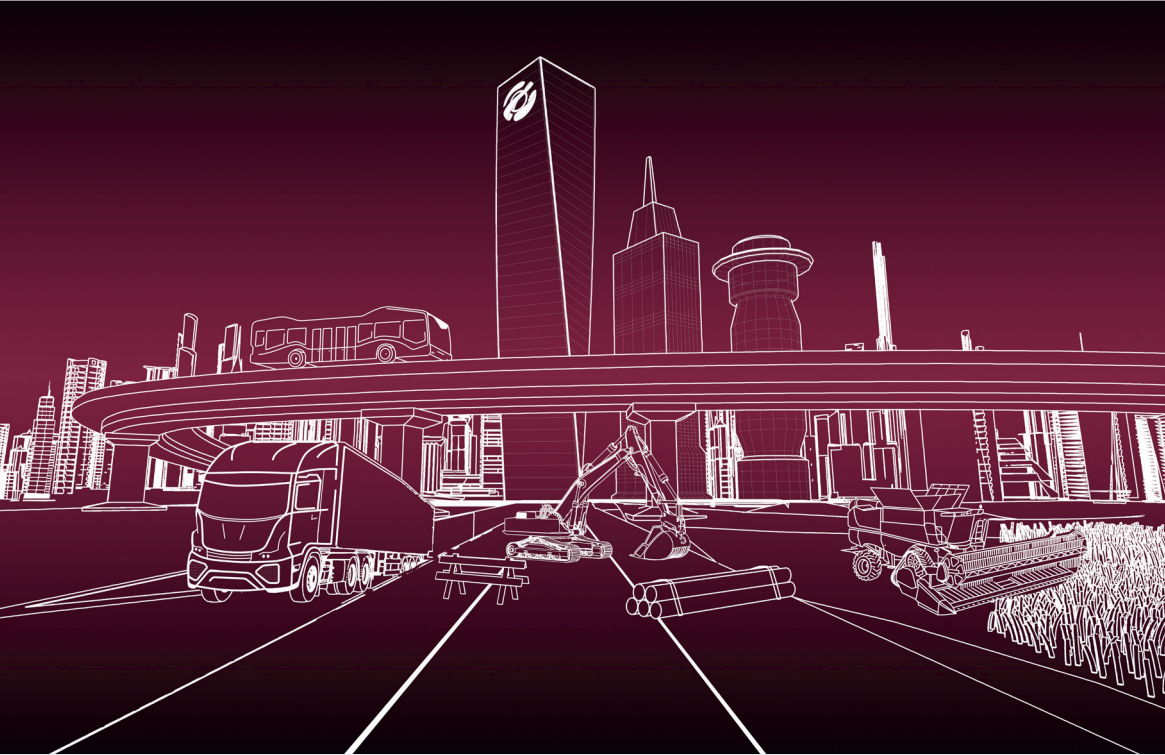


# PROGRAM OVERVIEW



## 9<sup>th</sup> International Commercial Vehicle Technology Symposium Kaiserslautern

June 10-11, 2026  
at thr Fraunhofer Center in Kaiserslautern



**commercial vehicle alliance**  
kaiserslautern

# PROGRAM OVERVIEW

Wednesday, June 10, 2026

9:00	<b>Opening and welcome</b> <b>Keynote</b>	room 1
10:00	<b>Exhibitor presentation</b>	lobby
10:30	<b>Exhibition and Coffee break</b>	lobby
11:15	<b>Simulation Methods (1)</b> <i>Presentations see page 4</i>	room 1
	<b>Innovative Development Methods</b> <i>Presentations see page 4</i>	room 2
12:30	<b>Exhibition and Lunch break</b>	lobby
14:00	<b>Simulation Methods (2)</b> <i>Presentations see page 4</i>	room 1
	<b>Connected and Integrated Systems and Services</b> <i>Presentations see page 4</i>	room 2
15:15	<b>Poster presentation</b>	lobby
15:40	<b>Exhibition, Poster Presentation and Coffee break</b>	lobby
16:45	<b>Assisted and Automated Driving and Working (1)</b> <i>Presentations see page 4</i>	room 1
	<b>Safety, Reliability and Durability (1)</b> <i>Presentations see page 5</i>	room 2
19:00	<b>Conference dinner</b>	city

