THE BIGGEST AND BEST TIRE TECHNOLOGY CONFERENCE EVER!

10, 11, 12 FEBRUARY 2015 KÖLN MESSE, COLOGNE, GERMANY

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tire technology EXPO 2015

PROGRAMME PREVIEW

PLUS: 7 OPTIONAL SHORT COURSES:
- Tire mechanics short course
- Tire regulations short course
- Tire mathematical modelling course
- Basic rubber compounding course
- Foundations of rubber behaviour for modelling tires and other applications
- Intelligent vehicle-and-tire systems for energy efficiency and safety
- NEW FOR 2015! Cords and steel wire: their properties and performance in tires

BOOK NOW!
www.tiretechnology-expo.com
The Tire Technology Conference is the most highly regarded annual tire conference in the world, with attendees coming from more than 45 countries. Delegates will have the opportunity to see presentations over three days. Speakers are selected from among the world's leading experts on tire development and manufacturing. This respected conference, coupled with an impressive exhibition, makes the event essential for anyone involved in the tire-making process!

The Robert William Thomson Lecture
Kazutaro Nakaseko, senior executive officer, SN

The Tire Industry and the Technology of the Future
Plenary presentation
Charles Tarkovich, senior VP global research & development, Cooper Tire & Rubber Company, USA.

Title TBC
Lieven Larmuseau, executive vice president rubber reinforcement platform, NV Bekaert SA, Belgium.Title TBC

A five-year vision of the tire industry as a machinery maker
Seyfullah Bokzur, managing director, Uzer Makina ve Kalip Sanayii AS, Turkey

New perspective on the impact of tire energy efficiency on vehicle fuel consumption
Speaker TBC – Michelín, Germany

Tire industry demands affecting future production technology
Jacob Peled, executive chairman, Pelmar Engineering Ltd, Israel

Tire modelling data acquisition using a whole vehicle in real-world conditions
Jan Prins, technical specialist, Jaguar Land Rover, UK

Green Tire Materials Available Now
Comparing the processability of guayule compounds with hevea compounds
Dr Howard Colvin, senior scientist, Cooper Tire & Rubber, USA

Emulsil Silica Masterbatch technology: new approach for high-performance tread
Dr Christopher Hardiman, director of technology, Industrias Negromex, USA

Visualisation of tread wear
Dr Pamela Martin, materials scientist, TARRC, UK

Arizona Chemical – tailoring sustainable additives for the tire industry
Dr Howard Colvin, senior scientist, Cooper Tire & Rubber, USA

EcoDyne functional compound: new sustainable material for the rubber industry
Chad Jasuinas, technical manager, functional materials, Lehigh Technologies, USA

Environmentally friendly oils for sustainable tires
Dr Arup Saha Deuri, head R&D, Balkrishna Industries Ltd (BKT), India

Studies in functionalisation of LMWNR using different mixing schemes
Dr Dosa Malomo, lecturer/researcher, Federal University Oye Ekiti, Nigeria

New Materials for Tire Compounds
Effect of resin on tread performance parameters
Dr Saikat Das Gupta, chief scientist - vice president, Hari Shankar Singhania Elastomer & Tyre Research Institute (HASETRI), India

Plasma surface modification of Twaron aramid fibre
Dr Tony Mathew, R&D scientist, Teijin Aramid BV, Netherlands

High-molecular-weight plasticiser in high-performance tire treads
Anna Eriksson, technical coordinator, Nynas AB, Sweden

Application of nanotechnology for TBR/PCR tire innerliner materials
Sankaran Kumar, senior research fellow, Indian Institute of Technology-Kharagpur, India

Vulcanised rubber: new technique for measurement of heat buildup
Dr Saikat Das Gupta, chief scientist - vice president, Hari Shankar Singhania Elastomer & Tyre Research Institute, India

Vulkanol P – a new processing plasticiser for silica compounds
Dr Hermann-Josef Weidenhaupt, manager technical service, Lanxess Deutschland GmbH, Germany

Polybutadiene products with optimised balance between processing and performance
Dr Saeid Kheirandish, senior processing expert, Lanxess Deutschland GmbH, Germany

Achieving better processing for low rolling resistance truck treads
Colin Clarke, technical sales manager, Schill + Seilacher Struktol GmbH, Germany

Tires, Testing and Property Research

Shearography in tire manufacturing
Rainer Huber, product manager, Stemnicher Optotechnik GmbH, Germany

Fatigue crack growth rates measurements in filled SBR samples
Dr Pierre Rublon, engineer, LARCPC, France

Sample preparation of reinforced rubber strips for bend-over-shoulder shoehine testing
Philippe van Bogart, CEC, Bogimac NV-SA, Belgium

