16th International Symposium „Magnetoresistive Sensors and Magnetic Systems“

In our current „age of digitalization“ sensors play an especially important role, be it for the measurement of movement, orientation, electrical current or magnetic fields. New applications are evolving. In order to fulfil novel and even more demanding requirements a close cooperation between science and industry is necessary. The XMR-Symposium provides the ideal platform for an update regarding the latest developments.

You are a forward-thinking expert in the field of magnetic sensor technology and you would like to be inspired by the latest developments in this field? Join us at the XMR-Symposium. Registration will be opened in the beginning of December 2022 under **www.xmr-symposium.com**.

Focus of the Symposium

The symposium serves as a forum for the exchange of innovative ideas and practical experience with magnetoresistive technology among experts from research institutes as well as practitioners from a variety of different application areas, e. g. automotive sector, e-mobility, industrial automation, measurement technology, condition monitoring and others. The presentations cover also fundamental technological advances, e. g. in TMR sensor technology, as well as signal evaluation and aspects of sensor production. Participants gain an overview of research findings and latest developments - to be prepared for the sensorization of the future.

REGISTRATION

HOW TO REGISTER

Please register by internet. Your registration is requested **by 28th Febr. 2023**. If you cancel your participation after **21st Febr. 2023** a refund of the fee is not possible.

Via internet
Online registration via www.xmr-symposium.com

Fee
With early bird discount (until 8th Feb. 2023): Euro 580 plus VAT
After 8th February 2023: Euro 680 plus VAT
Student fee: Euro 250 plus VAT.

Important information
On receipt of registration you will get a confirmation by e-mail. The invoice will be sent by e-mail, therefore, please indicate a billing-address at your registration. **Please note that we cannot accept payment by credit card at the event itself.** So please ensure that payment is made in advance. The fee includes conference proceedings, lunch and refreshments on both days as well as dinner incl. special programme.

YOUR CONTACT

Sensitec GmbH is the organizer of the international XMR-Symposium (www.sensitec.com).

Organisation
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Technical matters
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Location
Stadthalle Wetzlar
Kongress- und Kulturzentrum
Brühlsbachstraße 2b
35578 Wetzlar (for route description, please refer to http://www.xmr-symposium.com)

Hotel
Please make your own hotel reservation.
The following hotels provide a limited contingent of rooms (reference: XMR-Symposium Sensitec):

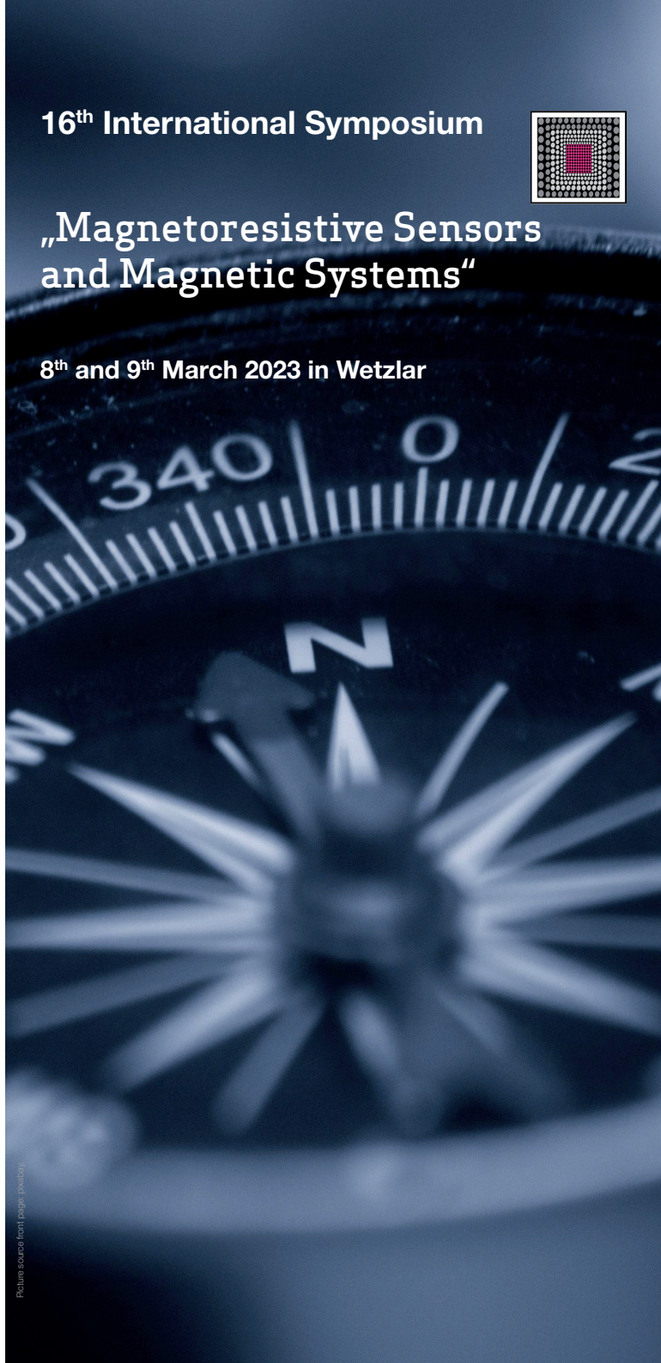
Hotel Wetzlarer Hof
Phone +49 6441 908-0 (until 7th February 2023)
Hotel Bürgerhof
Phone +49 6441 903-0 (until 7th February 2023)
Michel Hotel Wetzlar
Phone +49 6441 417-0 (until 15th February 2023)

Dinner and special programme
On 8th March 2023 we invite you to join us for dinner and special event in the evening.
As this is an option, please indicate your participation on the registration form accordingly when registering.

