

Curriculum Vitae (CV)

Name: Sabah Ibrahim Abbas

Date and place of birth: Iraq –Baghdad -1973

General specialty: Physics

Specialization: Optoelectronics

The scientific title: Professor

Affiliation: Department of Medical Physics, College of Science,
Al-Karkh University of Science.

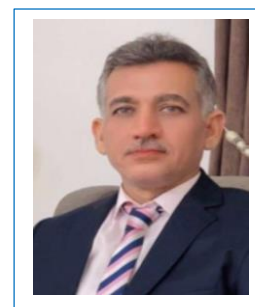
Mobile No: **07738199443**

Email: sabahibrahim@kus.ed.iq

Scopus profile: <https://www.scopus.com/authid/detail.uri?authorId=57216732452>

Google Scholar website: <https://scholar.google.com/citations?hl=ar&user=DRaE78UAAAAJ>

ORCID ID: 0000-0002-4584-5053



First: Academic Qualifications.

Academic Degree	University	College	Date
B.Sc	University of Baghdad	Ibn AL Haitham college	11-7-1996
M.Sc	Al-Mustansiriyah University	College of Education	20-7-2003
Ph.D.	University of Baghdad	College of of Science	19-12-2012

Second: Professional Experience

No.	Entity (institute/college)	University	Duration
1-	College of Science (Supervision of postgraduate students)	University of Waist-	2015-2018
2-	College of Science (Postgraduate student discussion committees)	University of Waist University of Diyala University of Babylon University of Dhi Qar	2014-2022 2019,2020 2022 2020
3-	College of Science (discussing postgraduate student project plans Committees),	University of Waist	2014- 2023

	Comprehensive examination committees for postgraduate students		
4-	a- College of Science (Participation in International conferences in Türkiye).	University of Waist	2018
	b-College of Science (Participation in international conferences in kazan, 2019 Developments in eSystems Engineering (DeSE)).	Al-Karkh University- college of science	2019
	c-College of Science Participation in international conferences in University Of Al-kafeel.	Al-Karkh University of science , college of science	2023
5-	a-College of Science (Member of the Scientific Committee of the Medical Physics Department).	Al-Karkh University of science	2017-2023
	b-College of Science (Member of the Scientific Promotion Sub-Committee of Al-Karkh University of Science).	Al-Karkh University of science	2017-2023
	c-College of Science (Member of the teaching competency examination committee) .	Al-Karkh University of science	2019-2023
	d-College of Science (Member of the performance appraisal committee).	Al-Karkh University of science	2019-2023
	e-College of Science (Member of the Quality guarantee and academic accreditation committees in the Department of Medical Physics) .	Al-Karkh University of science	2019 -2021
	f-College of Science (Laboratory Accreditation Unit in the College of Science).	Al-Karkh University of science	2019

Third: Teaching Experience

No.	Department	Subject	Year
1-	University of Waist-college of Science- Department of Physics	Optics lab	2004-2016
2-	University of Waist -college of Science- Department of Physics	Electrical Circuits , Electricity lab .	2005-2006
3-	University of Waist -college of Science- Department of Biology	General physics , General physics lab	2005-2007
4-	University of Waist - College of Agriculture	General physics , General physics lab	2007-2008
5-	University of Waist - college of Education- Department of Mathematics	General physics, General physics lab	2013-2014
6-	University of Waist -college of Science- Department of Physics	Quantum Mechanics, Optics	2014-2015
7-	University of Waist -college of Science- Department of Physics	Optics	2014-2016
8-	University of Waist -college of Science- Department of Physics	Advance Optics (Master degree)	2014-2016
9-	University of Waist -college of Science- Department of Physics	Non Linear Optics (ph,D degree)	2015-2017
10-	Al-Karkh University- college of science- Medical Physics department	Mechanics Lab	2017-2018
11-	Al-Karkh University- college of science-Medical Physics department	Optics Optics Lab Semiconductors Bio-Fluid	2018-2025
12	Al-Karkh University- college of science-Medical Physics department	Optics Optics Lab Programming	2025-2026

Third: Published research

No.	Title of Research	Year
1-	Fabrication and testing of SnO ₂ thin films as a gas sensor	2012
2-	Structural, Electrical and Photoluminescence Properties of In ₂ O ₃ Doped SnO ₂	2012
3-	HYDROGEN GAS SENSORS BASED ON ZnO THIN FILMS	2014
4-	Structural, Optical and photoluminescence Properties of Nanocrystalline NiO Thin Films	2014
5-	Study of Annealing Temperature on Prepared Iron oxide Nanoparticles by Sol-Gel Method	2016
6-	Preparation of nano crystalline zinc–ferrite as material for micro waves absorption by sol-gel methods	2017

7-	Modeling of High Performance Reflection Coatings for Visible Region	2017
8-	Studying of deposit time for CdS thin films prepared by chemical bath deposition (CBD) with two different annealing temperature	2017
9-	Studying the Effect of the Concentration and Sintering Temperature on the Structural and Optical Properties of Zinc Ferrite (ZnFe ₂ O ₄) Preparing by Sol-Gel	2017
10-	Studying the Linear and Nonlinear Optical Properties by Using Z-Scan Technique for CdS Thin Films Prepared by CBD Technique	2018
11-	Affect The Precipitation Times on The Prepared Nanocystals of CdS by Chemical Bath Deposition	2018
12-	Effect of Molar Concentration of Zinc Ferrite (ZnFe ₂ O ₄) Nano Particles Prepared by Sol-Gel on Microwaves Attenuation	2018
13	Annealing effect on optical constants of CBD-ZnO films	2020
14	RAMAN SPECTRA AND ELECTRONIC FEATURES FOR NANOTUBES OF ZnSSe WURTZIOD: AB-INITIO	2020
15	OPTICAL PROPERTIES OF ZnO FILMS PREPARED BY CBD TECHNIQUE	2021
16	Studying of the polarization modes TE and TM for oblique incidence of light on thin films	2021
17	Influence of Cu doping on structure, morphology and optical characteristics of SnO ₂ thin films prepared by chemical bath deposition technique	2021
18	Influence of deposition time on absorption and electrical characteristics of ZnS thin films	2022
19	Optimization of Multilayer Antireflection Coatings for Visible and Infrared Regions	2023
20	Nonlinear optical characteristics of chemical bath-deposited pure and Cu-doped SnO ₂ thin films: A comparative evaluation	2023
21	Enhanced ultraviolet photodetector based on Al-doped ZnO thin films prepared by spray pyrolysis method	2024
22	Nanoparticles Prepared by Spray Pyrolysis Technology for UV Detector Improvement: Study Bacterial Activity with Medical Physics	2025

Curriculum Vitae (CV)

Name: **Amer Basim Shaalan**

Date and place of birth: **1972 Baghdad**

General specialty: **Physics**

Specialization: **Theoretical Physics**

The scientific title: **Professor**

Affiliation: **Medical Physics Department /College of Science / Al-Karkh University**

Mobile No: **07803856435**

Email: ame72r@kus.edu.iq

Scopus: <https://www.scopus.com/authid/detail.uri?authorId=36638427700>

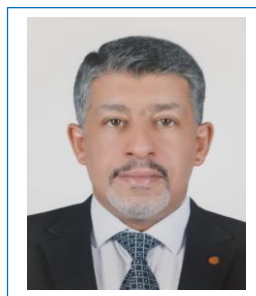
Research Gate: <https://www.researchgate.net/profile/Amer-Shaalan>

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

ORCID ID: <https://orcid.org/0000-0003-0429-8193>

LinkedIn:

Web of Science:



First: Academic Qualifications.

Academic Degree	University	College	Date
Ph.D.	Al-Mustansiriyah	Science	2002
M.Sc.	Al-Mustansiriyah	Education	1997
B.Sc.	Al-Mustansiriyah	Education	1994

Second: Professional Experience

No.	Entity (institute/college)	University	Duration
1-	Science	Al-Muthanna	2004-2019
2-	Science	Al-Karkh of Science	2019-present

Third: Published research

No.	Subject	Year
1-	Fractal Koch Dipole Antenna	2004
2-	Small Resonant Fractal Antennas For VHF/UHF Applications	2005
3-	Transparent Sierpinski Carpet Antenna	2005
4-	Fractal Tree Dipole Antenna	2006
5-	Fractal Menger Sponge for Attenuation Microwave Radiation	2009
6-	Effect of Doping With Cobalt on Some Structural and Optical Properties of Zinc Oxide Thin Films	2009
7-	H-Shape Antenna Modeling Using Conductive Thin Films	2009
8-	Design of Fractal Quadratic Koch Antenna	2010
9-	Characteristics of Microstrip Fractal Antenna Shape Covered by Modified Split Ring Resonator	2014
10-	Gain Enhancement of Fractal Shape Antenna using Metamaterial Cover	2014
11-	Design of Fractal Shape Cross Field Antenna	2014
12-	Fractal Peano Antenna Covered by Two Layers of Modified Ring Resonator	2015
13-	Fractal Koch Antenna Loaded with Hilbert Curve as Complementary Split Ring Resonator	2015
14-	Fractal Minkowski Antenna Loaded with Hilbert Curve as Complementary Split Ring Resonator	2015
15-	Theoretical Study of fractal shape material of negative refractive index	2015
16-	Size Reduction of Microstrip Patch Antenna by Using Meta-Fractal Technique	2016
17-	Pentagon Fractal Antenna for Above 6 Ghz band Applications	2017
18-	Multi-band hybrid fractal shape antenna for X and K band applications	2018
19-	Fractal shape split ring resonator properties used in electrodynamic and communication systems	2023
20-	Conductive Thin Film Tree Dipole Antenna	2023
21-	Distinguish features of Dinar/IRAQ and Dollar/USA Using the Naked Eye and visible Light Microscope	2024

22-	A Novel Design of a Quadratic Koch Fractal Nano Antenna for THz Application	2025
23-	Fractal H-Shape Frequency Selective Surfaces Unit Cell Design for X-Band and Remote Sensing Applications: A Sustainable View	2025

Fourth: Teaching Experience

No.	Department	Subject	Year
1-	Physics / Al-Muthanna University	Electrodynamics/M.Sc. level	2017
2-	Physics / Al-Muthanna University	Electromagnetics	2005-2018
3-	Physics / Al-Muthanna University	High energy physics	2008
4-	Physics / Al-Muthanna University	Waves and Sound	2009
5-	Physics / Al-Muthanna University	Electricity and Magnetism	2013
6-	Physics / Al-Muthanna University	Renewable Energy	2016
7-	Physics / Al-Karkh University	General Physics	2020
8-	Physics / Al-Karkh University	Electricity and Magnetism	2023-2025



Curriculum Vitae (CV)

Name: Jafer Fahdel Odah

Date and place of birth: 3/August/1978

General specialty: Physics

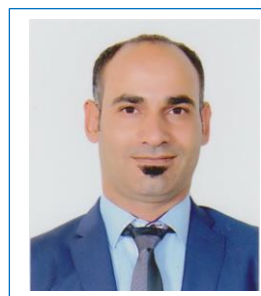
Specialization: Laser and Molecular physics

The scientific title: Professor

Affiliation: Al-Karkh University of Science / College of Science

Mobile No: +07902478828

Email: hajasafa@kus.edu.iq



Scopus: <https://www.scopus.com/authid/detail.uri?authorId=56528402200>

Research Gate: <https://www.researchgate.net/profile/Jafer-Fahdel>

Google Scholar website: <https://scholar.google.com/cits?hl=en&user=KpLTnCQAAAAj>

ORCID ID: <http://orcid.org/0000-0002-0820>

LinkedIn:

Web of Science: <https://www.webofscience.com/wos/author/record/E-1853-2019>

First: Academic Qualifications.

