PROGRAM

4. Wiener Produktionstechnik Kongress

EFFICIENCY, FLEXIBILITY, INTEGRATION

26th - 27th September 2018
Hofburg Wien
TUESDAY,
25th SEPTEMBER 2018

19:00 Come together
Venue: TU Wien - TUtheSky
Getreidemarkt 9, 1060 Vienna, Austria

WEDNESDAY,
26th SEPTEMBER 2018 | Plenary sessions 1 & 2

9:30 – 10:00 Opening

10:00 – 12:00
Plenary session 1 (Room: Zeremoniensaal)

Additive Manufacturing on its Way to Serial Production – an Innovative Addition to Conventional Manufacturing Technologies
Edmar Allitsch
Chairman of the Supervisory Board
EOS GmbH

Path of Innovation towards the Future of Production
Dr. Eng. Masahiko Mori
President
DMG MORI CO., LTD

Innovative Automation Solutions for the Digital Future in Industrial Production
Hans Wimmer
Managing Director
B&R Industrial Automation GmbH

Emerging Technologies for Advancing Future-oriented Manufacturing Systems and Processes
Prof. Kazuo Yamazaki
Distinguished Professor
Intelligent Manufacturing Systems Laboratory, University of California Davis
Precision Manufacturing Center, University of California Berkeley

12:00 – 13:10 Lunch break

13:10 – 15:10
Plenary session 2 (Room: Zeremoniensaal)

Automated production systems for the manufacturing of large aluminium structural parts in the aerospace industry
Dr. Norbert Hennes
Managing Director, responsible for the Business Unit Aerospace+Energy
Starrag Technology GmbH

Sensor Integration and Web Services - the key to Industry 4.0
Christoph Müller
Senior Vice President - Industrial Integration Space
SICK AG

Future proofed control technology in production
Hans-Jürgen Koch
Executive Vice President
PHOENIX CONTACT GmbH

Additive Manufacturing in Aerospace
Gerd Weber
VP Head of Varel / Bremen
Premium AEROTEC GmbH

15:10 – 15:40 Coffee break
### Machines (Room: Zeremoniensaal)

- **Intelligent Listening to Machining Processes**
  - Prof. Hans-Christian Möhring
  - Vice Dean of Faculty for Engineering Design, Production Engineering and Automotive Engineering
  - Institute for Machine Tools, Universität Stuttgart

- **MIKROMAT 4.0 - Value engineering for product and process optimization**
  - Thomas Warnatsch
  - Managing Director
  - MIKROMAT GmbH

- **Connected environments as base for future production**
  - Dr. Christian Klapf
  - Head of R&D
  - EMCO GmbH

- **Safety functions in modern machines**
  - Dr. Tilmann Bork
  - Regional Application Engineering
  - Festo AG & Co.KG

### Technology (Room: Geheime Ratsstube)

- **New Paradigms for AM machinery**
  - Prof. Konrad Wegener
  - Head of Institute of Machine Tools and Manufacturing (IWF)
  - Department of Mechanical and Process Engineering, ETH Zürich

- **Smart Gripping and Clamping: Digitalization ‘Closest to the Part’**
  - Johannes Ketterer
  - Global Head of Business Unit Toolholding Systems & Chuck Jaws
  - SCHUNK GmbH & Co. KG

- **CAM Technology for Additive Manufacturing**
  - Dr. Denys Plakhotnik
  - Research Manager
  - ModuleWorks GmbH

- **In-process-quality control in additive manufacturing processes for DLMS and DED**
  - Arnold Braunsteiner
  - CEO
  - plasmo Industrietechnik GmbH

### Automation (Room: Rittersaal)

- **Requirements and Challenges for the Digital Twin Concept in the Context of Industry 4.0**
  - Prof. Detlef Gerhard
  - Dean of Faculty of Mechanical and Industrial Engineering
  - Institute of Engineering Design and Logistics Engineering, TU Wien

- **What if plastic could talk ... ?**
  - Michael Sander
  - CEO
  - proALPHA Business Solutions GmbH

- **Mark Hannah**
  - Head of Corporate Marketing
  - Gabriel-Chemie GmbH

- **Bending moment and force – the key information for reliable manufacturing processes**
  - Dr. Rainer Wunderlich
  - CTO
  - pro-micron GmbH

- **Kompetenz 4.0 – Vom Homo sapiens zum Homo digitalis**
  - Johann Hofmann
  - Founder and Venture Architect of ValueFac-turing®
  - Maschinenfabrik Reinhausen GmbH

- **Connected environments as base for future production**
  - Dr. Rainer Wunderlich
  - CTO
  - pro-micron GmbH

### 19:00 Conference Dinner

**Venue:** Naturhistorisches Museum Wien
**Maria-Theresien-Platz, 1010 Vienna, Austria**
THURSDAY, 27th SEPTEMBER 2018 | Parallel session block 2

**9:00 – 10:40**

**MACHINES**
(Room: Zeremoniensaal)
- Machining of Optical Surfaces by HSC-milling
  - Dr. Oliver Gossel
  - Head of Sales
  - Roders GmbH

**TECHNOLOGY**
(Room: Geheime Ratsstube)
- New productive and flexible solutions from Diskus Schleiftechnik GmbH
  - Christoph Wernz
  - CEO
  - DISKUS WERKE SCHLEIFTECHNIK GmbH