16th International Symposium

„Magnetoresistive Sensors and Magnetic Systems“

8th and 9th March 2023 in Wetzlar



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CONFERENCE PROGRAMME

16th International Symposium „Magnetoresistive Sensors and Magnetic Systems“

WHO SHOULD ATTEND

The international XMR-Symposium is addressed to technical and forward-thinking experts in many industrial areas such as automotive, e-mobility and industrial automation.

More information: www.xmr-symposium.com

Representatives of all industries, who are involved in the design, fabrication, testing, qualification and research of MR technology and magnetic systems and who wish to enhance their knowledge are invited to participate.

The conference covers subjects like:

- New XMR technologies and sensor concepts
- Condition monitoring
- Sensors in harsh environments
- Innovative applications
- Magnets and magnetic properties
- Market requirements for XMR sensors

Registration opens in the beginning of December!

MR-WORKSHOP

Prior to the XMR-Symposium on the **7th of March 2023** Sensitec GmbH will organize a one day hands-on experience workshop on the fundamentals of XMR sensors.

The workshop will take place in Gießen and be in German language. The number of participants is limited.

If you are interested, please contact **joachim.hoelzl@sensitec.com**.

Time	Topic	Speaker
	Wednesday, 8th March 2023	
10.00 - 10.15	**Welcome and introduction**	Jianguo Wang, Sensitec, Germany
10.15 - 10.45	(1) **Exploring TMR sensors for out of plane fields: focus on sensitivity control and thermal stability for out of plane stacks**	Paulo Freitas, INL, Portugal
10.45 - 11.15	(2) **Solutions for noise reduction and detectivity enhancement in GMR and TMR sensors**	Aurélie Solignac, CEA Paris-Saclay, France
11.15 - 11.45	(3) **New Technology for absolute 3D magnetic sensor**	Cornel Frigoli, Absolute Magnetics, Switzerland
11.45 - 12.15	(4) **Small footprint 2D MR sensors for tactile sensors**	Susana Cardoso de Freitas, INESC MN, Portugal
	12.15 - 13.15 Lunch	
13.15 - 13.45	(5) **Impact of changing vehicle E/E architecture on magnetic sensors**	Richard Dixon, S&P Global Mobility, Germany
13.45 - 14.15	(6) **Special requirements on XMR current sensors for modern power electronics**	Matthias Brusius, Sensitec, Germany
14.15 - 14.45	(7) **High speed measurements in e-mobility test equipment, a new market for MR-Technology**	Ulrich Marl, Lenord + Bauer, Germany
14.45 - 15.15	(8) **Concepts for reliability improvements of AMR current sensor devices and modules**	Heiko Knoll, Sensitec, Germany
	15.15 - 15.45 Coffee break	
15.45 - 16.15	(9) **Innovative GMR based speed sensors**	Rémy Lassalle-Balier, Allegro, France
16.15 - 16.45	(10) **Overview of Infineon‘s xMR speed sensors**	Dr. Yunfeng Li, Infineon, Germany
16.45 - 17.15	(11) **The world‘s first single chip magnetic multiturn position sensor that operates without contact and power**	Enda Nicholl, Analog Devices, Ireland
	19.00 Conference dinner and evening show in town hall. Please indicate your participation on the registration form.	

Time	Topic	Speaker
	Thursday, 9th March 2023	
8.30 - 9.00	(12) **Challenges in the production of advanced magnetic sensors**	Berthold Ocker, Singulus, Germany
9.00 - 9.30	(13) **Tunnel magnetoresistance sensors: from concept to commercialization**	Anuraag Mohan, Crocus, USA
9.30 - 10.00	(14) **Quality Control in Metal Sheet for Packaging Production**	Jeroen van Schagen, Tata Steel, The Netherlands
	10.00 - 10.30 Coffee break	
10.30 - 11.00	(15) **32-Bit programmable RISC-V interpolation SoC for XMR encoders**	David T. Robinson, nCoder, Switzerland
11.00 - 11.30	(16) **Low latency, high precision magnetic encoder ASIC design**	Jianfeng Wu, Conntek, China

Time	Topic	Speaker
	Thursday, 9th March 2023	
11.30 - 12.00	(17) **Analog and digital signal processors for XMR sensors**	Joachim Quasdorf, IC-Haus, Germany
12.00 - 12.30	(18) **TMR-based precision geartooth encoders for industrial applications**	Jinfeng Liu, Multidimension Technology, USA
	12.30 - 13.30 Lunch	
13.30- 14.00	(19) **DIN SPEC 91411: A standardized representation of magnetic scales**	Jürgen Gerber, INNOMAG e.V., Germany
14.00 - 14.30	(20) **Standardization of a magneto-optical stray field characterization technique and its application to the characterization of magnetic scales**	Sibylle Sievers, PTB, Germany
14.30 - 15.00	(21) **Hard magnetic coating for e-mobility applications**	Werner Pessenhofer, Miba, Austria
	15.00 - 15.15 Coffee break	
15.15 - 15.45	(22) **Magnetic Information Platform as novel approach to identify means of production in harsh environment**	Mathias Rechel, MIP Technology, Germany
15.45 - 16.15	(23) **Fast detection of magnetic stray fields over large areas using Hall- and magneto-optical sensors**	Benjamin Wenzel, Matesy, Germany
16.15 - 16.45	(24) **Condition monitoring and process control with magnetic sensors and maschine learning**	Tizian Schneider, Univ. of Saarland, Germany
16.45 - 17.00	**Outlook and closing remarks**	Joachim Hölzl, Sensitec, Germany

Preliminary programme.
We reserve the right to make changes without prior notice