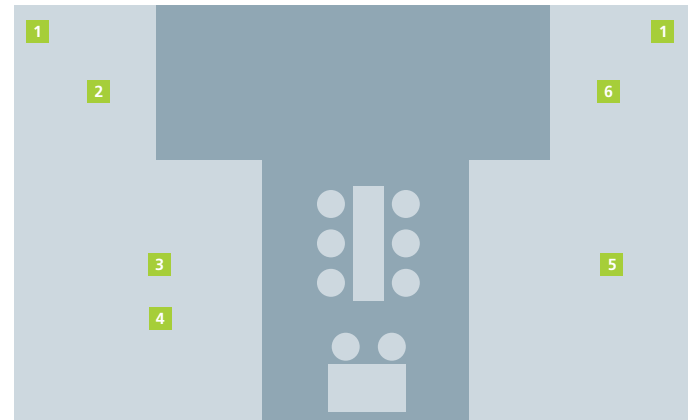
www.igd.fraunhofer.de

3 Fraunhofer Institute for Industrial Mathematics ITWM

Vehicle-environment-human interaction | User-dependent forecast of utilization, consumption and emissions | Simulation and software-based innovation | Optimization in process engineering | Real-time simulation of flexible components | robot path planning

www.itwm.fraunhofer.de

FLOOR PLAN | HALL 7 | BOOTH D11



2 Fraunhofer Institute for Manufacturing Technology and Advanced Materials IFAM

Simulation of mold filling and setting procedures | Integrated computational materials engineering (ICME) | Light-weight construction through robust design

www.ifam.fraunhofer.de

6 Fraunhofer Institute for Wind Energy and Energy System Technology IWES

CFD simulations | OpenFOAM training | Wind park optimization | Fluid structure coupling and stochastic methods

