

Call for Papers – International Conference on Gears 2017

with exhibition

Submit your abstracts now!

Covering related topics such as:

- Industrial applications
- Design, analysis and simulation of gears and transmissions
- Manufacturing
- Materials and lubrication
- Testing

Date and Venue

September 13–15, 2017

Technische Universität München (TUM)
Garching (near Munich), Germany

Submit your abstracts by November 4th, 2016 to www.vdi-gears.eu

Associated Organisations



American Gear Manufacturers Association, USA



ARTEMA, France



British Gear Association



Chinese Mechanical Engineering Society



Canadian Society for Mechanical Engineering



The Czech Association of Scientific and Technical Societies



FVA
Forschungsvereinigung Antriebstechnik e.V.
Drive Technology Research Association, Germany



Institution of Mechanical Engineers, United Kingdom



Japan Society of Mechanical Engineers



Romanian Association of Mechanical Transmissions



Scientific Society of Mechanical Engineers, Hungary



The Institution of Engineers, India



The Korean Society of Mechanical Engineers, Korea



Koninklijk Instituut Van Ingenieurs, The Netherlands



The Society of Instrument and Control Engineers, Japan



Gear Research Institute, USA



WiGEP, Germany

Wissenschaftliche Gesellschaft für Produktentwicklung WiGEP
Berliner Kreis & WGMK

An event organized by VDI Wissensforum

www.vdi-gears.eu

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Purpose

The seventh International Conference on Gears and Transmissions in Garching/Germany is already an established platform for manufacturers of and researchers into gears and transmission systems. At the conference you can learn about the latest developments and research results from the powertrain industry and academia.

Gears are the vital core of most powertrains. State-of-the-art gears already transmit power and adjust torque and speed with high efficiency and

power density but low noise. But, the overall megatrends – especially, climate change, resource scarcity and technological breakthroughs – continue to challenge the gear and powertrain industry and demand further improvements from their developments. The presentations at the conference will show that there is still room for improvement, and how gears can contribute to increasing energy efficiency, reducing resource consumption and how new technologies will be incorporated in the powertrain.

The exhibition accompanying the conference will offer the opportunity to monitor the state-of-the-art of industrial powertrain applications and to network with your peers. We are looking forward to seeing you in Garching!

With best regards
The Conference President
Prof. Dr.-Ing. Karsten Stahl

Presidency



Conference President:
Prof. Dr.-Ing. Karsten Stahl, Full Professor, Institute of Machine Elements, Director, Gear Research Centre (FZG), Technische Universität München (TUM), Garching, Germany



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VDI Society for Product and Process Design

The VDI Society Product and Process Design (VDI-GPP) and its technical divisions provide all sectors with verified knowledge on the design of products and processes and their optimization in terms of quality and the time- and cost-benefit ratio.

www.vdi.eu

Location

International Conference on Gears 2017

September 13–15, 2017

Technische Universität München
(Technical University of Munich)
Institute of Machine Elements
Gear Research Centre (FZG)
Boltzmannstr. 15
85748 Garching
Germany



Source: Uli Benz/TUM



Topics

1. Industrial applications

- 1.1 Transmissions for energy systems, e.g. power plants, wind generators, water turbines etc.
- 1.2 Transmissions for mobility systems, e.g. gear boxes in the marine, aircraft, railway and automotive sectors
- 1.3 Transmissions for production machinery, e.g. transportation in manufacturing lines
- 1.4 Application of gears in the context of Industry 4.0
- 1.5 Transmissions for new applications, e.g. medical technology, fitness machines

2. Design, analysis and simulation of gears and transmissions

- 2.1 Optimized gear design (cylindrical, bevel and worm gears, beveloids) with improved strength, efficiency and/or reduced noise and vibration

- 2.2 New design for gears (asymmetric, low-loss gears, cycloid gears and gear modifications) for efficiency and/or reduced noise and vibration
- 2.3 New materials, heat treatment, lubrication and coatings e.g. for higher durability
- 2.4 Improved simulation programs for lifetime prediction, NVH and efficiency

