DEKRA and Kautex Textron join consortium for LiDAR Performance in adverse conditions

- Consortium formed by fka and DVN expanded with two strong partners
- LiDAR performance tests for rain, fog, spray and interference have started
- Nine different LiDAR sensors are being tested in a large-scale test campaign focused on LiDAR performance

Aachen, December 2024: In October 2023, fka GmbH launched a new industrial consortium together with the Driving Vision News (DVN) network to create a **test methodology for performance evaluation** of LiDAR sensors when subjected to non-ideal or adverse conditions.

The methodology development for LiDAR sensor performance in adverse conditions covers three main pillars that potentially affect the performance:

1. Adverse weather such as rain or fog
2. Contamination of sensor surface through dirt or contamination of transmission medium through road spray or dust
3. Interference with other LiDAR sensors or cameras

Test tool, test scenarios and the overall test methodology is created and validated within the framework of the project. First data collection has started in order to validate the tools and methods.

Since the last update, three more companies have joined the consortium: **DEKRA**, the world's largest non-listed organisation in Testing, Inspection and Certification as well as **Kautex Textron**, one of the world leaders in development of smart sensor cleaning systems. Another renowned consumer goods company has also joined the consortium. The total number of partners in the consortium is now up to 11. The consortium is now represented by OEMs, Tier 1s and LiDAR manufacturers, testing organisations and sensor heating and cleaning solution providers.

The project testing phase with 8 different LiDAR sensors (905 nm and 1550 nm) has been concluded in November. The analysis phase follows and the results shall be presented to the consortium members in the coming months. The project is scheduled to end in February 2025.

Planning for a new specification/standard for LiDAR performance evaluation under adverse conditions is currently underway. The official process for standard formulation is set to begin by Q1 2025.

Partners

About fka

For more than 40 years, fka has been internationally known as an innovative engineering service for the mobility industry. Driving the world by developing ideas and creating innovations is the mission statement that fka's team is committed to.

The team is inspired by a passion for efficient, safe and fascinating mobility. As one of the first companies on the Aachen campus, the spin-off of the Institute for Automotive Engineering of the RWTH Aachen University demonstrated entrepreneurial foresight.

Interdisciplinary expertise in all aspects of mobility and technological visions, combined with the advantages of the inspiringly creative location, are fka's fuel. Ideas, innovations and unique methodological expertise are shaped into well-founded and secured solutions that give fka's customers the necessary edge in a wide range of issues.

A complete spectrum of services, ranging from consulting and conception to simulation and design, prototype construction and experimental testing, forms the basis for this. With the credo "creating ideas & driving innovations", the team constantly has the mobility of the future in mind.

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