Contact patch analysis for tire suspension improvement
Arnaud Dufournient, CEC, Dufournient Technologies, France

From Car to Earthmover Tires – Designing Tires to Meet the Standards of the Future
Pilot project on the performance of light-duty vehicle winter tires
Brad Richard, engineer, Transport Canada, Canada

Virtually better: driving tire innovations with virtual simulation technologies
Dr Hans Dorf, manager, Bridgestone Americas, USA

Understanding how tire construction affects contact patch acceleration
Alan Bennetts, director, Bay Systems Ltd, UK

Understanding Tire Reinforcement Materials and Behaviour
Reinforcing of natural rubber with kaolin for tires
Dr Ali Ansari, senior lecturer, Loughborough University, UK

Bekaert TAWI – innovation driving tires to the extra mile
Dr Guy Buytaert, R&D project manager, Bekaert, Belgium

Designing rubber nanocomposites for green and smart’ tire applications
Debipada Basu, PhD student, Indian Institute for Polymerforschung Dresden (IPF), Germany

Silica morphology and functionality: enabling reduced tire sidewall energy loss
Timothy Oikel, senior research associate, PPG Industries Inc, USA

Energy Saver Blacks: carbon blacks for improved tire performance
Dr Wesley Wampler, vice president R&D, Sid Richardson Carbon & Energy Co, USA

Application of the high-performance silane VPSI363 in tread compounds
Caren Roben, manager silanes, Evonik Industries AG, Germany

Bringing EU labelling into the lab – noise, wet, energy loss
Dr Kevin Kefauver, technical director, NTRC, USA

New silica benchmark – Solvay Efficium for tire productivity and performance
Soline de Cayeux, business development director, Solvay, France

Surface silanised nanoclays – modifier for tire tread compounds
Dr Daniel Javier Julve, I+D Research, Iqesil SA, Spain

Filler activators and processing promoters for green tires
Dr Cristian Opsani, technical sales manager, Rhein Chemie Rheinau GmbH, Germany

Improving truck tire tread properties and processing using treated silicas
Dr Justin Martin, senior R&D Chemist, PPG Industries Inc, USA

Using pre-dispersed short fibres to improve the mechanical properties of off-road tread compounds
Jon Nienaber, technical service manager BL rubber, Rhein Chemie Corporation, USA

Cobalt usage in steel belt skinned compounds
Bruce Lambillotte, general manager Akron Labs, Smithers Rapra, USA

Sustainable Thinking and the Future of the Tire Industry

Biological deodourisation system
Mesmac European Research and Technical Centre, Slovakia

Sustainability charter of the German rubber industry
Stephan Rau, technical director, WDK - German Rubber Manufacturers Association, Germany

Title tbc
Ali Hines, Global Witness, UK

Title tbc
Dr Andreas Topp, vice president material and process development and industrialisation tyres, Continental, Germany

The Evolving Future of Tire Textile Cords and Steel Wire

A tire design along the lines of nature
Dieter Disselbeck, consultant, former Hoechst AG, Germany

Potential alternatives to resorcinol-phenol-formaldehyde-latex dipping for tire reinforcements
Bernhard Müller, head of R&D, Glanzstoff Industries GmbH, Austria

Molecule to the road – material integration to system-level characterisation
Jonathan Darab, operations director, NTRC, USA

Capmax as a ready-to-use material in tires
Ayse Hande Tamer, project leader, Kordsa Global, Turkey

Adhesions systems for tire cord fabrics
Dr Kurt Uhlen, director marketing & development, Cordenka GmbH & Co KG, Germany

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Presentations for the EU Project LORRY Mid Term Seminar

The aim of the EU LORRY project is to reduce trucks carbon footprint by developing an innovative low rolling-resistance tire concept combined with a comprehensive toolbox for fleet fuel-saving management.

- Overview of the project.
- Compounding applied to the first tire candidates (J M Nasrast, Goodyear)
- Improvement of properties by new filler systems and characterization (U Giese, T Dilmam, A Jain, DIK)
- Rolling Resistance improvements by direct tread deformation measurements (YI Xiong, Aalto)
- Development of multiaxial testing method (T Alshuth, DIK)
- Innovative tear fatigue testing of elastomers (Karsten Brüning, IPF)
- Presentation related to work to be performed in WP4 (Johan Peinenburg, Novacom)
- Using the Virtual Measurement Campaign (VMC) methodology for evaluating vehicle loads and tyre performance (Thomas Halfmann, Fraunhofer ITWM)
- A new thermo-mechanical tire model to predict temperature creation and propagation in tires (Francesco Calabrese, Fraunhofer ITWM)
- Summary and concluding remarks