# PROGRAM OVERVIEW

Thursday, June 11, 2026

9:00	<b>Welcome &amp; Review</b>	room 1
9:15	<b>Assisted and Automated Driving and Working (2)</b> <i>Presentations see page 5</i>	room 1
10:30	<b>Exhibition, Poster Presentation and Coffee break</b>	lobby
11:30	<b>Safety, Reliability and Durability (2)</b> <i>Presentations see page 5</i>	room 1
	<b>New Propulsion Technologies</b> <i>Presentations see page 5</i>	room 2
12:45	<b>Exhibition and Lunch break</b>	lobby
14:15	<b>Simulation Methods (3)</b> <i>Presentations see page 5</i>	room 1
15:30	<b>Final plenary session</b>	room 1

# PRESENTATIONS

Wednesday, June 10, 2026

SIMULATION METHODS (1)		room 1
11.15	Beyond the Road: Scenario-Based Testing and Validation of Off-road Autonomy in Heavy-Duty and Agricultural Machinery	Rothmann; Frank; Schwank; Burger (Fraunhofer ITWM)
-	Coupled Humans-in-the-Loop Co-Simulation for Validation of Safety-Critical Assistance Systems on the Construction Site	Emmerich <sup>1</sup> ; Reinhard <sup>2</sup> ; Schneider <sup>1</sup> ; Nicolai <sup>3</sup> ; Hekele <sup>2</sup> ; Burger <sup>1</sup> ( <sup>1</sup> Fraunhofer ITWM; <sup>2</sup> RPTU Kaiserslautern-Landau; <sup>3</sup> University of the Bundeswehr)
12.30	Absicherung automatisierter Fahrfunktionen im Nutzfahrzeugbereich: Potenziale und Herausforderungen simulationsbasierter Ansätze	Bilgic Istoc (IPG Automotive)

INNOVATIVE DEVELOPMENT METHODS		room 2
11.15	Semantische Erfassung von dynamischen Situationen im Straßenverkehr	Musiat; Reichardt; Wasenmüller (Technische Hochschule Mannheim)
-	Generative AI methods for simulation of electrified and automated commercial vehicles	Schyr <sup>1</sup> ; Stern <sup>2</sup> ; Sentas <sup>3</sup> ( <sup>1</sup> AVL Deutschland; <sup>2</sup> AVL List; <sup>3</sup> AVL Turkey)
12.30	SENNA: Ensuring Safe Attachment Handling in Autonomous Commercial Vehicles	Deolji <sup>1</sup> ; Li <sup>2</sup> ; Khan <sup>1</sup> ; Egelhof <sup>1</sup> ; Wolf <sup>1</sup> ; Berns <sup>1</sup> ; Thup <sup>1</sup> ( <sup>1</sup> RPTU Kaiserslautern-Landau; <sup>2</sup> Commercial Vehicle Cluster)

SIMULATION METHODS (2)		room 1
14.00	Enhancing Operator Safety and Attention in Commercial Vehicles through Smart Assistance	Hillen; Lorenz; Reich; Adler; Wolf; Schneider (Fraunhofer IEESE, Germany)
-	Mixed Reality Head-Up Displays im Fokus: Eine Eye-Tracking-Analyse virtueller Fahrspuraugmentierungen	Conrad; Wallach (Hochschule Kaiserslautern)
15.15	SALSA: Potentiale eines adaptiven Anzeige- und Bedienkonzepts im LKW	Lippert; Eckl; Mertens; Woelfel (MAN Truck & Bus)

