Registration:

Early bird course fee: (+10% after early booking deadline, 6 weeks before seminar) Attendance option *Slang titles as homage to our historical coal mining area Ruhrgebiet called „Ruhrpott“ with its characteristic slang	EUR plus 19% VAT	Please select ⇩
“Medical Device MRI Safety Specialist”+ **“Volle Kanne*/Full Tilt”** 05-07 Nov 2026 (Lectures & MRI hands-on):	1995	
Online 05-07 Nov 2026	1695	

Title, First name, Name

Function title

Organisation

Street, Number

City, Zip-code

Telephone, Fax

Email

Country

Date, Signature

Please send your registration to:
Fax: +49-209-1497730-88
Email: seminar@mri-star.com

Information:

Terms of payment:

The amount is due for payment 2 weeks after receipt of the invoice. The course fee must be paid to the following bank account or via CREDIT CARD:

Bankname: Sparkasse Gelsenkirchen
Konto-Nr. / Account No.: 160 158 060
BLZ / Bank Code Number 420 500 01

Discounts:

Students, employees of universities and employees of start-up companies (<3 years) qualify for a 20% discount. Please send in a copy of an appropriate certificate proving your status. Every 2nd and further registrant from the same organization applies for a 15% discount.

***only 1 discount applicable!**

Registration is valid only with receipt of confirmation and payment of the course fee.

A cancellation is up to 6 weeks before free of charge. After that date we charge 50% of the registration fee. For a cancellation within the last 7 days 80% are charged of the course fee. If the cancellation takes place later or the participant or a backup does not attend the course, we are entitled to deduct the full participation fee.

The course fee includes: script, certificate+ “Medical Device MR Safety Specialist”, 3 x breakfast snack, 2 x lunch, 1 x dinner and hot as well as cold drinks.

The number of participants is limited. The places will be assigned in sequence of the receipt of registrations. MRI-STaR reserves the right to offer an alternative seminar date, if the number of participants is too low or too high.

MRI-STaR
Magnetic Resonance Institute
for Safety, Technology and Research

On-site & online
Hands-on MR course

Seminar location

MRI-STaR GmbH
Conference room
Buschgrundstr. 23, 45894 Gelsenkirchen, Germany
CEST TIME ZONE

The "Medical Device MR Safety Specialist”

Magnetic Resonance Imaging - MR Safety and Compatibility of Medical Devices

5 - 7 November 2026

Organizer

MRI-STaR GmbH & MR:comp GmbH
www.mri-star.com
Buschgrundstr. 23
45894 Gelsenkirchen, Germany

In cooperation with: the Professional Committee „Medical Technologies in MRI“ DGBMT im VDE www.vde.com/de/dgbmt & www.mrcomp.com

MR:comp

We would be pleased welcoming you as attendee!

MRI-STaR Seminar Day 1:

09:15 - 09:30 Welcoming / Breakfast

09:30 – 10:00 Introduction

10:00 - 10:15 Virtual visit of the MR system (Kugel)

10:15 - 11:45 Basics of MR physics and technical aspects I (Kugel)

- Static magnetic field, RF-Field, Gradient-field
- MR system components
- Refresh of the physical principle
- Physics of MRI (spin, magnetization, MR signal)
- MR image acquisition (RF pulse sequences, gradients, geometry, signal to noise & contrast, contrast agents)
- MR Imaging techniques (fast imaging, perfusion, diff.)

11:45 - 12:00 Coffee break

12:00 - 12:30 Safety Instruction (Kugel)

12:30-12:40 Grab a coffee

12:40-14:10 Significant hazards MRI II (IEC 60601-2-33 Edition 4.0 2022-08) (Brink)

- General terms
- Presentation of hazards
- Technology of superconductivity and potential risks of cryogens
- Laser

14:10 - 15:00 Lunch break

15:00 - 16:30 MR safety and compatibility I (Schaefers) **of medical devices (and items)**
Significant hazards MRI I item-specific

- Interactions of items (incl. implants) within the MR environment (static magnetic field, switched gradient and RF field)
- Current technical standards & guidance, MR testing methods

16:30 – 17:00 Coffee break/Transfer to scanner

17:00-18:45 Hands-on: MR basics (Kug./Sch.)

