

CONFERENCE FOR
WIND POWER DRIVES
CWD 2025
Aachen 11st – 12th of March

DRIVETRAIN AND SYSTEMS
ENGINEERING CONFERENCE
DSEC 2025
Aachen 11st – 12th of March

Eurogress, Aachen March 11 - 12, 2025



INFORMATION

sponsored by



hosted & organized by



Table of Contents

Welcome	4
Program Committee	4
Session Overview	6
Opening Plenary	7
Conference Dinner	8
Trade Exhibition	9
Sponsors	10
Locations & Organization	11

Welcome

CWD and DSEC have been addressing challenges and innovations for drivetrains and their components for many years. The emerging fields of digitalization, virtual twins and model based systems engineering have been integrated in our last conferences. This year we are excited about the increasing number of submissions from both industry and academia. We slightly adopted our conference format and added an Academic Track for CWD as well as a new poster session.

In today's fast-paced environment, product development faces significant challenges due to competitive markets, increasing regulations, and the growing complexity of products. Drivetrains and their components must significantly enhance performance in areas such as electrification, efficiency and noise vibration harshness (NVH), while at the same time the development process needs to become quicker and more cost efficient. The 21st DSEC in 2025 will present the latest research and best practices in model-based systems engineering to control the complexity, including the application of virtual twins and model libraries. It will also cover the optimization of drivetrains and machine elements in terms of multicriterial performance and lifetime extension. New developments in artificial intelligence supporting the product development process, such as the use of neural networks in requirements management or surrogate models in optimization will be discussed.

Still the wind energy sector navigates through challenging times, facing technical hurdles with increasing turbine sizes, geopolitical tensions impacting global supply chains, and an ongoing need to develop sustainable products. Despite these challenges, maintaining international competitiveness necessitates innovation for further cost reduction of products and development processes. The 7th Conference for Wind Power Drives in 2025 will facilitate knowledge exchange between industry and academia to address these pressing issues and shape a more sustainable future for wind energy.

Both conferences are organized by the Center for Wind Power Drives and the Center for Systems Engineering of RWTH Aachen University together with the Research Association Drive Technology (FVA).

Yours sincerely,



Prof. Dr.-Ing. Georg Jacobs
Conference Host and Head of MSE at RWTH Aachen University



Follow us on
LinkedIn

Program Committee



Dennis Bosse	CWD
Ralf Ansorge	Schaeffler Technologies AG & Co. KG
Yi Guo	Technical University of Denmark
Anders Hansen	Vestas Wind Systems A/S
Andreas Jöckel	Winergy - Flender GmbH
Jonathan Keller	National Renewable Energy Laboratory
Andreas Klein	Winergy - Flender GmbH
Martin Knops	ZF Wind Power
Frank Krull	ESM GmbH
Christian Kunze	FVA e.V.
Chong Ng	ORE Catapult
Jaco Nies	GE Renewable Energies GmbH
Joachim Nitzpon	Nordex Energy SE & Co.KG
Ralf Schelenz	CWD
Alf Trede	Bewind GmbH
Jan Wenske	Fraunhofer IWES
Roland Zeichfüßl	Winergy - Flender GmbH

DSEC 2025

Martin Correns	Schaeffler Technologies AG & Co. KG
Ralf Dinter	Flender GmbH
Christian Guist	Bauhaus-Universität Weimar
Alexander Hassis	SEW-EURODRIVE GmbH & Co. KG
Lutz Lindemann	ehem. Fuchs Petrolub SE
Jens Demtröder	Vestas Wind Systems A/S
Mike Nicolai	Siemens Industry Software NV
Marco Ramm	CLAAS Tractor SAS

Session Overview

	CWD 2025				DSEC 2025	
	CWD I Europa Saal	CWD II K 1	CWD III K 2	Academic Track K 3	DSEC I K 4 5	DSEC II K 7 8 9
08:30	Opening Plenary					
11:20	Coffee Break					
11:45	Planetary Plain Bearings I	Gearbox I	Power Electronics and Stray Current	Roller Bearing (Academic Track)	Drivetrain Technology: Performance and Efficiency	Systems Engineering: Seamless Model-Based Product Development
13:00	Lunch Break					
14:00	Planetary Plain Bearings I	Gearbox II	Digitalization and Artificial Intelligence	Powertrain (Academic Track)	Drivetrain Technology: Noise Vibration Harshness	Systems Engineering: MBSE in Practical Application
15:40	Coffee Break					
16:10	Main Bearing I: Plain Bearing	Noise, Vibration and Harshness	Floating Turbine	Planetary Plain Bearing (Academic Track)	Machine Elements: Design & Tribology	Systems Engineering: System Models and Model Libraries
17:25	End of Day I					
18:30	Conference Dinner					
08:30	Guided Institute Tours incl. Shuttle Transfer					
11:00	Poster Session					
11:40	Main Bearing II: Roller Bearing	Powertrain I	Component Fatigue and Life Extension	Gearbox (Academic Track)	Machine Elements: Bearing Technology: Lifetime	Systems Engineering: Virtual & Digital Twins
13:20	Lunch Break					
14:20	Roller Bearing	Powertrain II	Sustainability	Turbine Design and Control (Academic Track)	Drivetrain Technology: Predictive Maintenance and Condition Monitoring	Systems Engineering: Artificial Intelligence and SysML v2
16:00	Coffee Break					
16:15	Closing Plenary					
16:45	End of Day II					