Academic Degree	University	College	Date
Bachelor's Degree	University of Baghdad	College of Science	2001
Master's Degree	University of Baghdad	College of Science	2004
Ph.D.	University of Baghdad	College of Science	2015

Second: Professional Experience

No.	Entity (institute/college)	University	Duration
1-	Al-Muthanna University / College of Science	Assistant Dean for Administrative Affairs	
2-	Al-Karkh University of Science / College of Science	Assistant Dean for Administrative Affairs	
3-	Al-Karkh University of Science / College of Science	Head of Medical Physics Department	
4-	Al-Karkh University of Science / College of Science	Dean	

Third: Published research

No.	Subject	Year
1-	Synthesis and spectroscopy of silica nanoparticles as scatter centers in random gain porous media	2015
2-	Synthesis and spectroscopic properties of silica nanoparticles as scatter centers in random gain porous media	2015
3-	Studying the Structure, Electric and Magnetic Properties of Ni-Zn Ferrites	2016
4-	Role of sintering, Co-particles on properties of milled Al-Zn-Mg-Cu matrix produced via PM	2017
5-	8Ni/Al7475 surface composites fabricated by Friction Stir Processing	2018
6-	Dual-wavelength Q-switched pulse generation using D-fibre and MoS ₂ saturable absorber	2018
7-	A stable dual-wavelength erbium doped fiber laser based on photonic crystal fiber and tapered optical fiber	2018
8-	Optical and Morphological Characteristics of Nanostructured Titanium Dioxide Thin Films Prepared by DC Reactive Magnetron Sputtering Technique	2018
9-	Improvement of dielectric and mechanical properties of epoxy/SiO ₂ nanocomposites	2019
10	Preparation and improvement of thermal expansion coefficient and impact strength of (PMMA/CaAl ₂ O ₄) system	2019

11	Synthesis and characterization of the system (Ep-n-MgO) used in thermal ablation applications	2020
12	Optical investigations of poly (vinyl alcohol) doping with cobalt nitrate thin films	2020
13	Study the Effect of Concentration and Solvent Polarity on Spectroscopic Properties of DCM Laser Dye	2020
14	Electrical Properties and Optimum Conditions of a Home-Made Magnetron Plasma Sputtering System	2021
15	Antimicrobial Activity of Zirconium Oxide Nanoparticles Prepared by the Sol-Gel Method	2021
16	Synthesis and characterization of $ZrO_2:Al_2O_3$ ceramics nanocomposite	2022
17	Structural Properties of NiO Thin Films Deposited by DC Magnetron Sputtering: Influence of the Preparing Features	2022
18	Refinement of product water resulting from the operation units of Samawah refinery using nano-oxides	2022
19	Synthesis and Characterization of Ceramic System Beta Tri-calcium Phosphate Used in Teeth and Bones Substitutions	2023
20	Studying the Effect of Adhesion and Biological Properties for ZnO and TiO ₂ /PVA Nanocomposite on Activity of Paints and Epoxy by Accelerated Weathering Tester	2023
21	Effects of thickness, temperature and light on CdTe-based solar cells	2023
22	Studying the Effect of Adhesion and Biological Properties for ZnO and TiO ₂ /PVA Nanocomposite	2023
23	Effect of Bone Protein addition to the system: Calcium Titanate	2024
24	Laser Fragmentation of Green Tea-synthesized Silver Nanoparticles and Their Blood Toxicity: Effect of Laser Wavelength on Particle Diameters	2024
25	Effect of adding MgO and NiO nano-oxides on the spectroscopic properties of Nile Blue laser dye	2024
26	Synthesis and Characterization ($ZrO_2:MgO$) Nanocomposite and Assessed Biocompatibility In Vitro By SBF and MTT Assay	2024
27	Investigating the impact of various gantry angles on radiation beam dosage in linear accelerator, laser-assisted chemical scanning: A study conducted in a hospital in Iraq	2025
28	Functionalization and Experimental Investigation of Nanosensors for Single-Molecule DNA Detection Using Molecular Dynamics Simulations	2026
29	Influence of irradiation on the corrosion resistance of medical stainless-steel alloys coated with nickel-titanium layers	2026

Fourth: Teaching Experience

No.	Department	Subject	Year
1-	Physics	Mechanics	First
2-	Physics	English Language	First second and third
3	Physics	Sound waves	Second
4	Physics	Mathematics	First and second
5	Physics	Analytical mechanics	Second
6	Physics	analog and digital electronics	Third
7	Physics	Laser physics	Third
8	Physics	Photo-physics	Third
9	Physics	Molecular spectroscopy	Fourth
10	Physics	Philosophy of science	Fourth
11	Physics	General physics	First
12	Physics	Classical mechanics	M.Sc. degree
13	Medicine	Medical Physics	First

Curriculum Vitae (CV)

Name: *Fadhil Kareem Farhan*

Date and place of birth: 20/ 9/ 1964 Bagdad

General specialty: *Physic of Material Science*

Specialization: Nanomaterial and Nanocomposites

The scientific title: *Professor Doctor*



Affiliation: Al-Karkh University of Science - College of Science - Department of Medical Physics

Mobile No: **07721026009**

Email: dr.fadhil1966@kus.edu.iq

Scopus: <https://www.scopus.com/authid/detail.uri?authorId=57203535718>

Google Scholar website: <https://scholar.google.com/citations?hl=ar&pli=1&user=qQCOg3IAAAAJ>

ORCID ID: -

First: Academic Qualifications.

Academic Degree	University	College	Date
B.Sc	Mustansiriya University	College of Science	1989
M.Sc	Mustansiriya University	College of Science	2011
Ph.D.	Mustansiriya University	College of Science	2014

Second: Professional Experience

No.	Entity (institute/college)	University	Duration
1-	Atomic Energy Organization	Atomic Energy Organization	1990- 2002
2-	Materials Research Department	The Ministry of Science and Technology	2003-2017
3-	College of Science\Department of Medical Physics	Al-Karkh University of Science	2018- 2023

Third: Teaching Experience

No.	Department	Subject	Year
1-	College of Science\Department of Medical Physics	Quantum Mechanics – 3 th Electromagnetic waves – 2 th	2019 – 2023 2018-2023
2-			
3-			

Previous experience

The beginning of my scientific experience was in the Atomic Energy Organization from 1990 to 2002 in the field of scientific research, the bachelor's degree. After that, in the year 2003 until 2017, in the Ministry of Science and Technology, she completed her master's and doctoral degrees directly, specializing in the development of advanced materials and materials, including nanomaterials and their composites, and they were applied in the field of military and civil industries. When I moved to the Ministry of Higher Education at Al-Karkh University of Science - College of Science - Department of Medical Physics, I focused on medical applications and in the field of using bio-ceramics in bone and dental restoration, in addition to the preparation of nano-biological materials so far.



Curriculum Vitae (CV)

Name: Bassma Hussain Hamad

Date and place of birth: 10-12-1980 Baghdad

General specialty: Baghdad- Hai Al-Jehad

Specialization: Plasma Physics

The scientific title: Assistance Prof.

Affiliation: College of Science \ Department of Medical Physics

Mobile No: \\\\\\\\\\\\\\\\\\

Email: dr.bassmahussain@kus.edu.iq

Scopus: <https://www.scopus.com/authid/detail.uri?authorId=56463785600>

Research Gate: <https://www.researchgate.net/profile/Bassma-Hamad>

Google Scholar website: <https://scholar.google.com/citations?user>

ORCID ID: <https://orcid.org/0000-0002-1107-3649>

LinkedIn: <https://www.linkedin.com/in/bassma-hamad-068600274?utm>

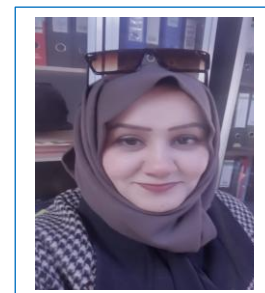
Web of Science: <https://www.webofscience.com/wos/woscc/smart-search?state=%7B%7D>

First: Academic Qualifications.

Academic Degree	University	College	Date
Bachelor Science in Physics	Al-Nahrain University	College of Science	2001
Master Degree	Al-Nahrain University	College of Science	2004
Ph.D. Degree	Al-Nahrain University	College of Science	2014

Second: Professional Experience

No.	Entity (institute/college)	University	Duration
1-	Training courses in quality assurance	Baghdad , Al-Nahrain, Al-Ain, Alkarkh , Alyarmok.	2 days
2-	Training courses on laboratory quality classification	Baghdad , Al-Nahrain, Al-Ain, Alkarkh ,	3 days



3	Training courses on plagiarism detection	Baghdad , Al-Nahrain, Al-Ain, Alkarkh	2 days
4	Training courses on performance evaluation	Baghdad , Al-Nahrain, Al-Ain, Alkarkh , Alyarmok.	2 days
5	Workshops on plasma applications in medicine	Al-Nahrain, Al-Muthana, Alkarkh	2 days
6	Workshops on noise	Alkarkh university	1 day

Third: Published research

Subject	Year
New design and construction of high-voltage high-current pseudospark switch KH Lateef, BH Hamad, AK Ahmad IEEE Transactions on Plasma Science 43 (2), 625-628	2014
Pseudo-spark switch (PSS) characteristics under different operation conditions BH Hamad, KH Lateef, AK Ahmad Physics of Plasmas 23 (8)	2016
DESIGN OF AN ELECTROSTATIC IMMERSION LENS USING THE CHARGE DENSITY METHOD AK Ahmad, KK Ajeel, HH Bassma Al-Nahrain Journal of Science 13 (1), 60-68	2010
The effect of intermediate electrode on pseudo-spark switch performance with high repetition rate BH Hamad, AK Ahmad Electrical Engineering 104 (2), 697-703	2022
Deceleration Cylindrical Electrostatic Lens Using the Charge Density Method BH Hamad, HA Waheeb Journal of Physics: Conference Series 1530 (012126), 1-8	2020
DESIGN OF ELECTROSTATIC OCTUPOLE DEFLECTOR USING CHARGE DENSITY METHOD BH HAMAD, AK AHMAD Journal of Engineering Science and Technology 16 (3), 2191-2201	2021
First International Conference for Pure and Applied Sciences (ISCPS), Faculty of Science, University of Kufa, Najaf, Iraq AJ Obaid, M Al-Rafaei, H Salaeh Hasson, LA Abas Hussain, BH Hamad, ... Journal of Physics: Conference Series 1660 (1), 011001	2020

تحقيق كتاب الجامع لجابر بن حيان BHHAK Kadhim	2019
Some Optical Properties of an Electrostatic Quadra-pole with Circular Concave Electrodes KK Ajeel, B H. H. Journal of Physical Science and Application 6 (1), 31-35	2016
design and construction of current shunt resistor of high current pulses K.H.Lateef, A.K.Ahmad, B.H.Hamad and A.Kh.Kadhem	2015
some optical properties of a non-equidiameter electrostatic lens using an integral method BH Hamad, TA Salman Research journal of applied sciences 4 (1), 29-34	2009
Some Optical Properties of an Electrostatic Immersion Lens Using the Charge Density Method SMJ Basma H. Hamad* , Ahmad K. Ahmad Iraqi J. of Appl. Phys. 1 (4), 21-27	2005
Monte Carlo Simulation of Electronic Kinetics in Gas Discharge BH Hamad* Iraqi J. of Appl. Phys. 1 (3), 3-5	2005
Iraqi Academics Syndicate International Conference for Pure and Applied Sciences (IICPS). S Albermany, AJ Obaid, S Sharma, BH Hamad, HA Ahmed Journal of Physics: Conference Series 2021, 011001	2021
Information and Communication Technology (ICMAICT), University of Babylon, Babylon, Iraq AJ Obaid, S Albermany, BH Hamad, HA Ahmed Journal of Physics: Conference Series 2021, 011001	2021

Fourth: Teaching Experience

No.	Department	Subject	Year
1-	Physics Dep.\ Al-Nahrain University	Electricity , Mechanics, numerical analysis, Optics, Analytical Mechanics, Thermodynamics	From 2002 to 2019
2-	Medical Physics\ Alkarkh university of science	Thermodynamics, Analytical Mechanics, optics, Medical Physics I II, IV	From 2020 until now

Curriculum Vitae (CV)

Name: Nihad K. Ali

Date and place of birth: 30/12/1963

General specialty: Solid State Physics

Specialization: Thin Films, Nanostructured

Materials

The scientific title: Assoc. Prof.

