



DAY 2

Conference Program  
March 12, 2025

DSEC I Room: K 4   5		
	Shutte Transfer	08:30
	<b>Guided Tour</b> Center for Wind Power Drives, MSE Test Center	09:00
	Shuttle Transfer	10:30
	<b>Postersession</b>	11:00
Machine Elements: Bearing Technology: Lifetime Martin Correns	Evaluation of Fatigue Damage in Stern Tube Sliding Bearings of Ship Propulsion Systems under Ice Impact Ahmed Saleh MSE of RWTH Aachen University	11:40
	Prediction of Rolling Bearing Life Applying Ultrasonic Testing Ralf Petersen NSK Deutschland GmbH	12:05
	Impact of lateral ship propeller loads in ice-covered waters on the operating conditions of stern tube bearings Markus Gilges MSE of RWTH Aachen University	12:30
	TEHL Film Thickness Measurements in Roller Bearings Using Electrical Impedance Methods Manjunath Manjunath Soete Laboratory of Ghent University	12:55
	Lunch Break	13:20
Drivetrain Technology: Predictive Maintenance and Condition Monitoring Alexander Häsels	Robustness and Transferability of an Autoencoder based Anomaly Detection Approach to Detect Gear Damage Lisa Binanzer IMA of Stuttgart University	14:20
	Phenomenological analysis of the electrical behavior of helical gears to identify sensory utilizable effects for condition monitoring approaches Florian Kötz PMD of Darmstadt University	14:45
	Fiber optical sensing solution for drivetrain design validation and condition / performance monitoring Georgo Angelis Sensing 360 B.V.	15:10
	The Integration of Predictive and Preventive Maintenance Strategies Based on Oil and Vibration Analyses Techniques for Industrial Gearboxes André Sitzmann Sumitomo Cyclo Drive Germany GmbH	15:35
	Coffee Break	16:00
	<b>Closing Plenary</b>	16:15
	End of Day II	16:45

DSEC II Room: K 7   8   9		
	Shutte Transfer	08:30
	<b>Guided Tour</b> Center for Wind Power Drives, MSE Test Center	09:00
	Shuttle Transfer	10:30
	<b>Postersession</b>	11:00
Systems Engineering: Virtual & Digital Twins Julia Kowalski	Modularized simulation model of an electric drivetrain for Hardware-in-the-Loop Testing Manuel Mennicken MSE of RWTH Aachen University	11:40
	Digital twin concept for calculating CO2 emissions of fluid power systems using AAS Malte Becker IFAS of RWTH Aachen University	12:05
	Digital twins of wind turbines' gear transmissions for decision making Mikel Escalero Ikerlan S. Coop.	12:30
	Utilization of RFLP in V-model methodology for the interdisciplinary development of Digital Twins Michel Fett PMD of Darmstadt University	12:55
	Lunch Break	13:20
Systems Engineering: Artificial Intelligence and SysML v2 Georg Jacobs	On Generating SysML v2 State Machines from Behavioral Requirements Philipp Höck MSE of RWTH Aachen University	14:20
	SysML v2 based modelling standard for mechanical system elements Kathrin Boelsen MSE of RWTH Aachen University	14:45
	Conceptual closed-loop design of automotive cooling systems leveraging Reinforcement Learning Johan Vanhuysse Siemens Industry Software NV	15:10
	Accelerating FE-based gear mesh calculations in dynamic multi-body simulations with AI Marius Willecke WZL RWTH University	15:35
	Coffee Break	16:00
	<b>Closing Plenary</b>	16:15
	End of Day II	16:45

CWD I Room: Europasaal		
	Shutte Transfer	08:30
	<b>Guided Tour</b> Center for Wind Power Drives, MSE Test Center	09:00
	Shuttle Transfer	10:30
	<b>Postersession</b>	11:00
Main Bearing II: Roller Bearing Ralf Ansoorge	Wind Main Shaft Roller Bearing Release Test for 25 MW Turbines Philipp Kirchner SKF GmbH	11:40
	Design-to-Cost for TRB-TRB Wind Turbine Main Bearing Systems Jan Torben Terwey thyssenkrupp rothe erde Germany GmbH	12:05
	Simulation-based damage analysis of main bearings in wind energy application Patrick Wingertzahn & Jonathan Müller MEGT of TU Kaiserslautern	12:30
	Simulative and experimental investigations of roller and structural induced creeping mechanisms considering design aspects for 2TRB rotor main bearing Daniel Billenstein & Christian Liewen, thyssenkrupp rothe erde Germany	12:55
	Lunch Break	13:20
Roller Bearing Jan Wenske	Development of a method to consider surface morphology into the calculation of fatigue life for rolling bearings in wind power applications Lukas Rüh Nordex Energy SE & Co. KG	14:20
	High-Load-Capacity Tapered Roller Bearings for Wind Turbines Ralf Petersen NSK Deutschland GmbH	14:45
	New simulation models to understand, isolate and mitigate sources of ring creep in rolling bearings Denny Fritze SKF GmbH	15:10
	Bearing creep in Wind Turbines Jean-René Koch Timken	15:35
	Coffee Break	16:00
	<b>Closing Plenary</b>	16:15
	End of Day II	16:45