3. Manufacturing

- 3.1 Productivity increase by new concepts for machine and manufacturing processes
- 3.2 Main time or throughput time – balancing of productivity and flexibility
- 3.3 Alternative, resource-efficient gear manufacturing chains (e.g. additives, powder metallurgy)
- 3.4 Gear Manufacturing 4.0 – additivity, cross-linking and process monitoring in gear manufacturing
- 3.5 Tailored surface integrity – manufacturing-related component properties

- 3.6 New materials and heat treatment procedures
- 3.7 Simulation of manufacturing processes

4. Testing

- 4.1 New test methods and/or procedures for lifetime, efficiency and noise behavior
- 4.2 Correlation of system and component tests
- 4.3 Time-scaling strategies for fatigue tests of transmissions (e.g. windmill transmissions)
- 4.4 Condition monitoring and predictive maintenance

5. Possibilities and potential of plastic gears

- 5.1 Typical and future materials and tribology
- 5.2 Gear design: limits and changes of shape and form
- 5.3 Experimental and analytical load carrying capacity

Call for Submission of Contributions

Are you an expert in one of the areas of our topics? Then we call on you to make an active contribution to the success of the congress with a presentation.

Please submit a brief abstract of max. one A4 size sheet by **November 4th, 2016** summarizing your presentation. You can submit your paper at www.vdi-gears.eu.

Types of Contribution

Your contribution can take the form of:

1. A full presentation:

If your paper is accepted you will be allowed to speak 20 minutes, with additional 5 minutes for discussion and the opportunity to respond to questions and comments from the audience.

2. A poster presentation:

The posters will be on view for discussion in the exhibition area.

Submission of Abstracts

- Title of the paper and/or poster
- An abstract summarizing your paper
- Information about the lecturer and co-authors: name, title(s), company address, department, affiliation, e-mail, telephone and fax number
- In which topic area(s) your presentation should be listed
- A statement specifying what is new in your presentation
- A bibliography of your previous publications about this subject
- How you would like to present your paper upon acceptance (full or poster presentation)
- **Notation if a peer review of the complete manuscript is requested**

Please note that abstracts and final papers will be only accepted if they are uploaded to the conference's website: www.vdi-gears.eu

All submissions must be either Microsoft WORD (DOC or DOCX) or Portable Document Format (PDF) files. Your abstract must be received by November 4th, 2016. Based on the abstract, the program committee will decide on the acceptance and order of presentation in the conference program. Please note that the number of co-authors named in the printed program is limited to two.

Submission of the final Manuscript

If your paper is accepted you will be invited to submit the final manuscript which must be received by June 9th, 2017 at the latest. If you have requested a peer review the final manuscript has to be submitted by March 24th, 2017 at the latest. Peer reviewed manuscripts will be so marked in the conference proceedings.

If you receive notification of acceptance, you will also receive instructions concerning manuscripts and a question form to be returned to the VDI Wissensforum. The accepted papers (full papers and posters) will be printed in the conference proceedings provided to the conference participants.

Conference Fee

Speakers (one person per paper) will receive a 30% discount on the regular conference fee. Discounts cannot be accumulated. Travel expenses will not be paid.

Submit your abstracts now!

Schedule

- Deadline for submission of abstracts **November 4th, 2016**
- Notification of acceptance **End of February 2017**
- Final program available in **May 2017**
- Deadline for submission of manuscripts **March 24th, 2017 (with peer review)**
- Deadline for submission of manuscripts **June 9th, 2017 (without peer review)**

Review and Publication in the magazine „Forschung im Ingenieurwesen“

You would like your article to be reviewed and published subsequently in the magazine "Forschung im Ingenieurwesen"? Then please indicate this request in your abstract. If your abstract is accepted, then your article will be reviewed by an elected committee of experts and can subsequently be published in the magazine "Forschung im Ingenieurwesen". The journal is currently listed in Scopus and Web of Science, with a recognized Impact Factor of 0.250 (Journal Citation Reports®, Thomas Reuters 2015)

Submit your abstract to www.vdi-gears.eu!

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Call for Papers International Conference on Gears 2017

With accompanying conferences

» Gear Production 2017

» High Performance Plastic Gears 2017

Participants can visit the accompanying conferences free of charge!

