



# Fraunhofer

FRAUNHOFER AT IMTS | SEPTEMBER 10–15, 2018  
INTERNATIONAL MANUFACTURING TECHNOLOGY SHOW

## **MANUFACTURING THE FUTURE THE EVOLUTION OF INDUSTRIE 4.0**



## DIGITALIZED MANUFACTURING: TRENDS, PERSPECTIVES AND BUSINESS OPPORTUNITIES

Digitalized production technologies are transforming business models and changing market structures. Concepts like Industrie 4.0 and the Internet of Things represent a paradigm shift in business and society, generated by a growing number of increasingly connected and automated devices, machines and products.

Forecasts indicate that by 2020, 32 billion objects will be connected to the internet. The economic impact of digitalization is staggering: studies show that in six economically important industries alone, Industrie 4.0 will give rise to productivity increases in the tens of millions by 2025.

The future of Industrie 4.0 rests upon our ability to pool knowledge and resources. Fraunhofer's interdisciplinary systems expertise sparks new ideas that meet the challenges of a changing world – and helps create customized solutions right along the value chain.

Visitors to the joint Fraunhofer booth at the IMTS 2018 in Chicago can experience how a vibrant mix of new technology in the fields of smart production, additive manufacturing, augmented reality, digital engineering, sensor systems, human-machine interaction and smart materials is reshaping the future.

In addition to our exhibit, we offer a variety of in-depth lectures, talks and expert sessions by our renowned scientific leaders.

## PRODUCTION OF THE FUTURE: INDUSTRIAL INTERNET OF THINGS, SMART PRODUCTION AND IT SOLUTIONS

Many jobs in the USA and worldwide depend on the production of goods.

- How can the pioneering role in economy and the prosperity of the USA be secured in times of increasing global competition and finite resources?
- How can mechanical and plant engineering continue to function as one of the greatest strengths of many economies?
- How can new interconnected technologies make production smarter as well as more flexible, individual, efficient and sustainable?

**Discover the latest research results in the fields of production, digitalization, automation and networking. Secure a competitive advantage for your business.**

To show the changes that will affect manufacturing in the future, Fraunhofer experts for production focus on:

- virtual reality (VR) solutions
- 5G wireless standard for real-time transmission of data
- digital networks connecting machinery with product and supplier
- production of small batches and one-of-a-kind products under mass production process conditions
- smart maintenance, new assistance systems and machine-learning methods
- cyber security and data sovereignty within the cognitive internet
- new additive manufacturing techniques

**Let us help you spark new ideas for your business.**



[www.fraunhofer.de/imts](http://www.fraunhofer.de/imts)

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#### Exhibition partners:

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#### **Fraunhofer-Gesellschaft zur Förderung der angewandten Forschung e.V.**

- Fraunhofer Institute for Ceramic Technologies and Systems IKTS
- Fraunhofer Institute for Computer Graphics Research IGD
- Fraunhofer Institute for Electronic Nano Systems ENAS
- Fraunhofer Institute for Laser Technology ILT
- Fraunhofer Institute for Manufacturing Engineering and Automation IPA
- Fraunhofer Institute for Material and Beam Technology IWS
- Fraunhofer Institute for Microstructure of Materials and Systems IMWS
- Fraunhofer Institute for Production Systems and Design Technology IPK
- Fraunhofer Institute for Production Technology IPT
- Fraunhofer Institute for Telecommunications, Heinrich-Hertz-Institut, HHI
- Fraunhofer-Cluster of Excellence Cognitive Internet Technologies (CIT)

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- Fraunhofer USA Center for Experimental Software Engineering CESE
- Fraunhofer USA Center for Laser Applications CLA
- Fraunhofer USA Center for Manufacturing Innovation CMI

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#### **Venue**

International Manufacturing Technology Show  
Chicago, Illinois, USA  
McCormick Place, East Building, Level 2  
Booth No. 121815

Exhibitor at



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