www.iwes.fraunhofer.de/

Exhibition partners

4 fleXstructures GmbH
www.flexstructures.de

PRODUCTION

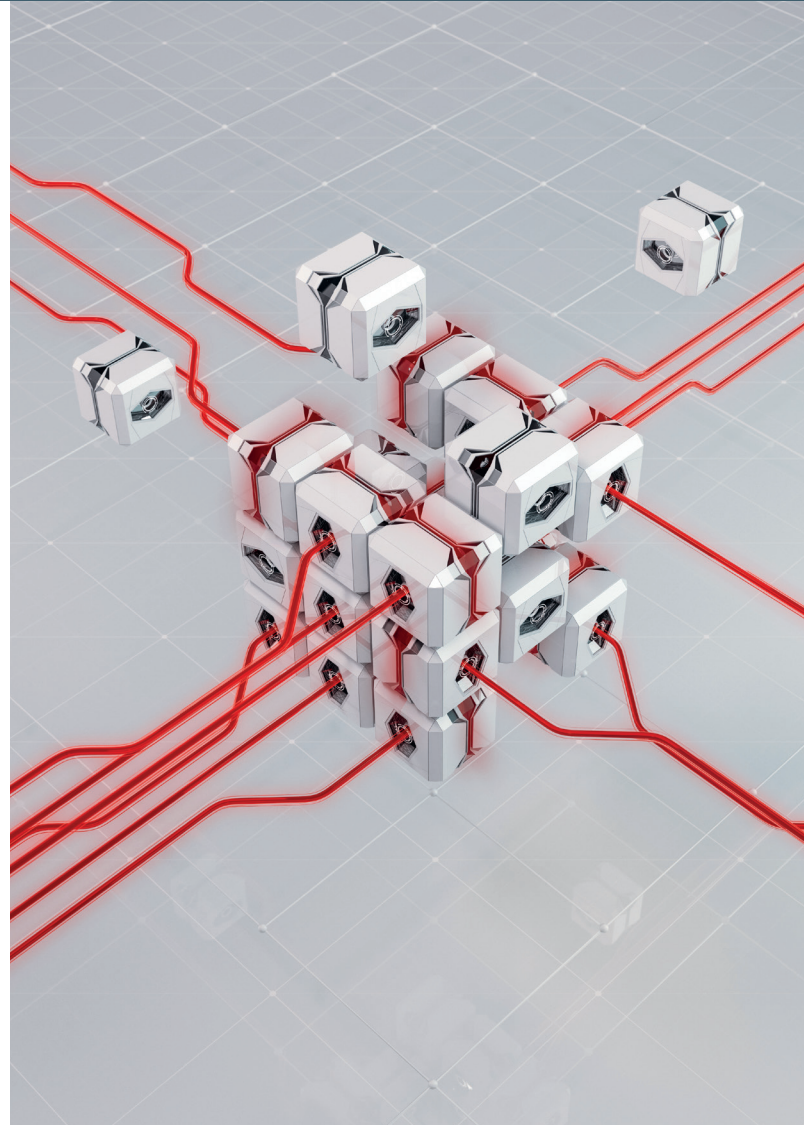
JOINT BOOTH

HALL 17 | BOOTH C18

PRODUCTION OF THE FUTURE – SMART, NETWORKED, DIGITAL

In the age of Industrie 4.0, the focus is on digitizing the complete production and logistics process. The Fraunhofer Group for Production invites you to discover concrete sample applications for a smart networking of companies.

The primary focus is on the question how smart processes can be integrated into the existing infrastructure of a company – everything true to the motto “smart, networked, digital”. The group platform Virtual Fort Knox provides numerous applications and services illustrating new and individual business models for companies. From platform-controlled assembly planning to virtual commissioning by means of digital twins to predictive maintenance – the Fraunhofer Group for Production demonstrates the implementation of smart factory in reality. With our “Industrie 4.0 check-up”, we identify the digitalization potentials of your company and possible measures for the path to the production of the future.



PRODUCTION

JOINT BOOTH

HALL 17 | BOOTH C18

Fraunhofer exhibition partners

1 Fraunhofer Group for Production

Assistance systems | Digital twins | Predictive maintenance | Systems analysis | Plug and produce | Lot sizes of one | Industrie 4.0 check-up
www.produktion.fraunhofer.de

5 Fraunhofer Institute for Factory Operation and Automation IFF

Predictive maintenance | Industrie 4.0 check-up | Assistance systems | Digital twins
www.iff.fraunhofer.de

9 Fraunhofer Institute for Machine Tools and Forming Technology IWU

Efficient human-robot interaction (HRI) | Smart collaborative robot | Physical interaction with heavy-payload robot | Superordinate safety system for HRI applications | Zone-based robot control for flexible HRI
www.iwu.fraunhofer.de

7 Fraunhofer Institute for Manufacturing Engineering and Automation IPA

Industrie 4.0 | Cloud manufacturing | Smart system optimization | Workplace injury prevention
www.ipa.fraunhofer.de

4 Fraunhofer Institute for Mechatronic Systems Design IEM

Intelligent mechatronic systems | Condition monitoring | Predictive maintenance | Adaptive processes | Virtual prototyping | Virtual commissioning
www.iem.fraunhofer.de

6 Fraunhofer Institute for Production Systems and Design Technology IPK

Digital integrated production | Customized processes | Modular shopfloor IT | Digital twins | Cloud-based robot control
www.ipk.fraunhofer.de

8 Fraunhofer Institute for Production Technology IPT

Connected, adaptive production | Service-oriented architecture | Digital twins | Smart-glasses | Services | Oculavis
www.ipt.fraunhofer.de

2 Fraunhofer Research Institution for Casting, Composite and Processing Technology IGCV

Human-robot interaction | Digital assistance | Additive manufacturing | Condition monitoring | Know how transfer for digitalization
www.igcv.fraunhofer.de

PRODUCTION

JOINT BOOTH

HALL 17 | BOOTH C18

3 Fraunhofer Research Institution for Large Structures in Production Technology

Digitalization of maritime industry | Mobile assistance systems | Smart one-off production | Manufacturing engineering for large structures
www.hro.ipa.fraunhofer.de

10 Fraunhofer E³ Production Lighthouse Project

Efficient processes and products | Efficient factory | Efficient working environment | System research production
www.e3-produktion.de

11 Fraunhofer shell model www.academy.fraunhofer.de/de/corporate-learning/industrie40.html

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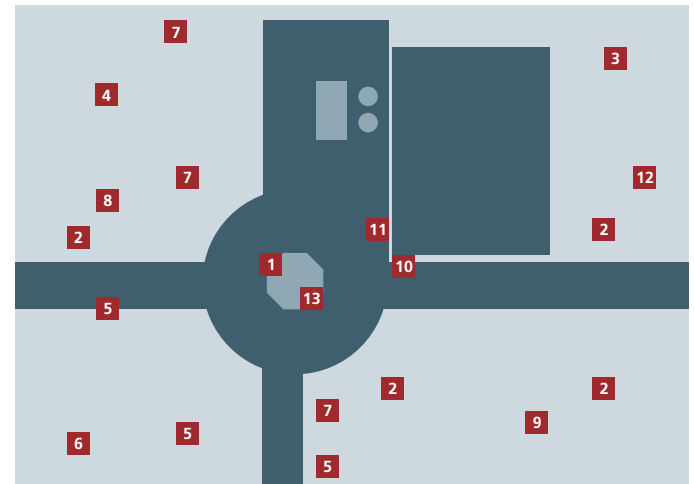
Fraunhofer Group for Production
Joseph-von-Fraunhofer-Str. 1
39106 Magdeburg
www.produktion.fraunhofer.de

