

# ART TECHDAY 2026 Program

10:00 AM – 4:00 PM

Wielenbach, , Germany

10:00 AM Registration & Welcome Coffee

10:15 AM Opening Talk by ART Management

10:20 AM Leonard Vogelmeier, Airbus:

## Human Empowerment by XR - why that can be more difficult than one would think

Since the start of the second VR wave, with the introduction of the Oculus Rift in 2013, the great possibilities of this and similar technologies have repeatedly been extolled. Nevertheless, in 2026 the dominant human-computer interfaces are still keyboard, mouse, and monitor. What is the reason for this, and how could it be changed?



10:40 AM

Norman Hofmann, ICM (Institut Chemnitzer Maschinen- und Anlagenbau e.V.):

## Tracking Humans and Machines

Using the research project "WIDI - Knowledge Transfer and Knowledge Transformation" as an example, the ICM presents current applications in the field of tracking humans and machines. The research focuses on the digitization of human work movements, which is used either for documentation and employee training or for transfer to a robot. Two examples will be used to demonstrate, first, how comprehensive data collection of motion and force data can be applied in a learning platform, and second, how this data can be transferred to a robot. In a live demonstration, the process of transferring data to a robot will be demonstrated. Human movement is recorded and transmitted to a robot located at a distance. The robot then executes the movement exactly as performed by the human. For verification purposes, the robot is tracked in parallel to generate a digital representation of the robot. Visual verification can be performed by overlaying a video image.



11:00 AM

Oliver Sobiak, TU Berlin

## Direct Pose Control of Industrial Robots

Industrial robots have low absolute pose accuracy, which is why external sensors are increasingly being used to directly control pose accuracy. The use of redundant camera tracking systems and a real-time data interface for FANUC robot controllers can increase the absolute pose accuracy by more than 90 % in position and orientation.



11:20 AM

Nico Hübel, LP Research

## FusionHub — The Universal Sensor Fusion Platform Used for today's Augmented Reality (AR)-Based In-Car Infotainment and Navigation Demo

LP-Research has spent more than a decade building sensor fusion technology at the core of motion sensing, pose tracking, and industrial IoT. With customers in over 40 countries and more than 400,000 devices shipped, the company's IP spans IMU sensors, full-body motion capture, and real-time orientation algorithms — now all integrated into a single core fusion engine.

This talk introduces FusionHub, LP-Research's universal sensor fusion platform that unifies multi-modal sensing — IMUs, GNSS/RTK, odometry, and optical tracking — into a common, high-framerate output. For this demo, FusionHub is integrated with ART's SmartTrack optical tracking camera, combining ART's optical measurements with inertial data to achieve the low-latency head pose tracking that in-car AR requires.

This fusion is the foundation of LPVIZ, LP-Research's AR-based in-car infotainment and navigation system. LPVIZ overlays driving guidance, location information, and 3D content directly onto the road ahead through smart glasses, eliminating the distractions and FOV limitations of traditional in-car displays. FusionHub fuses the ART SmartTrack camera data with the smart glasses' IMU for smooth head tracking inside the vehicle cabin, for an unparalleled user experience without motion sickness. At the same time FusionHub's GNSS/IMU fusion keeps the AR image globally anchored — even through tunnels and GPS-denied urban environments.

Outside, attendees are invited to experience the full LPVIZ system in a live driving demonstration.



11:40 AM

Robert Scheibe, ART General Manager:

## ART Roadmap & Exhibition Fast Forward

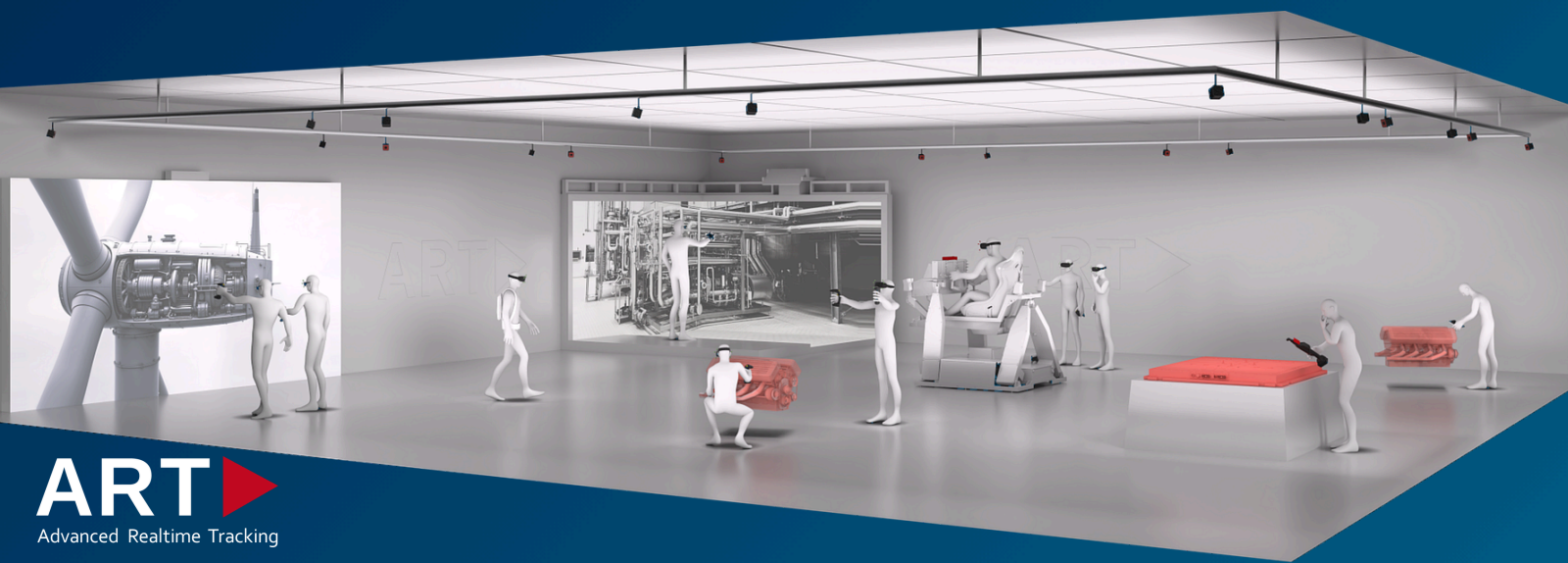


following

Exhibition, through 04:00 PM

approx. 04:00 PM

End of Event



**ART**  
Advanced Realtime Tracking

## Thanks to our Exhibition Partners!

