

automotive testing expo 2009 europe

16-18 JUNE 2009 |
New Trade Fair Centre Stuttgart,
(Stuttgart Airport), Germany

EUROPE'S LEADING AUTOMOTIVE TESTING, EVALUATION
AND QUALITY ENGINEERING TRADE FAIR

SHOW NEWS

ALSO INSIDE THIS SHOW PREVIEW

MIRA offers three credit crunch-busting testing services



Synotech and PCB Piezotronics Inc launch 6DOF Wheel Force Transducer



Luminys Systems introduces a new 30,000W light fixture



▶ PRODUCT NEWS | EXHIBITOR LISTINGS | LATEST TECHNOLOGY ▶

NEW TECHNOLOGIES CONFIRM CONTINUED INVESTMENT IN QUALITY!

Automotive Testing Expo Europe and Crash Test Expo 2009 will open their doors on 16 June at Messe Stuttgart, and despite the challenging times within the industry, the shows will host dozens of new product launches.

Highlights include the return of Automotive Testing Technology International award-winner MIRA, with three new services offering cost-effective environmental engineering. New climatic chambers,

remote access from anywhere in the world and new wind tunnel technology should help cut development and testing costs for new products.

MIRA is just one of the myriad companies showcasing new technologies, with DSD, Single and TMT also among those with new products. See inside for more details.

There are also over 40 new exhibitors in 2009, and over 350 exhibitors in total.

"The level of investment into research and development continues to be strong, despite economic conditions" says CEO and founder of Automotive Testing Expo Europe, Tony Robinson.

"Once again we have a fantastic line-up covering all aspects of automotive test and evaluation, so visitors can see the very latest technologies that are essential for ensuring the ongoing excellence and quality of European vehicles."



The 11th annual automotive testing show has more technologies and more new exhibiting companies in 2009

CONFERENCE CALL



The conference is back with a thrilling line-up covering every discipline in the automotive testing world.

Organised again by ASAM (The Association for Standardization of Automation and Measuring Systems), the programme includes some great speakers, with representatives from Softing, ETAS, Additive Soft and Hardware, D2T, Orme and AVL List.

Other highlights include Smart Electronic Development, with a presentation about testing and commissioning control units through the simulation of complex wheel-speed sensors, and Cambustion's Mark Rushton, who will be discussing the company's diesel particulate filter-test facility.

More than 40 presentations will be taking place. To keep up to date and help plan your visit to the show log on to www.testing-expo.com/europe.



FREE TO ATTEND!

▶ FORUM LOCATED AT REAR OF HALL 1, LOWER LEVEL

RANGE FINDER

NEW!



OxTS will be presenting its award-winning RT-Range systems at this year's Testing Expo. This measurement system was specifically designed to test and verify the accuracy of radar, LiDAR and other sensors used by advanced driver-assistance systems. The RT-Range systems measure the distance between cars (range) and the lane position of a vehicle. This makes them the ideal testing tools for developing driver-assistance systems such as lane departure warning, forward collision warning or adaptive cruise control. These systems output all

measurements of a 'hunter' and up to four 'target' vehicles in real time and with great precision. A CANbus output gives direct connection to existing data-acquisition systems.

The RT-Range is ideal for tests with multiple vehicles and even allows car-to-pedestrian tracking with a unique RT-Backpack system. A new output from the RT-Range to ABD's in-vehicle robots makes it easy to test ACC scenarios with best-possible repeatability.



▶ VISIT STAND NUMBER 1656



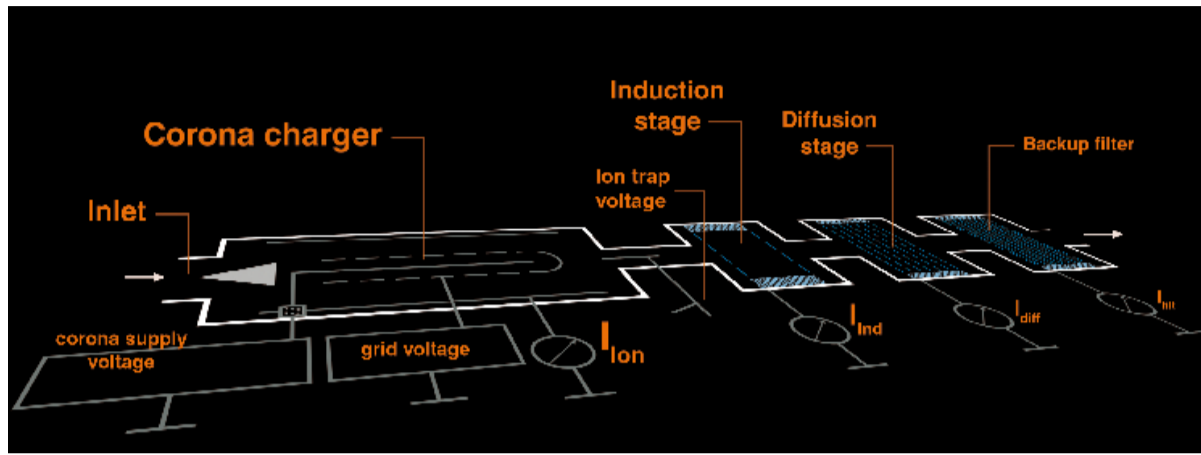
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Avoid up to 10-minute queues – register online to get your entry badge/pass by post!



