Co-located with the International Conference Tire Technology for Commercial Vehicles 2014

10th Annual Conference

INTELLIGENT TRE TECHNOLOGY

- News on Intelligent Tire Technologies
- Update on Legislation and Market Developments
- Innovation on Noise Reduction

21 - 23 October 2014 | Best Western Hotel am Schlossberg, Nürtingen, Germany



- Learn about the latest world-wide regulations on tires to ensure legal compliance within the international tire market
- Explore innovative solutions for improving acoustics especially through form to guarantee driving comfort
- Gain deep insight into the structure and latest developments of China Tire Industry from a Chinese and a Western perspective to improve your position within the market
- Discover advanced technologies for intelligent tire systems and evaluate vehicle test of tire force sensor to guarantee performance and reliability
- Gain insight into tire testing for TPMS on component level and find out about systemic differences when testing on component and overall system level

Learn from these experts amongst others:



Dr.-Ing. Prashant Khapane, Manager Durability & Reliability CAE, Jaguar & Land Rover, UK



Marco Spinetto, Projects Management & Regulations R&D, Pirelli Tyre SpA, Italy



Heeyoung Jo, Ph.D, Part Manager Chassis System Control Development,

Hyundai Motor Company, South Korea



Dr.-Ing. Etienne Renard, Research and Development, Michelin, France

Take the opportunity to meet companies such as:

Addfor s.r.l., Italy • Audi AG, Germany • Bauman Moscow State Technical University, Russia • Baosteel Central Research Institute, Shanghai, China • Bridgestone Technical Center Europe, Belgium • China Rubber Industry Association, China • Continental Automotive GmbH, Germany • Daimler AG, Germany • Dr. Ing. h.c. F. Porsche AG, Germany • Ford Werke GmbH, Germany • Hyundai Motor Company, South Korea • Jaguar & Land Rover, UK • LEANE International s.r.l., Italy • Michelin, France • Pirelli Reifenwerke GmbH, Germany • Pirelli Tyre SpA, Italy • The Tire Industry Association, USA

- Tire Industry Research, UK University of Applied Sciences Brandenburg, Germany
- University of Technology Dresden, Germany Volvo Car Corporation, Sweden

Sponsors









Interactive Workshops

A | Latest technology for TPMS

B | Integrated computational intelligen tire system

21 - 23 October 2014 | Best Western Schlossberg, Nürtingen, Germany

Dear Colleague,

After nine successful annual conferences with an exclusive focus on Intelligent Tire Technology, this anniversary edition of the 10th International Conference Intelligent Tire Technology 2014 is even more promising!

With special innovation on optimized intelligent tire concepts and noise reduction focus sessions and panel discussions, a workshop day as well as an interactive speed networking session and plenary presentations on the main conference days, this 3-day event offers deep insight into the engine technology of the tire technology world as well as high-level expertise.

Share your knowledge with leading experts from Audi, Daimler, Porsche, Michelin, Continental, Bridgestone, Pirelli, and Jaguar & Land Rover among others at one conference!

I look forward meeting you in Nürtingen.

Kind regards



Simone Lange Senior Project Manager

Advisory Board:



Hans-Rudolf Hein, Executive Advisor Standards and Regulations,

Bridgestone Europe, NV/SA, **Belgium**



Dr. Frank Klempau, Manager New Tire/Wheel-Systems, Quality and Tire Data, Daimler AG, Germany



Prof. Dr.-Ing. Michael Kaliske, Institute for Structural Analysis, Technische Universität Dresden, Germany



Dr. Thomas Roscher, Team Coordinator, TPMS Development,

Audi AG, Germany



Dr. Gregor Kuchler, Manager Intelligent Tire System, **Continental Automotive** System, Germany

Sponsors:



Schrader International GmbH

Gewerbepark 15 85250 Altomünster

www.schraderinternational.com



TURVANASTA OY

Tengströminkatu 6 20360 TURKU Finland

Phone: +358 2 2766 888 Fax: +358 2 2366 005 www.turvanasta.fi



Arizona Chemical Company

Transistorstraat 16 1322CE Almere The Netherlands Phone: +31 36 5462 800

www.arizonachemical.com

chemicals, supplying the tires market with products made from renewable resources. Application and product development focusses on tread performance improvement leading to natural and hybrid Tread Enhancement Additives.

