



Hana Mohammed Salem Almarri

Assistant Professor in Applied Physics (Medical Physics and Radiation Science)

Personal Data

Nationality | Saudi

Date of Birth | 16/12/1981

Department | Physics

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Google Scholar | <https://scholar.google.com/citations?user=AmOXfCsAAAAJ&hl=ar>

Research gate | <https://www.researchgate.net/profile/Hana-Almarri-2>

Language Proficiency

Language	Read	Write	Speak
Arabic	√	√	√
English	√	√	√
Others			

Academic Qualifications (Beginning with the most recent)

Date	Academic Degree	Place of Issue	Address
2020	Ph.D in Medical Physics and Radiation	Universiti Sains Malaysia	Penang, Malaysia
2009	MSc in Theoretical Physics (Nuclear Physics)	Imam Abdulrahman Bin Faisal University (Formerly known as King Faisal University)	Dammam, Saudi Arabia
2003	BSc in Physics	Imam Abdulrahman Bin Faisal University (Formerly known as King Faisal University)	Dammam, Saudi Arabia

PhD, Master or Fellowship Research Title: (Academic Honors or Distinctions)

PhD	Fetal Growth Charts for Normal Pregnant Women in Dammam, Saudi Arabia.
Master	A Study of Hadron – Hadron Collision at High Energie.
Fellowship	Fellowship in Academic Leadership



Professional Record: (Beginning with the most recent)

Job Rank	Place and Address of Work	Date
Assistant professor	Physics department at Imam Abdulrahman bin Faisal University (formally known as the University of Dammam)	2020 - present
Research Assistant	Physics department at Universiti Sains Malaysia	2013-2020
Lecturer	Physics department at Imam Abdulrahman bin Faisal University (formally known as the University of Dammam)	2008 - 2013

Administrative Positions Held: (Beginning with the most recent)

Administrative Position	Office	Date
Deputy chairman of physics	Collage of science-IAU – Room (04)	2021- Until Now

Scientific Achievements

Published Refereed Scientific Researches

(In Chronological Order Beginning with the Most Recent)

#	Name of Investigator(s)	Research Title	Publisher and Date of Publication
13	Norah Alonizan, M. Madani K. Omri Alanood, A. Alyami Mody E. Alqahtani, Hana M. Almarri , Eman Algrafy, Rasha A. Abumousa.	Hydrothermal synthesis and photocatalytic performance of Dy ₂ O ₃ /Mn nanostructures	The European Physical Journal Plus, May 2023
12	M.H.A. Mhareb, Mohamed A. Morsy, Hana Almarri , M.I. Sayyed, Ibrahim Alrammah, N. Alonizan, Y.S.M. Alajerami, Q.A. Drmosh, M. Kh Hamad, Ghaseb N. Makhadmeh, M.A. Almessiere	Gamma-ray induced effect on the structural and optical properties and durability of neodymium-doped zinc–bismuth–borotellurite glasses and glass ceramics	Optical Materials Volume 137, 113572 March 2023
11	Mo'men Mohammad Bani-Ahmad, Nurul Zahirah Noor Azman, Jamaluddin Nur Zahidah Jasmine, Hana Mohammed Almarri , Marwan Alshipli, Maizan Ramli Ramzun.	Radiation attenuation ability of bentonite clay enriched with eggshell as recyclable waste for a physical irradiation barrier	Radiation Physics and Chemistry Volume 201, November 2022, 110484
10	Mo'men Mohammad Bani-Ahmad, Nurul Zahirah	Study of Radiation Attenuation Ability of	Radiation Physics and Chemistry -2022



