

- 9:00** Registration
- 9:30** Welcome
- 9:35** New Developments and Strategic Outlook of the SIMDRIVE 3D Software
Dr. Frank Wöfle, CONTECS
- 10:15** Flexible Structures and Modal Calculation
 - Coupled simulation of rotating and non-rotating structures
 - Flexural vibrations, modal analysis, eigenvector
 - Animation of natural modes*Thomas Kaufhold, CONTECS*
- 10:45** Coffee Break
- 11:30** SIMDRIVE 3D-Enhancements
 - Live demonstration of new features for a more efficient and easier SIMDRIVE 3D usage*Nico Bestanpouri, CONTECS*
- 11:45** Poly-V Belt Enhancements and Latest Insights
 - Belt layout wizard and tensioner positioning tool
 - Belt power loss
 - Elastic belt
 - Slippage under humid and wet conditions*Steffen Diesner, CONTECS*
- 12:00** Lunch Break



The Deutsches Technikmuseum is the place to find out about the history and science behind the appliances and things we use every day. There are aeroplanes and ships and real railway locomotives to look at. An impressive location combined with a nice dinner will give you the opportunity to talk and have further discussions with other conference participants and the members of our CONTECS team.

- 13:45** An overview: The BMW Concept of Power Train Development Using SIMDRIVE 3D
Dr. Niels Bohn, Dr. Aschraf Abdelfattah, BMW Group
- 14:15** Estimation of CO2 reduction due to low belt tension
 - Belt and FEAD system power loss
 - Low tension belt drive technologies
 - Estimation of CO2 reduction based on NEDC duty cycle*Dr. Jerry Xu, Litens Automotive Group*
- 14:45** FEAD simulations at Volvo Cars
 - Working process
 - Mechanical decouplers
 - Model comparison*Tobias Hansson, Epsilon and Volvo Cars*
- 15:15** Coffee-Break
- 16:00** IC Engine - Advanced Timing Drive Dynamics and Efficiency Analysis
 - Roller Chain, Silent Chain, Timing Belt
 - Free span vibrations e.g. belt fluttering
 - Hydraulic tension systems - Construction Kit
 - Irregularity absorption through non-round motion path
 - Power loss for system analysis*Nils König, CONTECS*
- 16:30** Crankshaft Vibration Damper - A new Approach for a coupled Thermal and Dynamic Simulation
 - Process from design to 3D MBSD model
 - Finite thermal model approach
 - Thermal and structural parameter
 - Comparison to test rig and engine measurements*Dr. Matthias Richter, Winkelmann Powertrain Components GmbH+Co.KG Steffen Alm, CONTECS*

from 19:00 Evening event:
Dinner and Coming Together
Flying High at the Museum of Technology

Conference Language The conference will be held in English. All papers will be provided in English if possible.

- 9:15** Torsional Vibration Calculation with SIMDRIVE 3D for Large Propulsion Plants
Matthias Schuchardt, Ulrich Handel, MTU Friedrichshafen GmbH
- 9:45** Simulation of Structure-borne Noise using SIMDRIVE 3D
Micha Haussmann, MBtech Group GmbH & Co.KG
- 10:15** Simulation of Torsional Damping Systems in high charged Powertrains
 - Advanced dual mass flywheel construction kit
 - Torsional damping systems in flywheels
 - Torsional decoupler systems for belt drives
 - Modeling approaches for rotating Pendulum Absorber: Bifilar, Roll-form, Ring-form*Lars Prejawa, CONTECS*
- 10:45** Coffee Break
- 11:15** A closer look on crankshaft-integrated Centrifugal Pendulum Vibration Absorbers
 - Modeling a CPVA and it's Implementation as DLL
 - Experimental validation
 - Usage of CPVA as Torsional Vibration Damper*Mathias Plabe, Universität Rostock*
- 11:45** The SIMDRIVE 3D Controller Module - Advanced Drive Line Simulation with Controlled Parameters
 - Introduction of the SIMDRIVE 3D Controller Module
 - Enhanced options in MBSD simulation by controlling arbitrary system parameters
 - Embedding of control units via SIMDRIVE Global Interface (SGI)
 - Integrating external DLLs, e.g. from Matlab/Simulink
 - Example of use: Simulation of a controlled start-up in a hybrid powertrain with an electric engine*Mathias Knobloch, CONTECS*
- 12:15** Lunch Break
- 13:30** Gear Applications in Drivelines
 - Planetary gear
 - Bevel gear, worm gear, differential gear
 - Cardan joint*Sirko Steinelt, CONTECS*
- 13:50** Analytical Strength Assessment of Mechanical Machine Components using Boundary Elements
 - Fully integrated stress and fatigue analysis using a coupled MBSD and BEM process
 - Visualization and animation of stresses and safety coefficient*Renan Lelièvre, CONTECS*
- 14:20** Rolling Bearings - Simulation and Service Life Rating under Dynamic Load
 - Introduction of the new ball bearing & roller bearing elements in SIMDRIVE 3D
 - Design and technology parameter
 - Example of use; bearing simulation and nonlinear stiffness behavior
 - Typical applications in FEAD and Drivelines*Robert Lallinger, CONTECS*
- 14:40** Simulation of Drive Lines at Mercedes AMG
 - Use of the advanced controller elements to present a realistic clutch behavior
 - Comparison with measurement*Wilhelm Hüttner, Mercedes AMG GmbH*
- 15:00** Closing Remarks