Affiliation: Medical Physics Department- Collage of Science- Alkarkh University of Science

Mobile No: **07765493430**

Email: nihad@kus.edu.iq

Scopus: <https://www.scopus.com/authid/detail.uri?authorId=54381444200>

Research Gate: https://www.researchgate.net/profile/Nihad-Ali?ev=hdr_xprf&_sg=y9ORGab_HVee99pEYo-3tCLtOHm723QcJISG_RtkA3dhsMMJC2Mxrm_o9zN9--klcqMbK11_hAl5caA_uhfdpi3Q&_tp=eyJjb250ZXh0Ijp7ImZpcnN0UGFnZSI6ImhvbnWUilLCJwYWdlIjoiaG9tZSI6InByZXZpY3VzUGFnZSI6ImxvZ2luliwicG9zaXRpb24iOiJnbG9iYWxlZWZkZXIifX0

Google Scholar website:

<https://scholar.google.com/citations?user=pFFwJEQAAAAJ&hl=en>

ORCID ID: [0000-0002-2320-1214](https://orcid.org/0000-0002-2320-1214)

LinkedIn:

Web of Science: <https://www.webofscience.com/wos/author/author-search>

First: Academic Qualifications.

Academic Degree	University	College	Date
B.Sc	Al-Mustansriah (Iraq)	Science	1986
M.Sc	University Sains Malaysia (USM), Malaysia	College of Physics	2004
Ph.D.	University Sains Malaysia (USM), Malaysia	College of Physics	2009

Second: Professional Experience

No.	Entity (institute/college)	University	Duration
1-	Post-Doctoral, Nanotechnology and Optoelectronics Lab	University Sains Malaysia, Malaysia	1 Year (2009-2010)
2-	Senior Lecturer, Faculty of Electrical Engineering	University Technology Malaysia (UTM), Malaysia	4 Years (2010-2014)
3-	College of Science	Al-Karkh University of Science	2016-Present

Third: Published research

No.	Subject	Year
1-	Cytotoxicity of Mitomycin C-Porous Silicon in Human Prostate Carcinoma Cells	2020
2-	Photoluminescence of Ultraviolet Initiated Green Emission from Electrochemically Deposited Germanium Films on (100) Silicon.	2016
3-	The evolution of Si-capped Ge islands on Si (100) by RF magnetron sputtering and rapid thermal processing: The role of annealing times.	2014

Fourth: Teaching Experience

No.	Department	Subject	Year
1-	Faculty of Electrical Engineering, University Technology Malaysia (UTM), Malaysia	Electronic Devices	2010-2014
2-	Faculty of Electrical Engineering, University Technology Malaysia (UTM), Malaysia	Microelectronic I	2010-2014
3-	Medical Physics Department, College of Science, Al-Karkh University of Science	General Physics, Electricity, Magnetism, Physics of Medical Instruments	2016- Present

Curriculum Vitae (CV)

Name: Ashraf Mohammed Ibrahim Alattar

Date and place of birth: June 10th 1984/ Baghdad. Iraq

General specialty: science of physics

Specialization: Laser & molecular physics /

Medical Physics

The scientific title: Assistant Professor. Dr.

Affiliation: Medical Physics Dept.

College of Science. Al-karkh University of Science

Mobile No: **07700364195**

Email: ashraf_alattar2000@kus.edu.iq

Scopus: <https://www.scopus.com/authid/detail.uri?authorId=57202015382>

Research Gate: https://www.researchgate.net/profile/Ashraf-M-Alattar?ev=hdr_xprf

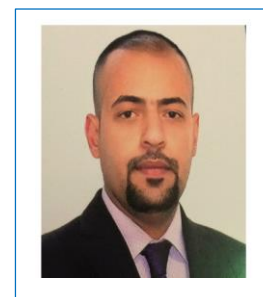
Google Scholar website:

<https://scholar.google.com/citations?user=OVDa5UcAAAAJ&hl=en>

ORCID ID: <https://orcid.org/0000-0002-5777-1637>

LinkedIn: <https://www.linkedin.com/in/ashraf-m-alattar-89aa5693/>

Web of Science: <https://www.webofscience.com/wos/author/record/Q-3483-2019>



First: Academic Qualifications.

Academic Degree	University	College	Date
B.Sc	University of Technology	Applied Sciences	1-7-2006
M.Sc	Pune University	Fergusson College	30-11-2011
Ph.D.	University of Baghdad & Georgia institute of technology (Twinning program)	College of science	5-2-2017

Second: Professional Experience

No.	Entity (institute/college)	University	Duration
1-	Medical physics. Dept. College of science	Al-Karkh University of science	1-8-2021 - till now
2-	The headquarters of the Presidency of the University of Baghdad	University of Baghdad	1-12-2019 – to 1-8-2021
3-	Department of Medical Devices Techniques Engineering Assistant Head (Rapporteur) Department 3 years 1 year Agency(Prosecution)Head of Department	Al-Hussain University College	1-9-2016 - to 30-11-2019
4-	College of Science for Women (lecturer)	University of Baghdad	2017 to 2020
5-	Materials & mechanical Engineering (visitor staff member)	Georgia Institute of Technology	2015 - to 2016 2017- till now
6-	Physics dept. Fergusson college (lecturer)	Pune university	1-5-2011 to 1-10-2011

Third: Published research

No:	SUBJECT	YEAR
1	More than 7 published paper , 4 in Q1 and others q2,q3, q4, in 2025-2026 (most publish papers in Scopus and Clarivate)	
2	Toxicological Effect of Biocompatible Gold Nanoparticles Prepared by Green Synthesis with Mentha sp Extract Exposed and Unexposed to Laser Pulses on the Kidneys of Adult Male Rats Mahmood, S.I.,Abbas, A.K.,Alattar, A.M. PlasmonicsOpen source preview , 2026, 21(2), pp. 2095–2110	2025
3	Influence of irradiation on the corrosion resistance of medical stainless-steel alloys coated with nickel-titanium layers Abd-Aljbar, A.A.,Alattar, A.M.,Khalaf, M.K.,Odah, J.F. Radiation Physics and ChemistryOpen source preview , 2026, 239, 113397	2025
4	Effectiveness of Personalized Tinnitus Masking Therapy Evaluated Using Pure Tone Audiometry: A Prospective Clinical Study Hassoon, D.R.,Alptekin, S.,Alattar, A.M.	2026

	Mapan Journal of Metrology Society of India Open source preview, 2026	
5	<p>Investigation of Biophysical Molecular Properties by Temperature Influence on the Silver Nanoparticles Synthesized Via Green Methods Using Beta Vulgaris: Applications of Antibacterial Agents</p> <p>Alattar, A.M.,Al-Mufti, A.W.,Odah, J.F.</p> <p>Iranian Journal of Medical PhysicsOpen source preview, 2025, 22(5), pp. 298–304</p>	2025
6	<p>Investigate optical and structural properties with molecular behavior of AgI and silver oxide nanoparticles prepared by green synthesis from the Acacia Senegal plant and achieving biocompatibility</p> <p>Bahari, A.,Esmail, S.I.,Alattar, A.M.</p> <p>Journal of Optics IndiaOpen source preview, 2025, 54(3), pp. 1261–1268</p>	2025
7	<p>Spectroscopic examination of plasma generated by a Nd:YAG laser and structural analysis of CdO and Cr2O3 nanoparticles created through pulsed laser ablation</p> <p>Jafer Fahdel Odah, Ashraf M. Alattar, Mazin Mohammed Mawat AL-Karkh University of Science, College of Science, Baghdad, Iraq Available online 9 March 2026, Version of Record 9 March 2026. https://www.sciencedirect.com/science/article/pii/S2949822826002649 next materials journal</p>	2026
8	<p>Modified algorithm to enhance illumination and detail in colour retinal images using the CLAHE technique with a Wiener filter</p> <p>MJ Alwazzan, AM Alattar</p> <p>Biomedical Signal Processing and Control 110, 108241</p>	2025
9	<p>The Effectiveness of Biomedical and Other Applications by the Utilization of Gold Nanoparticles Manufactured Utilizing an Environmentally Safe Method: A Review</p> <p>SI Mahmood, AK Abbas, AM Alattar</p> <p>Biofizika 70 (2), 374-389</p>	2025
10	<p>Investigating the impact of various gantry angles on radiation beam dosage in linear accelerator, laser-assisted chemical scanning: A study conducted in a hospital in Iraq.</p> <p>AM Alattar, AW Al-Mufti, JF Odah</p> <p>Radiation Physics and Chemistry, 112960</p>	2025
11	<p>Nanoparticles Prepared by Spray Pyrolysis Technology for UV Detector Improvement: Study Bacterial Activity with Medical Physics</p> <p>AM Alattar, SI Abbas, AA Al-Azawy</p> <p>Plasmonics 20 (3), 1575-1589</p>	2024

12	<u>Spectral and structural investigation of silica aerogels properties synthesized through several techniques</u> AM Alattar Journal of Non-Crystalline Solids 571 (3211)	2021
13	<u>Tuned optical transmittance in single-step-derived silica aerogels through pH-controlled microstructure</u> WAA Twej, AM Alattar, M Drexler, FM Alamgir International Nano Letters 7, 257-265	2017
14	<u>Enhanced ultraviolet photodetector based on Al-doped ZnO thin films prepared by spray pyrolysis method</u> SI Abbas, AM Alattar, AA Al-Azawy Journal of Optics 53 (1), 396-403	2024
15	<u>Dispersion of pure silica xerogel vs NaYF₄-xerogel nanomaterials in silica aerogel and their effect on the optical and structural properties</u> AM Alattar, RA Mohammed, MJ Alwazzan, WAA Twej Optical Materials 118, 111274	2021
16	<u>Structural and luminescent properties of a NaYF₄-aerogel composite</u> AM Alattar, M Drexler, WAA Twej, FM Alamgir Photonics and Nanostructures-Fundamentals and Applications 30, 65-72	2018
17	<u>Preparation and analysis of silver nanoparticles (AgNPs) by plant extract techniques of green tea and study optical and structural properties</u> AM Alattar, NA Al-tememee Nano and Medical Materials	2023
18	<u>Effects of TEOs aerogel particles size of TEOS aerogel on its mesoporous structure and thermal behavior via supercritical drying and high temperature</u> AM Alattar, BT Chiad, WAA Twej, RA Mohammed Iraqi Journal of Science, 119-128	2019
19	<u>Optical and nanostructure properties of the tungsten chloride doped of vanadium oxide xerogel thin film under high temperature</u> AM Alattar Journal of Optics 52 (1), 424-430	2023
20	<u>The influence of pulsed laser on the structural and optical properties of green tea extract leaf produced with silver nanoparticles as antimicrobial</u> AM Alattar Journal of Molecular Liquids 398, 124287	2024
21	<u>Controlling the nanoparticle size of silica in an acidic environment by using a strong magnetic field and a modified sol-gel techniques</u> AM Alattar, MJ Alwazzan, KA Thejeel	2023

	Kuwait Journal of Science 50 (3B)	
22	<p><u>Laser fragmentation of green tea-synthesized silver nanoparticles and their blood toxicity: effect of laser wavelength on particle diameters</u></p> <p>AM Alattar, IF Al-Sharuee, JF Odah Journal of Medical Physics 49 (1), 95-102</p>	2024
23	<p><u>Design and manufacturing of supercritical drying autoclave for aerogel production</u></p> <p>AM Alattar Iraqi Journal of Physics 14 (31), 148-160</p>	2016
24	<p><u>Investigate optical and structural properties with molecular behavior of AgI and silver oxide nanoparticles prepared by green synthesis from the Acacia Senegal plant and ...</u></p> <p>A Bahari, SI Esmail, AM Alattar Journal of Optics, 1-8</p>	2024
25	<p><u>Image Segmentation Algorithm Based on Statistical Properties</u></p> <p>AMA Mohammed J. Alwazzan , Alaa O. Alkhfagi Research in Intelligent and Computing in Engineering 1254 (Conference paper ...</p>	2021
26	<p><u>Study of Molecular Interactions, Optical, and Structural Properties through the Green Synthesis of Selenium Oxide Nanoparticles from Hibiscus sabdariffal: Biocompatibility for ...</u></p> <p>AMA Ali Bahari, Saad I. Esmail Journal of Medical Physics 49 (4), 557-562</p>	2024
27	<p><u>Nanoparticles Prepared by Spray Pyrolysis Technology for UV Detector Improvement: Study Bacterial Activity with Medical Physics</u></p> <p>AM Alattar, SI Abbas, AA Al-Azawy Plasmonics, 1-15</p>	2024
28	<p><u>Characterizations of Hydroxyapatite Nanoparticles Synthesized from Fishbone Using the Calcination and Grinding Method: Structural and Mechanical Analysis</u></p> <p>MM Mawat, AM Alattar, AN Mohamed, JF Odah MINAR 11, 28</p>	2024
29	<p><u>A Review article; Characterization of Nano porous Diatomaceous for Industrial applications</u></p> <p>MAA A Wesam Al-Mufti¹, Ashraf M. Alattar², H. I. Abdulgafour³ International Journal of Multidisciplinary Sciences and Advanced Technology ...</p>	2023
30	<p><u>Study and Analysis the Wisdom Tooth structural and Optical Characteristic by Using LIBS, SEM and EDS</u></p> <p>RAM Ashraf M. Alattar , Asmaa N. Ahmed IOP Conf. Series: Journal of Physics: Conf.</p>	2019
31	<p><u>Preparation and analysis of The structural, optical and thermal properties of aerogel</u></p> <p>AM Alattar UNIVERSITY OF BAGHDAD</p>	2017

