Tuesday, July 23, 2019

09:00 a.m.  Welcome Reception and Registration

09:30 a.m.  Welcoming Remarks  
Prof. Dr.-Ing. Christian Brecher  
Michael Kapp, KAPP NILES

Keynote Session

09:40 a.m.  Today's Requirements for Hard Finishing of Gears  
Friedrich Woelfel, KAPP NILES

10:10 a.m.  Digital Twin in Gear Manufacturing Processes  
Prof. Dr.-Ing. Thomas Bergs

10:40 a.m.  Coffee Break

Session 1:  Gear Optimization
Chairman:  Prof. Dr.-Ing. Christian Brecher

11:00 a.m.  Validation of the Power Density Potential through Production-Oriented Tooth Root Optimization  
Jonas Pollaschek

11:30 a.m.  Superfinishing of Flank Surfaces  
Patrick Duhre / Friedrich Woelfel, KAPP NILES

Session 2:  Trends in Gear Production
Chairman:  Prof. Dr.-Ing. Christian Brecher

12:00 p.m.  Internet of Production  
Prof. Dr.-Ing. Christian Brecher

Tuesday, July 23, 2019

12:30 p.m.  Lunch

02:00 p.m.  Characteristic Value-Based Process Design of Gear Hobbing Processes with Radial Infeed  
Nico Troß

02:30 p.m.  Scattered Gear Modifications – A New Era in Gear Technology?  
Dr.-Ing. Christoph Löpenhaus

03:00 p.m.  Gear Metrology - Quality Control with adapted Solutions  
Gerhard Mohr, KAPP NILES Metrology

03:30 p.m.  Closing Remarks  
Prof. Dr.-Ing. Christian Brecher  
Michael Kapp, KAPP NILES

Workshop Tour

03:40 p.m.  Transfer to KAPP Technologies L.P., Boulder, and Workshop Tour

07:00 p.m.  Evening Reception  
The guests are kindly invited by KAPP NILES  
Further information will follow

During Lunch and Coffee Breaks:  
Opportunity to visit WZL Gear Software Demonstration Desk
Wednesday July 24, 2019

09:00 a.m. Welcoming Remarks
Prof. Dr.-Ing. Thomas Bergs
Michael Kapp, KAPP NILES

Session 3: Gear Grinding
Chairman: Prof. Dr.-Ing. Thomas Bergs

09:10 a.m. Generating Grinding with small Tools
Patrick Duhre, KAPP NILES

09:40 a.m. Potentials for Process Monitoring in Bevel Gear Grinding
Mareike Solf

10:10 a.m. Profile Grinding – customized Technology for challenging Applications
Shane Hollingsworth, KAPP Technologies L.P.

10:40 a.m. Coffee Break

Session 4: Operational Behavior
Chairman: Prof. Dr.-Ing. Thomas Bergs

11:00 a.m. Simulative and Experimental Determination of the Tooth Flank Fracture Load Capacity of Large Modulus Gears
Fabian Goergen

11:30 a.m. Consideration of Dynamic Excitation Effects in the Gear Design Process of Two-Stage Gearboxes for E-Mobility
Marius Schroers

12:00 p.m. Influence of Misalignments on the Operational Behavior in Planetary Gear Stages
Julian Thieling

12:30 p.m. Closing Remarks
Prof. Dr.-Ing. Thomas Bergs
Michael Kapp, KAPP NILES

12:45 p.m. Lunch

The WZL Gear Conference

For more than 50 years the annual WZL Gear Conference in Aachen, Germany, has been fostering technical collaboration and communication among the members of the WZL Gear Research Circle. The two-day conference is devoted exclusively to the presentation of the latest research in gear design, manufacturing and testing. Additionally, the software resources of the WZL Gear Research Circle are available for examination, including solutions for gear design and manufacturing process development. Participants of the conference are encouraged to tour the WZL laboratory with its shop floor and test rigs. Within this environment associations are formed and the exchange of knowledge among the members of the technical community is promoted. With up to 300 participants from Europe and overseas, the WZL Gear Conference is one of the largest annual events dedicated to gear technology in Europe.

The WZL Gear Conference in the USA

Thirteen years ago exclusive contents of the Aachen gear conference were first presented in the USA. The Eighth WZL Gear Conference - USA is being hosted by KAPP Technologies L.P. and will provide the opportunity for North American companies to connect with WZL and learn about current research activities.

For questions about the WZL Gear Research Circle, please contact:
gears@wzl.rwth-aachen.de and visit http://www.wzl.rwth-aachen.de and http://www.getriebekreis.de

To register for the conference, please contact
KAPP Technologies L.P., Boulder, Colorado
gearconference@kapp-niles.com
The conference fee is $270 per attendee.