Tire Mathematical Modelling – Enhancing the System Approach

Skid resistance: exploring the texture-friction relationship
Dr. Malal Kana, senior researcher, IFSTTAR, France

Rubber co-extrusion simulation by finite-element method for die design
Bruno Alejandro Toscana, researcher, FATE Tires - Argentina, Argentina

Factors affecting the relaxation length of a radial tire
Abid Wahed Anan, research fellow, University of Birmingham, UK

Tire enveloping model parameterisation on a high-speed flat-belt system
Matthew Della Pia, simulation engineer, NTRC, USA

Next-generation tire simulation technologies from Dassault Systèmes
Biswanath Nandi, senior technical specialist, Dassault Systèmes Simulia Corporation, USA

Parametric study of various design parameters for tire performance prediction
Akhay Sharma, engineer-D, Hasreti, India

Missing skin detection – an alternative approach to defect detection
Dirk Braun, software developer, Erhardt+Leimer GmbH, Germany

OpenTire – an open-source tire modelling project
Henning Olsson, R&D engineer, OptimumG, USA

The Smart Tire Factory
CARD – Computer-Aided Recipe Development
Dr. Hans-joachim Graf, consultant, H-JG Consulting, Germany

The application of vision systems for component preparation inspection
Marek Kos, vice president of engineering, Stealastic, USA

Enabling a connected enterprise in tire curing applications
Eric Thielen, business development manager, Rockwell Automation, Belgium

Next generation of ST5400 solutions for highest throughput
Berhard Lenk, manager and head of TBL - tires - solutions Germany (D) - Austria (A) - Swiss (CH), Datalogic Automation Srl, Germany

Tire Physics and Tire Dynamics – Improved Understanding

Leading to Better Tire Design Applications for RPA in measuring silanisation reactions during tire mixing
John Dick, senior scientist, applications, Alpha Technologies, USA

Drum or test track? Comparative tire measurements with a trailer
Christian Bachmann, manager tire technology, Forschungsgesellschaft Kraftfahrwesen Aachen mbH (FKA), Germany

Development of a year-round indoor winter testing facility
Turo Tapio Tellilä, director, chairman of the board, Test World Ltd, Finland

Predictive method to achieve chip and cut behaviour of tire tread
Dr. Radek Stocel, head of research, PRL Polymer Research Ltd, Czech Republic

Tire with accelerometers to study contact patch deformations in aquaplaning
Arto Niskanen, doctoral student, Aalto University School of Engineering, Finland

Visualisation of air flow in tire for reduction of cavity noise
Dr. Kazuhiro Sakakibara, tire tech, Toyo Tire & Rubber Co Ltd, Japan

Failure prediction in OTR tire
Venu Kishore Kadiyala, assistant manager, Balkrishna Industries Limited, India

Early reaction stages of ozone
Prof. Franco Cataldo, scientific consultant, Addvantis, Italy

Understanding the role of tread deformation in rolling resistance
Yi Xiong, PhD student, Aalto University, Finland

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PLUS 7 OPTIONAL SHORT COURSES!

4 DAYS

AKRON UNIVERSITY TIRE MECHANICS SHORT COURSE
Dates: 9/10/11/12 February 2015

The 42nd Tire Mechanics Short Course will be held concurrently with Tire Technology Expo 2015 in Cologne, Germany, 9/10/11/12 February 2015.

This four-day educational and developmental course will provide engineers and scientists with an in-depth, intense study of the latest developments surrounding tire engineering. The course is designed for practising engineers, chemists and scientists who are concerned with tires and vehicles and who have an engineering or science background at the Bachelor of Science level. The basic and practical aspects of the mechanics of pneumatic tires will be introduced by internationally renowned experts in tire mechanics. Over 1,000 pages of course notes on a CD prepared by the instructors will be provided for all participants. Those who complete this course will receive a certificate from the University of Akron.

€1,475 plus German VAT for the four-day course

2 DAYS

FOUNDATIONS OF RUBBER BEHAVIOUR FOR MODELLING TIRES AND OTHER APPLICATIONS
Dates: 9/10 February 2015

The Foundations of Rubber Behaviour for Modelling Tires and Other Applications Short Course will be held concurrently with Tire Technology Expo 2015 in Cologne, Germany on 9 and 10 February 2015 – commencing one day before the expo and main conference.

The conflicting demands of weight reduction and reduced rolling resistance, coupled with increases in abrasion resistance and wet and dry friction performance, make the tire designer's life difficult. This course is designed specifically to give a detailed overview of all the core concepts involved in the design of rubber products.