Fourth : Teaching Experience

No.	Department	Subject	Year
1-	Medical physics	Medical physics I	2011 Till Now
2-	Medical physics	Physics of Medical devices I	2011 Till Now
3-	Medical Physics	Medical Physics II	2016 Till Now
4-	Medical physics	Physics of Medical devices II	2011 Till Now
5-	Medical physics (college of science for women)	Prosthetics physics	2016 - 2020
6-	Medical physics	Biophysics material	2020 to 2022
7-	Medical Devices Techniques Engineering (al-hussain university college)	Medical devices	2016 to 2019
8-	Medical Devices Techniques Engineering (al-hussain university college)	Medical chemistry	2016 to 2019
9-	Medical physics (college of science for women)	Radiotherapy and radiation doses	2017 to 2020
10-	Medical Devices Techniques Engineering (al-hussain university college)	Anatomy and Physiology	2016 to 2019
11	Medical Devices Techniques Engineering & Electrical Power Engineering (al-hussain university college)	Mathematics	2018-2019

- 1- Have more than 35 articles published in different journals.
- 2- <https://www.scopus.com/authid/detail.uri?authorId=57202015382>
- 3- <https://orcid.org/0000-0002-5777-1637>
- 4- <https://www.webofscience.com/wos/author/record/Q-3483-2019>
- 5- <https://www.researchgate.net/profile/Ashraf-M-Alattar>
- 6- <https://www.linkedin.com/in/ashraf-m-alattar-89aa5693/>
- 7- Participation in more than 7 international and local conferences
- 8- Participation as a lecturer in more than 28 continuing education training courses
- 9- Participation in attending more than 42 training courses
- 10- Participation as a discussant in more than four (4) graduate student discussions in medical college and in science college
- 11- Co-supervisor for a PhD graduate student in Iraq and also in different countries (Iran , Turkey)
Participation with foreign researchers in more than seven (7) from different countries

research papers published in top scientific journals



Curriculum Vitae (CV)

Name: Ali Abdulamear Rasheed Al-Azawy

Date and place of birth: Baghdad 1974

General specialty: Physics

Specialization: electron-optics

The scientific title: Assistant Professor doctor

Affiliation: Medical Physics Dep./College of Science/ Al-Karkh University of science

Mobile No: 07863994498

Email: ali.abdulamear@kus.edu.iq

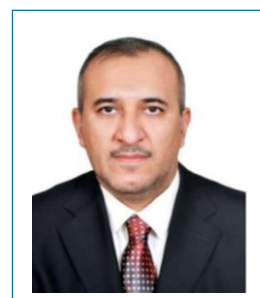
Scopus: <https://www.scopus.com/authid/detail.uri?authorId=57983407800>

Research Gate: <https://www.researchgate.net/profile/Ali-Resheed>

Google Scholar website: <https://scholar.google.com/citations?user=-apQMMYAAAAJ&hl=ar>

ORCID ID: <https://orcid.org/my-orcid?orcid=0000-0002-2305-2992>

LinkedIn: <https://www.linkedin.com/feed/?trk=onboarding-landing>



First: Academic Qualifications.

Academic Degree	University	College	Date
B.Sc.	Al- Mustansiriya University	Education college	1997
M.Sc.	Baghdad University	Sciences college	2000
Ph.D.	Al- Mustansiriya University	Education college	2016

Second: Professional Experience

No.	Entity (institute/college)	University	Duration
1-	Member of the scientific committee in the fourth / first international scientific conference / College of Education for Pure Sciences	Karbala University	2016
2-	Member of the Logistics Support Committee at the Fourth / Second International Conference / College of	Karbala University	2019

	Education for Pure Sciences		
3-	Member of the Preparatory Committee for the Second National Scientific Conference for Postgraduate Studies College of Education for Pure Sciences	Karbala University	2021
4-	Member of the Preparatory Committee for the Fourth Scientific Symposium of the Department of Medical Physics	Al-Karkh University of science	2022
5-	Head of the Department of Medical Physics at the College of Science, Al-Karkh University of Science.	Al-Karkh University of Science.	2022-2023
6-	Chairman of the Department Council Department of Medical Physics at the College of Science	Al-Karkh University of Science.	2022-2023
7-	Chairman of the examination committee Department of Medical Physics at the College of Science.	Al-Karkh University of Science.	2022-2023
8-	Chairman of the Department Council Department of Medical Physics at the College of Science.	Al-Karkh University of Science.	2024-2025
9-	Chairman of the Department Council Department of Medical Physics at the College of Science.	Al-Karkh University of Science.	2025-2026

Third: Published research

No.	Subject	Year
1-	Plasma Radiation Power Losses in Toroidal Fusion Reactors, Journal of Kerbala University , Vol. 8 No.2 Scientific, Iraq	2010
2-	Calculations of Coulomb Collisions Time For Plasma Particles Inside Fusion Reactors, Journal of Kerbala University , Vol. 8 No.3 Scientific, Iraq.	2010
3-	Studying of Binding Energy of Electrons in multi Electrons Atoms by Fermi-Statistics, Journal of Kerbala University , Vol. 8 No.2 Scientific, Iraq.	2010
4-	Visual Designing Tool For Electrostatic Lenses, Journal of advances in Physics, vol.5, no. 2, U.S.A.	2014
5-	An Investigation Tool for Analyzing Electrostatic Lenses, Journal of College of Education, Al-Mustansiriyah University, No.1, page 39, Iraq.	2016
6-	Focusing of Charged Particles Beam by Double Quadrupole Triplet Electrostatic Lenses, Journal University of Kerbala , Vol. 15 No.1 Scientific .	2017

7-	Investigation of the optical properties for bipolar magnetic lenses, Neuro Quantology August Volume 20 Issue 9 Page 41-45.	2022
8-	Investigation of symmetrical two-cylinder lens, Neuro Quantology July Volume20 Issue8 Page5531.	2022
9-	Theoretical study of the Aberrations for the Single-gap Magnetic Lens, Journal of optics (india), 52(2), pp. 691-695.	2023
10-	Enhanced ultraviolet photodetector based on Al-doped ZnO thin films prepared by spray pyrolysis method, Journal of optics (india).	2023
11-	Optimization of Multilayer Antireflection Coatings for Visible and Infrared Regions, Defect and Diffusion Forum, 422, pp. 73–81.	2023

Fourth: Teaching Experience

No.	Department	Subject	Year
1	Al-Mustansiriya University, College of Education physics Dep.	Astronomy & space physics	2006
2	Al-Mustansiriya University, College of Education physics Dep.	Plasma physics	2006
3	Karbala University College of Pharmacy	Medical physics	2007
4	Karbala University College of science physics Dep.	Analogue Electronics	2008-2011
5	Karbala University College of Education physics Dep.	Optics	2016-2021
6	Karbala University College of Education physics Dep.	Electromagnetism Theory	2016-2021
7	Al-Karkh University of science College of Science/ Medical Physics Dep.	Atomic physics	2021-2023
8	Al-Karkh University of science College of Science/ Medical Physics Dep.	Nuclear physics	2025-2026
9	Al-Karkh University of science College of Science/ Medical Physics Dep.	Nuclear Medicine and Radiotherapy	2021-2026

Curriculum Vitae (CV)

Name: Abdul Mohaimen Wesam

Place of birth: Baghdad

General specialty: Physics

Specialization: Nanotechnology

The scientific title: Assistant Prof. Dr

Affiliation: Al-karkh University of Science

Mobile No: +9647772206890 & WhatsApp

Email: mohamenw2@kus.edu.iq

Google Scholar website: <https://scholar.google.com/my/citations?user=DbbedoMAAAAJ&hl=en>

ORCID ID: A Wesam Al-Mufti (0000-0002-7527-4386)



First: Academic Qualifications.

<i>Academic Degree</i>	<i>University</i>	<i>College</i>	<i>Date</i>
B.Sc	Al-Mustansiriya University	Science	2006
M.Sc	Malaya	Science	2010
Ph.D.	UniMAP	Nano electronic engineering	2016

Second: Professional Experience

<i>No.</i>	<i>Entity (institute/college)</i>	<i>University</i>	<i>Duration</i>
1-	Science	Al-karkh University of Science	2021 – Present
2-	Dept of Quality Assurance and University Performance & Ibn Al-Haytham College	University of Baghdad	2019 - 2021
3-	Medical Technical	Al Rafidain University College	2019
4-	Engineering Technical	Al-Kitab University	2018-2019
5-	Nano electronic engineering	UniMAP	2012-2016

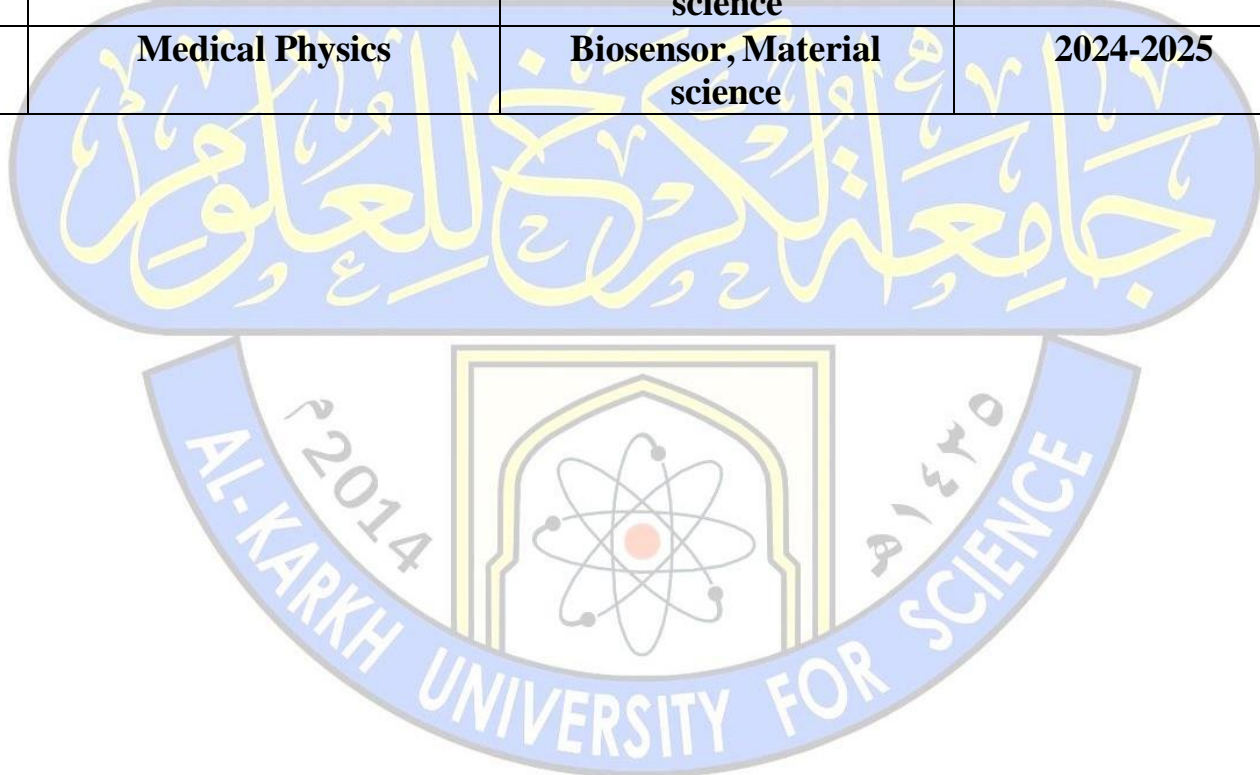
Third: Published research

No.	Subject	Year
1-	<p>A. Wesam Al-Mufti, U. Hashim, Md. Mijanur Rahman & Tijjani Adam, Nano–bio interface: the characterization of functional bio interface on silicon nanowire, <i>Microsystem Technologies</i> DOI 10.1007/s00542-014-2241-5. 2012</p>	2012
2-	<p>M. Wesam Al-Mufti, U Hashim, and Tijjani Adam “Current trend in simulation: Review Nanostructures using Comsol Multiphysics, “<i>Jorurnal of applied science research</i>” 8(12): 5579-5582, 2012</p>	2012
3-	<p>M. Wesam Al-Mufti, U Hashim, and Tijjani Adam “An investigation into distribution of electric potential and space charge in a silicon nanowire, “<i>Zeitschrift Fur Naturforschung Section A-A Journal of Physical Sciences</i>. doi:10.5560/ZNA.2013-0087</p>	2013
4-	<p>Abdulmohaimen Wesam Al-Mufti, Uda Hashim, Tijjani Adam, and Mohamad Zhafran Zakariya (2014), Effect of Ion Concentration on the Conduction of Silicon Nanowire, <i>IEEE</i> doi:10.1109/ISMS. 2014.135,740-743</p>	2014
5-	<p>A. Wesam Al-Mufti, U. Hashim and Tijjan Adam A.H. Azman, A.K.M.Mua and M. A Farehanim (2014) “Field Effect of concentration DNA on conductance of Silicon Nanowire” <i>Advanced Materials Research Journal</i>.</p>	2014