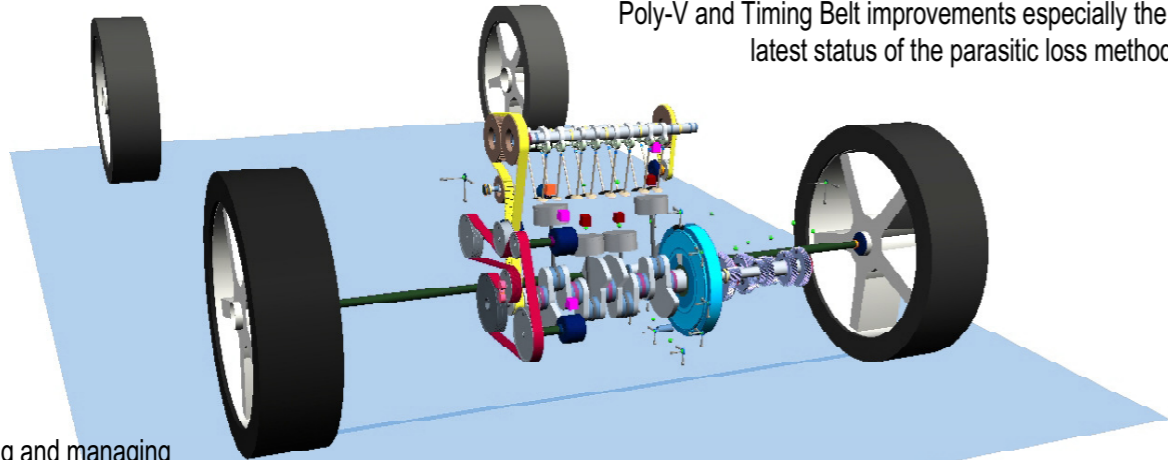
6th SIMDRIVE 3D Powertrain Conference & User Meeting

19th - 20th of May 2011

6th SIMDRIVE 3D Powertrain Conference & User Meeting

The CONTECS team is pleased to invite you to the 6th SIMDRIVE3D Powertrain Conference & User Meeting. It will take place at the "Konrad Adenauer Stiftung", on the 19th and 20th of May, 2011. The conference is aimed not only for SIMDRIVE 3D users but for experts in the field of powertrain & transmission development.

The agenda covers the whole spectrum of development tasks and drive components from FEAD to wheel. The CONTECS team will introduce new capabilities such as: flexible structures and modal reduction, a new advanced DMF module, dynamic gearbox simulation including flexible housing, dynamic models for ball and roller bearings including fatigue assessment, a new controller module (SIMDRIVE 3D Global Interface), as well as Poly-V and Timing Belt improvements especially the latest status of the parasitic loss method.



Controlling and managing powertrain diversity became the main goal of OEM's and suppliers worldwide. CONTECS has developed SIMDRIVE 3D in order to meet these requirements and give an overall view to influences in innovative powertrain systems. Based on a holistic and modular approach in flexible multi-body simulation technology, SIMDRIVE 3D provides all tools and modeling capabilities to aid decision-making processes and to discover potential problems already at early design stages.

