

Press release

Kistler at Automotive Testing Expo 2019:

The evolution of measurement technology: everything from a single source

NOVI, MI – October 23, 2019 – Kistler Instrument Corporation will show its recent innovations at the Automotive Testing Expo 2019 in Novi, Michigan on October 22 through October 24. Developments in areas such as vehicle dynamics and durability, safety, NVH, optical combustion analysis and, last but not least, big data management. Experience the benefits from the complete Kistler measurement chain – from sensor to software at ATE 2019!

As the automotive industry continuously evolves, Kistler provides developers and application engineers with efficient means to acquire valuable test results in areas such as electrification, vehicle safety and autonomous vehicles. At ATE 2019, Kistler experts will show a variety of specific solutions designed to facilitate development and validation processes of state-of-the-art vehicles.

Maximum efficiency for complex vehicle test setups

In the field of vehicle dynamics and durability, Kistler offers a complete portfolio of sensors for various physical measurements such as velocities, angles, forces and moments. All sensors, i.e. measuring steering wheels, dynamic camber angle sensors, speed sensors and many others can now be linked together in one test setup. Thanks to the DTI (Digital Transducer Interface) bus system, a network with up to 288 measuring channels may be operated together and recorded with one ethernet cable to a laptop. The effort for connecting all devices and processing the data is drastically reduced thanks to the new DTI logger from Kistler.

Meet THOR-M, Kistler's introduction to crash dummy development

In recent advancements in the crash test industry, in 2018, Kistler announced the release of THOR-M with the option of on-board data acquisition and digital sensors based on DTI. Kistler is now accepted globally as a full turn-key supplier of the most recent anthropomorphic test device (ATD). DTI is the in-dummy technology that significantly reduces cables, umbilical weight and the need for additional data acquisition boxes in your test vehicle. Each sensor is equipped with a dimod which converts the analog signal to digital and existing analog transducers can be modified to accept the dimods. The transducers are connected through ports that run to the DTI375-TH in-Dummy recorder, which allows 288 channels to be recorded.

With the latest updates, Kistler added new equipment for analog crash testing. KiDAU data acquisition is now backed up by an on-board battery solution called KiBAT. KiBAT is a LION battery backup that allows Kistler equipment to run cable free with a 400 W load for up to 10 min.

KiNOVA is the new one-stop solution for powertrain NVH

To support NVH engineers in the best possible way, Kistler has developed a new product series for efficient and reliable NVH analysis and it is available in four variants: In addition to KiNOVA Powertrain NVH, there are the portable KiNOVA Lite and the two application-specific versions KiNOVA HITS (hammer impact test system) and KiNOVA SCA (source contribution analysis). All four are ruggedly designed, flexible, and KiSUITE software modules enable efficient and added value data capture and analysis.

Optical combustion analysis to improve engines further

As the debate on environmental changes is heating up, engineers want to further enhance the combustion engine are in need of new approaches. At ATE 2019, Kistler will show the comparably young technology of optical combustion analysis: By using highly sophisticated optical probes (included in a spark plug for example), it is possible to visualize the processes in the combustion chamber directly. The acquired optical data serves as a basis of comprehensive optimization, reducing soot and knock it is a genuine method reduce emissions.

Competitive edge through advanced data analytics and data mining

The paradigm shift from hardware to software has not quite reached measurement technology yet; according to estimations, investments for the first are still 1.000 times higher than for the latter. But as a market and technology leader in measurement technology, Kistler delivers its customers new ways to add value just now: The dedicated software portfolio for the post-processing of measurement data comprises of MadaM (data management), jBEAM (data analysis, visualization, and reporting) and jBEAM Cluster (data mining of huge clusters). All solutions are java-based and thus compatible with every system, providing the engineer with efficient tools to make the most out of his data – even from tests performed long ago, where hidden patterns and correlations may help fostering innovation.

Visit Kistler at ATE 2019 in Novi, Michigan – booth 9036!

Our dedicated experts are looking forward to your visit and would be pleased to explain the new solutions in detail. Learn how to benefit from the complete Kistler measurement chain from sensor to software – see you at the Automotive Testing Expo from October 22 to 24!

Image material (please name the Kistler group as picture source)



The DTI logger from Kistler interconnects various sensors for vehicle dynamics with only one cable each and can be extended to a network of three loggers providing 288 channels for one single test setup.



Kistler not only offers precise sensors and data acquisition for every dummy type, but also has developed its own THOR dummy solution now to be flexibly equipped.



KiNOVA is the new powertrain NVH series from Kistler coming in four variants including KiSUITE software modules.



The innovative method of optical combustion analysis works with optical probes from Kistler that visualize processes in the combustion chamber – serving as a basis of optimization, i.e. in order to reduce emissions.



A powerful measuring chain: With the new software tools for big test data jBEAM, MaDaM and jBEAM Cluster, Kistler is offering its customers a unique way to add value in the process of complex vehicle testing.

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About the Kistler Group

Kistler is the global market leader for dynamic pressure, force, torque and acceleration measurement technology. Cutting-edge technologies provide the basis for Kistler's modular solutions. Customers in industry and scientific research benefit from Kistler's experience as a development partner, enabling them to optimize their products and processes so as to secure sustainable competitive edge. Unique sensor technology from this owner-managed Swiss corporation helps to shape future innovations not only in automotive development and industrial automation but also in many newly emerging sectors. Drawing on our extensive application expertise, and always with an absolute commitment to quality, Kistler plays a key part in the ongoing development of the latest megatrends. The focus is on issues such as electrified drive technology, autonomous driving, emission reduction and Industry 4.0. Some 2,200 employees at more than 60 facilities across the globe are dedicated to the development of new solutions, and they offer application-specific services at the local level. Ever since it was founded in 1959, the Kistler Group has grown hand-in-hand with its customers and in 2018, it posted sales of CHF 475 million. About 8% of this figure is reinvested in research and technology – with the aim of delivering better results for every customer.