

# Amal Musfer Alqahtani

**POSITION: Assistant Professor**

## Personal Data

Nationality | Saudi

Department | Basic Sciences Department

College | Medicine, Deanship of Preparatory Year and Supporting Studies

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## Language Proficiency

Language	Read	Write	Speak
Arabic	Native	Native	Native
English	Excellent	Excellent	Excellent

## Academic Qualifications (Beginning with the most recent)

Date	Academic Degree	Place of Issue	Country
2020	PhD of Radiation and Medical Physics	University of Surrey	UK
2002	MSc. of Nuclear Physics	King Saud University	KSA- Riyadh
1999	BSc. of Physics	College of Science, King Faisal University	KSA- Dammam

## PhD, Master Research Title:

PhD	Versatile Passive Dosimetry at Radiotherapy and Greater Levels using Borosilicate Glass
MSc	Precise Measurements of Gamma Background Radiation In The Girl's Branch Building of King Saud University At Malaz, Using Different Nuclear Techniques.

## Professional Record: (Beginning with the most recent)

Job Rank	Place of work	Date
Assistant Professor	College of Medicine- Imam Abdulrahman Bin Faisal	2020
Lecturer	College of Medicine- Imam Abdulrahman Bin Faisal	2007
Demonstrator	College of Medicine- Imam Abdulrahman Bin Faisal	2001

### Administrative Positions Held: (Beginning with the most recent)

Administrative Position	Date
Vice Dean of Preparatory Year and Supporting Studies Deanship	Nov 2023 - Present
Chairperson of Basic Sciences Department	July 2023 - Present
Head of The National Center for Assessment (Qiyas) - College of Science	May 2022 - Present
Vice dean Assistant of Deanship of Preparatory Year and Supporting Studies for Humanities and Scientific Tracks	July 2020
Vice dean Assistant of Deanship of Preparatory Year and Supporting Studies for Scientific Track	January 2020
Academic Supervisor for the Pre-Clinical Colleges of University of Dammam	2016

### Professional Certification:

Harvard Business School Diploma of Leadership and Management December 2024
Certificate of Completion of the Faculty Competencies Program to Support Students with Disabilities in Higher Education, IAU, November 2024
Fellowship of Academic Leadership , IAU. 2023
Professional Trainer of Saudi National Dialogue, KACCC, 2016
Professional Certificate of Quality and Assessments of Medical Education, IAU, 2015

### Peer Review Activities:

- Reviewer for [Radiation Physics and Chemistry Journal], [ELSEVIER]

### Scientific Achievements (Published Refereed Scientific Research):

#	Name of Investigator(s)	Title	Publisher and Date of Publication
1	Umme Muslima, Mayeen Uddin Khandaker, Ngie Min Ung, M I Sayyed, Khalid Alzimami, Amal Alqahtani, David Bradley	Exploring the thermoluminescence characteristics of smartphone screen safety glasses for retrospective dosimetry applications	Applied Radiation and Isotopes, July 2024
2	Amal Alqahtani A. Alhazmi, M. Alkhorayef, A. Sulieman, David Bradley	Borosilicate glass media for neutron sensing	Radiation Physics and Chemistry, June 2023

3	Kolo Mathew, Mayeen Udein,, Paul Onuche Amal Alqahtani, David Bradley	Radon in groundwater sources of Bosso Community in North Central Nigeria and concomitant doses to the public	Radiation Physics and Chemistry, October 2022
4	Tayaallen Ramachandran, Mohammad Rashed Iqbal Faruque, Mohammad Tariqul Islam, Mayeen Uddin Khandaker, Amal Alqahtani and D. A. Bradley	Development and Analysis of Coding and Tailored Metamaterial for Terahertz Frequency Applications	Materials, April 2022
5	Md Salah Uddin Afsar, Mohammad Rashed Iqbal Faruque, Mayeen Uddin Khandaker, Amal Alqahtani and David A. Bradley	A New Compact Split Ring Resonator Based Double Inverse Epsilon Shaped Metamaterial for Triple Band Satellite and Radar Communication	Crystals, April 2022
6	Sabina Yasmin, Mayeen Uddin Khandaker, Siti Nurasih MatNawi, Siti Fairus AbdulSani, D.A.Bradley, AmalAlqahtani, Mohammad Rashed IqbalFaruque	The effectiveness of ornamental building materials (tiles) for retrospective thermoluminescence dosimetry	Applied Radiation and Isotopes, March 2022
7	Muhammad Riaz ,Amrina Suleman ,Pervaiz Ahmad ,Mayeen Uddin Khandaker, Amal Alqahtani, ,David A. Bradley and Muhammad Qayyum Khan	Biogenic Synthesis of AgNPs Using Aqueous Bark Extract of Aesculus indica for Antioxidant and Antimicrobial Applications	Crystals, February 2022
8	D.A.Bradley, Lam SiokEe, Siti Nurasih, Mat Nawi, Siti FairusAbdul Sani, Mayeen Khandaker, Khalid Alzimami, Layal Jambi, Amal Alqhatani	Radiation induced defects in graphite	Applied Radiation and Isotopes, February 2022