6-	<p>M Wesam Al-Mufti, U Hashim, Mijanur Rahman, Tijjani Adam, AS Ibraheam, AH Azman, AKM Muaz, MA Farehanim (2015) The Field Effect of concentration DNA on conductance of Silicon Nanowire, Advanced Materials Research</p>	2015
7-	<p>Alaa Kamal Yousif Dafhalla, Th S Dhahi, A Wesam Al-Mufti, Sawsan Ali Saad, Abdulrahman Saad Alqahtani, Mudher Ali Hussein Al-nuaimi, Mohamed Elshaikh Elobaid, Tijjani Adam, Subash CB Gopinath (2024), Nanogap nanowires and its applications in biosensing, Sensing and Bio-Sensing Research 100638.</p>	2024
8-	<p>A Wesam Al-Mufti, Th S Dhahi, Alaa Kamal Yousif Dafhalla, Jawaher Suliman Altamimi, Duria Mohammed Ibrahim Zayan, Azath Mubarakali, Abdulrahman Saad Alqahtani, Mohamed Elshaikh Elobaid, Tijjani Adam, MN Afnan Uda, MNA Uda, Subash Chandra Bose Gopinath, U Hashim (2025) Determination of mechanical and vibration properties of SiO001, SiO110, SiO111 nanowires using first principles approach 170-178 , International Journal of Nanoelectronics and Materials.</p>	2025
9-	<p>Abdulmohaimen W. Al-Mufti, Kauakib J. Rasheed Jafer F. Odah Fadhil Y.Hammad (2026), Functionalization and Experimental Investigation of Nanosensors for Single-Molecule DNA Detection Using Molecular Dynamics Simulations, IRAQI JOURNAL OF APPLIED PHYSICS Vol.22, No.1, January-March2026, pp. 45-54.</p>	2026

Fourth: Teaching Experience

No.	Department	Subject	Year
1-	Medical device technologies	Medical Physics	2018-2019
2-	Medical device technologies	Medical instrumentation	2018-2019
3-	Radiology and sonar	Radiation physics	2018-2019
4-	Medical Physics	Medical Physics	2021-2022
5-	Medical Physics	English language	2022-2023
6-	Medical Physics	Scientific research methodology	2022-2023
7-	Medical Physics	Biosensor, Material science	2023-2024
8-	Medical Physics	Biosensor, Material science	2024-2025



Curriculum Vitae (CV)

Name: Mazen Mohammed Mowat

Date and place of birth:

General specialty: Science of Physics

Specialization: Medical Physics

The scientific title: Assistant professor

Affiliation: Al-Karkh University of Science, College of Science,
Medical Physics Department

Mobile No:

Email: mazin.alali@kus.edu.iq

Scopus: <https://www.scopus.com/authid/detail.uri?authorId=57208748701>

Research Gate:

Google Scholar website:

ORCID ID:

LinkedIn:

Web of Science:

First: Academic Qualifications.

Academic Degree	University	College	Date

Second: Professional Experience

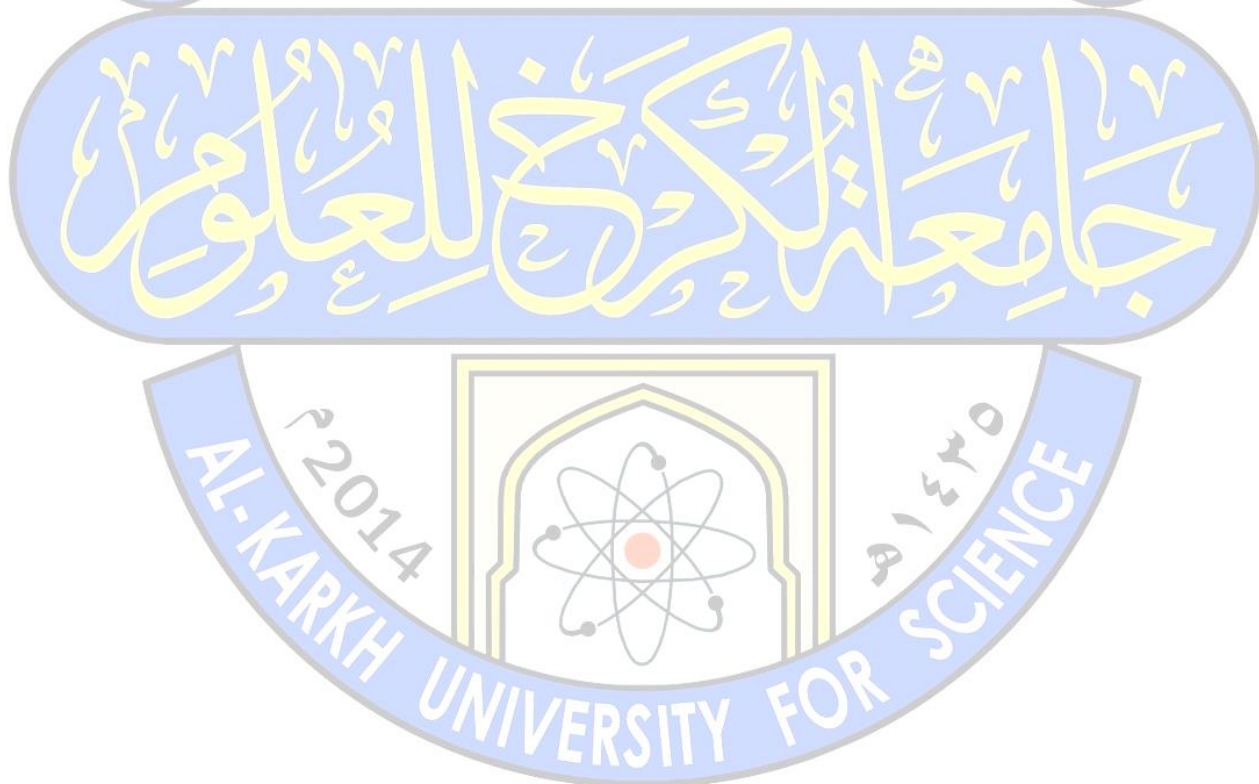
No.	Entity (institute/college)	University	Duration
1-			
2-			

Third: Published research

No.	Subject	Year
1-		
2-		

Fourth: Teaching Experience

No.	Department	Subject	Year
1-			
2-			



Curriculum Vitae (CV)

Name: Mustafa Abdul Karim Mahmood

Date and place of birth:

General specialty: Science of Physics

Specialization: Materials Physics

The scientific title: Assistant professor

Affiliation: Al-Karkh University of Science, College of Science,
Medical Physics Department

Mobile No:

Email: Mustafa.a.mahmood@kus.edu.iq

Scopus: <https://www.scopus.com/authid/detail.uri?authorId=57202468969>

Research Gate:

Google Scholar website:

ORCID ID:

LinkedIn:

Web of Science:

First: Academic Qualifications.

Academic Degree	University	College	Date

Second: Professional Experience

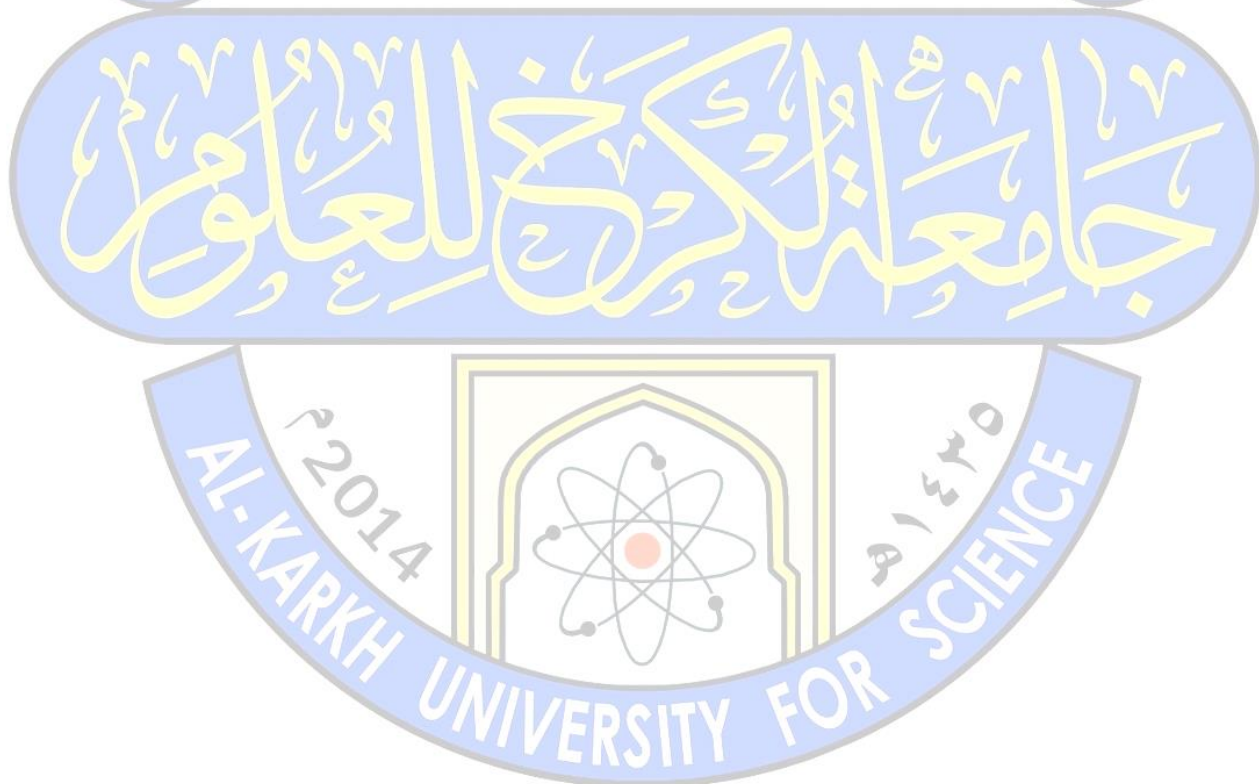
No.	Entity (institute/college)	University	Duration
1-			
2-			

Third: Published research

No.	Subject	Year
1-		
2-		

Fourth: Teaching Experience

No.	Department	Subject	Year
1-			
2-			



Curriculum Vitae (CV)

Name: Kauakib Jafer Rasheed

Date and place of birth: 4/ 5/ 1973 Baghdad

General specialty: *Physic science*

Specialization: Medical physics

The scientific title: *lecturer*



Affiliation: Al-Karkh University of Science - College of Science - Department of Medical Physics

Mobile No:

Email: kewakib.jafar.rasheed@kus.edu.iq

Google Scholar website: <https://myaccount.google.com/?hl=ar>

<https://www.researchgate.net/profile/Kauakib-Rasheed>

ORCID ID: <https://orcid.org/my-orcid?orcid=0000-0001-8339-7856>

First: Academic Qualifications.