EXHIBITOR SPOTLIGHT

MATTER ENGINEERING



■ A technique to measure the concentrations of solid particles was developed by Matter Engineering 10 years ago. The NanoMet-C (the latest version is called ViPR) has been extensively tested in the framework of the particle measurement programme (PMP). It yields reliable results when used for type-approval tests in the laboratory. However, the procedure uses a dilution tunnel and is therefore not portable, and is too expensive for field applications.

The increasing importance in the industry of accurate and cost-effective testing has become a significant issue for everyone. Matter's experience in nanoparticle and exhaust-gas technologies has not only allowed it to develop a rugged, portable and cost-effective solid-particle counter, but has also brought solid-particle counting to the next step: the road.

The all-new solid-particle counter PEMS (Portable Emission

Measurement System) will be presented in June at Automotive Testing Expo in Stuttgart. It allows engineers to measure a large number of vehicles within short time. Rather than extrapolating test-bench results to real-world conditions, they can now test during real driving, increasing the significance of results and helping to keep the cost per test low. As demonstrated in PMP, this mobile solid-particle counting system will help users develop the cleanest cars, not only on test-bench scale, but in larger numbers.

This PEMS solid-particle counter is based on patented diffusion-battery technology coupled with a newly developed raw-gas diluter. The counting instrument uses electrical charging to count particles.

The use of a revolutionary counting instrument not based on conventional optical or inconvenient butanol methods, but on unipolar-diffusion

charging, allows extremely simple handling and a dramatic reduction in size. This technology makes the counting of particles independent of vibration and the physical position of the equipment, and provides online data with second-by-second time resolution.

In the electrical particle counter a corona discharge produces ions that diffuse onto the particles, thereby charging them electrically. The particles are continuously captured on a filter, and the electric current flowing from the filter is converted to number information. Optional addition of diffusion stages between charger and filter expands the instrument to an electrical-diffusion battery that provides more detailed information about the particle-size distribution. ■

▶ VISIT STAND NUMBER 1340

NEW WINTER TEST LOCATION

Rovaniemi-based Arctic Testing Services Ltd and Ford have entered into a 10-year cooperation contract for the winter testing of road vehicles in Rovaniemi.

Arctic Testing Services operates a 1,200m² testing centre that can house up to 130 employees.

Next to the centre are 16 separate deep-freeze garages, in which the

temperature can be dropped to as low as -40°C. After freezing, vehicles can be taken out onto the three kilometres of test track that run around the grounds of the centre. Total investments in the testing centre have exceeded €2 million. In future, some two hundred Ford engineers will visit the testing facility annually in the December to March period.



▶ VISIT STAND NUMBER 1636

HIGH-SPEED ANALYSIS

NEW!

IAG will be presenting its advanced FTIR Analyser System High Speed – FAS03 HS – for 5HZ measurements. The system has a controlled proportional pressure governor for drawing samples from ambient pressure to up to 6 bar with the necessary accuracy of pressure and temperature to guarantee that FTIRs are working at their best. The system has two lines for 10 litre/min sample

gas as well as for 10-100 litre/min. The system can be adjusted for drawing different sample volumes to find a balance between providing a good amount of gas to get a measurement and drawing small amounts of gas, as in measuring smaller engines.

IAG is also starting to offer its Combi System for limited gas components, which can be equipped with a number of different analysers.

▶ VISIT STAND NUMBER 1530

HIGH-SPEED CAMERA

CRASHTEST EUROPE



Sales engineer Christoph Brachner will be on hand on the PCO stand



The new CMOS high-speed camera pco.dimax achieves a high frame rate of 1,100 fps at a resolution of 2,016 x 2,016 pixels. If the area of interest is reduced to 1,008 x 1,008 pixels, the frame rate is increased to 4,000 fps, and all this at 12-bit dynamics.

The custom-designed CMOS image sensor with a diagonal of 31.4mm has 11µm pixels, a quantum efficiency larger than 44% and is available in a monochrome and colour version.

Corresponding to the pco.camera family, the pco.dimax has up to 36GB primary image memory (camRAM) integrated and various trigger operational modes inbuilt, to fulfil the range of needs and demands of the automotive industry for crash tests and component tests.

The image data could be either transmitted via GigE Vision or USB2.0 interface to the PC, or can be displayed for fast download, or preview display purposes, using a DVI or a HDSLI interface.