	Noor Azman, Nur Zahidah Jasmine Jamaluddin, <u>Hana Mohammed Almarri</u> , Marwan Alshipli, Ramzun Maizan Ramli.	Bentonite Clay Blocks Enriched with Eggshell Powder and Reinforced with Bismuth-Tungsten-Graphene Layers.	
9	Nur Zahidah Jasmine Jamaluddin , Mo'men Mohammad Bani-Ahmad , Azhar Abdul Rahman , Nurul Zahirah Noor Azman , <u>Hana Mohammed Almarri</u> and Ramzun Maizan Ramli1.	Fabrication of Eco-Friendly Building Materials by Using Eggshells of Food Waste Product Added with Bentonite and Kaolin Clays for Radiation Shielding Ability.	Materials 2021
8	Dyg Masury Ahmad, Saib Nurul Zahirah Noor Azman, Mohd Aminudin Said, Muhd Izzat Muhd Aseri, <u>Hana Mohammed Almarri</u> , Ramzun Maizan Ramli	Evaluation of butterworth post-filtering effects on contrast and signal noise to ratio values for SPECT images reconstruction	Radiation Physics and Chemistry, ScienceDirect 2021/12/15, Volume 192, March 2022, 109932
7	JNZ Jasmine, MR Ramzun, NAN Zahirah, AR Azhar, <u>M Al-M Hana</u> , YN Zakiah, MR Yasmin	Study of radiation attenuation ability of clay and cement mixture with added eggshell	Journal of Physics: Conference Series / 2020
6	<u>Hana Mohammed Al-Marri</u> ; Ramzun Maizan Ramli; Nurul Zahirah Noor Azman; Azhar Abdul Rahman;	Fetal Biometry Assessment of Femur Length for Pregnant Women in Dammam, Saudi Arabia	2019- 7th International Conference on Mechatronics Engineering (ICOM)
5	Z Nabela, M R Ramzun, <u>M M Hana</u> , N Z N Zahirah, N A R N N Ashikin, S Nursakinah, A R Azhar and S M Iskandar	Analysis of blood parameters in relation to the risk of cardiovascular disease for older population in Kelantan	IOP Conf. Series: Journal of Physics: Conf. Series-2018
4	<u>M M Hana</u> , M R Ramzun, Z Nabela, N A N Zahirah, Nik Noor Ashikin Nik Abdul Razak, A R Azhar, S M Iskandar and S Nursakinah	Estimation of the Hematological Change of Red Blood Cell and Platelet Count of Healthy Pregnant Women in Saudi Arabia	IOP Conference series-2018
3	Mayyadah Hasan Rhaif Al-Sahlanee, Ramzun Maizan Ramli, Miami Abdul Hassan Ali, Nada Fadhil	Trace of heavy metals in maternal and umbilical cord blood samples in	EDP Sciences - Web of Conferences- 2017



	Tawfiq, Nurul Zahirah Noor Azman, Azhar Abdul Rahman, Iskandar Shahrin Mustafa, Nik Noor Ashikin Nik Abdul Razak, Nor Zakiah Yahaya, <u>Hana Mohammed Al-Marri</u> , Nur Syuhada Ayob1 and Nabela Zakaria	association with birth outcomes in Baghdad, Iraq	
2	Mayyadah Hasan Rhaif Al-sahlane; Ramzun Maizan Ramli; Miami Abdul Hassan Ali ; <u>Hana Mohammed Al-Marri</u>	Analysis of Uranium concentration on maternal and umbilical cord blood samples after delivery in Iraq	IEEE International Conference on Control System, Computing and Engineering (ICCSCE)-2016
1	<u>Hana Mohammed Al-Marri</u> ; Ramzun Maizan Ramli; Mayyadah Hasan Rhaif Al-sahlane; Nurul Zahirah Noor Azman, Azhar Abdul Rahman, Iskandar Shahrin Mustafa.	Fetal biometry assessment of biparietal diameter for Saudi Arabia population and comparison with other countries	IEEE International Conference on Control System, Computing and Engineering (ICCSCE)-2016

Scientific Research Papers Presented to Refereed Specialized Scientific Conferences

