PRESS RELEASE

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Self-driving cars:

The future of vehicle testing

A driverless system? At GeneSys' in Offenburg this is no longer just a pipe dream. Researchers at the German company are involved in the latest automotive development project: a car-based robotic driving system. Together with three partner companies Dewetron, Stähle and AMFD the vehicle testing of the future is being developed. Thereby, several self-driving cars are capable of driving themselves around a controlled test circuit.

Who has never dreamt of being driven home by a robotic driver? Even if your own car is not yet equipped with a robotic system, this futuristic scenario is currently being tested out in a specially made environment well away from public roads. The test vehicles which navigate the familiar route are completely driverless. In other words, they manoeuvre smoothly around a controlled circuit without a human driver behind the wheel. Real world traffic situations, such as collision avoidance or emergency stops, can be tested as often as necessary.

Working alongside with Stahle Robot Systems, Dewetron as provider of data acquisition instruments and AMFD of the Technical University Dresden for testing methods, GeneSys Elektronik uses its extensive know-how to contribute towards the development of a fully functional overall system. The GPS-aided gyro system from GeneSys Elektronik is the assembly of choice for these autonomous car tests. It relays data of the vehicle's position accurately to within just one centimetre. This data is subsequently processed by the robotic system to drive the car around the test circuit as specified by the administrator.

Numerous test runs under the exact same conditions are necessary to achieve reliable measured data. The repeatability and preciseness of

the tests are the basis for reliable data analysis. Driverless tests help to open up a whole host of exciting opportunities for vehicle testing. Relevant tests can be carried out safely well away from real traffic in a controlled environment. This gives engineers and researchers enhanced planning reliability with a higher degree of repeatability, less staff costs and greater precision in order to develop better and more eco-friendly vehicles within a shorter space of time.

GeneSys Elektronik GmbH is an internationally established company with three business segments, which focuses on the development and production of bespoke metrology. Core areas are inertial measurement systems and optoelectronics. Regional companies, such as PWO, rely on the video inspection systems from the GeneSys Elektronik subsidiary Omni Control to monitor the quality of their thermoformed components for the automotive industry. To ensure they pass obstacle avoidance tests with flying colours, leading automobile manufacturers have optimised the handling of their vehicles with GPS-aided gyro systems, so-called ADMA, from GeneSys Elektronik. The company's measurement systems also guarantee that tunnel boring machines from Herrenknecht stay on course - 24/7 and around the globe.

Come and visit us at the following trade shows or simply contact us for more information.

GeneSys Elektronik GmbH

Automotive Testing Expo North America 2017, Detroit, Stand 3000

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