

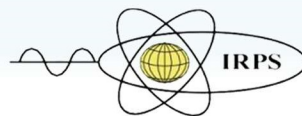


The 12th International Topical Meeting on Industrial Radiation and Radioisotope Measurement Applications (IRRMA-12) 2025



King Saud University, Riyadh, Saudi Arabia
January 26-30, 2025
IRRMA-12 GENERAL PROGRAM OUTLINE

Day	Morning Activity			Lunch Break & Poster Sessions	Afternoon Activity (13:00-17:00)	Social Activity (Evening)	
Sunday 26.01.2025	Registration 8:30-9:30	Opening Ceremony 10:00-11:00	Exhibition Tour 11:00-12:00	12:00-13:00	Invited Talks (13:00-17:00)		
Monday 27.01.2025	Invited Talks		Ministry of Industry and Mineral Resources Activities		Conf photo	Invited / Regular Talks (13:00-17:00)	Gala Dinner (19:30-22:30)
Tuesday 28.01.2025	Invited Talks		Panel Discussion		Invited / Regular Talks (13:00-17:00)	Closing ceremony (17:30-17:45)	
Wednesday 29.01.2025	International Radiation Physics Society IRPS Meeting		Virtual Session		City Sightseeing		



Sunday 26.01.2025	
8:30-9:30	Registration
Opening Ceremony: Main Theatre	
10:00-11:00	<p>A. Welcoming Address:</p> <ul style="list-style-type: none"> • Chairman of the Standing Committee On Radiation Protection & VP IRPS, Prof. Mohammed Alkhorayef • IRPS President, Professor Jorge Fernandez • Conference Chair, Dr. May Alrashed • University Acting President, Prof. Abdullah Al-Salman • His Excellency, The Minister of Industry & Mineral Resources, Mr. Bandar Alkhorayef <p>B. Honouring</p>
11:00-12:00	Exhibition Tour
12:00-13:00	Lunch Break & Poster Sessions
Session # 1 Main Theatre	
Session Chair: Prof. Christopher Chantler + Dr. Layal Jambi	
13:00-13:30	Invited Talk – Prof. William Dunn , A brief history of IRRMA
13:30-14:00	Invited Talk – Prof. Jorge E. Fernandez : XRF line enhancement from Compton ionization for unpolarized and linearly polarized excitation
14:00-14:30	Invited Talk – Prof. David Bradley : Luminescence and radiation sensing across a wide range of doses and dose rates: industrial and biomedical applications
14:30-14:45	Coffee Break
Session # 2 Main Theatre	
Session Chair: Prof. William Dunn + Dr. Wejdan Arif	
14:45-15:15	Invited Talk: Prof. Kyriaki Theodorou : Artificial Intelligence in Radiotherapy: Present Status and Future Perspectives
15:15-15:45	Invited Talk: Prof. Abdelmoneim Sulieman : Occupational exposure in medical and industrial activities: Cancer risk and deterministic effect probabilities
15:45- 16:15	Invited Talk: Prof. Fouad Abolaban : Recent advances in radiotherapy treatment using IGRT and CBCT
End of the day 1	



Monday 27.01.2025	
8:00-9:00	Registration
Session # 3 Main Theatre Session Chair: Prof. David Bradley + Prof. Khalid Alzimami	
09:00-09:30	Invited Talk – Prof. Christopher Chantler: A Story of Copper
09:30-10:00	Invited Talk – Prof. Maria Isabel Lopes : Two Phase Xenon Time Projection Chambers for Dark Matter Searches
10:00-10:30	Invited Talk – Prof. Zolt Podolyak : LaBr ₃ (Ce) detectors equipped with Silicon photomultipliers
10:30-10:45	Coffee Break
Session # 4 Main Theatre	
10:45-11:45	Overview of the Medical Devices Sector in the National Industrial Strategy Ministry of Industry and Mineral Resources
11:45-12:00	Conference Photo
12:00-13:00	Lunch Break & Poster Sessions
Session # 5 Main Theatre Session Chair: Prof. Maria Isabel Lopes + Prof Abdullah Alodhayb	
13:00-13:30	Invited Talk – Dr. Esameldeen Babikir: Patient radiation Safety and risks in medical imaging: Challenges and Opportunities
13:30-14:00	Invited Talk – Prof. Mohamad Gomaa: Role of Radiation Physicist in Bone Mineral Density Measurements
14:00-14:30	Invited Talk – Prof. Hairul Azhar Bin Abdul Rashid: Advancement in fiberoptic dosimetry system for FLASH radiotherapy
14:30-14:45	Coffee Break



Monday 27.01.2025	
Session # 6 Main Theatre	
Session Chair: Prof. Fouad Abolaban + Dr. Esameldeen Babikir	
14:45-15:00	Prof. Grazia Gambarini: Studies for experimental imaging in phantom absorbed dose in BNCT and Hadron therapy
15:00-15:15	Dr. Amjad Alyahyawi : Artificial Intelligence in industrial and medical applications
15:15- 15:30	Dr. Maryam M. Alkhateeb: What imaging modality is best for diagnostic accuracy of axillary lymph node in breast cancer patients?
15:30- 15:45	Dr. Hassan Salah: Enhancing CT imaging protocols for disabled patients
15:45- 16:00	Dr. Wejdan Arif: Focused ultrasound for opening blood-brain barrier and drug delivery monitored with positron emission tomography
16:00- 16:15	Dr. Saad Alshahri: Enhancing Landmine detection using backscatter gamma imaging: A comparative study of Cs-137 and Co 60 Sources for subsurface identification
16:15- 16:30	Dr. Abdullah Metebi: Targeting of the first-in-class humanized hAnnA1 antibody in ovarian cancer preclinical mouse models
16:30- 16:45	Ms. Zainab Aldawood: Evaluation of Hospital preparedness for responding to the nuclear and Radiological emergencies in the Kingdom of Saudi Arabia
16:45- 17:00	Ms. Fatima Damalkhan: Investigating the Potential Use of Different Adsorbents to Mitigate Soil Contamination
End of the day 2	
Gala Dinner (19:30-22:30)	