#	Name of Investigator(s)	Research Title	Conference and Publication Date
1	Saleh Alluqmani, Nadiyah M. Alabdallah, <u>Hana Mohammed Almarri</u> , Amira H. Alabdall	INVESTIGATION THE FEATURES OF ALGAL BIOCHAR DOPED WITH GREEN SYNTHESIZED SILVER NANOPARTICLES FROM PALM LEAVES WASTE AND STUDY SOME OF THEIR POSSIBLE APPLICATIONS	3 rd World Conference on Byproducts of Palms and Their Applications (ByPalma) December 11 – 13, 2023, Riyadh, KSA
2	Saleh Alluqmani, <u>Hana Mohammed Almarri</u> , Nadiyah M. Alabdallah	Effect of annealed steel slag doses on the physicochemical properties of biochar derived from waste date palm fronds	3 rd World Conference on Byproducts of Palms and Their Applications (ByPalma) December 11 – 13, 2023, Riyadh, KSA
3	Nadiyah Alabdallah, Musaed Hakami, Abdullah Al Harthi, Taif Naif Aldajani, <u>Hana Mohammad Almarri</u> , Saleh Alluqmani.	“Antimicrobial Properties based on Green Synthesis of Nanoparticles Promotes Applications of Camel Leather”	The 6th Conference of the International Society of Camelid Research and Development (ISOCARD-2023). King Faisal University, Al Ahsa, Kingdom of Saudi Arabia.



4	Saleh Alluqmani, Musaed Hakami, Nadiyah M. Alabdallah*, Aslah Al-Zahrani, Hana AlMarri , Ahmed Alshehri	“Methods for Graphitic biochar and carbon nanoparticles create new veterinary application”	The 6th Conference of the International Society of Camelid Research and Development (ISOCARD-2023). King Faisal University, Al Ahsa, Kingdom of Saudi Arabia.
5	Hana Mohammed Al-Marri ; Ramzun Maizan Ramli; Nurul Zahirah Noor Azman; Azhar Abdul Rahman;	Fetal Biometry Assessment of Femur Length for Pregnant Women in Dammam, Saudi Arabia	2019- 7th International Conference on Mechatronics Engineering (ICOM)
6	M M Hana , M R Ramzun, Z Nabela, N A N Zahirah, Nik Noor Ashikin Nik Abdul Razak, A R Azhar, S M Iskandar and S Nursakinah	Estimation of the Hematological Change of Red Blood Cell and Platelet Count of Healthy Pregnant Women in Saudi Arabia	IOP Conference series-2018
5	Hana Mohammed Al-Marri ;Ramzun Maizan Ramli; Mayyadah Hasan Rhaif Al-sahlane; Nurul Zahirah Noor Azman, Azhar Abdul Rahman, Iskandar Shahrim Mustafa	Fetal biometry assessment of biparietal diameter for Saudi Arabia population and comparison with other countries	IEEE International Conference on Control System, Computing and Engineering (ICCSCE)-2016
7	Mayyadah Hasan Rhaif Al-sahlane; Ramzun Maizan Ramli; Miami Abdul Hassan Ali ; Hana Mohammed Al-Marri	Analysis of Uranium concentration on maternal and umbilical cord blood samples after delivery in Iraq	IEEE International Conference on Control System, Computing and Engineering (ICCSCE)-2016

Contribution to Scientific Conferences and Symposia

#	Conference Title	Place and Date of the Conference	Extent of Contribution
1	The 6th Conference of the International Society of Camelid Research and Development (ISOCARD-2023).	King Faisal University, Al Ahsa, Kingdom of Saudi Arabia, 2023	2 poster



2	7th International Conference on Mechatronics Engineering (ICOM)	Malaysia, 2019	paper research contribution - presentation
3	IEEE International Conference on Control System, Computing and Engineering (ICCSCE)	Malaysia, 2016	2 paper research contribution - presentation

Membership of Scientific and Professional Societies and Organizations

Teaching Activities

Postgraduate

#	Course/Rotation Title	No./Code	
	Medical Imaging Techniques	MB 607	Master of Medical Physics

Undergraduate

#	Course/Rotation Title	No./Code
	Physics I	Phys202
	Fundamental of Biophysics	Phys407
	Introduction to Medical Physics	Phys550
	Selected topics in physics	Phys552
	Physics Project Seminars -2	Phys509
	Physics Technique and Instrumentation	Phys513

Brief Description of Undergraduate Courses Taught: (Course Title – Code: Description)

Phys202: A calculus-based introductory course to fundamental phenomena in physics for science students. Topics covered include: Newton's laws; momentum, energy and associated conservation laws; simple harmonic motion; properties of matter; fluid mechanics; Heat and introduction to thermodynamics; interactions between charges, resistive direct-current circuits; magnetism; geometrical optics.