active tools

Active Tools GmbH

25/F Top Glory Tower 262 Gloucester Road, Causeway Bay, Hong Kong

China

Phone: +852 2891 0830 Fax: +852 2891 130 www.activetools.com



Melexis Technologies NV

Transportstraat 1 B-3980 Tessenderlo Belaium

Phone: +32 13 67 07 80 Fax: +32 13 67 07 70 www.melexis.com

Active Tools is the leading global supplier of tire repair kit systems to the automotive OEM industry. Our extended mobility solutions offer a reliable alternative to traditional spare tires. As a Tier 1 supplier, our global network is set up to service every major automotive market to support our customers in sales, marketing, engineering, quality, and logistics. Through our German engineering, and world class TÜV certified ISO-TS16949 Chinese manufacturing facilities, Active Tools is dedicated to delivering high quality, high performance products for both the automotive OEM and retail aftermarkets. We are the tire repair kit experts, redefining instant mobility solutions.

Engineering the sustainable future - Melexis has a strong commitment to the on-going protection of the environment. The company imagines, creates and delivers leading-edge mixed signal integrated circuits that enable the implementation of more energy efficient automotive, industrial and consumer electronics systems. Using its unique, proprietary technology, Melexis has made major market impact through its innovative magnetic sensors, CMOS imaging devices, high accuracy pressure sensors, infrared sensing arrays sophisticated BLDC motor drivers, infrared thermometry devices, LIN/CAN in-vehicle networking chips, MEMS sensors, NFC/RFID wireless semiconductor devices and sophisticated optoelectronic solutions for human machine interfaces

Established in 1930, Arizona Chemical is

the leading producer and bio-refiner of pine

Workshop Day | Tuesday, 21 October 2014

08:30 Registration & welcome coffee

10:30 Refreshment break & networking

Workshop B: 09:00 - 12:00

Integrated computational intelligent tire system

In the workshop, the **computational approaches** such as finite element or other numerical methods/algorithms for developing intelligent tire system should be included and discussed. The **integrated computational and experimental work** should reflect the current status of intelligent tire technologies and their effects on **vehicle safety, fuel economy and comfort**, etc. Presentations in the workshop are expected for exchanging ideas, views and experiences on developing intelligent tire system. They should reflect the significance of integrated computational approaches as a bridge from tire sensor to vehicle application, such as tire information processing and vehicle dynamic parameters estimation. **Perspectives and possible concepts in future** on this topic are welcome as well.



Xiaoguang Yang, Team Leader of Titanium Process Modelling,

Baosteel Central Research Institute, Baosteel Group-Shanghai, China

12:00 Networking luncheon and end of workshop day

Media Partners



"AutoRäderReifen-Gummibereifung" is a German trade magazine for the tyre industry in Europe. It deals with all relevant problems of the international tyre trade and industry, garages and workshops, wheels and rims, tuning, new technology and management. The magazine appears monthly and has a regular English section in each issue.

www.gummibereifung.de



Neue Reifenzeitung together with our UK publication Tyres & Accessories is Europe's top selling trade magazine for the tyre, wheel and associated industries. Both magazines are published monthly and have a daily online newsletter.

www.reifenpresse.de



Conference Day One | Wednesday, 22 October 2014

8.45 Registration & welcome coffee



Who is who

Learn about your peers. Discover who else is participating in the conference and gain an understanding of the core challenges your peers are facing right now. The matchmaking wall will also help you identify the delegates you want to meet at the conference

9:30 Welcome & opening address by



Dr. Thomas Roscher, Team Manager, TPMS Development,

Audi AG, Germany

Rules & regulations

World-wide regulatory scenario on tires 9.40

- Don't be confused! Status quo of current tire legislation
- Get curious: Progress of Chinese regulation
- What's new? Update on the sustainability of regulations
- Where do we go? Future aspects on legislation



Marco Spinetto, Projects Management & Regulations R&D,

Pirelli Tyre SpA, Italy



The perfect opportunity to speak directly with your peers and network effectively. Maximise your time at this event by participating in this interactive networking session. Don't forget your business cards.