From a SIMDRIVE 3D users perspective we will have presentations from BMW (Engine and Powertrain), Mercedes-AMG (Powertrain Development with SIMDRIVE 3D), MTU (Large Propulsion Plants) and others. The contributions focus on modeling cases and methodical approaches, as well as on processes and collaborations.

We are glad to welcome you in Berlin.

Your CONTECS-Team

CONTECS engineering services GmbH
Kaiserin-Augusta-Allee 111 - 10553 Berlin - Germany - Tel. : +49 (0)30 327689-0



Registration Information

The conference will take place on two consecutive days. On both days, you will have the opportunity to take a closer look at various topics as well as having your personal questions about SIMDRIVE 3D answered in a small, interactive forum alternatively to the main conference program.

Please choose the timeframe for your visit on the registration form and return the completed and signed form by fax to:

Fax: + 49 30 / 32768995

Participation Fees

Participation on both days

490,00 Euro
583,10 Euro incl.19% VAT

Participation on one day

390,00 Euro
464,10 Euro incl.19% VAT

The fee includes lunch on both days, beverages and snacks as well as the participation in an evening program (only if participating on both days).

An invoice will follow your registration. Please make your payment cashless upon receipt of the invoice.

Please notice: All prices adding VAT - if applicable.

Cancellation Fee

Cancellations made until 1st of May 2011 will be charged 10% of the participation fee, after that 50% of the participation fee will be charged.

Conference Language

The conference will be held in English. All papers will be provided in English if possible.

Location

The location for the conference is the Forum at the Konrad-Adenauer-Stiftung Berlin.

Address

**Akademie der
Konrad-Adenauer-Stiftung
Tiergartenstraße 35
D - 10785 Berlin**



Acomodation

The costs for acomodation are not included in the participation fee. Please book a hotel room on your own.

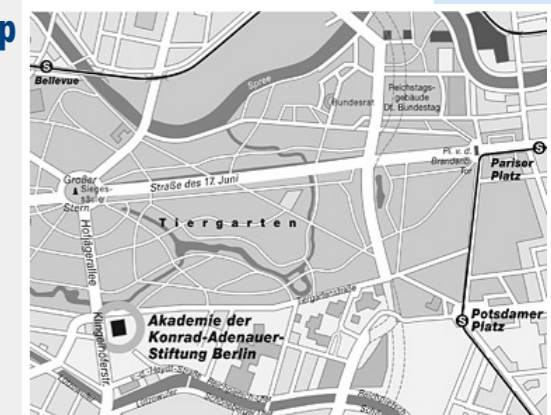
For a better orientation hotels in the vicinity of the conference are listed below.

Best Western
Hotel President
An Der Urania 16-18
10787 Berlin
Tel.: +49 30 / 30219030
Fax : + 49 30 / 302186120
www.president.bestwestern.de

Golden Tulip Berlin
Hotel Hamburg
Landgrafenstrasse 4
10787 Berlin
Tel.: +49 30 / 3026477-0
Fax : + 49 30 / 302629394
www.goldentulipberlin.de

Hotel Berlin
Lützowplatz 17
10785 Berlin
Tel.: +49 30 / 2605-0
Fax : + 49 30 / 2605-2716
www.hotel-berlin.de

Area Map



6th International SIMDRIVE User Meeting & Conference

19th - 20th of May 2011

Registration

Please return until May 10th by FAX or mail!

Hereby we would like to register the following attendees for the "6th International SIMDRIVE User Meeting & Conference".

All prices adding VAT - if applicable.

The participation fee is 490,- Euro per Person (583,10 incl. VAT) for both days or 390,- Euro (464,10 incl. VAT) for participation on one day only.

For cancellation before 1st of May 2011 10% of the participation fee will be charged, after that 50% will be charged.

Attendees

Surname / Title	First Name	Position / Department	Day 1	Day 2
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Company

_____	Stamp
Name	

Street	

ZIP/Town	

Country	

Telephone	e-Mail
_____	_____
Fax	

Date	Sign here
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