The pco.dimax has intelligent battery control, so that the battery can either supply the camera for one hour full operation or, in case of power failure, can secure the data for more than six hours. The global snapshot shutter enables exposure times from 2µs to 1s. ■

NEW!

▶ VISIT STAND NUMBER C3002

SIDE-IMPACT SIMULATION

CRASHTEST EUROPE

Dr Steffan Datentechnik GmbH (DSD) from Linz, Austria will be presenting its test system to simulate a side crash, and so-called intrusion cylinders.

Shorter development periods necessitate new and more efficient test methods. DSD has developed a new test system for side-crash simulation. With a reproducible simulation it is possible to get a quicker and more economical development of modules, components and materials – and not only for side impact. Two versions are available: ON-sled and OFF-sled.

The insertion of this test system permits the imitation of the deformation behaviour of the door and therefore an analysis of the exact effects of the occupant restraint systems on the dummy. For the first time it is possible, independent of the door deformation, to simulate the movement of the vehicle's body.

The system is assembled with intrusion cylinders. An impactor is accelerated to a test component – accelerations of 150g and a stroke of 500mm are possible. ■



NEW!

▶ VISIT STAND NUMBER C2000

INTENSE LIGHTING

CRASHTEST EUROPE

Luminys Systems Corp introduces a new 30,000W linear high-intensity light fixture for high-speed image capture. This important part of the Lablight system provides a very intense beam 30° vertical and 60° horizontal to complement the picture area of most high-speed cameras. This high-power 'green' light is able to operate on only 16 amps and 220V power due to high-capacity internal batteries.

Typically this unit idles at only 700W. When triggered for high intensity it reaches 30,000W with full colour quality in only one millisecond. There is 300,000 lux of light spread over an area 1.2m x 4.2 at 2m distance from the light fixture. This high-intensity level can be maintained for 10 seconds.

Flicker-free picture stability up to 100,000 frames per second is assured by the DC plasma generated inside the explosion-proof negative pressure lamp. ■



NEW!

▶ VISIT STAND NUMBER C1021

HIGH-SPEED VIDEO

CRASHTEST EUROPE

FalCon has been working for over 25 years in crash-test technology, and specialises in high-speed camera software and motion analysis.

During the processing of AVIs huge calculations take a lot of time. In order to speed this up FalCon is providing a new tool – GPU-Speed in the new software version eXtra 7. It uses the parallel computer engines in graphics processing units (GPUs)

to perform complex image processing in a fraction of the time required on a CPU.

AVI creation time can be reduced by up to 77% of conventional time depending on the performance on the computer and its number of CPUs. This speeding up helps during marker tracking and motion analysis in the FalCon 2D, 3D and 6D analysis products. ■

NEW!

▶ VISIT STAND NUMBER C3004

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TEMPERATURE CONTROL TECHNOLOGY

Single Temperiertechnik GmbH of Hochdorf, Germany specialises in the development and production of high-performance temperature control technology for test-bench applications. Recently the company successfully completed several projects for renowned suppliers to the automotive industry based in the Stuttgart area. Following positive results, Single decided to step up its activities in the test-bench market. The company will be showing its product range at the expo for the first time.

Single temperature-control technology operates with liquid media over a wide performance range and maximum temperatures of between -40°C and +350°C. These liquid media help maintain and precisely control constant temperatures or specific temperature profiles at the test benches. Temperature-control systems control the media temperature, the flow and/or operating pressure and



create realistic conditions involving serial operation or excessive loads for safety checks. The systems are integrated into the customer's central control unit via bus connection.

Thanks to in-house engineering and production, Single provides tailor-made temperature control technology to suit every customer requirement. The portfolio offers a wide range of temperature control and cooling systems for a variety of applications.

The STW, STO and SHK series are ideal for the temperature control of test benches. The systems of the STW series are perfectly suitable for temperature control, operating with pressurised water at temperatures of up to 200°C, while STO systems work with heat-transfer oil at temperatures of up to 350°C. The SHK series is comprised of combined heating/cooling units with a compression cycle for independent cooling at a maximum pressurised water temperature of 160°C.

The company will be showing its STW system for temperature control of pressurised water with temperatures of up to 200°C and a heating capacity of 48kW. This system offers many other options in addition to its combined heating/cooling system from Single's SHK series, with compression cycle for independent cooling and a maximum pressurised water temperature of 160°C.

INTERNATIONAL EQUIPMENT

NEW!

Angelantoni Industrie has come up with several products designed and manufactured by the companies belonging to this international group. This includes the 6 DOF chassis dynamometer by the French company BIA SA, which marks a turning point in simulating a road profile.

