PRESS RELEASE
THE COMPANY

April 2025

Jointly developing test benches for periodic technical inspections of automated vehicles

MAHA and dSPACE collaborate

- **MAHA and dSPACE are collaborating in the development and marketing of test benches for periodic technical inspections and functional tests of automated and autonomous vehicles in workshops. With the jointly developed test benches, testing organisations or workshops can examine the safety and function of advanced driver assistance systems (ADAS) and autonomous vehicles (AD) using vehicle-in-the-loop (VIL) test procedures and ensure this throughout the entire life cycle.**

Haldenwang/Paderborn, 29th April 2025. As one of the world's leading manufacturers of workshop and vehicle inspection technology, MAHA is contributing its know-how as an expert in vehicle testing technology for ADAS/AD sensor stimulation and as a system integrator to the collaboration. dSPACE is contributing its expertise in the simulation of driving scenarios and over-the-air stimulation of ADAS/AD sensors. The combination of chassis dynamometer and simulation to create a vehicle-in-the-loop test system has already been demonstrated in a proof of concept.

The challenges that automated and software-defined vehicles pose for testing organisations and workshops are immense: They must ensure that safety-critical systems can be operated correctly over the entire product life cycle. With vehicle-in-the-loop tests, a cost-effective solution has been created that enables fast, reliable, and easy-to-use tests. In a VIL test, the real vehicle perceives a virtual world via its ADAS/AD sensors. Accelerating, steering, and braking are possible just like on the road, thanks to the chassis dynamometer. Any number of scenarios, such as highway driving, city traffic, and critical driving maneuvers, can be simulated in this way. Equipped with the VIL test system from MAHA and dSPACE, test organisations and workshops can, for example, reliably test the behavior of a vehicle during emergency braking and lane changes.

Functional and periodic technical tests of ADAS and AD systems increase the safety and acceptance of automated and autonomous vehicles. With the joint offering from MAHA and dSPACE, we are creating a cost-effective solution for the reliable testing of such systems throughout the entire product lifecycle," said Dr. Carsten Hoff, CEO, dSPACE.

"Furthermore, our aim is to offer testing organizations and workshops more than just a cost-efficient solution. Close cooperation between dSPACE and MAHA has resulted in a system that can be seamlessly integrated into existing workshop structures, is technically expandable, and thus offers a future-proof perspective – for maximum safety and maximum efficiency in the testing process," emphasizes Dr. Peter Geigle, CEO of the MAHA Group.

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From left: dSPACE and MAHA focus on combined expertise: Dr. Carsten Hoff (CEO of dSPACE) and Dr. Peter Geigle (CEO of the MAHA Group) are pleased about the official start of the joint collaboration.

Photo: dSpace

About dSPACE

dSPACE is is a leading provider of simulation and validation solutions worldwide for developing networked, autonomous, and electrically powered vehicles. The company's range of end-to-end solutions are used particularly by automotive manufacturers and their suppliers to test the software and hardware components in their new vehicles long before a new model is allowed on the road. Not only is dSPACE a sought-after partner in vehicle development, but engineers also rely on our know-how at dSPACE when it comes to aerospace and industrial automation. Our portfolio ranges from end-to-end solutions for simulation and validation to engineering and consulting services as well as training and support. With more than 2,800 employees worldwide, dSPACE is headquartered in Paderborn, Germany; has four project centers in Germany; and serves customers through its regional companies in the USA, the UK, France, Japan, China, Croatia, Korea, India, and Sweden.

About MAHA

MAHA Maschinenbau Haldenwang GmbH & Co. KG is one of the world's leading manufacturers of workshop and vehicle inspection equipment. As a company with an international outlook, MAHA operates two production sites in Germany and the USA and a global sales and service network in over 150 countries. The company employs a total of more than 1,000 staff worldwide and generates sales of approximately 150 million EUR.

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More information released by MAHA is available on the Internet:
https://maha.de/en/news and www.maha.de

Glossary:

Vehicle-in-the-loop (VIL) test procedure
Test method in which real vehicle components are combined with virtual environments to test driving functions under controlled conditions.

ADAS (Advanced Driver Assistance Systems)
Driver assistance systems that increase safety and comfort, e.g. through lane departure warning control, braking control, or distance control.

AD (Automated Driving)
Automated driving, whereby driving tasks are partially or completely taken over by systems.

Over-the-air stimulation
Wireless simulation of sensor stimuli, e.g. radar or camera, for the testing of driver assistance and driving functions without a real environment.