CONNECTED AND INTEGRATED SYSTEMS AND SERVICES		room 2
14.00	Intelligentes Lademanagement von elektrifizierten Verteilerverkehrsfлотten: Eine Synergie von Wirtschaftlichkeit und Nachhaltigkeit	Dunger; Warmann (ITK Engineering)
-	Quantifying Real-World Delays in Heavy-Duty Truck Operations: An Agent-Based Approach to Assess the Potential of Charging Point Reservation Systems in German Road Freight	Paper; Klein; Bröde; Winkler; Lienkamp (Technical University of Munich)
15.15	Interface analysis between long-distance road freight transport and the modular U-Shift vehicle system in relation to the handling of goods in automated terminals	Hahn; Mysore Pavan (Deutsches Zentrum für Luft- und Raumfahrt)

ASSISTED AND AUTOMATED DRIVING AND WORKING (1)		room 1
16.45	Plattformkonzept für sichere Videoübertragung über 5G bei teleoperierten Fahrzeugen	Fladé; Zatta <sup>2</sup> ( <sup>1</sup> NewTec; <sup>2</sup> Rheinmetall Technology Center)
-	Versatile Autonomous Robotic Tractor for Small-Scale Agriculture and Specialty Crops	Pawlak; Gassen; Kunz; Egelhof; Wolf; Berns (RPTU Kaiserslautern-Landau)
18.00	Echtzeitfähige Detektion von Straßenfugen mittels Objekterkennung	Kelleners; Schröder; Erdmann (Technische Hochschule Köln)

Wednesday, June 10, 2026 & Thursday, June 11, 2026

SAFETY, RELIABILITY AND DURABILITY (1)		room 2
16.45	An Ontology-Based Framework for the Evaluation of Safety Analyses in Autonomous Commercial Vehicles	Helten <sup>1</sup> ; Hillen <sup>2</sup> ; Wolf <sup>1</sup> ; Reich <sup>2</sup> ( <sup>1</sup> RPTU Kaiserslautern-Landau; <sup>2</sup> Fraunhofer IESE)
-	Controllability ratings of steering related hazards in heavy commercial vehicles according to ISO 26262:2018	Glaser <sup>1,2</sup> ; Barrans <sup>2</sup> ; Fadlallah <sup>2</sup> ; Müller <sup>2</sup> ( <sup>1</sup> IVECO; <sup>2</sup> University of Huddersfield; <sup>3</sup> Fachhochschule Dortmund)
18.00	Software Updates as Enabler for Cyber Security in the CV Domain	Roy; Achenbach; Ulmer (IAV)

ASSISTED AND AUTOMATED DRIVING AND WORKING (2)		room 1
09.15	Modular and Context-Aware Autonomy for Multi-Role Off-Road Platforms: A Survey with the Unimog as a Case Study	Egelhof <sup>1</sup> ; Deoli <sup>1</sup> ; Li <sup>1</sup> ; Isecke <sup>1</sup> ; Wolf <sup>1</sup> ; Berns <sup>1</sup> ( <sup>1</sup> RPTU Kaiserslautern-Landau; <sup>2</sup> Daimler Truck)
-	Autonomous Tool Change for Excavators in Unstructured Terrain	Zimmermann <sup>1,2</sup> ; Albrecht <sup>1,2</sup> ; Peterit <sup>1,2</sup> ( <sup>1</sup> Fraunhofer IOSB; <sup>2</sup> Robotics Institute Germany)
10.30	Towards Autonomous Suction Excavation: Overview, Application and Approaches	Li <sup>1</sup> ; Deoli <sup>1</sup> ; Khan <sup>1</sup> ; Egelhof <sup>1</sup> ; Riedel <sup>1</sup> ; Wolf <sup>1</sup> ; Berns <sup>1</sup> ( <sup>1</sup> RPTU Kaiserslautern-Landau; <sup>2</sup> MTS Mobile Tiefbausysteme)

SAFETY, RELIABILITY AND DURABILITY (1)		room 1
11.30	Condition Monitoring approach for diagnostics of a journal bearing in a hydraulic excavator	Baur; Teutsch (RPTU Kaiserslautern-Landau)
-	Truck Front Leaf Spring Durability Testing with Smart Virtual Sensing	Kou <sup>1</sup> ; Kubo <sup>2</sup> ; Hack <sup>1</sup> ; De Gregoriis <sup>1</sup> ( <sup>1,2</sup> Siemens Industry Software; <sup>3</sup> Volvo Trucks)
12.45	Mitigating Sensor Data Degradation in Off-Road Autonomy: A Data Fusion Approach with Fault Detection and Isolation	Verma; Helten; Wolf (RPTU Kaiserslautern-Landau)