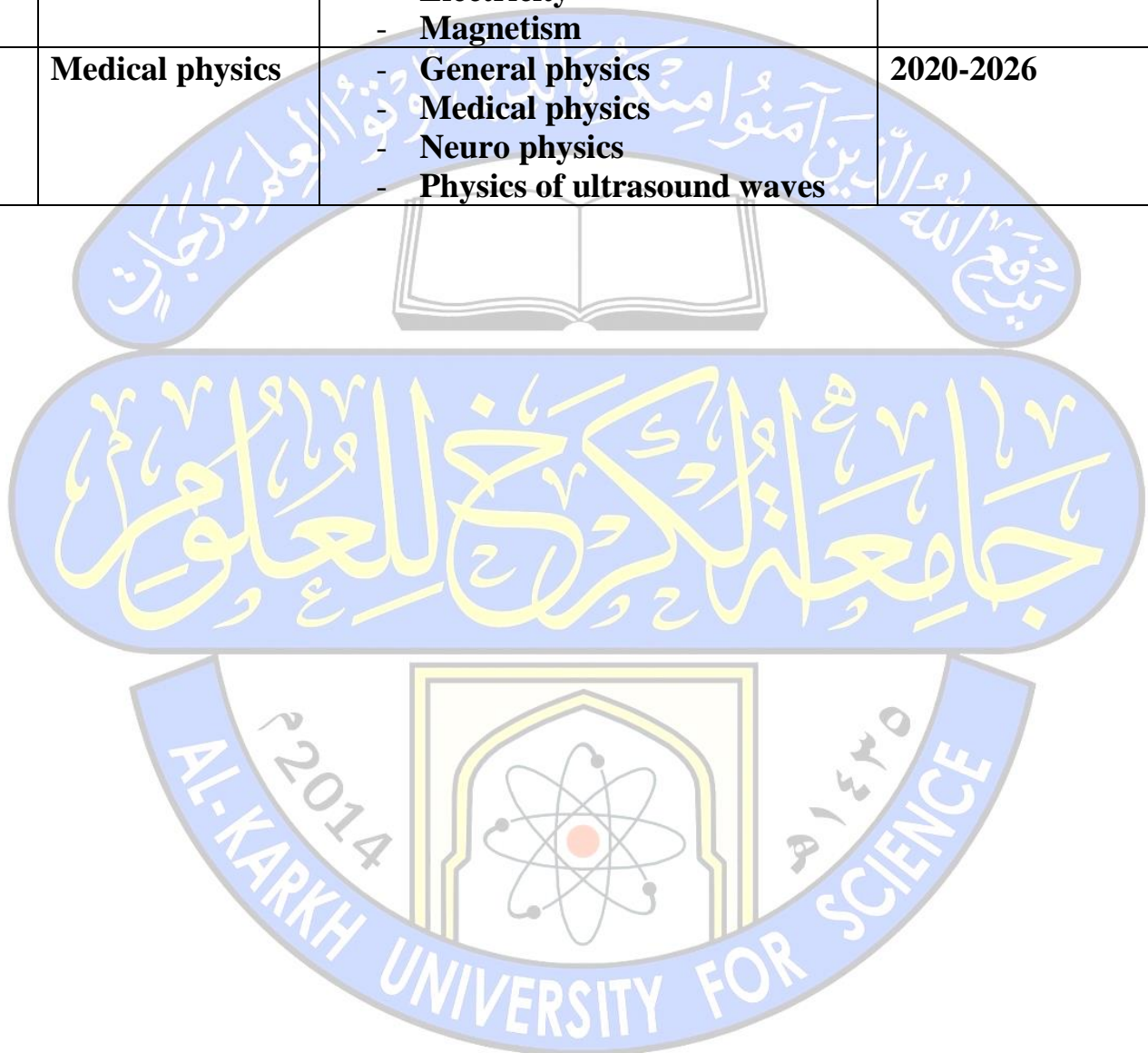
Academic Degree	University	College	Date
B.Sc.	Baghdad University	College of Science	1995
M.Sc.	Mustansiriya University	College of Medicine	2001
Ph.D.			

Second: Professional Experience

No.	Entity (institute/college)	University	Duration
1-	Space Research and Communications Department	Military Industrialization Committee	2001-2003
2-	- satellite center - Department of industrial research and development - Training directors	The Ministry of Science and Technology	2003-2016
3-	- College of Remote sensing and Geophysics/ Geophysics department - College of Science\Department of Medical Physics	Al-Karkh University of Science	2016-2023

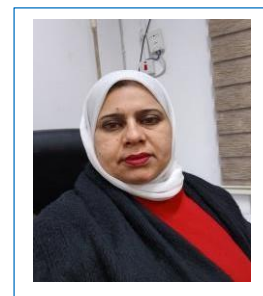
Third: Teaching Experience

No.	Department	Subject	Year
1-	Geophysics	<ul style="list-style-type: none">- General physics- Electricity- Magnetism	2016-2020
2-	Medical physics	<ul style="list-style-type: none">- General physics- Medical physics- Neuro physics- Physics of ultrasound waves	2020-2026



Curriculum Vitae (CV)

Name: Zainab Falih Nazzal
Date and place of birth: 11/9/1980
General specialty: physics of science
Specialization: material
The scientific title: Lecturer



Affiliation: Al-Karkh University of Science, College of Science, Medical Physics
Department

Mobile No: **07763765288**

Email: zainab .f.n.2022@kus.edu.iq

Scopus: <https://www.scopus.com/authid/detail.uri?authorId=57204503568>

Research Gate: zainab.f.nazzal

Google Scholar website:

ORCID ID:

LinkedIn:

Web of Science:

First: Academic Qualifications.

Academic Degree	University	College	Date
BSC	Anbar university	Colleague of science	
MSC	Dyala university	Colleague of science	

Second: Professional Experience

No.	Entity (institute/college)	University	Duration
1-	Physics department /science college	Anbar university	2003-2005
2-	Physics department / science college	Dyala university	2005-2015

3	Medical physics /science college	Alkarkh university	
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Third: Published research

No.	Subject	Year
1-	Physical properties of polymer (pva) doped with cobalt salts	2013
2-	Thermal and electrical properties of (pva-cucl) composite	2019

Fourth: Teaching Experience

No.	Department	Subject	Year
1-	phycsic	Martial. laser .electrical	2005-2015
2-	Material phycsic	Laser . ear and speech principle .photonics	2015-2026

Curriculum Vitae (CV)

Name: Bilal Khalid Jassim

Date and place of birth:

General specialty: Science of Physics

Specialization: Molecular Physics and Atomic
Structure

The scientific title: Lecturer Dr.

Affiliation: Al-Karkh University of Science, College of Science,
Medical Physics Department

Mobile No:

Email: bilal.jasim@kus.edu.iq

Scopus:

Research Gate:

Google Scholar website:

ORCID ID:

LinkedIn:

Web of Science:

First: Academic Qualifications.

Academic Degree	University	College	Date

Second: Professional Experience

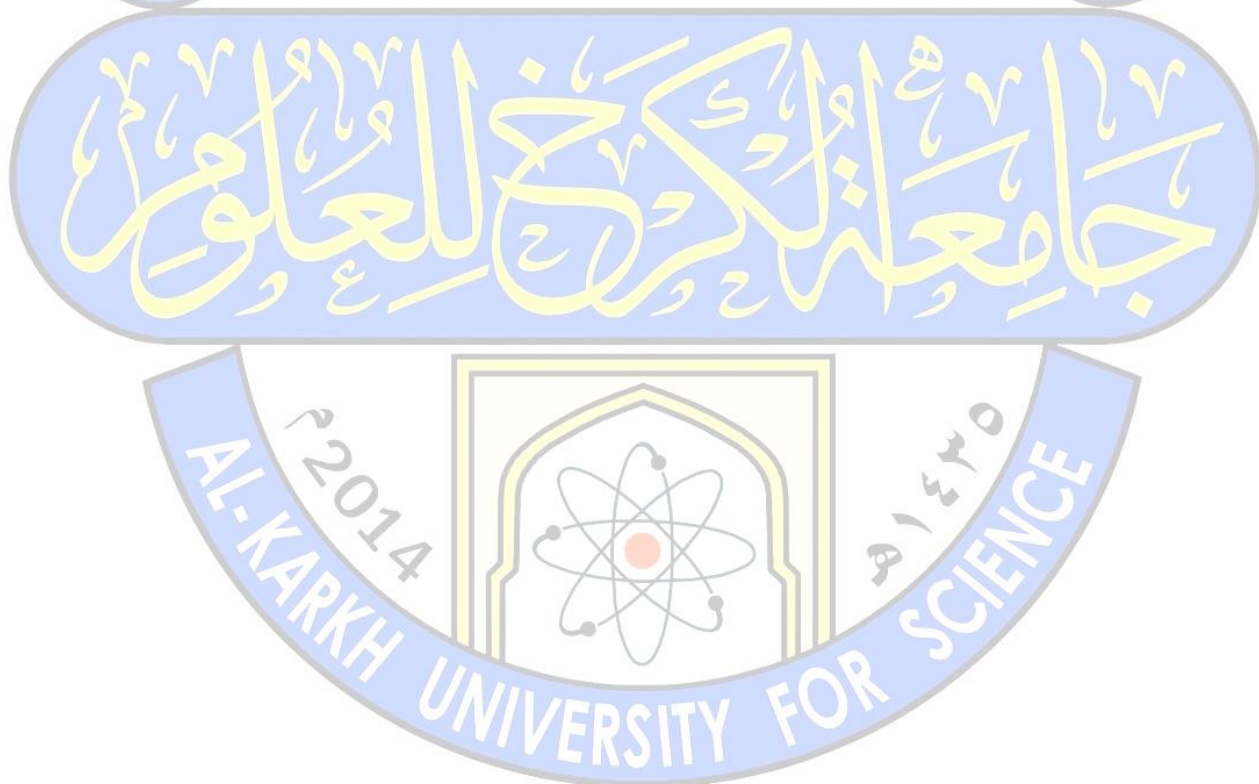
No.	Entity (institute/college)	University	Duration
1-			
2-			

Third: Published research

No.	Subject	Year
1-		
2-		

Fourth: Teaching Experience

No.	Department	Subject	Year
1-			
2-			



Curriculum Vitae (CV)

Name: Dr. Aliaa Majid yahya

Date and place of birth: 1986/ Baghdad

General specialty: Physics

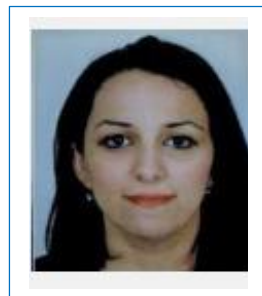
Specialization: Nanotechnology

The scientific title: Lecturer

Affiliation: Medical physics department

Mobile No:

Email: dr.amzaki1@kus.edu.iq



Scopus: <https://www.scopus.com/authid/detail.uri?authorId=57197754082>

Research Gate: https://www.researchgate.net/profile/Aliaa-Zaki?ev=hdr_xprf

Google Scholar website:

<https://scholar.google.com/citations?user=fpqTZ8wAAAAJ&hl=en&authuser=1>

ORCID ID: <https://orcid.org/0009-0002-9156-9616>

LinkedIn:

Web of Science: <https://www.webofscience.com/wos/author/record/MIO-8970-2025>

First: Academic Qualifications.