Submit your abstract
by November 4th, 2016
to www.vdi-gears.eu

The Munich Oktoberfest from 16 September to 3 October 2017!

Each year, the largest public festival in the world, the Oktoberfest, takes place in Munich.

Submit your paper now, visit the Oktoberfest after the conference and make your trip to Munich unforgettable!



Source: Friedrich Zenz



Source: Christl Reiter



Source: Torsten Naeser

Extend your visit to the famous city of Munich and its surroundings for a couple of days!

Munich offers a lot of places of interest such as the Marienplatz in the city center, Old and New Town Hall, Frauenkirche, Viktualienmarkt and Odeonsplatz. Other attractions include the English

Garden, the Deutsches Museum, the Königsplatz, the Pinakothek I, II and III and the site of the 1972 Olympics. Visitors should not miss a trip to the points of interest outside of Munich such as the

Castle Neuschwanstein, Castle Linderhof, Lake Starnberg, Lake Ammersee, Lake Chiemsee and the Isar Valley.

Exhibition/sponsorship opportunities

Would you like to get face to face with the high-powered delegates attending this VDI congress and present your products and services to a specialist sector of your market? For an optimum presentation of your company, make use of the exhibition held in parallel with the conference. Here you can meet industry decisionmakers – make your target contacts neatly and without a great deal of organisational outlay. Secure your stand space right at the heart of this industry rendezvous and/or use a sponsorship package specially tailored to your requirements to enable you to stand out more clearly and effectively from your competitors. We can

supply you with exclusive communication possibilities before, during and after the event.

Exhibitor and sponsor inquiries should be addressed to:

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International Conference on Gears 2017

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VDI Wissensforum

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Would you like to take part as participant? – Register now as an early bird!

- I shall be attending the “International Conference on Gears 2017” on September 13th–15th, 2017 in Garching/Munich, Germany.

Please choose your price category (PC)

All prices plus VAT*	PC	Final Price	Early Bird until April 7 th , 2017
Regular attendance fee	1	<input type="checkbox"/> EUR 1.490,-	<input type="checkbox"/> EUR 1.390,-
Personal VDI-members and members of associated organisations	2	<input type="checkbox"/> EUR 1.340,-	<input type="checkbox"/> EUR 1.240,-
VDI membership number/Name of the associated organisation**			

* The VAT directive of the respective country applies

** With price level 2 you must quote your VDI membership number or the name of the associated organisation.

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- I am interested in sponsoring and/or exhibition.

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Registration: Registrations for conference attendance must be made in writing. Confirmation of your registration and the associated invoice will be mailed to you. Please do not pay your conference attendance fee until you have received our invoice and its invoice number to be stated for transfer.

Conference Venue

Gear Research Centre
Chair of Machine Elements
Technische Universität München
Boltzmannstr. 15
85748 Garching
Germany
www.fzg.mw.tum.de

Hotel Reservation

Hotels close to the conference venue may be found via our HRS service www.vdi-wissensforum.de/hrs.



VDI Wissensforum service package: The conference package includes the conference documents (VDI-Bericht), coffee-break beverages, lunch and evening events.

Conference attendance conditions and terms: By way of your registration you accept the conference attendance conditions and terms of VDI Wissensforum GmbH as binding. Any cancellation of your registration must be made in writing. We will charge you only an administrative fee of € 50.00 plus German VAT if you cancel your registration earlier than 14 days ahead of the conference date. Any cancellation that reaches us after this deadline will entail the conference attendance fee as stated in our invoice to be charged in full. The date of the post office stamp of your written cancellation will be the decisive criterion. In that case, we will gladly mail you the conference documents on request. Subject to agreement, you may name a substitute participant. Individual parts and sections of conferences and seminars cannot be booked. You will be informed without delay if an event has to be cancelled for unforeseeable reasons. In that instance, you will be entitled only to a refund of your conference attendance fee if already paid. We reserve the right to exchange speakers and/or change the program sequence in exceptional cases. In any case, the liability of VDI Wissensforum GmbH is restricted exclusively to the conference attendance fee.

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