10:40 Refreshment break & networking

Latest international tire market developments

Developments in the China Tire Industry

- Structure of China Tire Industry
- Recent legislation
- Expected developments



Brief SWOT analysis David Shaw, Head of Research,

Tire Industry Research, UK

11:45 China's auto industry and green tire technology in China

- The situation of China's auto industry in 2013 and 2014
- The situation of China's tire industry in 2013 and 2014
- · China's new policy on green tire and the progress of China's tire labelling regulation



Explanation of China's TMPS standard and its progress Mary Xu (Xu Wenying), Vice Chairman and Secretary General

China Rubber Industry Association, China

Tire market development in the United States

- Outlook for low-rolling-resistance, run-flat, and winter tires vs. all-season
- Evolution of the distribution/sales channel
- Consumer expectations for tires and service



TPMS and the effects on retailers

Kevin Rohlwing, Senior Vice President of Training,

Tire Industry Association, USA

13:05 Networking luncheon





14:30 Panel discussion:

News on material development for automotive tires

Chaired by: David Shaw, With: Sander Ridder,

Head of Research, Global Marketing Manager Tires,

Tire Industry Research,

Arizona Chemical B.V, The Netherlands

Choose your preferred technical stream

Stream A

Latest update on intelligent tire technology

Chairman:



Dr. Thomas Roscher. Team Manager, TPMS Development, Audi AG, Germany

15:15 Development of intelligent tire system

- · Classification of tire force sensor
- Development of tire force sensor
- Algorithm for force conversion
- Vehicle test of tire force sensor



Heeyoung Jo, Ph.D,

Part Manager Chassis System Control Development,

Hyundai Motor Company, South Korea

15:50 Tire Sensors & Big Data - New Opportunities

- Tire sensor & tire data
- Data-based functions
- Cloud functions

Dr. Gregor Kuchler,

Manager Intelligent Tire System,

Continental Automotive GmbH, Germany

16:25 Refreshment break & networking

Stream B

Innovations on tire simulation

Chairman:



Prof. Dr.-Ing. Michael Kaliske, Institute for Structural Analysis,

University of Technology Dresden, Germany

15:15 FE-based design of a multi-sensor smart tire system

- Basics of a pattern based approach
- · Choice of sensor location and sensor number
- Building a data base based of a FE-model
- Application examples



Prof. Dr.-Ing. Christian Oertel,

Department of Engineering, Mechatronics,

FH Brandenburg, Germany

15:50 Simulation approach to tire pavement interaction

- Finite element simulations
- Tire modelling
- · Pavement modelling
- Steady state rolling

Prof. Dr.-Ing. Michael Kaliske, Institute for Structural Analysis,

University of Technology Dresden, Germany

16:25 Refreshment break & networking

Conference Day One | Wednesday, 22 October 2014

Stream A

Latest update on intelligent tire technology

16:55 Direct TPMS product roadmap. A leading market player view into the future

- Current status of technologies in use for direct TPMS application, sensor solutions and system arrangements
- Market trends in terms of OE demand for system performance enhancement
- The Schrader's prospective toward market trends
- Challenges and solutions in the OE service segment Alfonso S Di Pasquale,

Vice President of Business Development,

Schrader International GmbH, Germany

Ivan Bailie.

Head of Engineering for TPMS,

Schrader International GmbH, Germany

Stream B

Innovations on tire simulation

Usage of surface modelling and its interaction with tire for durability and loads in virtual environment

- Status-quo of cae modelling at Jaguar Land Rover for loads and durability
- Interaction of the tires and surface modelling a key transfer
- · Loads and durability targets generation
- Virtual road load data generation
- Hybrid simulation as future outlook



Dr.-Ing. Prashant Khapane, Manager Durability & Reliability CAE,

Jaguar & Land Rover, UK

17:30

Open mic stage:



Future trends of intelligent tire technology

The "Open mic stage-Session" is a unique opportunity to maximize the outcome of your conference participation on a very individual level. Make the most out of the time you spend with industry experts. These interactive sessions are crafted to ensure that you will get to the heart of the most critical issues and uncover proven practical solutions.