Academic Degree	University	College	Date
BSc	Al-Mustansirya	Science	2008
MSc	Baghdad	Institute of Laser for Postgraduate studies	2012
PhD	Sheffield	Science	2018

Second: Professional Experience

No.	Entity (institute/college)	University	Duration
1-	College of Science	Al karkh University of Science	2018-Now
2-			

Third: Published research

No.	Subject	Year
1-	"Growth of high quality yttrium iron garnet films using standard pulsed laser deposition technique." <i>Journal of Magnetism and Magnetic Materials</i> 453 (2018): 254-257.	2018
2-	"Study phase structure, cation distribution and magnetic properties of Cobalt, magnesium and copper ferrites." <i>Surface Review and Letters</i> (2025): 2550103.	2025
3-	"Hydrothermal synthesis and surface characterization of ZnO prepared in different conditions." <i>Digest Journal of Nanomaterials and Biostructures</i> 20.4 (2025): 1599-1608.	2025

Fourth: Teaching Experience

No.	Department	Subject	Year
1-	Medical Physics	Mechanics 1+2	2018/2019
2-	Medical Physics	General physics	2019/2020
3-	Medical Physics	Statistical Physics	2019/2020
4-	Medical Physics	Laser Fundamental	2020/2021
5-	Medical Physics	Thermodynamics	2020/2021
6-	Medical Physics	Laser Principle	2021/2022
7-	Medical Physics	Mechanics	2021/2022
8-	Medical Physics	Laser principle	2022/2023
9-	Medical Physics	Laser in Medicine	2022/2023
10-	Medical Physics	Laser Principle	2023/2024
11-	Medical Physics	Laser in Medicine	2023/2024
12-	Medical Physics	Physics of Laser	2024/2025
13	Medical Physics	Laser in Medicine	2024/2025

14-	Medical Physics	English	2025/2026
15	Medical Physics	Physics of Laser	2025/2026



Curriculum Vitae (CV)

Name: Holya A. Lafta

Date and place of birth: 1991

General specialty: Physics Science

Specialization: Thin Films Physics

The scientific title: Lecturer

Affiliation: Al-Karkh University for Science

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Research Gate: https://www.researchgate.net/profile/Holya-Lafta?ev=hdr_xprf

Google Scholar website: <https://scholar.google.com/citations?user=Rm-ilkQAAAAJ&hl=ar>

ORCID ID: <https://orcid.org/0000-0002-0954-5213>

LinkedIn:

Web of Science:

First: Academic Qualifications.

Academic Degree	University	College	Date
B.Sc.	University of Baghdad	College of Science	2013
M.Sc.	University of Baghdad	College of Science	2016
Ph.D	University of Baghdad	College of Science	2019



Second: Professional Experience

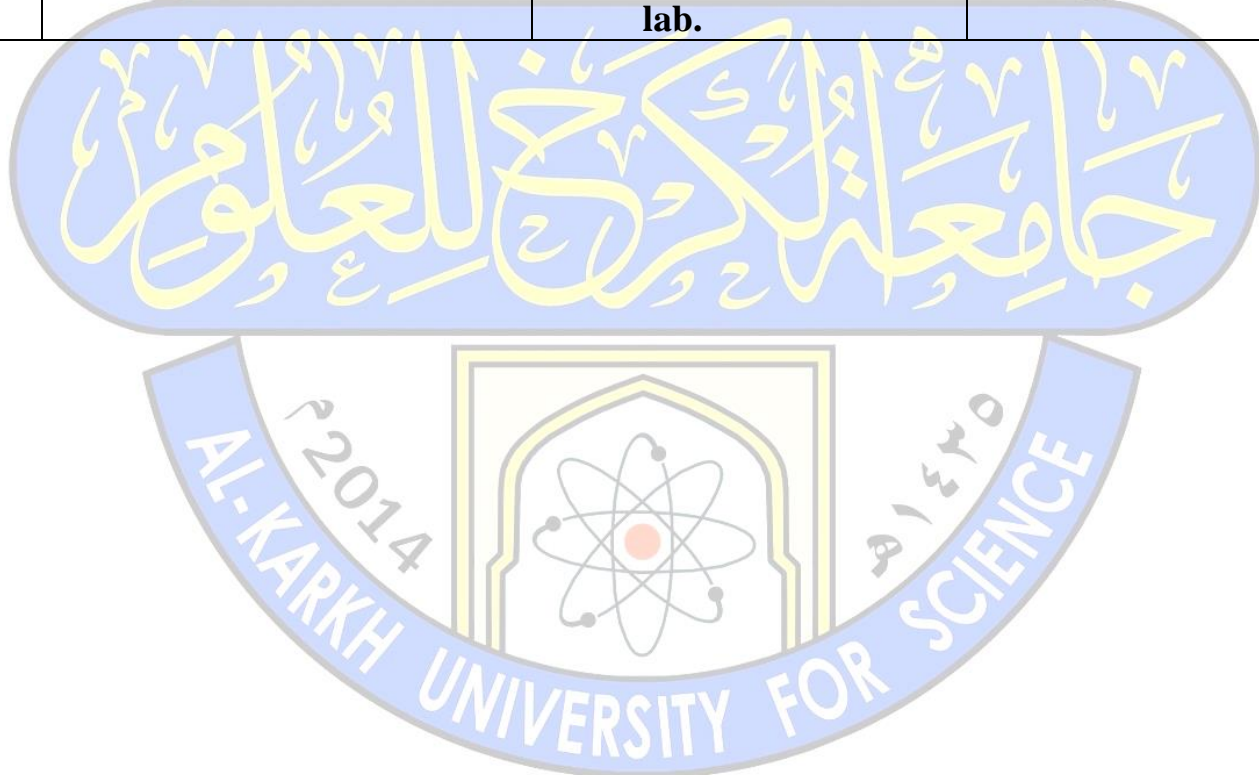
No.	Entity (institute/college)	University	Duration
1-	Iraqi-Germany Center for PET/CT scan and gamma camera for Functional and cancer diagnostics	-	2017-2022
2-	Al-Nisour University	-	2019-2023
3-	Al-Karkh University of Science	-	2023-present

Third: Published research

No.	Subject	Year
1.	The Influence of Thickness and Annealing Temperature on Some Physical Properties of Cu₂SnSe₃ Films	2016
2.	Impact of thickness and heat treatment on some physical properties of thin Cu₂SnS₃ films	2016
3.	Optical and electrical properties of thermally treated hybrid blend ZnPc/CdS thin films	2019
4.	The Structural and Morphological Properties of Heat Treated Hybrid Blend ZnPc/CdS Thin Films	2021
5.	Synthesis and stability of magnetic nanoparticles	2021
6.	Possibility of Silicon Nanocages as Anode Electrodes in Metal-Ion Batteries: Computational Examination	2022
7.	Hydrogen Production from MeOH /H₂O Using MWCNT/UV100-TiO₂ Catalysts	2022
8.	Synthesis and Application UV100/SWCNTs/Pt in Binary and Ternary Composites for Hydrogen Production: Sonochemical / Photodeposition	2022
9.	Synchronization in Chaotic Systems with optical feedback induced by Bias current	2022
10.	The antimicrobial activity of (DBD) homemade plasma jet against Staphylococcus aureus using different gases.	2022
11.	Environmental Removal of brilliant yellow Dye onto Porous Adsorbent Derived from Pomegranate peels Waste	2023
12.	Characterization of Plastic Deformation in CuZr Metallic Glasses Subjected to the Rolling Process	2023
13.	Effect of radiation exposure on function human body by CBC parameter for workers in nuclear medicine field	2023
14.	Effect of CoFe₂O₄ nanoparticles-to-g-C₃N₄ nanosheets weight ratio on the microstructure, phase, magnetic behavior of g-C₃N₄ - Cobalt ferrite nanocomposite material	2024
15.	Using laser ablation at different laser energies for synthesis and characterization of TiO₂ thin films nanoparticles	2026

Fourth: Teaching Experience

No.	Department	Subject	Year
1-	Physics Science Department	Physics department lab.	2014-2016
2-	Radiology Department	<ul style="list-style-type: none"> • Medical and General Physics • Radiological medical device technologies 	2019-2023
3-	Medical Physics Department	<ul style="list-style-type: none"> • Neuro physics • Ultrasound wave physics • Nuclear medicine and radiotherapy lab. • Nuclear physics lab. 	2023-present



Curriculum Vitae (CV)

Name: Dr. Nura Anwer Abdulzahara

Date and place of birth: 1984/ Thi-Qar

General specialty: Physics

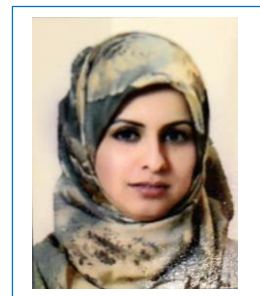
Specialization: Medical physics

The scientific title: Lecturer

Affiliation: Medical physics department

Mobile No:

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Scopus:

<https://www.scopus.com/results/authorNamesList.uri?name=name&st1=Abdulzahara&st2=Nura+Anwer&origin=searchauthorlookup>

Research Gate: <https://www.researchgate.net/profile/Nura-Anwer>

Google Scholar website:

https://scholar.google.com/citations?view_op=new_articles&hl=ar&imq=Nura+Anwer#

ORCID ID: <https://orcid.org/my-orcid?orcid=0000-0001-8746-6011>

LinkedIn:

Web of Science:

First: Academic Qualifications.

Academic Degree	University	College	Date
BSc	Thi-Qar	Science	2006
MSc	Al-Mustansirya	Science	2013
PhD	Al-Mustansirya	Science	2024

Second: Professional Experience

No.	Entity (institute/college)	University	Duration
1-	Faculty of medicine	Thi-Qar	2007-2013
2-	Faculty of engineering /Biomedical engineering	Thi-Qar	2013-2017
3	College of Science	Al karkh University of Science	2017-Now

Third: Published research

No.	Subject	Year
1-	Increase the Capacity Amount of Data Hiding to Least Significant BIT Method	2014
2-	Improvement of Dielectric and Mechanical Properties of Epoxy/SiO ₂ Nanocomposites	2019
3-	Manufacture of Shielding for Attenuation Ionization Ray by the Preparation of Nano Gadolinium Oxide with PMMA	2021
4	Bio-Nanocomposite : Preparation Technology and application Medico-legal Update ,January -march 2021,vol.21,No.1	2021
5	Using laser ablation at different laser energies for synthesis and characterization of TiO ₂ thin films nanoparticles	2026

Fourth: Teaching Experience

No.	Department	Subject	Year
1	Medical Physics/ Faculty of medicine	Medical Physics Lab	2007-2010
2	Biomedical engineering/ Faculty of engineering	English language	2014-2015
3	Electrical Engineering	Electrical lab	2014-2015
4	Biomedical engineering	Computer Lab	2015-2017
5	Biomedical engineering/	X RAY	2016-2017
3-	Medical Physics/ Al karkh University of Science	Statistical Physics lab	2018-2020
4-	Medical Physics	Thermodynamic lab	2029/2020
5-	Medical Physics	Medical imaging lab	2022/2026
6-	Medical Physics	Medical physics lab	2024/2026

Curriculum Vitae (CV)

Name: Nasma Adnan Jaber

Date and place of birth: Baghdad, 1984

General specialty: Ph.D. Applied Science

Specialization: Applied Physics

The scientific title: Lecturer

Affiliation: Al-Karkh University of Science, College of Science,
Medical Physics Department

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Research Gate: <https://www.researchgate.net/profile/Nasma-Adnan>

Google Scholar website: <https://scholar.google.com/citations?user=SQdpZmEAAAAJ&hl=en>

ORCID ID: <https://orcid.org/0000-0001-5537-784X>

LinkedIn: <https://www.linkedin.com/in/nasma-a-jaber-b18a4a226/>

Web of Science: <https://www.webofscience.com/wos/author/record/ADS-1390-2022>

First: Academic Qualifications.