Tuesday 28.01.2025

8:00-9:00		Registration
Session # 7 Main Theatre		
Session Chair: Prof. Kiki Theodorou + Dr. Hassan Salah		
09:00-09:30	Invited Talk – Prof. Marco Esposito: AI in Radiation Medicine: Addressing a Global Challenge	
09:30-10:00	Invited Talk – Prof. Paola Bregant: Dose tracking in radiodiagnostic imaging	
10:00-10:30	Invited Talk – Prof. Hugo Schelin: Radiation Dose Measurements and Radiation Protection in Pediatric Radiology	
10:30-11:00	Invited Talk – Prof. Hector Rene Vega -Carrillo: Response of a passive TLD 600-TLD 700 /RPP neutron spectrometer	
11:00-11:15	Coffee Break	
Session # 8 Main Theatre		
Panel Discussion		
11:15-12:00	Optimizing radiation dose management: A comprehensive Approach Saudi Food and Drug Administration (SFDA) & Ministry of Health (MoH)	
12:00-13:00	Lunch Break & Poster Sessions	
Session #9 Main Theatre		
Session Chair: Prof. Paola Bregant + Prof. Abdelmoneim Sulieman		
13:00-13:15	Prof. Jakrapong Kaewkhao: Ce ³⁺ doped borophosphate scintillating glass for X ray imaging applications	
13:15-13:30	Dr. Lidia Matei: Pioneering Progress: Canadian Leadership in Nuclear Science for Health, Energy, and Sustainability	
13:30-13:45	Prof. Mayeen Uddin Khandaker: Studies of ^{nat} GD(p,X) nuclear reaction cross-section for optimized production of theragnostic ¹⁵⁵ Tbradionuclide via AVF cyclotron	
13:45-14:00	Eng. Nasser Al Aboudi : Medical devices regulatory framework at KSA	
14:00-14:15	Dr. Amal Alqahtani: Radiogenic risks and effective dose from paediatric computed tomography procedures	
14:15-14:30	Prof. Hamid Osman: Estimation of Effective Radiation dose for adult and paediatric computed tomography examinations	
14:30-14:45	Eng. Fahad Al Othiam : The Saudi National Diagnostic Reference level -Nuclear Medicine	
14:45-15:00	Dr. Ashraf Almahwasi: Feedback pattern and trainees perceptions: insights for SCFHS and newly accredited medical physics Residency programs in Saudi Arabia	
15:00-15:15	Coffee break	



Tuesday 28.01.2025

Session # 10 Main Theatre

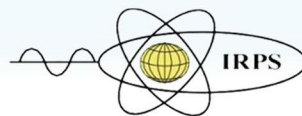
Session Chair: Dr. Saad Alshahri + Dr. Ashraf Almahwasi

15:15- 15:30	Dr. Qin-Nan Gao: Monte Carlo Model Validation for Range Verification in Proton Therapy with an In-Beam Dual-head PET System
15:30- 15:45	Dr. Huda A. AlSulaiti: Monitoring Radioactivity in Qatar's Seawater: Implications for Marine and Human Health
15:45- 16:00	Dr. Shaikah Alsubayae: A Study of Secondary Particles Production from Carbon Ion Beam for Radiotherapy
16:00- 16:15	Dr. Tanaporn Buangklang: Utilizing dual-energy mouse Cone-beam CT for proton animal treatment planning
16:15- 16:30	Prof. Inayatullah Shah Sayed: Organ dose distribution in anteroposterior (AP) abdominal radiography: Phantom-Based study
16:30-16:45	Dr. Saleh Althobaiti: A systematic review study of computed tomography DRLs in Saudi Arabia: Highlighting discrepancies with SFDA guidelines and the importance of CTDIvol
16:45-17:00	Dr. Mohammed Ahmed Saeed: Radiation dose to kidney voluntary donors & disorders during renal scan using TC99m (DTPA & DMSA)
17:00-17:15	Prof. Yousif Mohamed Yousif Abdallah: A technological review on the application of artificial intelligence in radiotherapy
17:15-17:30	Dr. Reem Alqarni: Enhancing HTGR Spherical Fuel Element Fabrication via Optimized Dispersion Fuel Pressing Techniques

Closing (17:30 – 17:45)

IRPS President- Prof. Jorge E. Fernandez

Announcement for next IRRMA



Wednesday 29.01.2025 (IRPS Activities)	
10:00-11:30	Office Bearers of the International Radiation Physics Society Meeting (by invitation only)
11:30-12:30	Lunch Break
12:30-15:00	Virtual Session
End of the Society Activities	
City Sightseeing (15:00-19:00)	