

Conference

# AWK'20

INTERNET OF PRODUCTION  
TURNING DATA INTO VALUE

Aachen | May 14 - 15, 2020



**RWTH**AACHEN  
UNIVERSITY



**Fraunhofer**

IPT

# The Conference

## Aachen Machine Tool Colloquium 2020

Ensuring availability of data, information and knowledge at any time and in any place is one of the most important claims of industry 4.0. But what added value do manufacturing companies really gain from the enormous amount and variety of recorded data? Which analytical tools and algorithms offer reliable predictions and enable continuous control of production?

With the motto

## Internet of Production – Turning Data into Value

the 30<sup>th</sup> Aachen Machine Tool Colloquium, which will take place on May 14 and 15, 2020 at the Eurogress in Aachen, will show the added value of an overall networked production on the example of proven success stories. Speakers from leading companies of different industries will talk in jointly compiled expert lectures about the aspects of digitization they will continue to pursue for the production of the future.

The highly renowned conference with the aim of reflecting the latest developments in production technology is both a network event and an information hub: in exchange with more than 1,300 participants from various disciplines and with a highly qualified program of lectures and guided tours to the host research institutions, the AWK'20 offers a globally unique insight into the trends in applied research and development for specialists and executives from industry and science who want to shape the production of tomorrow.



Prof. Dr.-Ing.  
Thomas Bergs MBA



Prof. Dr.-Ing.  
Christian Brecher



Prof. Dr.-Ing.  
Robert Schmitt



Prof. Dr.-Ing. Dipl.-Wirt. Ing.  
Günther Schuh

The AWK'20 is presented to you by the four directors of the Laboratory for Machine Tools and Production Engineering (WZL) of RWTH Aachen University and the Fraunhofer Institute for Production Technology IPT:



**Prof. Dr.-Ing.  
Thomas Bergs MBA**

Holder of the Chair of Manufacturing Process Technology at the WZL and Head of the Process Technology department at the Fraunhofer IPT



**Prof. Dr.-Ing.  
Christian Brecher**

Holder of the Chair for Machine Tools at the WZL and Head of the Production Machinery department at the Fraunhofer IPT



**Prof. Dr.-Ing.  
Robert Schmitt**

Holder of the Chair of Production Metrology and Quality Management at the WZL and Head of the Production Quality and Metrology department at the Fraunhofer IPT



**Prof. Dr.-Ing. Dipl.-Wirt. Ing.  
Günther Schuh**

Holder of the Chair for Production Systems at the WZL and Head of the Technology Management department at the Fraunhofer IPT

# Program

Thursday, May 14, 2020



## Welcome and Introduction

### Plenum 1

#### Session 1

Architecture of a Networked Adaptive Production

- The IOP Service Bus
- Value Capture – Innovative data-driven business models
- Flexible process chain design for networked production

#### Session 2

The Digital Twin in Manufacturing

- Always Beta – Continuous development of products
- Biological transformation in manufacturing
- Smart Expert systems for distributed sensor information

**Guided tour to the institutes and  
Breakout Sessions  
on RWTH Aachen Campus**

Evening reception

# Program

Friday, May 15, 2020



Welcome

Plenum 2

## Session 3

Analytics in production

- Estimation of resulting component properties from manufacturing data
- Predictive Quality – Data-driven modelling
- Worldwide Lab – Guaranteed productivity increase through Network Learning

## Session 4

Business Models in the Internet of Production

- Industrial employability
- Platform-driven data economy in manufacturing technology
- Machine tool industry on the way to new business models

Plenum 3

Outlook

Guided tour to the institutes and  
Breakout Sessions  
on RWTH Aachen Campus

# Cooperation Partner



The **Fraunhofer IPT** combines knowledge and experience from all areas of production technology. Located in Aachen, we offer customers and partners applied research and development for networked, adaptive production. We do not only understand production in its individual steps, but also consider the entirety of the processes and the interconnections among various elements of the process chain. Our range of services is oriented towards the current challenges of specific industries, technologies and product areas such as tool and mold making, the optical industry, turbomachinery manufacturing, life sciences engineering and lightweight production technology.

The **Laboratory for Machine Tools and Production Engineering (WZL)** of **RWTH Aachen University** has stood worldwide for more than 100 years for future-oriented research and successful innovations in the field of production technology. Under the leadership of four professors Thomas Bergs, Christian Brecher, Robert Schmitt und Günther Schuh, the WZL is conducting research in the areas – production technology, machine tools, production systems, transmission technology, production metrology and quality management – on the future-oriented design of production in high-wage countries. Together with industry partners from various sectors, the WZL develops solutions for a wide variety of production scenarios in both publicly funded and bilateral projects. These activities are being consolidated on the RWTH Aachen Campus in the Cluster Production Engineering.

In close cooperation with the Association **Aachener Werkzeugmaschinen-Kolloquium** the WZL and Fraunhofer IPT are organising the AWK conference programme and are contributing their top-class research expertise to the institute's visits.

# Attendance

## Venue

Eurogress Aachen  
Monheimsallee 48  
52062 Aachen  
Deutschland

## Participation fee

For registration  
until January 31, 2020 € 1,250  
until February 1, 2020 € 1,350

The participation fee includes: lecture program, admission to the industrial exhibition, tour of the institutes, conference proceedings, shuttle buses and meals on both days and at the reception.

Fees for scientific events are not subject to VAT.

Evening event for accompanying persons  
Participation fee € 85,-

This covers: Dinner, drinks and entertainments on May 14, 2020.

## Registration

Please register online on our website  
[www.awk-aachen.de](http://www.awk-aachen.de)

## Further information

The full program of the AWK'20 will be available shortly on the event's website at [www.awk-aachen.de](http://www.awk-aachen.de)

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Twitter and YouTube under #AWK2020.

# AWK'20

## Organizer

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