- Preventive measures and safety in the MR environment (staff & items)
- Hands-on, Basic MR imaging: Sequence selection, planning geometry and contrast
- MR imaging: image quality, artifacts

18:45-19:15 Final discussion with snack

MRI-STaR Seminar Day 2:

09:00 - 09:15 Breakfast

09:15 - 10:15 The Anatomy of modern Gradient Systems & its related Safety Aspects (Schmitt) webex

10:15 - 10:30 Coffee break

10:30 - 11:15 Hands on: MR Safety (Görtz)

- RF-induced heating Experiment

11:15 - 11:30 Coffee break

11:30 - 13:00 Computational methods, RF-safety & implants (Zylka)

- Research & Trends related to MR safety
- Numerical simulation and modeling

13:00 - 14:00 Lunch break

14:00 - 15:00 MRI from clinical view I (Melzer)

- Diagnostics & Therapy
- Surgery & Interventions (Biopsy, Ablation (RF, Laser), etc.)

15:00 - 15:10 Coffee break

15:10 - 15:50 MRI from clinical view II (Melzer)

- Robotics, Navigation, Visualization of implants and instruments

15:50 - 16:30 Coffee break/ Transfer to scanner

16:30 - 18:30 Hands on: MR intervention (Melzer/Sch)

- Your first MR-guided puncture of a tumor phantom
- Learn about the difficulties in technique

18:30 - open end Final discussion & Get together dinner

Target audience:
The seminar is especially designed for the **MR safety technical** interests of **auditors and quality/regulatory affairs managers, product and sales managers, R&D managers/engineers, MR clinicians, MR physicists.**

The seminar language is English. For a German-speaking seminar, please send us your request.

MRI-STaR Seminar Day 3:

08:30 - 08:45 Breakfast

08:45 - 10:00 MR safety and compatibility II (Schaefers) **of medical devices (and items)**

- Finding the "worst-case"
- Labeling of medical devices for the MR environment

10:00 - 10:15 Coffee break

10:15 - 11:15 Practical training: Behavioral measures in MR routine (Implant labeling research) Schaefers

- Implant research
- Case studies

11:15 - 11:30 Coffee Break

11:30 - 12:45 Assessment of MR safety for patients with active implantable med. devices (Brink) webex

- ISO/TS 10974: Requirements for active implantable med.dev.
- Potential physical relevance for passive devices

12:45 - 13:00 Grab a coffee

13:00 - 13:45 FDA Regulatory Aspects on MR Safety, (Kainz) **Testing and Labeling of med. devices** webex

13:45 - 14:15 Multiple Choice Test /Discussion & Farewell

Lecturers:

Prof. Dr. rer. nat. W. Zylka
Westfälische Hochschule, University of Applied Sciences, Germany

Dr. rer. nat. H. Kugel
University Clinic for Radiology, University of Munster, Germany

Prof. Dr. med. A. Melzer
Institute for Medical Science and Technologies IMSaT, Universities Dundee & St. Andrews, United Kingdom

J. van den Brink, PhD
Principal Scientist & Architect, Philips MRI, Best, The Netherlands

Dipl.-Phys. W. Görtz
Senior Physicist, MRI-STaR GmbH, Gelsenkirchen, Germany

Dipl.-Phys. F. Schmitt
MR-Consultant, MR:Comp, former VP Gradient Systems & Director Ultra Highfield Imaging at Siemens Healthcare, Erlangen, Germany

Wolfgang Kainz, PhD
CEO & President, High Performance Computing for MRI Safety, LLC, USA

Dipl.-Ing. (FH) G. Schaefers
MR Safety Testing Laboratory, MR:comp GmbH, Gelsenkirchen, Germany