Find the detailed program, abstracts and full papers at www.cwd-dsec.de/info

Opening Plenary

Moderation

Dr. Dennis Rendschmidt
Managing Director at VDMA Power Systems

Systems Engineering

Virtual Product Development - Benefits

Olivier Sappin
CEO CATIA at Dassault Systèmes

Virtual Product Development - Implementation

Prof. Georg Jacobs
Director at iMSE of RWTH Aachen University

Connected Engineering Through Platform Simulation

Nicolas Brossardt
Project Manager Integrated Simulation Processes at BMW

Sustainability

How Modularisation and Systems Engineering link to Sustainability

Andreas Weber
Senior Specialist Advance Engineering PTR Technical Management at Vestas Nacelles

Sustainability of wind energy

Dr. Martin Knops
CTO at ZF Wind Power

Project SteelBlade - Challenges and Potential of Alternative Steel Wind Turbine Blade Designs

Dr. Stefan Buchkremer
Managing Director Business Unit Rollbonding Products at Mubea

Polymer Plain Bearings

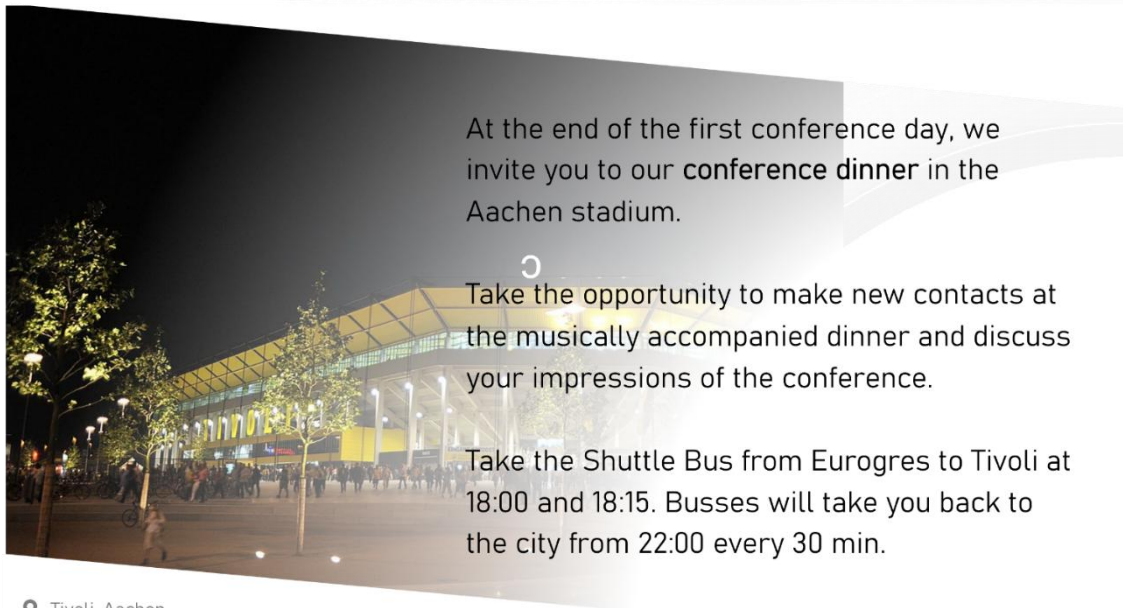
Screening Process for PAEK Polymers in Wind Turbine Main Shaft Journal Bearings-

Material Challenges and Advantages
Steffen Germer
Global Segment Leader Green Energy E&I at Victrex

Overview of Integrating Steel Backed Polymer Hydrodynamic Bearings in Wind Turbine Main Bearings

Tim Allen
Executive Business Officer at Daido Metal CO., LTD



Conference Dinner



At the end of the first conference day, we invite you to our **conference dinner** in the Aachen stadium.

Take the opportunity to make new contacts at the musically accompanied dinner and discuss your impressions of the conference.

Take the Shuttle Bus from Eurogres to Tivoli at 18:00 and 18:15. Busses will take you back to the city from 22:00 every 30 min.