Methods for simulating an effective road profile in the testing of an automotive vehicle have been limited so far. Actuating forces while rolling were limited to a vertical direction or applied to the wheel spindle, which does not reflect true driving conditions. With its worldwide patented dynamometer, BIA provides a significant advancement in vehicle simulation testing. Indeed, the BIA solution matches better with the reality by applying road profile from the rolling surface.

Also available is the vibration test chamber ANYVIB1200, designed by ACS Environmental Test Chambers B. U. of Massa Martana (Italy) combined with the Shaker model 15KN, realised

by the German company Tira GmbH. The new chamber/shaker coupling system, together with an innovative concept of head extender and thermal barrier, gives two prominent benefits: a better insulation allowing higher dew points during relative humidity tests and no decrease in force being available for the DUT (Device Under Test).



VISIT STAND NUMBER 1320

DYNO TEST

Bosch Engineering GmbH staff will be on hand to talk about the newly opened test centre, which allows external customers to conduct emission tests, climatic tests or even performance assessments on their vehicles. For standardised emission tests, a fully equipped roller dynamometer is available.

In order to comply with the applicable vehicle-emission directives, emission tests also need to be conducted in the low temperature range, at -7°C. To this end, a generously sized area with a roller dynamometer and eight air-conditioning boxes has been created at Abstatt.

The air-conditioning boxes and dynamometer can be variably conditioned to between -40 and +30°C. The big advantage of this system of vehicle handling is that vehicles need not be conditioned on the roller dynamometer itself, so testing is more effective and efficient.

In another area, far removed from the standardised tests, vehicles are tested individually and sometimes to their very limits in the high-performance roller dynamometer. Vehicles that need to be permanently tested at speeds of up to 350km/h will be right at home here.



VISIT STAND NUMBER 1416

COST-EFFECTIVE TESTING

MIRA, the only back-to-back winner of Automotive Testing Technology International awards is responding decisively to the effects of the worldwide economy by launching three credit crunch-busting services, all designed to strip unnecessary cost from development programmes.

Leading the way is environmental engineering. MIRA's investment in Europe's largest array of climatic and shake-and-bake facilities allows new designs to be proven in cost-effective

chambers, instead of expensive in-territory trials. There is also a new service designed to ease the pressure on dwindling test teams. Customers can now remotely witness ongoing test work in any of MIRA's 32 major development facilities from anywhere in the world, rather than travelling to MIRA to witness testing first hand.

Completing the trio is the European debut of a new wind tunnel flow-visualisation technique that outperforms traditional methods.

MIRA's wind tunnel has been equipped with 3D motion capture cameras that track tiny helium bubbles to produce a new large-volume flow-visualisation technique that digitally correlates CFD predictions.

This, combined with detailed plans for a new E30 million telematics development centre, based at company HQ in Warwickshire, demonstrates that MIRA is at the heart of all that is new in automotive design and development.



VISIT STAND NUMBER 1844

AEROSOL GENERATOR

NEW!

The testing of engines has shown that firmly bonded oil deposits in turbochargers could have a negative influence for performance and fuel consumption. To investigate these influences laboratories need a suitable tool. This is where the new aerosol generator VAG-pro from TMT, a business unit of the IAVF Antriebstechnik GmbH comes in.

The VAG-pro generates either straight-run aerosols with particle sizes up to 10µm or, with an impactor in line, fine aerosols in desired magnitudes for testing investigations.

Equipped as standard, the VAG-pro comes with an impactor adjustment for particle sizes < 1µm, which means bigger sizes would be intercepted. Different particle sizes can be generated by changing two parts inside the impactor: the injector plate and gap ring.

The VAG-pro is custom-built for hard work inside test benches and laboratories specialising in durability tests. Particular focus during the development was on the constancy of size distribution inside the aerosol, even over long operating times.



VISIT STAND NUMBER 1448

GPS/INERTIAL MEASUREMENT

GeneSys Elektronik GmbH will be presenting its latest development focusing on its GPS/inertial measurement system ADMA, widely used for vehicle-dynamics testing. Two special highlights will be presented on the GeneSys stand. The CAPS-ACC evaluation system is a sophisticated turnkey solution combining the know-how of GeneSys in GPS/inertial measurement technology, Dewetron in synchronised data acquisition and TÜV Süd Automotive in vehicle dynamics measurement and benchmarking. The CAPS-ACC evaluation system provides zero latency data recording and an online display of the relative motion between two cars, or in respect to fixed landmarks. The new package allows for the implementation of a manoeuvre

catalogue, online guidance of the driver, in-situ quality check and test-report generation. GeneSys' Chinese partner Shanghai Vigor Technology Develop Co Ltd will be presenting its Road Surface Spectrum Measuring System RSS-3D10 for 3D track and road-surface spectrum measurement. This device integrates advanced laser measuring technology, DGPS/IMU combined surveying and mapping technology based on ADMA, multisensors integration and synchronisation technology as well as GIS data management technology to acquire, process, store and manage high-density 3D road surface data rapidly and precisely. It is used for ride comfort evaluation, chassis evaluation, tyre evaluation and traffic interference evaluation.