- Product and process digital twin for zero defect manufacturing
  - Dr. Roberto Perez
  - Head of Innovation - New Technologies
  - GF Machining Solutions

**AUTOMATION**
(Room: Rittersaal)
- ‘mapp Technology’ - a Revolutionary Solution for Integrated Automation Systems
  - Dr. Gernot Bachler
  - Business Manager Automation Software / Motion
  - B&R Industrial Automation GmbH

- Worldwide production excellence by controlled and networked processes
  - Robert Adam-Thaller
  - Head of Product Management
  - STIWA Automation GmbH

**9:00 – 10:40**

**Parallel session block 2**

- New challenges for cutting tools in aircraft and e-mobility applications
  - Dr. Dirk Sellmer
  - Vice President Research and Development
  - MAPAL Dr. Kress KG

- Will it be possible to earn money on the cutting edge in the future?
  - Kurt Brenner
  - Member of the Executive Board
  - ISCAR Germany GmbH

- Nucleation and Growth Mechanism of CVD Diamond thin film on Cemented Carbide
  - Kazutaka Fujiwara
  - Principal Researcher, Thin Films and Coatings Department, Central Research Institute
  - MITSUBISHI MATERIALS CORPORATION

- Surface Layer States after Manufacturing Processes - Generation and Evaluation
  - Prof. Volker Schulze
  - Head of section Manufacturing and Materials Technology
  - wbk Institute for Production Science, Karlsruhe Institute of Technology

- Balanced Manufacturing, Production Simulation- and Optimization
  - Philipp Trummer
  - Project Management
  - AutomationX GmbH

- Digitization - challenges and solutions
  - Holger Langhans
  - Managing Director
  - Coama GmbH

**10:40 – 11:10**

**Coffee break**

**“Center for Digital Production”**
(Room: Künstlerzimmer)
- Research Collaboration 4.0 - IFT and CDP as Technology Incubator for HOERBIGER Engine Division
  - Hannes Hunschofsky
  - Head of Engine Division
  - HOERBIGER Wien GmbH

- The Austrian Center for Digital Production: Mission, Technologies, Applications
  - Dr. Christoph Pollak
  - Managing Director
  - Center for Digital Production GmbH

- centurio.work - Higher Productivity Through Intelligent Connectivity
  - Jürgen Mangler
  - Florian Pauker
  - Center for Digital Production GmbH

- Enabling flexible real-time factory networks by combining OPC UA and TSN
  - Thomas Frühwirth
  - Pablo Gutiérrez-Peón
  - Center for Digital Production GmbH

**10:40 – 11:10**

**Coffee break**
### THURSDAY, 27th SEPTEMBER 2018 | Parallel session block 3

#### TECHNOLOGY
(Room: Geheime Ratsstube)

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| 11:10 – 12:25 | Special session | Measurement of Dynamic Cutting Temperatures with Embedded Thin-Film Thermocouples  
Prof. Frank E. Pfefferkorn, Ph.D.  
Director of the Manufacturing Systems Engineering Program  
Department of Mechanical Engineering, University of Wisconsin-Madison |
| 12:25 – 13:25 | Lunch break | |
| 11:10 – 12:25 | Special session | Concept of probabilistic modelling for real-time prediction of product quality and design automation  
Dr. Kathrin Plankensteiner  
Digital Factory Vorarlberg, FH Vorarlberg |
| 12:25 – 13:25 | Lunch break | |

#### MACHINES
(Room: Zeremoniensaal)

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| 11:10 – 12:25 | Parallel session block 3 | Development of ultra-precision machine realizing stable machining  
Youngpyo Hong  
Manager of ROBONANO Research Department  
FANUC Corporation |
| 12:25 – 13:25 | Lunch break | |
| 11:10 – 12:25 | Parallel session block 3 | Optimal tempering of machine tools by interconnected components and processes  
Prof. Steffen Ihlenfeldt  
Holder of the Chair of Machine Tools Development and Adaptive Controls  
Institute of Machine Tools and Control Engineering IWM, TU Dresden  
Fraunhofer Institute for Machine Tools and Forming Technology IWU |
| 12:25 – 13:25 | Lunch break | |
| 11:10 – 12:25 | Parallel session block 3 | Machine tool and machining process digital twins for increased productivity of finishing machining  
Dr. Matej Sulitka  
Head of Collaboration projects  
Department of Production Machines and Equipment & Research Center of Manufacturing Technology, Czech Technical University in Prague |
| 12:25 – 13:25 | Lunch break | |

#### AUTOMATION
(Room: Rittersaal)

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| 11:10 – 12:25 | Special session | Thermoelastic Digital Twin of the Machine Tool Structure for Real Time Control of Thermal Errors  
Prof. Helmi Attia  
Adjunct Professor  
Department of Mechanical Engineering, McGill University  
Manager of Advanced Material Removal Processes  
Aerospace Manufacturing Technology Center, National Research Council Canada (NRC) |
| 12:25 – 13:25 | Lunch break | |
| 11:10 – 12:25 | Special session | Highly accurate optical CMM for measurement of micro holes  
Dr. Manfred Prantl  
CEO  
Alicona Imaging GmbH |
| 12:25 – 13:25 | Lunch break | |
The conference languages are German and English, whereas all slides are provided in English. The organiser reserves the right to make any necessary changes to the program.
HOST
TU Wien
Institute for Production Engineering and Laser Technology
Getreidemarkt 9, 1060 Vienna, AUSTRIA

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