LIMITED PLACES – BOOK NOW!
7.5% DISCOUNT APPLIES UNTIL 3 DECEMBER
€925 plus German VAT for the two-day course

2 DAYS

COVENTRY UNIVERSITY TIRE MATHEMATICAL MODELLING COURSE
Dates: 9/10 February 2015

The Coventry University Tire Mathematical Modelling Course will be held concurrently with Tire Technology Expo 2015 in Cologne, Germany, on 9 and 10 February 2015 – commencing the day before the expo and main conference.

This course covers the computer modelling of tires within a full vehicle system. It is aimed at engineers and researchers working in both industry and academia. The subject matter will be of primary interest to vehicle dynamicists, for whom the tire is the primary force and moment generation element on the vehicle.

LIMITED PLACES – BOOK NOW!
7.5% DISCOUNT APPLIES UNTIL 3 DECEMBER
€925 plus German VAT for the two-day course

*This programme may be subject to change
3 DAYS
BASIC RUBBER COMPOUNDING COURSE
Dates: 9/10 February 2015

The Basic Rubber Compounding Course will be held concurrently with Tire Technology Expo 2015 in Cologne, Germany, 9 and 10 February 2015 – commencing one day before the expo and main conference.

Presented by Bob Kind MIMMM, GPRI, technical director of Polymer Recyclers UK; and John Bowen MIMMM, BSc, consultant formerly of Robinson Bros Chemicals UK.

This basic course is designed for all those working in the associated tire industry who wish to know more about the compounding of rubber. It will try to define the concepts in simple terms, but at the same time relate them to actual manufacturing and product circumstances.

LIMITED PLACES – BOOK NOW!
7.5% DISCOUNT APPLIES UNTIL 3 DECEMBER
€925 plus German VAT for the two-day course

1 DAY
TIRE REGULATIONS SHORT COURSE
Date: 9 February 2015

The Tire Regulations Short Course will be held concurrently with Tire Technology Expo 2015 in Cologne, Germany, on 9 February – the day before the expo and main conference.

The course will be delivered by Lars Netsch of TÜV Süd, who has considerable knowledge of the current tire regulations in Europe and beyond. These are particularly critical as tire labelling and new type approval regulations are introduced. Some indication of the future in terms of tire regulations will be discussed.

LIMITED PLACES – BOOK NOW!
7.5% DISCOUNT APPLIES UNTIL 3 DECEMBER
€575 plus German VAT for the one-day course

NEW FOR 2015!
BOOK ONLINE NOW: www.tiretechnology-expo.com
### Conference/Short Course Payment

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<th>Option</th>
<th>Price + 19% German VAT</th>
<th>Dates</th>
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<tr>
<td>Tire Technology Expo Conference 3-day pass</td>
<td>€1,245</td>
<td>9-12 February</td>
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<td>Tire Technology Expo Conference 2-day pass</td>
<td>€925</td>
<td>9-10 February</td>
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<tr>
<td>Tire Technology Expo Conference 1-day pass</td>
<td>€575</td>
<td>9 February</td>
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Main conference is 10, 11, 12 February. You can book one- or two-day courses PLUS two days of main conference as a package, cost €1,475, or three days main conference PLUS an optional one-day course at €1,475. For other options please email mark.fenner@ukipme.com

**PLEASE NOTE** Conference and Short Course passes are valid for FREE ENTRY into the exhibition on ALL DAYS

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**2015 EXHIBITOR LIST**

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<tr>
<td>A &amp; D Europe GmbH</td>
<td><strong>A-Z Formen-und-Maschinenbau GmbH</strong></td>
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<td>Akron Special Machinery</td>
<td><strong>Akron Tire Mechanics Short Course</strong></td>
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<tr>
<td>Akron Steel Fabricators</td>
<td><strong>The Foundations of Rubber Behaviour Short Course</strong></td>
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<td>Albeniz</td>
<td><strong>Basic Rubber Compounding Course</strong></td>
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<tr>
<td>Allma Volkmann Zweigniederlassung der Sauer Germany GmbH &amp; Co. KG</td>
<td><strong>Intelligent Vehicle-and-Tire Systems for Energy Efficiency and Safety Course 3-day pass</strong></td>
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<tr>
<td>Altrancon S.A.</td>
<td><strong>Tire Regulation Short Course 1-day pass</strong></td>
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<td>Ammeraal Beltech</td>
<td><strong>Cords and Steel Wire: Their Properties and Performance in Tires</strong></td>
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<tr>
<td>AP2</td>
<td><strong>Combined Tire Conference + one 1-day or 2-day course only</strong></td>
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All prices are subject to German VAT at 19%. This will be automatically added to your short course fees in order to comply with German VAT regulations.