9	Md Salah Uddin Afsar, Mohammad Rashed Iqbal Faruque, Md Bellal Hossain, Air Mohammad Siddiky, Mayeen Uddin Khandaker, Amal Alqahtani and D. A. Bradley 2,4	A New Octagonal Close Ring Resonator Based Dumbbell-Shaped Tuning Fork Perfect Metamaterial Absorber for C- and Ku-Band Applications	Micromachines, January 2022
10	Alla G. Morozova ,Tatiana M. Lonzinger ,Vadim A. Skotnikov ,Gennady G. Mikhailov ,Yury Kapelyushin ,Mayeen Uddin Khandaker ,Amal Alqahtani, D. A. Bradley ,M. I. Sayyed, Daria I. Tishkevich, Denis A. Vinnik and Alex V. Trukhanov.	Insights into Sorption–Mineralization Mechanism for Sustainable Granular Composite of MgO-CaO-Al <sub>2</sub> O <sub>3</sub> -SiO <sub>2</sub> -CO <sub>2</sub> Based on Nanosized Adsorption Centers and Its Effect on Aqueous Cu(II) Removal	Nanomaterials, December 2021
11	Denis A. Vinnik , Vladimir E. Zhivulin ,Evgeny A. Trofimov ,Svetlana A. Gudkova ,Alexander Yu. Punda ,Azalia N. Valiulina ,Maksim Gavrilyak ,Olga V. Zaitseva ,Sergey V. Taskaev ,Mayeen Uddin Khandaker, Amal Alqahtani ,David A. Bradley ,M. I. Sayyed, Vitaliy A. Turchenko, Alex V. Trukhanov and Sergei V. Trukhanov	A-Site Cation Size Effect on Structure and Magnetic Properties of Sm(Eu,Gd)Cr <sub>0.2</sub> Mn <sub>0.2</sub> Fe <sub>0.2</sub> Co <sub>0.2</sub> Ni <sub>0.2</sub> O <sub>3</sub> High-Entropy Solid Solutions	Nanomaterials, December, 2021
12	Yeh Siang Lau, Ming Tsuey Chew, Amal Alqahtani, Bleddyn Jones, Mark A. Hill, Andrew Nisbet and David A. Bradley	Low Dose Ionising Radiation-Induced Hormesis: Therapeutic Implications to Human Health	Applied Sciences, 2021,11, 8909

13	Syed Taimoor Hussain Shah, Shahzad Ahmad Qureshi, Adil Aslam Mir, Amal Alqahtani, David A. Bradley, Mayeen Uddin Khandaker, Mohammad Rashed Iqbal Faruque and Muhammad Rafique	A Novel Hybrid Learning System Using Modified Breaking Ties Algorithm and Multinomial Logistic Regression for Classification and Segmentation of Hyperspectral Images	Applied Sciences. 2021, 11, 7614
14	H T Zubair, Amal Alqahtani, S F Abdul Sani, Hairul A AbdulRashid and D A Bradley	Chapter4: Development of borosilicate optical fibres for particle ionizing radiation dosimetry	In Book: Optical Fiber Technology and Applications Recent advances, Published August 2021 • Copyright © IOP Publishing Ltd 2021 Pages 4-1 to 4-28
15	S. F. Abdul Sani, M. H. U. Othman, Amal Alqahtani, K. S. Almugren, F. H. Alkallas, D. A. Bradley	Low-cost commercial borosilicate glass slides for passive radiation dosimetry	PLOS ONE, December 30, 2020

