

## Electric vehicle battery test advancements

**INCREASED FACILITY CAPABILITIES!**

**BOOTH 1952** Critt M2A will be on hand to talk about testing and characterizing the behaviors of energy storage systems through 96 single-cell test channels and five battery modules in a controlled-climate environment. This technology is designed to help car makers optimize and increase the autonomy of batteries – a must when electric and hybrid activities are rising to greater

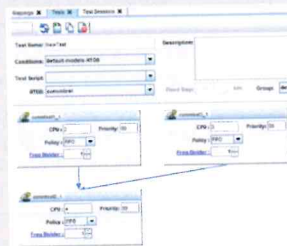
prominence. From its test center in northern France, the company incorporates features such as ripple simulation, battery management systems and impedance spectroscopy. By the end of 2016 the electrical test center will include a full high-tech 4WD vehicle testbed, compatible with all propulsion systems, an e-turbo test bench in a full anechoic room, and battery pack benches.



The R&D base in northern France specializes in four areas: NVH, engine, turbocharger and electric testing

## Real-time modeling environment

**BOOTH 1371** Looking for fingertip control of your complex automotive simulations? Need to easily remap your I/O without changing your models? Looking for fast access to simulation data? Concurrent's Simulation Workbench (SimWB) is a complete framework for developing and executing real-time hardware-in-the-loop test systems and driving simulators. With a real-time core organized around a very fast memory resident database, simulation models and I/O processes have direct access to data with very low latency. Models and I/O processes run sequentially during the real-time loop, with their execution dispatched by the SimWB scheduler. The modular design allows for complete I/O independence for the various models using a point-and-click GUI.



A framework for executing real-time hardware-in-the-loop test systems

## Random vibration spectrum analysis

**BOOTH 1268** Engineers that want to test and fatigue their products to failure, so they can determine service life, should talk to experts at Vibration Research. The company's Fatigue Damage Spectrum (FDS) offers a reliable way to use real-world data to understand a product's breaking point. It is based on the principle that fatigue damage will accumulate until the life-dose of fatigue for that product has been met, at which point it will experience failure. FDS enables users to statistically simulate an end-use environment for a unit under test (UUT); accelerate a test to a desired test duration value; and accurately predict the life expectancy of the UUT.

## Wireless crash vehicle measurements

**NEW PRODUCT!**

**BOOTH 1114** As reliability in wireless data transfer improves, so do the technologies using it. Picture a pre- and post-crash measuring system that allows total freedom of movement around the vehicle with an ergonomically designed handheld probe. Picture a high-resolution CMOS camera, fast WLAN transfer and data triggered at the touch of a button. That's the Aicon ProCam from Aicon 3D Systems. Product manager Andreas Rietdorf says, "Our customers will benefit from total freedom of movement but still receive highly precise and reliable measurement results, making the Aicon ProCam one of the most powerful systems for crash vehicle measurement on the market."



As the measuring system is portable, the same probe can be operated in several different measuring rooms

## Measurement robotics system

**BOOTH 1165** Make sure to visit the Battenberg booth and let the team talk you through flexible solutions for precise quality testing. The company's standard measurement robotics system is designed to allow engineers to measure, analyze and assess complex tactile, optical, acoustic and geometric attributes, quickly and effectively. Whether you're looking to test cockpits, doors or seating, the system can be expanded to customer requirements, and adheres to the same exacting standards that have seen the business used as a benchmark in measurement robotics throughout the industry.

**PRECISE QUALITY INSPECTION!**