NEW!
Dr Bertold Huber, managing director, will be discussing GeneSys' two latest developments



VISIT STAND NUMBER 1360

DYNAMIC CLIMATE CONTROL MEASUREMENTS

Aicon's optical-measuring system MovelInspect captures dynamic processes three dimensionally and analyses them with regard to geometric changes. A new climate control concept enables MovelInspect to also analyse movements and deformations under extreme climatic conditions, for example in environmental chambers where the optical system replaces mechanical travel sensors because it reduces the setup work significantly. MovelInspect is based on a camera bar that is equipped with digital cameras and offered in different

versions. The high-end version is able to conduct tests at a frequency of 1,000Hz. The system can also be applied for endurance testing as it records the data without any time limit. The results of the dynamic measurements are displayed in a clear and descriptive manner. They may also be exported to external analysis software such as DIADem. The first climate-controlled MovelInspect system is now in use at a German vehicle manufacturer. The company runs endurance load tests lasting several days under different environmental conditions.



VISIT STAND NUMBER 1114

EXHIBITOR SPOTLIGHT

TMC SOLUTION



Based on the best technology in China, TMC Solution has created ES-350/400, claimed to be the biggest electrodynamic shaker in the world. Such shakers are commonly used in applications such as aviation, space flight, energy source, shipping and military vehicles. ES-350 can achieve sine vibration testing in three-axial

wide-band random tests, classic (half sine, trapezoid, terminal-peak sawtooth) pulse and response shock. It is also widely used in earthquake, architecture and water-conservation work. It can match the environmental chamber to do experiments such as those that integrate environment-reliability examination and so on.

SPECIFICATIONS:

- Sine (PK):** 35,000kgf (77,000ibf)/40,000kgf (88,000ibf)
- Random (RMS):** 25,000kgf (55,000ibf)/30,000kgf (66,000 ibf)
- Shock (Pk):** 70,000kgf (154,000ibf)/80,000kgf (176,000ibf), usable frequency DC to 1,700Hz
- Maximum displacement (p-p):** 51mm (2in)
- Maximum velocity:** 200cm/s (78in/s)
- Maximum acceleration:** 100g
- Fundamental resonance frequency (bare table):** 1,600Hz(nom.)± 5%
- Vertical load support:** 6,000kg (13,200 lb)
- Table diameter:** 870mm (34.2in)
- Body suspension natural frequency (thrust axis):** 2.5Hz
- Armature effective nominal weight:** 300kg (660 lb)/330kg (762 lb)
- Load attachment points (standard) 33 stainless steel M12 inserts (UNC option)
- Stray flux density @6in (152mm) above table:** <1mT(10 gauss)
- Overall dimensions:** 2,875mm (l) x 1,910mm (d) x 1,981mm (h) (113.2 x 75.2 x 78in)
- Weight of shaker:** 23,000kg (50,600 lb) uncrated
- Cross-axial stiffness:** 32,000N/mm
- Axial stiffness:** 180N/mm

VISIT STAND NUMBER 1108

BUS INTERFACE DEVICE

The FlexCard PMC II is a bus interface device for automotive bus systems in PMC design. Four physical layer (FlexTiny II) slots allow several configurations of bus communication controllers. Every FlexTiny II module supports two same physical layer drivers. Configurations of up to four FlexRay (channel A and B) or up to

8 CAN communication controllers are possible. A variable combination of paired bus interfaces saves the use of multiple devices and slots in the system. Using different monitoring modes, the card can be used as a pure monitoring tool and as a real communication node.



VISIT STAND NUMBER 1923

HEAVY-DUTY SUPPORT LAUNCH

The diagnostic Silver Scan-Tool now supports read out of OBD data from heavy-duty vehicles. This is in addition to the OBDII/EODB functionality for passenger cars and light-/medium-duty vehicles. The Scan-Tool adheres strictly to the rules of the SAE J1979 and SAE J1939 standards.

From 2010, heavy-duty engine manufacturers must offer at least one engine range for vehicles over 6.35 tonnes (14,000 lb) which meets these regulations. In close cooperation with Cummins Inc, the Silver Scan-Tool has been extended for the special J1939 HD-OBD diagnostic messages.



