



**RadMed2023**  
Radiation in Medicine Courses & Workshops

# MRI Safety

**12 February 2023**

Post Graduate Centre, KFSHRC, Riyadh

**Scientific Track Director:  
Maxwell Amurao, PhD**



SCAN ME

FOR REGISTRATION



# Speaker



## Maxwell Amurao, PhD

Director, Office of Radiation Safety  
Washington University in St. Louis  
St. Louis, Missouri, USA

### Targeted Audience:

Medical Physicists  
Radiologists  
MRI Technologists  
Biomedical Engineers

# Program Schedule

## 12 February 2023; Sunday

8:00 AM - 9:00 AM

Registration & Morning Coffee

### SESSION 1

9:00 AM - 10:15 AM

Introduction to MRI Safety  
• Static Magnetic Field (Bo)  
• Spatial Magnetic Field Gradients (dB/dx)

10:15 AM - 10:30 AM

Morning Break

### SESSION 2

10:30 AM - 11:15 AM

Introduction and the Physics of MRI Safety  
• Time Varying Magnetic Fields (dB/dt)  
• Time Varying Radiofrequency Fields (B1)

11:15 AM - 11:45 AM

MRI Safety – Considerations for Engineering Controls  
• MR safety zones  
• MR construction and shielding design  
• MR safety equipment

11:45 AM - 12:00 PM

Discussion and Q&A Session

12:00 PM - 1:30 PM

Prayer and Lunch Break

### SESSION 3

1:30 PM - 2:30 PM

MRI Safety – Considerations for Administrative and Procedural Controls

• Signs and labels	• Access control
• MR Safety training	• MR Safety screening
• Patient positioning	• Claustrophobia, anxiety, distress
• MR Safety audits	• MR Safety Committee

2:30 PM - 3:30 PM

MRI Safety – Special Considerations  
• Implants, Devices, Objects and Interpreting Instructions For Use (IFU)

3:30 PM - 4:00 PM

Prayer and Afternoon Break

### SESSION 4

4:00 PM - 4:45 PM

MRI Safety – Special Considerations  
• Gadolinium based contrast agents  
• Pregnancy and breastfeeding  
• Emergencies in the MR environment  
• Cryogen safety  
• Hybrid modalities