The accompanying laboratory work is designed to illustrate the material discussed in the lectures.

Phys513: This course introduces the students to a wide variety of physical techniques used in modern biophysics research.

- Apply mathematics and physics to identify, analyze and investigate samples experimentally.
- Design and conduct experiments, as well as to analyze and interpret data.
- Design a system, component, or process to meet desired needs.

Phys550: This course presents an introduction to medical physics disciplines including planar radiographic imaging techniques, ultrasound, magnetic resonance imaging, nuclear medicine and radiation physics based therapies, elucidates the physical principles behind them, and discusses the interaction of different kinds of radiation with biological matter.



Selected Topics in Physics is an elective lecture course. It contains variable topics in physics classified into two main parts. I) The first part introduces concepts in material sciences, nanotechnology and photo-voltaic cell devices such as structural properties of materials, synthesis and characterization techniques of materials, photo-voltaic cell devices, renewable energy – solar energy, materials for biomedical applications, etc... ii) The second part includes concepts of atomic and nuclear physics including the atomic nature of matter, the chart of the nuclides, radioactivity and radioactive decay, nuclear radiation therapy for cancer tumours and tumours, medical imaging, green energy sources, study of natural radioactivity of gamma rays, etc....

The third part familiarizes students with the characteristics of solar radiation, its global distribution, and conversion methods of solar energy to heat and power, and to study the working principle of photovoltaic cell devices, and studies the basic semiconductor physics in relation to solar cell parameters and equivalent circuit.

Fundamentals of Biophysics is the course that associates life sciences with physics and incorporates concepts of physics into the basic phenomena associated with the biological functions.

Phys509: The main purpose of this course is to help students to improve their research skills to participate in scientific seminars/exchanges in a professional manner.

-After completing this course, students should be able to write and present a report containing a full description of aims, methods, results and analyses techniques used in the project.

Committee membership

#	To	From	position	Committee
1	2021	2022	President	Curriculum Management Committee
2	Now	1/8/2020	President	Program coordinator
3	26/11/2021	1/9/2022	President	Strategic Planning Committee
4	26/11/2020	1/9/2020	member	Program review committee
5	29/11/2020	1/8/2020	Member	Remote Labs Committee
6	30/12/2020	1/8/2020	Member	Tables Committee of the Department of Physics

Volunteer Work

#	From	To	Type of Volunteer	Organization
1	2/6/2020	2/9/2020	supervisor	research apprentice program
2	18/10/1438	18/12/1438	Teacher	talent program
3	22/11/1437	2/12/1437	Volunteer	convoy program

Personal Key Competencies and Skills: (Computer, Information technology, technical, etc.)



1	Office Computer programs and preparation of presentations
2	Analyzing data using SPSS
3	Analyzing data using Origin
4	Python Programming for Science (2h)
5	Fellowship in Academic Leadership (full year)
6	Planning the professional growth of a faculty member (2 hours)
7	Rubric Evaluation Criteria (2h)
8	Fourier transform infrared (FTIR) spectroscopy (2h)
9	How to communicate between researchers using ID Scopus & Publon (2h)
10	How to make use of the Library Digital A (2h)
11	Effective methods of student assessment/alternative assessment (2h)
12	Preparing new teachers (mentors) - a full semester
13	Counseling and guidance program for university professors, sixth batch 1443
14	Developing basic competencies in teaching and learning for university professors 54
15	Innovative leadership- 2 days
16	Competencies of academic supervisors - two days
17	Strategic leadership (2h)
18	Active learning workshop (10h)
19	Project based learning strategy (2h)
20	Outcome-based education (2h)