VISIT STAND NUMBER 1550

EGR FOR DIESEL

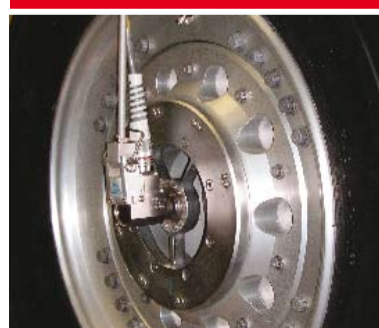
Exhaust gas recirculation is a powerful method to reduce the NOx output of diesel engines. ECM's EGR 5230 measures percentage EGR, intake percentage oxygen, exhaust percentage oxygen, lambda, air-fuel ratio, engine load and engine backpressure all in one compact package. These parameters are determined by measuring the oxygen, oxidisable concentrations and pressures directly in the intake and exhaust of the engine. No sample pumps are required, giving fast (less than 1 second) and non-intrusive (no mass removal) measurements. The EGR 5230 is suitable for use in test vehicles where real-world EGR

dynamics and real-world EGR system malfunctions can be best detected. Calibration of the analyser is performed in seconds using ambient air. Six analogue outputs and CAN output make it easy to integrate the EGR 5230 with any data-acquisition system.



VISIT STAND NUMBER 1728

NEW SENSORS ON SHOW



Synotech and PCB Piezotronics Inc offer a range of sensors for automotive test and development applications. New products featured at the show include: a 6DOF wheel force

transducer, a one-piece sensor designed to deliver highly accurate road load-data measurement and low-temperature-coefficient Triaxial ICP accelerometers. Standard on-board filtering and high-temperature capabilities make these sensors ideal for powertrain NVH applications, or for any vibration measurement requiring tight control of amplitude sensitivity over a wide thermal range. Also available is the Torqdisc in-line rotary torque sensor system, designed for dynamometer and other test applications requiring a robust rotary-torque transducer where axial space is at a premium, such as powertrain development.

VISIT STAND NUMBER 1936



OPEN TECHNOLOGY FORUM PROGRAMME

FREE TO ATTEND!

TUESDAY 16 JUNE 2009

Test Automation in Real and Simulated Environments

- 10:15** Vehicle CG and inertia measurements with a review of NHTSA NCAP SSF measurements
Ronald A. Bixel, project analyst, SEA Ltd
- 10:40** Sled test methodology for achieving enhanced side impact performance in vehicle design according to pole impact scenarios
Fausto Mozzarelli, Mechanical Division, CSI SpA
- 11:05** Manipulating data streams by using FlexRay to FlexRay gateways – challenges, pitfalls and available solutions
Florian Wandling, product line manager, Elektrobit Austria GmbH
- 11:30** Simple testing and commissioning of control units through the simulation of complex wheel speed sensors
Alexander Hess, product manager/project manager test instruments, Smart Electronic Development GmbH
- 11:55** The Combustion DPG: diesel particulate filter test facility
Mark Rushton, senior engineer, Combustion Ltd
- 12:20** Integrating mobile communications and service-oriented telematics – a solution for proving grounds
Michael Meiser, managing director, mm-lab GmbH
- 12:45** Automated release of standard software with generically developed test cases based on the example of the Flash Conformance Test
Joachim Tauscher, general manager, Smart Electronic Development GmbH
- 13:10** Capturing a noise source in an interior enclosure
Paul Amery, product line manager acoustics, LMS International
- 13:35** Executing neutral test descriptions for any testbed hardware
Dr Robert Patzke, managing director and partner, MFP GmbH

Simulation / Hardware in the Loop

- 14:00** Ease of use of MATLAB/Simulink models in a test field environment
Dr Klaus Rothbart, AVL List GmbH
- 14:25** HyHIL – new test platform for the development of hybrid vehicles
Gilles Corde, IFP, head of signal processing, automation and control department, D2T
- 14:50** Tool aided top-down solution guarantees traceability from DOORS requirements to CANoe test realisation
Martin Huck, SW development engineer, Vector Informatik GmbH
- 15:15** AutomationDesk DOORS connect and sync
Alexander Tietz, application engineer, dSPACE GmbH
- 15:40** Model-in-the-loop aerodynamic force control for vehicle road simulation
Dave Fricke, senior staff engineer, MTS Systems Corporation
- 16:05** Automatic ASAM MCD-3 supported test
Dr Jens Luedemann, managing director, PikeTec GmbH
- 16:30** It's just C: Using Visual Studio for low-cost CANbus simulation and test
Dave Robins, president, Intrepid Control Systems Inc

WEDNESDAY 17 JUNE 2009

Measurement, Calibration and Test Data Acquisition

- 10:15** Defined calibration of the particle measuring system according to PMP
Martin Schmidt, sales manager, Palas GmbH
- 10:40** A PU probe array-based panel noise contribution analysis
Dr Oliver Wolff, acoustic consultant, Microflown Technologies
- 11:05** Going green – current requirements and developments in measurement systems
Oliver Reik, global key account manager, Measurement & Calibration Systems, AFT Atlas Fahrzeugtechnik GmbH
- 11:30** XCP-on-Ethernet interface for ECUs
Burkhard Triess, ETAS GmbH
- 11:55** One-step device integration in applications
Bernd Wenzel, CEO, M & K GmbH
- 12:20** Advances in data acquisition technology
Jens Christensen, marketing manager, Brüel & Kjær
- 12:45** EtherCAT with MORPHEE 2, D2T's automation system: a fast and reliable communication with the testbed
Jérémie Efflame, data acquisition product manager, D2T
- 13:10** ORION goes XCP
Don Nutter, product manager, A & D Technology
- 13:35** Test data analysis and presentation
Burkhard Schranz, Additive Soft- und Hardware für Technik und Wissenschaft GmbH