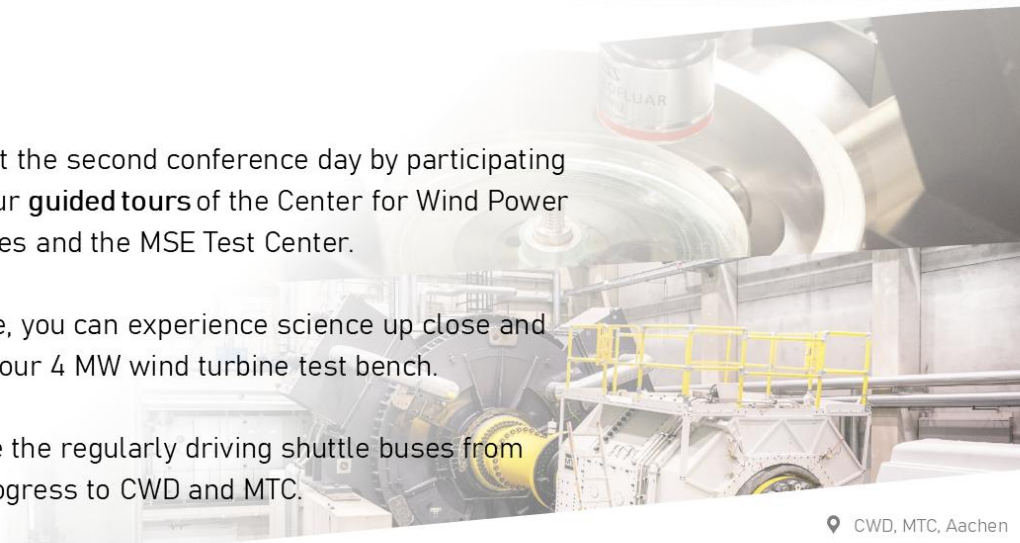
 Tivoli, Aachen
 March 11, 2025

Guided Tours

Start the second conference day by participating in our **guided tours** of the Center for Wind Power Drives and the MSE Test Center.

Here, you can experience science up close and see our 4 MW wind turbine test bench.

Take the regularly driving shuttle buses from Eurogress to CWD and MTC.



 CWD, MTC, Aachen
 March 12, 2025

Center for Wind Power Drives



Institute for Machine Elements
and Systems Engineering



Trade Exhibition



Laserline GmbH



HPL Technologies GmbH



CSE Aachen GmbH



CWD Aachen GmbH



Daido Metal Europe GmbH



Dassault Systèmes Deutschland GmbH



Telemetrie Elektronik GmbH



Optimol Instruments Prüftechnik GmbH



SCHAAF GmbH & Co. KG



FVA GmbH



Geislinger GmbH



IME Aachen GmbH



Simerics GmbH



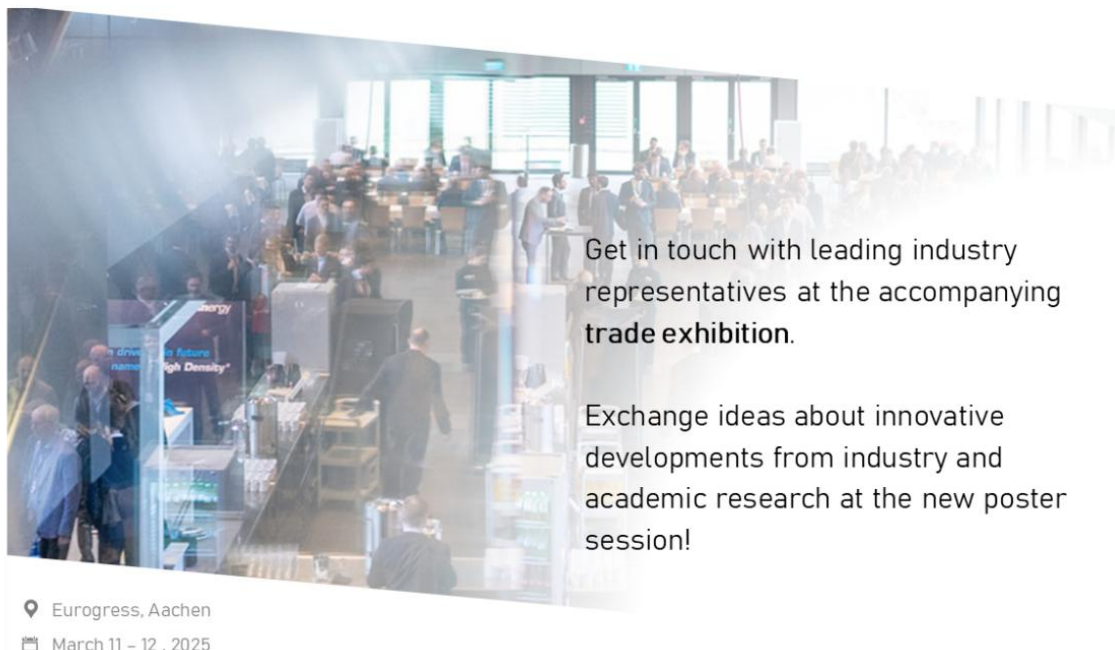
Waukesha Bearings



Sensing360 B.V.