Moderation:



Günther Maeckle,

Manager Tire Pressure Monitoring Systems,

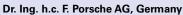
Daimler AG, Germany

with



Michael Unterreiner,

Advanced Chassis Engineering,





Arne Heyden,

Tire Technical Expert,

Ford Werke GmbH, Germany



Rizwan Ullah.

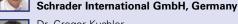
Task Leader TPMS Wheels & Tyres.

Volvo Car Corporation, Sweden



Alfonso S DiPasquale,

Vice President of Business Development,





Dr. Gregor Kuchler,

Manager Intelligent Tire System,

Continental Automotive System, Germany

18:05 End of day one and closing remarks of Dr. Thomas Roscher



IQPC and the Best Western Hotel invite you to a networking aperitif.

Celebrate our 10th Anniversary of the ITT with us!

We like to invite you to join us for an evening get together in a typical Nürtingen location - the Schlachthofbräu. This is an excellent opportunity for you to meet the other attendees and make new business contacts or just to relax and round off your first conference day in an informal atmosphere.

NE 66 - NO 50 64 000 2 56 66



Conference Day Two | Thursday, 23 October 2014

8:00 - 10:00 BREAKFAST WORKSHOP A

INTERACTIVE WORKSHOP Latest technology for TPMS

Join this workshop to experience insights from Melexis and an OEM. Understand the features and performance of present TPMS and what to expect from future developments of TPMS. The discussion will include following topics:

- Roadmap for TPMS features
- TPMS value from end user perspective: "must have" and "nice to have" features versus cost (system cost improvement via architecture) and system autonomy (battery life)
- Product commoditization (impact of standardization)



Product Manager TPMS,

Melexis Technologies, Belgium

Value added features and impact of different system components

- TPMS products segmentation (passenger cars, commercial vehicles)
- Impact of TPMS legislation for requirements (China, aftermarket)
- Choosing the perfect option: Valve- versus rim- versus tire-mounted



Task Leader TPMS Wheels & Tyres, Volvo Car Corporation, Sweden

10:00 Registration & welcome coffee

10:30 Welcome & opening address by



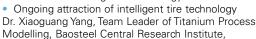
Hans-Rudolf Hein, Executive Advisor Standards and Regulations,

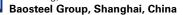
Bridgestone Europe, NV/SA, Belgium

Virtual real world testing

FEA and experimental investigation of tire characteristics for developing strain-based intelligent tire system

- Background of strain-based intelligent tire
- FE tire modelling and experimental validation
- Strain-based intelligent tire strategy





A non-steady-state mechanical tire model based on an iterative solution method for a vehicle handling analysis

- Tire structure and manufacturing process analysis
- Concept development for a mechanical model with a flexible carcass
- · Investigation of an iterative solution method for a set of model equations



Model validation and comparison study Dipl.-Ing. Pavel Sarkisov, PhD candidate, Chair of Automotive Engineering, Institute for Automotive Technologies Dresden - IAD, Dresden University of Technology, Germany

Co-authors:

Prof. Dr.-Ing. Günther Prokop,

Head of Chair of Automotive Engineering,

Institute for Automotive Technologies Dresden - IAD, Dresden University of Technology, Germany

Dr.-Ing. Sergej Popov,

Docent of Wheeled Vehicles Chair,

Bauman Moscow State Technical University, Russia

11:45 Networking luncheon

Latest update on intelligent tire technology

13:15 New technologies for automotive virtual sensors

- How advanced machine learning can improve the performance of virtual sensors
- High precision sideslip angle estimation (RMS < 0.5° range: 0-45°)
- Speed estimation (RMS<1.0% range: 10-40km/h; RMS < 0.5% range: 40-250km/h)
- Advanced iTPMS: ECE R-64 and FMVSS 138 plus autocalibration 0.1 bar accuracy



Enrico Busto, CTO Addfor, Addfor s.r.l., Italy



Giuliano Manfredini, Leane Technical Director,

LEANE International s.r.l., Italy

13:50 Solutions for improving acoustics especially through foam

- The car interior noise challenge
- Basics about tire cavity noise
- The different ways to cancel tire cavity noise
- A solution: Foam within the cavity



Dr.-Ing. Etienne Renard, Research and Development,

Michelin, France

14:25 Refreshment break & networking

14:55

'The stage is yours!'