Vehicle Diagnostics in Development, Production and Service

- 14:00** Test automation for model-based development of embedded software
Thomas Weyrath, IT Systems & Function Development, ESG
- 14:25** Comparison of OBD scan-tool diagnostics for vehicles and heavy-duty trucks
Peter Stoss, director automotive, RA Consulting GmbH
- 14:50** Vehicle diagnostics in development, production and service
Dieter Schaller, general manager, samtec GmbH
- 15:15** Volkswagen uses an ODX conformant test system for diagnostics
Peter Biermann, sales director, Softing AG
- 15:40** Standards to products: reviewing a year of productive use of PRODIS.MCD and PRODIS.OET
Dr Ansgar Schleicher, director R&D Diagnostic Solutions, DSA GmbH
- 16:05** Open Diagnostic Framework – the quick and easy way to create applications based on the current standards
Tobias Widmer, managing director, emotive GmbH
- 16:30** Panoramic noise source mapping inside vehicles
Kevin Bernard Ginn, product manager, Brüel & Kjær



THURSDAY 18 JUNE 2009

Test Data Management, Calibration Data Management

- 10:00** Scheduling of resources in measurement data management
Guido Schneider, product manager, Peak Solution GmbH
- 10:25** FlexPro – data analysis in an ASAM ODS environment
Michael Piazza, sales, Weisang GmbH
- 10:50** ASAM ODS and web services for acoustic data analysis in Airbus France
Nicolas Verbeke, development engineer, Orme
- 11:15** Mastering the flood of NVH data through ASAM ODS and MDM
Dr Dietmar Rapf, senior manager, CAT, science + computing AG
- 11:40** Workflow modelling and storage based on ASAM ODS
Verena Dittrich, software engineer, Peak Solution GmbH
- 12:05** Time and cost savings with test facility management tools
Dr Gerald Sammer, global product manager, AVL List GmbH

Evaluation and Analysis of Test Data

- 12:30** NI LabVIEW: the platform for data acquisition, analysis and presentation
Andreas Scholz, team leader - technical marketing, National Instruments Germany GmbH
- 12:55** High-intensity lighting for high-speed image capture
David Pringle, chairman, Luminy Systems Corp
- 13:20** Speed-up decision-making processes by using off-the-shelf test data processing software NI DIAdem
Thomas Schönitz, business development manager - technical data management, National Instruments Germany GmbH
- 13:45** ROTRANS: high-performance rotary transmitters 42,000rpm and more
Jean-Luc Mouret, general manager, Jordil-Technic Rotary-Transmitters
- 14:05** Benefits and use of vibration analysis at combustion engines and transmissions
Michael Ruthrof, red-ant measurement technologies and services eK



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automotive
testingexpo 2009
europe
Mr David S
Technical S

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Fax: +49 (0) 711 22 28 251
Email: hotels@stuttgart-tourist.de

Opening Times

Tuesday 16 June 10.00hrs – 17.00hrs
Wednesday 17 June 10.00hrs – 17.00hrs
Thursday 18 June 10.00hrs – 15.00hrs



Register online now for your 2009 free entry badge/pass, and we will only send you email updates when there is breaking news about the show; news about new technologies on show; and online conference programme updates.

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The venue

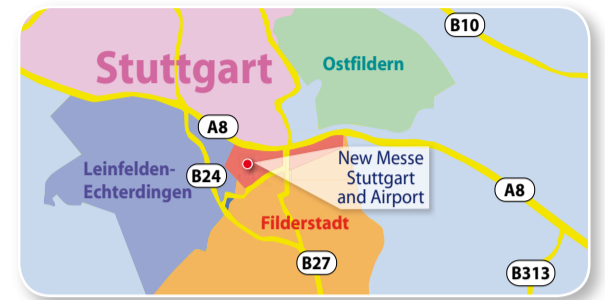
Our 2009 event will once again run at the new exhibition halls located just a few minutes' walk from Stuttgart International Airport. If you are flying in for the day this will be a real bonus in terms of time. By road you will find the journey to the Messe is well signed. If you follow the signs to Stuttgart

Airport you'll be heading in the right direction. The new state-of-the-art exhibition centre will provide you with a much better visitor experience whatever the weather, and a range of catering facilities will ensure that you are never far from a refreshment point and a place to relax.

Travel

Arrival by car

The new Stuttgart Trade Fair Centre is 13km away from Stuttgart city centre, and is located directly next door to Stuttgart airport. Please follow the signs towards Neue Messe Stuttgart/airport.