16	S.F. AbdulSanai, M.H.U. Othman, Amal Alqahtani, bA.A.Z. Ahmad Nazeri, K.S. Almugren, F.H .Alkallas and D.A. Bradley	Passive dosimetry of electron irradiated borosilicate glass slides	Radiation Physics and Chemistry, Volume 178, January 2021, 108903
17	Amal Alqahtani, S.F. Abdul Sani, Abdulaziz Alanazi, Z. Podolyak, A. Nisbet, D.A. Bradley	Microscope cover-slip glass for TLD applications	Applied Radiation and Isotopes, 160 (2020) 109132
18	Amal Alqahtani, D, A. Bradley, Abdulaziz Alanazi, Andrew Nisbet	Characterisation of borosilicate glass media as potential thermoluminescent dosimeters	Radiation Physics and Chemistry, 168 (2020) 108630
19	Amal Alqahtani	Versatile Passive Dosimetry at Radiotherapy and Greater Levels using Borosilicate Glass	University of Surrey, A Alqahtani-2020

#### Contribution in international scientific conferences

Name of Conference	Place and Date	Field of Contribution
IRRMA12: The International Topical Meeting On Industrial Radiation and Radioisotope	Riyadh, King Saud University, January 2025	Invited Speaker: Radiogenic Risks and effective dose from Paediatrics Computed Tomography procedures

<b>Measurement Applications</b>		
<b>IRRMA11: Industrial Radiation and Radioisotope Measurement Applications</b>	<b>Bologna, Italy 23-28 July, 2023</b>	<b>Invited Speaker: Evaluation of pediatric exposure from Computed Tomography and Special Radiography Examinations in Saudi Arabia</b>
<b>The 1st Sunway - Asian/Oceania Radiation Physics Workshop (IFARP-5)</b>	<b>The Centre for Applied Physics and Radiation Technologies (CAPRT) – Malaysia 27-29 Nov 2022</b>	<b>Invited speaker- Presentation: Strategy for development of Borosilicate glass for high energy radiation sensing</b>
<b>The 4th International Forum on Advances in Radiation Physics (IFARP-4)</b>	<b>Riyadh 27-31 March, 2022</b>	<b>Presentation: Development of borosilicate glass media for neutron sensing</b>
<b>XXI International Symposium on Solid State Dosimetry ( ISSSD2021)- Virtual event</b>	<b>Mexico September 27 to October 1, 2021</b>	<b>Presentation: Development of borosilicate optical fibres for particle ionizing radiation dosimetry</b>
<b>The 3rd International Conference on Dosimetry and its Applications- ICDA3</b>	<b>Lisbon, Portugal 27-31 May 2019</b>	<b>Poster: Characterisation of borosilicate glass media as potential thermoluminescent dosimeters</b>
<b>The 2nd International Conference on Dosimetry and its Applications- ICDA2</b>	<b>University of Surrey, Guildford, UK 3-8 July 2016</b>	<b>Poster: Estimation of Breast Dose and Cancer Risk in Chest and Abdomen CT Procedures</b>
<b>The 8<sup>th</sup> International Workshop on Advanced Materials (IWAM2016)</b>	<b>Ras Al Khaimah, UAE 21-23 February 2016</b>	<b>Poster: Optimization of Radiation Dose and Image Quality in CT</b>

#### Teaching Activities Undergraduate:

<b>Course Title</b>	<b>Code</b>
<b>Physics for Medical students</b>	<b>141</b>
<b>Electronics 1-Electronics2 for Computer Science Students</b>	

#### Postgraduate:

<b>Course Title</b>	<b>Code</b>
<b>Teaching Course of <u>Diagnostic Radiology Physics for Radiology Fellowship Programme</u> at King Fahad University Hospital- IAU since 2020</b>	<b>850</b>

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### Professional Membership

<b>The Saudi Medical Physics Society, 2019</b>
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### Professional Skills

<b>Quantitative Research and Statistical Modelling</b>
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<b>Knowledge of Research Methodologies</b>
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<b>Expert and qualified in different technique (RISO TL/OSL Reader), X Ray Diffraction (XRD), Scanning Electron Microscope(SEM), Photoluminescence(PL) and Raman Spectroscopy.</b>
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<b>Microsoft Office (word, excel &amp; power point).</b>
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### Awards

<b>Saudi Cultural Bureau Excellence Award, 2018</b>
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<b>Saudi Cultural Bureau Excellence Award, March 2019</b>
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