Standpartner

12 OCULAVIS GMBH
www.oculavis.de

13 VFK AG
www.virtualfortknox.de

FLOOR PLAN | HALL 17 | BOOTH C18



FURTHER

FRAUNHOFER UNITS

Fraunhofer Institute for Applied Solid State Physics IAF

Hall 17, Booth B76

www.iaf.fraunhofer.de

Fraunhofer Institute for Ceramic Technologies and Systems IKTS

Hall 6, Booth B25

Hall 27, Booth E51

www.ikts.fraunhofer.de

Fraunhofer Institute for Chemical Technology ICT

Hall 27, Booth E65/1

www.ict.fraunhofer.de

Fraunhofer Institute for Chemical Technology, branch ICT – IMM

Hall 27, Booth B72

www.imm.fraunhofer.de

Fraunhofer Institute for Electronic Nano Systems ENAS

Hall 6, Booth C30

www.enas.fraunhofer.de

Fraunhofer Institute for Manufacturing Technology and Advanced Materials IFAM

Hall 27, Booth E51

www.ifam.fraunhofer.de

Fraunhofer Institute for Material and Beam Technology IWS

Hall 6, Booth A30

www.iws.fraunhofer.de

Fraunhofer Institute for Mechatronic Systems Design IEM

Hall 2, Booth C28

Hall 16, Booth A04

www.iem.fraunhofer.de

Fraunhofer Institute for Microstructure of Materials and Systems IMWS

Hall 27, Booth E55/1

www.imws.fraunhofer.de

Fraunhofer Institute for Optronics, System Technologies and Image Exploitation IOSB, Application Center for Industrial Automation

Hall 16, Booth A04

www.iosb.fraunhofer.de

Fraunhofer Institute for Silicate Research ISC, Center for High Temperature Materials and Design

Hall 2, Booth A52

www.htl.fraunhofer.de

Fraunhofer Institute for Solar Energy Systems ISE

Hall 27, Booth C62

www.ise.fraunhofer.de

Fraunhofer Institute for Surface Engineering and Thin Films IST

Hall 6, Booth B34/2

www.ist.fraunhofer.de

Fraunhofer Institute for Wind Energy and Energy System Technology IWES

Hall 27, Booth B69

www.iwes.fraunhofer.de

Fraunhofer Venture

Hall 3, Booth D03

www.fraunhoferventure.de

- 1** Hall 2, Booth A52
Fraunhofer ISC, Center for High Temperature Materials and Design
- 2** Hall 2, Booth C16/22
Future Factory joint booth
- 3** Hall 2, Booth C28
Fraunhofer IEM
- 4** Hall 3, Booth D03
Fraunhofer Venture
- 5** Hall 6, Booth A30
Fraunhofer IWS
- 6** Hall 6, Booth B25
Fraunhofer IKTS
- 7** Hall 6, Booth B34/2
Fraunhofer IST
- 8** Hall 6, Booth C30
Fraunhofer ENAS
- 9** Hall 7, Booth D11
Simulation joint booth
- 10** Hall 16, Booth A04
Fraunhofer IEM / Fraunhofer IOSB, Application Center for Industrial Automation
- 11** Hall 17, Booth B76
Fraunhofer IAF
- 12** Hall 17, Booth C18
Production joint booth
- 13** Hall 27, Booth B69
Fraunhofer IWES
- 14** Hall 27, Booth B72
Fraunhofer ICT – IMM
- 15** Hall 27, Booth C62
Fraunhofer ISE
- 16** Hall 27, Booth E51
Fraunhofer IFAM Fraunhofer IKTS
- 17** Hall 27, Booth E55/1
Fraunhofer IMWS
- 18** Hall 27, Booth E65/1
Fraunhofer ICT

JOINT BOOTHS

Hall 2, Booth C16/22
Future Factory

Hall 7, Booth D11
Simulation

Hall 17, Booth C18
Production