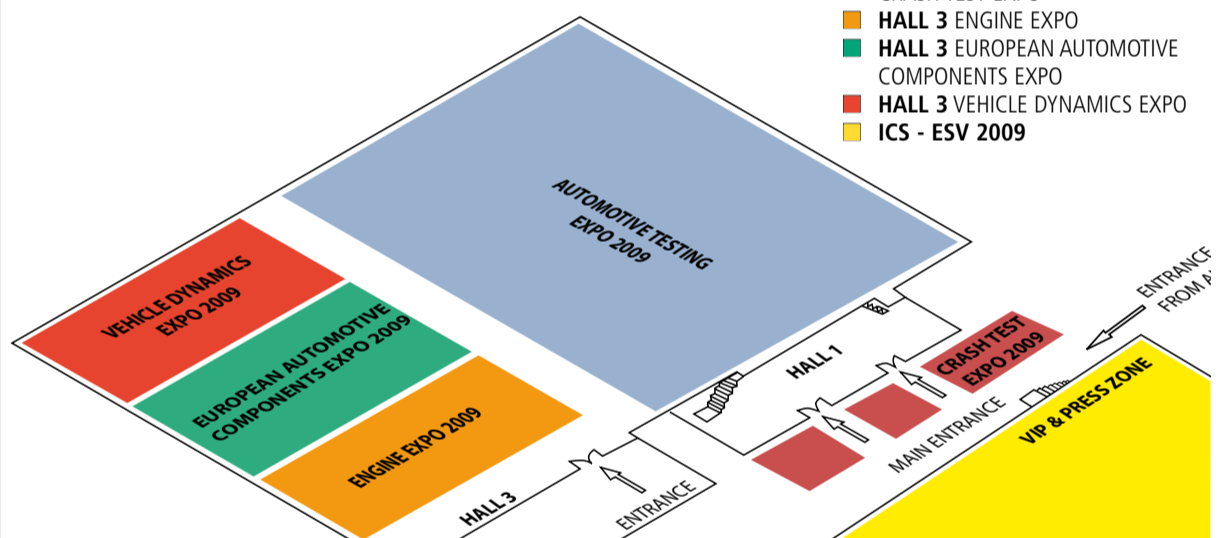
Arrival by plane

The airport terminals are approximately 200m from the trade fair site and can easily be reached on foot. At the airport you will also find the suburban trains (S-Bahn) S2 and S3 to Stuttgart main railway station. Travelling time: 27 minutes.

Arrival by train

Stuttgart is directly connected to 13 European capitals via the rail network (ICE, IC and InterRegio trains). From the main railway station to the new Stuttgart Trade Fair Centre: take the suburban trains S2 or S3, direction Stuttgart Flughafen/Neue Messe Stuttgart. Travelling time: 27 minutes.

Hall Overview



- HALL 1 AUTOMOTIVE TESTING EXPO
- HALL 1 MAIN CONCOURSE
- CRASH TEST EXPO
- HALL 3 ENGINE EXPO
- HALL 3 EUROPEAN AUTOMOTIVE COMPONENTS EXPO
- HALL 3 VEHICLE DYNAMICS EXPO
- ICS - ESV 2009

CONTACT DETAILS

AUTOMOTIVE TESTING EXPO EUROPE 2009

UKIP Media & Events, Abinger House, Church Street, Dorking, Surrey, RH4 1DF, UK • Tel: +44 (0)1306 743744 • Fax: +44 (0)1306 877411 • Email: dominic@ukintpress.com

Register online at: www.testing-expo.com

COMPANIES WHOSE TECHNOLOGIES WILL BE EXHIBITED AT AUTOMOTIVE TESTING EXPO 2009

Red denotes a Crash Test Exhibitor

A & D • Accurate Technologies (UK) Ltd • ACS • Acutronic Switzerland Ltd • Additive Soft- und Hardware für Technik und Wissenschaft GmbH • AEP Transducers • AeroVironment GmbH • AES GmbH • AFT Atlas Fahrzeugtechnik GmbH • AICON 3D Systems GmbH • AIM Arnold Intelligente messsysteme GmbH & Co • Aiolos • All4Tec • **AllianTech SAS** • AMS GmbH • AMTI • Angelantoni Industrie SpA • Anthony Best Dynamics Ltd • API Com Prüfmaschinenvertrieb GmbH • Applus+ Idiada • APS Dynamics Inc • AR Europe • Arctic Spot Facilities • **Aries Ingeniería Y Sistemas SA** • **ARRI Arnold & Richter Cine Technik GmbH & Co** • Artois Comm • Arvidsjaur Winter Test Gateway • ASAM eV • Atlas MTT GmbH • Auto-Entwicklungsring Sachsen GmbH • AVL Deutschland GmbH • B.E.S.T. 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