Panel discussion: What are the major challenges to improve acoustics?

This session is a unique opportunity to maximize the outcome of your conference participation on a very individual level. Make the most out of the time you spend with industry experts. These interactive sessions are crafted to ensure that you will get to the heart of the most critical issues and uncover proven practical solutions.



Dr.-Ing. Etienne Renard, Research and Development,

Michelin, France

Sander Ridder, Global Marketing Manager Tires,

Arizona Chemical B.V, The Netherlands

Innovative tire testing methods

Tire Testing for iTPMS on component level

- Rig Procedure
- Current integration in the development process
- Systemic differences when testing on component and overall system level
- Further development of overall system and component
- iTPMS: outlook of system evaluation



Robert Sünder, Scientific Assistant,

University of Applied Sciences Dresden, Germany

Closing remarks from Hans Rudolf Hein and Dr. Thomas Roscher & end of conference day two with the announcement of the best speaker at 2014 ITT

16:15 End of conference



21 - 23 October 2014 | Best Western Hotel am Schlossberg, Nürtingen, Germany



Conference Packages

Platinum Package

5 Reasons to Join Automotive IQ:

- Membership is FREE
- Gain industry insight into the latest developments and trends
- Benefit from our exclusive content
- Network with your peers
- Learn about our relevant conferences and benefit from early-bird savings

Standard Price

€ 3.649,- + VAT

www.automotive-iq.com

YOUR DETAILS: PLEASE CONTACT OUR DATABASE MANAGER (VERTEILER@IOPC.DE) AND INFORM THEM OF ANY INCORRECT DETAILS WHICH WILL BE AMENDED ACCORDINGLY

Gold Package 2 day conference + 2	workshops			€ 3.349,	⊦ VAT		
Silver Package 2 day conference + 1	workshop			€ 3.049,	► VAT		
Bronze Package 2 day conference				€ 2.549,	€ 2.549,- + VAT		
•	ur choice of workshop I Workshop B 🔲	•		2014			
A: Latest technolo B: Integrated com C: Concepts for th	putational intelligent	tire System					
Only one discount ap CAN'T MAKE I Documentation	oplicable per person. FTOTHE CONFERENCE will be sent 6 weeks a	E? PURCHASE	ETHE 2-DAY I	DOCUMENTAT	TON FOR € 990,-	+VAT.	
Delegate Details					Please fill out in Capitals!		
DELEGATE		ıMr	□М	rs	□Ms	□ Dr	
Family Name	First Name						
Position	Email						
Telephone	Telephone Fax						
Organisation							
Address							
Postcode/Town							
Approving Manager:							
Signature							
I agree to IQPC Gesellschaft für Management Konferenzen mbH payment terms.							
☐ Yes, I would like	ke to receive informa	tion about pr	oducts and	services via e	mail.		
Payment Met	hods						
PAY BY BANKTRANSFER QUOTING REFERENCE DE11308.008:							
IQPC Gesellschaft für Management Konferenzen mbH, HSBC Trinkaus & Burkhardt AG							
	i Burkhardt AG 30880 0430076019	. SWIFT-BIC	: TUBDDEI	OD			
	RD: Please debit my	,		□ VISA	CD2013003 DC342503	MasterCard	
	ĺ			_ ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			
Card No			1				
Expiry date			Sec	curity code			
Cardholder's name							
Signature							

4 Ways to Register

+49 (0)30 20 91 32 10 Fax: Post: IQPC Gesellschaft für

Management Konferenzen mbH

Friedrichstraße 94 10117 Berlin, Germany

Online: www.tires-conference.com/MM silva.certan-mallmann@iqpc.de Email:

For further information

+49 (0)30 20 91 34 17 Phone:

BOOKINGCODE

SP

Venue and Accommodation

Best Western Hotel am Schlossberg

Europastraße 13 72622 Nürtingen Tel: +49 (0) 7022 704 - 770 Fax: +49 (0) 7022 704 - 343

info@schlossberg.bestwestern.de

Accommodation: A limited number of reduced rate rooms are available at the conference hotel. Accommodation can be booked by calling the central reservation number. Please always quote the booking reference IQPC-Berlin. Hotel accommodation and travel costs are not included in the registration fee.