CWD II Room: K 1		08:30
Shutte Transfer		08:30
Guided Tour Center for Wind Power Drives, MSE Test Center		09:00
Shuttle Transfer		10:30
Postersession		11:00
Powertrain I Alf Tredre	Prototype testing of wind gearboxes on test bench and turbine Martin Reuter Flender GmbH - Winergy	11:40
	Field validation of dynamic mechanical torque measurements using fiber-optic strain sensors for geared wind turbines Unai Gutierrez-Santiago National Renewable Energy Laboratory	12:05
	Optical Fiber Sensing to measure the gear load distribution in a planetary stage of a wind turbine gearbox Jelle Bosmans ZF Wind Power Antwerpen NV	12:30
	Experimental Validation of a High Torque Density Flange Connection Björn Juretzki & Daniel Kleef IME Aachen GmbH	12:55
Lunch Break		13:20
Powertrain II Anders Hansen	Trends and technology in wind turbine powertrain systems Ralf Hambrecht Flender GmbH	14:20
	System integration in an advanced 3 point suspension wind turbine drive train Alf Tredre bewind GmbH	14:45
	Speedy HTS: Design and Benefits of Medium-Speed Superconducting Generators with Oil-Cooled Stators Rolang Zeichfüßl Flender GmbH - Winergy	15:10
	Reliability and Wind (Gearbox) Industry Christopher Sous ZF Wind Power Antwerpen NV	15:35
Coffee Break		16:00
Closing Plenary		16:15
End of Day II		16:45

CWD III Room: K 2		08:30
Shutte Transfer		08:30
Guided Tour Center for Wind Power Drives, MSE Test Center		09:00
Shuttle Transfer		10:30
Postersession		11:00
Component Fatigue and Life Extension Roland Zeichfüßl	Component Specific Fatigue Strength Determination using Hollow Drill Samples for Limit State Design in Drive Train Components Felix Weber IWM of RWTH Aachen University	11:40
	Technical and physical investigations of used wind turbine gearbox oils - a perspective for lifetime lubrication? Gernot Bayer IMKT of Leibniz University Hannover	12:05
	On Confidence Interval-Based Anomaly Detection Approach for Temperature Predictions of Wind Turbine Drivetrains to Assist in Lifetime Extension Assessment Kelly Tartt, University of Strathclyde, NTNU	12:30
	Prognosis of Journal Bearing Wear Using Machine Learning-Based Surrogate Models for Predictive Maintenance Florian Wirsing MSE of RWTH Aachen University	12:55
Lunch Break		13:20
Sustainability Yi Guo	Quality Management Approach Considering Sustainability Aspects Within the Design of Wind Turbines Lisa-Marie Nettlenbusch Chemnitz University of Technology	14:20
	Navigating Sustainability: A Journey of Strategy Development Allan Korsgaard Poulsen Vestas Wind Systems A/S	14:45
	Driving Sustainable Solutions in the Wind Industry: Connecting Value Chains and Customer Needs Sara Nassehi Nejad Vestas Wind System A/S	15:10
Coffee Break		16:00
Closing Plenary		16:15
End of Day II		16:45

CWD Academic Track Room: K 3		08:30
Shutte Transfer		08:30
Guided Tour Center for Wind Power Drives, MSE Test Center		09:00
Shuttle Transfer		10:30
Postersession		11:00
Gearbox Dieter Meivissen	Component fatigue strength testing on a down-scaled cast iron turbine gearbox planet carrier Vitali Züch CWD of RWTH Aachen University	11:40
	Thermo-Elastohydrodynamic Gearbox Simulations Jochen Lang IST Ingenieurgesellschaft für Strukturanalyse und Tribologie mbH	12:05
	Quasistatic Modelling of Long-wave Axial Deviations in Planetary Gears for Vibroacoustic Condition Monitoring Systems Simon Nohl WZL of RWTH Aachen University	12:30
Lunch Break		13:20
Turbine Design and Control Thorsten Reichartz	Influence of Hydrodynamic Planetary Journal Bearings on the NVH-Behavior of Wind Turbines Moataz Sabry CWD of RWTH Aachen University	12:55
	Identifying Path Ahead for Tackling Future Challenges in Direct-drive Wind Turbine Generator's Electro-Mechanical Design and Manufacturing Kelly Tartt University of Strathclyde, NTNU	14:20
Coffee Break		16:00
Closing Plenary		16:15
End of Day II		16:45