Project AESy



Get in touch with leading industry representatives at the accompanying trade exhibition.

Exchange ideas about innovative developments from industry and academic research at the new poster session!

📍 Eurogress, Aachen

📅 March 11 – 12, 2025

Sponsors



Dassault Systèmes is a global pioneer in 3D design software and solutions. Their revolutionary 3DEXPERIENCE platform empowers innovators across industries to imagine, design, and create sustainable products and services. By simulating real-world experiences through virtual universes, they transform how businesses approach innovation, driving harmony between product, nature, and life.

More information: www.3ds.com



Waukesha Bearings is a leading specialist in engineered hydrodynamic bearings and magnetic bearing systems. Serving the oil and gas, power generation, marine, and industrial sectors, they deliver high-performance solutions that enhance reliability and efficiency in critical rotating equipment. Their expertise ensures that machinery operates smoothly under the most demanding conditions, keeping the world moving.

More information: www.waukbearing.com

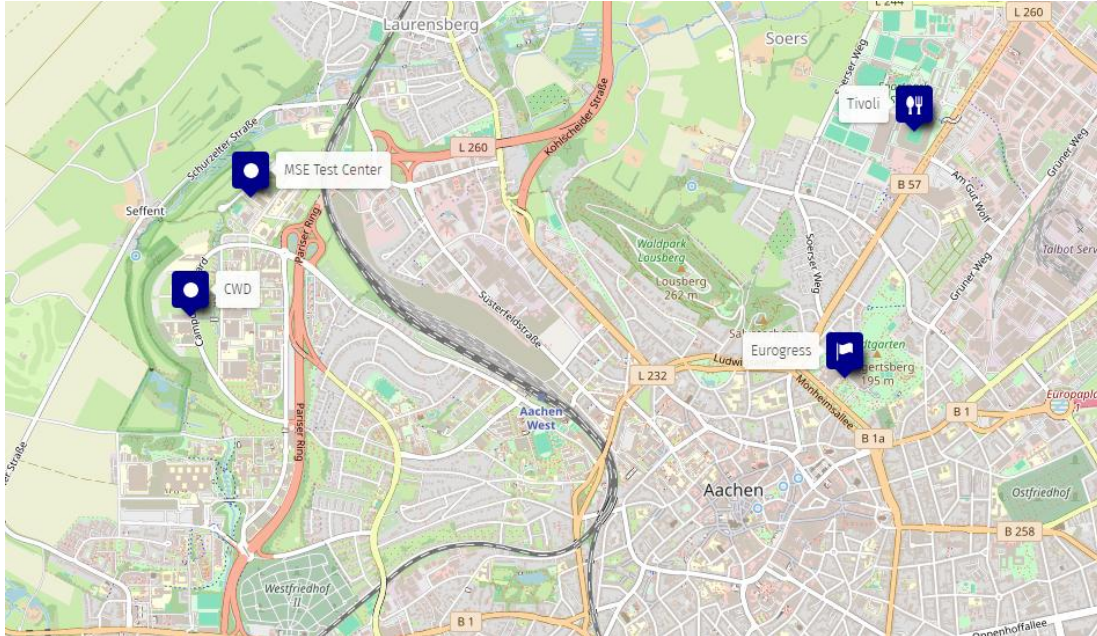


Vestas is the energy industry's global partner on sustainable energy solutions. We design, manufacture, install, and service wind turbines across the globe, and with +164 GW of wind turbines in 87 countries, we have installed more wind power than anyone else.

Through our industry-leading smart data capabilities and +144 GW of wind turbines under service, we use data to interpret, forecast, and exploit wind resources and deliver best-in-class wind power solutions. Together with our customers, Vestas' more than 29,000 employees are bringing the world sustainable energy solutions to power a bright future.

More information: www.vestas.com

Locations & Organization



Conference Location

Eurogress Aachen
Monheimsallee 48
52062 Aachen

Conference Dinner

Tivoli Aachen
Krefelder Straße 205
52070 Aachen

Guided Test Center Tours

Center for Wind Power Drives
Campus Boulevard 61
52074 Aachen

MSE Test Center
Mathieustraße 7
52074 Aachen

Conference Organization

Michelle Broller
FVA Service GmbH
T +49 69 6603 1189
E michelle.broller@fva-service.de

Conference Hosts

CWD Aachen GmbH
Campus-Boulevard 79
52074 Aachen
E kontakt@cwd-aachen.de

CSE Aachen GmbH
Campus-Boulevard 79
52074 Aachen
E info@cse.rwth-campus.com