NEW PROPULSION TECHNOLOGIES		room 2
11.30	Simulation-Based Optimization Framework for Mixed Fleet Commercial Vehicle Operations	Koch; Eckstein (RWTH Aachen University)
-	Physics-Informed Machine Learning for Real-Time Emission Prediction in Hybrid Powertrains	Sundaram; Ulmen; Heubaum; Görges; Gehra; Günthner (RPTU Kaiserslautern-Landau)
12.45	Lubricants for new driving technologies	Schmidt (Fuchs Lubricants)

SIMULATION METHODS (3)		room 1
14.15	Extracting Continuous Curvature Road Geometry from Perception Point Clouds	Wang <sup>1,2</sup> ; Rehme <sup>1</sup> ; Necker <sup>1</sup> ; Schwiager <sup>2</sup> ( <sup>1</sup> Mercedes-Benz; <sup>2</sup> University of Stuttgart)
-	From Manual Design to Automated System Optimization: Harness and Hose Engineering in Agricultural Machinery	Dengel <sup>1</sup> ; Hoepfner <sup>2</sup> ( <sup>1</sup> fleXstructures; <sup>2</sup> John Deere)
15.30	Genetic Algorithm-Based Optimization of Vehicle Dynamics for Off-Road Robotics Simulation	Geupel; Berns (RPTU Kaiserslautern-Landau)

# PROGRAM COMMITTEE AND ORGANIZERS

Prof. Dr. Karsten Berns  
*RPTU Kaiserslautern-Landau*

André Brand  
*BPW Bergische Achsen, Wiehl*

Dr. Michael Burger  
*Fraunhofer ITWM, Kaiserslautern*

Prof. Dr. Jörg Dörr  
*RPTU Kaiserslautern-Landau*

Dr. Klaus Dreßler  
*Fraunhofer ITWM, Kaiserslautern*

Dr. Christian Düsseldorf  
*Wirtgen Group, Göppingen*

Prof. Dr. techn. Helmut Eichseder  
*TU Graz (A)*

Prof. Dr.-Ing. Daniel Görges  
*RPTU Kaiserslautern-Landau*

Prof. Dr.-Ing. Michael Günthner  
*RPTU Kaiserslautern-Landau*

Thomas Ille  
*MAN Truck & Bus, München*

Dr.-Ing. Stephan Hammes  
*Bomag, Boppard*

Ralf Kalmar  
*Fraunhofer IESE, Kaiserslautern*

Marcus K. Pfeiffer  
*Hydac, Sulzbach*

Eugen Schobesberger  
*Liebherr-EMtec, Kirchdorf*

Dr.-Ing. Nicole K. Stephan  
*RPTU Kaiserslautern-Landau*

Prof. Dr.-Ing. Roman Teutsch  
*RPTU Kaiserslautern-Landau*

Dr. Martin Thul  
*CVC, Kaiserslautern*

Dr. Georg. Töpfer  
*Deutz, Köln*

Dr.-Ing. Jan Wieser  
*General Dynamics, Kaiserslautern*

Michael Wildhagen  
*Schmitz Cargobull, Altenberge*

Prof. Dr. Frank Will  
*TU Dresden*

Prof. Dr.-Ing. Patrick Wolf  
*RPTU Kaiserslautern-Landau*



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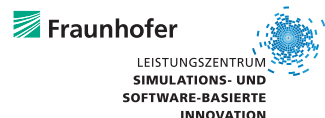
Umbrella organization of:



Center for Commercial Vehicle Technology  
(ZNT)  
RPTU Kaiserslautern-Landau



Commercial Vehicle Cluster -  
Nutzfahrzeuge GmbH (CVC)



High Performance Center Simulation and  
Software-Based Innovation -  
»Digital Commercial Vehicle Technology«  
Fraunhofer ITWM/Fraunhofer IESE