Payment Terms

Payment is due on receipt of the invoice.

Cancellations and Substitutions

CANCELLATIONS AND SUBSTITUTIONS

DELEGATES MAY BE SUBSTITUTED AT ANY TIME. IQPC GESELLSCHAFT FÜR MANAGEMENT KONFERENZEN MBH DOES NOT PROVIDE REFUNDS FOR DELEGATES MAY BE SUBSTITUTED AT ANY TIME. IDPC GESELLSCHAFT FOR MANAGEMENT KONFERENZEN MBH DOES NOT PROVIDE REFUNDS FOR CANCELLATIONS. HOWEVER, SAVE WHERE WRITTEN NOTICE OF CANCELLATION IS RECEIVED MORE THAN SEVEN (7) DAYS PRIOR TO THE CONGRESS, A CREDIT TO THE VALUE PAID AT THAT DATE WILL BE ISSUED, WHICH MAY BE USED AGAINST ANOTHER IOPC GMBH CONGRESS FOR UP TO ONE YEAR FROM ITS DATE OF ISSUE. FOR CANCELLATIONS RECEIVED SEVEN (7) DAYS OR LESS PRIOR TO AN EVENT (INCLUDING DAY SEVEN), NO CREDIT WILL BE ISSUED. IN THE EVENT THAT IOPC GMBH CANCELS AN EVENT, PAYMENTS RECEIVED AT THE CANCELLATION DATE WILL BE CREDITED TOWARDS ATTENDANCE AT A FUTURE IOPC GMBH CONGRESS OR, IN THE EVENT OF A POSTPONEMENT BY IOPC GMBH, A RESCHEDULED DATE. IF THE DELEGATE IS UNABLE TO ATTEND THE RESCHEDULED EVENT, THE DELEGATE WILL RECEIVE A CREDIT IN LIEU OF PAYMENTS MADE TOWARDS A FUTURE IOPC GMBH EVENT, VALID FOR ONE YEAR FROM THE DATE OF ISSUE. IOPC GMBH IS NOT RESPONSIBLE FOR ANY LOSS OR DAMAGE AS A RESULT OF A SUBSTITUTION, ALTERATION, POSTPONEMENT OR CANCELLATION OF AN EVENT DUE TO CAUSES BEYOND ITS CONTROL INCLUDING, WITHOUT LIMITATION, NATURAL DISASTERS, SABOTAGE, ACCIDENT, TRADE OR INDUSTRIAL DISPUTES OR HOSTILITIES. YOUR DETAILS

PLEASE CONTACT OUR CUSTOMER SERVICE MANAGER (TEL: +49 (0)30 20913330 OR VERTEILER@IOPC.DE) AND INFORM THEM OF ANY INCORRECT DETAILS WHICH WILL BE AMENDED ACCORDINGLY OR IF YOU PREFER NOT TO GET INFORMATION PER FAX II EMAIL II OR PHONE II ANYMORE.

SPEAKER CHANGES

OFCASIONALLY IT IS NECESSARY FOR REASONS BEYOND OUR CONTROL TO ALTER THE CONTENTS AND TIMING OF THE PROGRAMME OR THE IDENTITY OF THE SPEAKERS.

DATA PROTECTION

PERSONAL DATA IS GATHERED IN ACCORDANCE WITH THE DATA PROTECTION ACT 1998, YOUR DETAILS MAY BE PASSED TO OTHER COMPANIES WHO WISH TO COMMUNICATE WITH YOU OFFERS RELATED TO YOUR BUSINESS ACTIVITIES. IF YOU DO NOT WISH TO RECEIVE THESE OFFERS, PLEASE TICK THE BOX BELOW.

☐ PLEASE DO NOT PASS MY INFORMATION TO ANY THIRD PARTY.

Card billing address (if different from Company address)