Academic Degree	University	College	Date
B.Sc	Al-Mustansiriya University	College of Science	2007
M.Sc	Al-Mustansiriya University	College of Science	2011
Ph.D.	University of Technology	Department of Applied Science	2018

Second: Professional Experience

No.	Entity (institute/college)	University	Duration
1-	Department of Applied Medical Physics	Mustaqbal University	2020-2023
2-	College of Science	Al-Karkh University of Science	2023

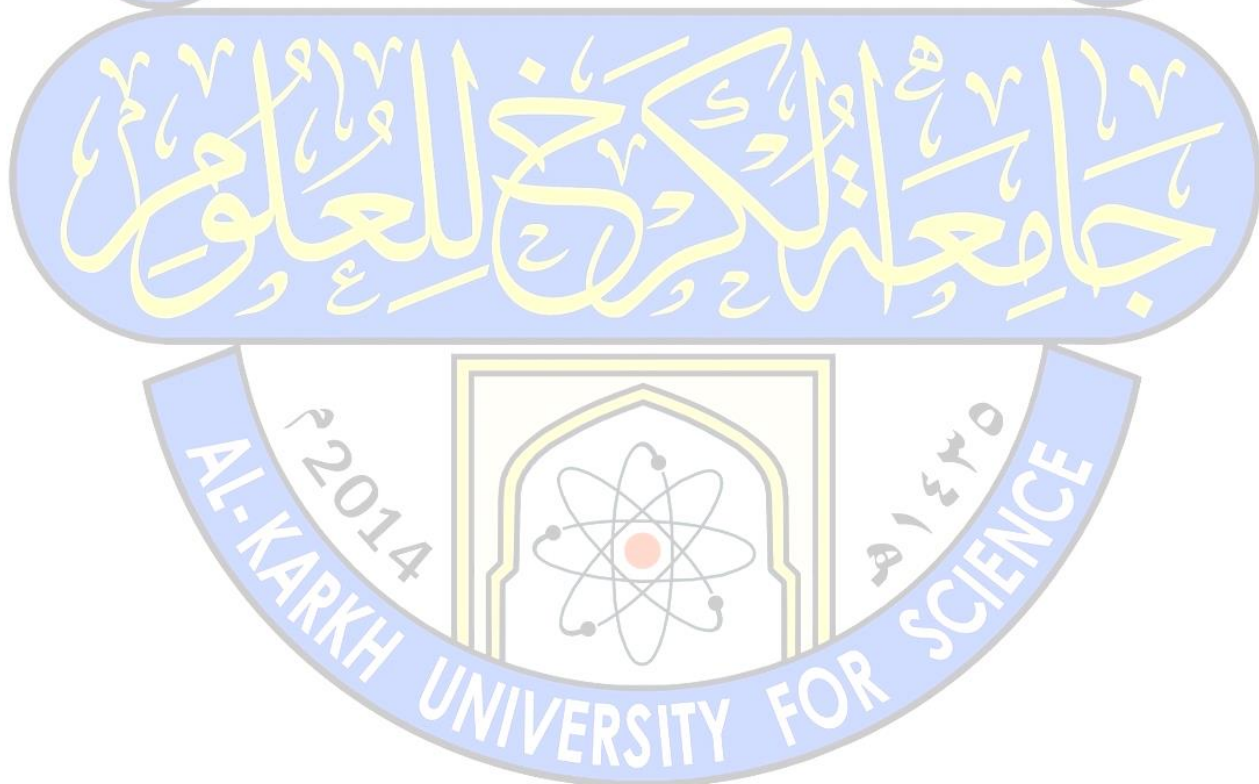
Third: Published research

No.	Subject	Year
1-	Hydrothermal synthesis and surface characterization of ZnO prepared in different conditions	2026
1-	Study Phase Structure, Cation Distribution and Magnetic Properties of Cobalt, Magnesium And Copper Ferrites	2025
2-	The Concentration Effect On Spectral Properties of 2, 3-Dimethylnaphthalene Molecules	2023
3-	BC ₂ N nanotube as a promising anode for rechargeable calcium	2023
4-	Study to molecular insight into the role of aluminum nitride nanotubes on to deliver of 5-Fluorouracil (5FU) drug in smart drug delivery	2022
5-	A review of treatment methods using electrical stimulation	2022
6-	The histological effect of activated aloe Vera extract by microwave plasma on wound healing	2022
7-	Dielectric properties of Li doped Ni-Zn ferrite	2018
8-	Structural and elastic properties of nickel–zinc ferrite nano-particles doped with lithium	2018
9-	Structural and elastic properties of nickel–zinc ferrite nano-particles doped with lithium	2018
10-	Influences of cation distribution of zinc substituted on inverse spinel nickel ferrite nanoparticle for superparamagnetic approach	2017
11-	Studying the viscosity effect on excited dimer formation of (2-Methylnaphthalene)	2011
12-	Self-Absorption Effect on the Spectral Properties of 2-Methylnaphthalene in Different Solvent	2011

Fourth: Teaching Experience

No.	Department	Subject	Year
1-	Applied Medical Physics	Photonics	2020
2-	Applied Medical Physics	Mechanics I	2021
3-	Applied Medical Physics	Biophysics	2021
4-	Applied Medical Physics	Analytic Mechanics	2021
5-	Applied Medical Physics	Physics of Medical Instrumentation II	2022
6-	Applied Medical Physics	Physics of Ultra Sound	2022

7-	Applied Medical Physics	General Physics	2022/2023
8-	Applied Medical Physics	Medical imaging	2022
9-	Applied Medical Physics	Biothermal Physics	2022
10-	Applied Medical Physics	Quantum Mechanics	2023
12-	Medical Physics Department	Mathematics II	2023
13-	Medical Physics Department	Magnetism and Electricity Lab	2023/2024 2025/2026
14-	Medical Physics Department	Physiotherapy Techniques	2024/2025/2026
15-	Medical Physics Department	Semiconductors	2024
16-	Medical Physics Department	Neurophysics	2025



Curriculum Vitae (CV)

Name: Rusul Mohammed Abdullah

Date and place of birth: 1993

General specialty: Physics

Specialization: Thin Films Physics

The scientific title: Lecturer Dr.

Affiliation: Al-Karkh University of Science, College of Sciences,

Department of Medical Physics



Mobile No:

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Scopus: <https://www.scopus.com/authid/detail.uri?authorId=57202457596>

Research Gate: https://www.researchgate.net/profile/Rusul-Abdallah?ev=hdr_xprf

Google Scholar website:

https://scholar.google.com/citations?view_op=list_works&hl=en&user=NaTAtF0AAAAJ

ORCID ID: 0000-0002-0129-953X

LinkedIn:

Web of Science:

First: Academic Qualifications.

Academic Degree	University	College	Date
B.Sc	University of Baghdad	science	2015
M.Sc	University of Baghdad	science	2018
Ph.D.	University of Baghdad	science	2022

Second: Professional Experience

No.	Entity (institute/college)	University	Duration
1-			
2-			

Third: Published research

No.	Subject	Year
1-	Fe ₃ O ₄ @Au@SiO ₂ Core–Shell Nanoparticles: Synthesis, Characterization, Investigations of Its Influence on Cell Lines Using a NIR Laser and an Alternating Magnetic Field	2022
2-	Magnetic, Optical Properties of Magnetite Nanoparticle Synthesized in Different Parameters	2022
3-	Optical and Morphology Properties of the Magnetite (Fe ₃ O ₄) Nanoparticles Prepared by Green Method	2021
4-	Optical and Morphology Properties of the Magnetite (Fe ₃ O ₄) Nanoparticles Prepared by Green Method	2018

Fourth: Teaching Experience

No.	Department	Subject	Year
1-	Medical Physics	medical physics lab 4	2021-2022-2023-2024-2025-2026
2-	Medical Physics	medical physics lab 3	2021-2022-2023-2024-2025-2026
3-	Medical Physics	medical physics2	2021-2022-2023-2024-2025-2026
4-	Medical Physics	General Physics lab	2021
5	Medical Physics	Mechanic	2024-2025

Curriculum Vitae (CV)

Name: Ali Kitab Attia

Date and place of birth: Najaf 15/08/1990

General specialty: Science of Physics

Specialization: Physics

The scientific title: Lecturer Dr.

Affiliation: college of science

Mobile No: **07831025421**

Email: ali.kitab@kus.edu.iq

Scopus: <https://www.scopus.com/authid/detail.uri?authorId=57225090660>

ORCID ID: <https://orcid.org/0000-0003-0023-1653>



First: Academic Qualifications.

Academic Degree	University	College	Date
B.Sc	Kufa	Physics	2016
M.Sc	Kufa	Physics	2019
Ph.D.	Al-Mustansiriya	Physics	2024

Second: Professional Experience

No.	Entity (institute/college)	University	Duration
1-	Materials	University of Kufa	2017-2018
3-	College of Science –Medical physics department	Al Karkh University Of Science	2022-

Third: Teaching Experience

No.	Department	Subject	Year
1-	University of Kufa, College of Science, Department of Physics	Materials lab	2017-2018
7-	Al Karkh University Of Science- College of Science –Medical physics department	Thermodynamics lab	2022
	Al Karkh University Of Science- College of Science –Medical physics department	Mathematics	2023
	Al Karkh University Of Science- College of Science –Medical physics department	Environmental pollution	2024
	Al Karkh University Of Science- College of Science –Medical physics department	General physics	2025



Curriculum Vitae (CV)

Name: Dr. Alyaa Abdulrazzaq Abduljabbar

Date and place of birth: 18-12-1983

General specialty: physics

Specialization: nuclear and environment

The scientific title: lect.Dr.

Affiliation: Al-Karkh University of Science – Department of Medical Physics

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H-index 2

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ORCID ID: <https://orcid.org/0009-0001-9365-7946>

LinkedIn: www.linkedin.com/in/alyaa-abdalrazaq-30634425b?utm_source=share&utm_campaign=share_via&utm_content=profile&utm_medium=android_app

Google scolar

scholar.google.com/citations?hl=ar&user=839GAAMAAAJ&view_op=list_works

First: Academic Qualifications.

Academic Degree	University	College	Date
Ph.D	Baghdad	College of science	2017
M.Sc	Baghdad	College of science	2011
B.Sc	Baghdad	College of science	2009

Second: Professional Experience

No.	Entity (institute/college)	University	Duration
1-	College of Science	University of Baghdad	2011
2-	Al-Musayyib Technical Institute	Middle Euphrates Technical University	2015

	Middle Technical University		2018
	Fallujah University	Fallujah University	2021
	Scientific Research Department	Ministry of Science and Technology	2012-2023
	Department of Medical Physics	Al-Karkh University of Science	2024

Third: Published research

1-Radiation Physics and Chemistry 239 (2026) 113397

Influence of irradiation on the corrosion resistance of medical stainless-steel alloys coated with nickel-titanium layers,2025

2- Journal of Nuclear Engineering and Radiation Science, 2025, 11(4), 042002

Measurement of Radioactivity Levels and Internal Hazard Indices for Intravenous Medicinal

3- International Journal of Scientific Research in Science, Engineering and Technology

Effects of Lithium Incorporation on the Morphological, Optical, and Sensing Properties of ZnO Thin Films Synthesized By Chemical Spray Pyrolysis ,2025

4- Indian Journal of Physics, 2020, 94(3), pp. 379–390

Nuclear Structure Of the even -even rare earth ER-OS nuclei for N=102

5- Iop Conference Series Materials Science and Engineering, 2020, 928(7), 072149

Properties of O(6) -U(5) transition symmetry for cd isotopes in IBM,2020

6- Journal of Physics Conference Series, 2019, 1279(1), 012006

The effect on Leaching Rate of y and Ce Doped in Glass and Glass-Ceramic

7- Iop Conference Series Materials Science and Engineering, 2020, 928(7), 072088

Some Electromagnetic Transition Properties of Odd -A Palladium isotopes, 2020

8- Turkey Science 2017, 62, 04532198

Measurement of the uranium concentration in adult teeth by CR-39 detector at Karbala city

9- Journal of Engineering and Applied Sciences, 2018, 13(10), pp. 3377–3380

Effect of neutron irradiation on ceramic oxides immobilized by phosphate glass.

10-
_Effects_of_Lithium_Incorporation_on_the_Morphological_Optical_and_Sensing_Properties_of_ZnO_Thin_Films_Synthesized_By_Chemical_Spray_Pyrolysis?_tp=ey

11 Properties_of_even_220-230_Ra_isotopes_by_means_of_IBM-1_IBM-2_and_NE_2026

Fourth: Teaching Experience

No.	Department	Subject	Year
1-	Radiotherapy		
2-	- Environmental protection through peaceful nuclear technologies		



Curriculum Vitae (CV)

Name: Mustafa Kadhum Abid

Date and place of birth: Baghdad – 1990

General specialty: Science of Physics

Specialization: Materials Physics

The scientific title: Lecturer Doctor

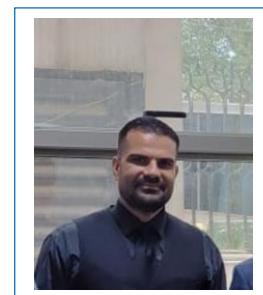
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Research Gate: <https://www.researchgate.net>

Google Scholar website:

ORCID ID: 0000-0003-4652-7586

LinkedIn:

Web of Science:

First: Academic Qualifications.

Academic Degree	University	College	Date
BSC	Baghdad	Science	2014
MSC	Baghdad	Science	2016
PhD	Baghdad	Science	2016

Second: Professional Experience

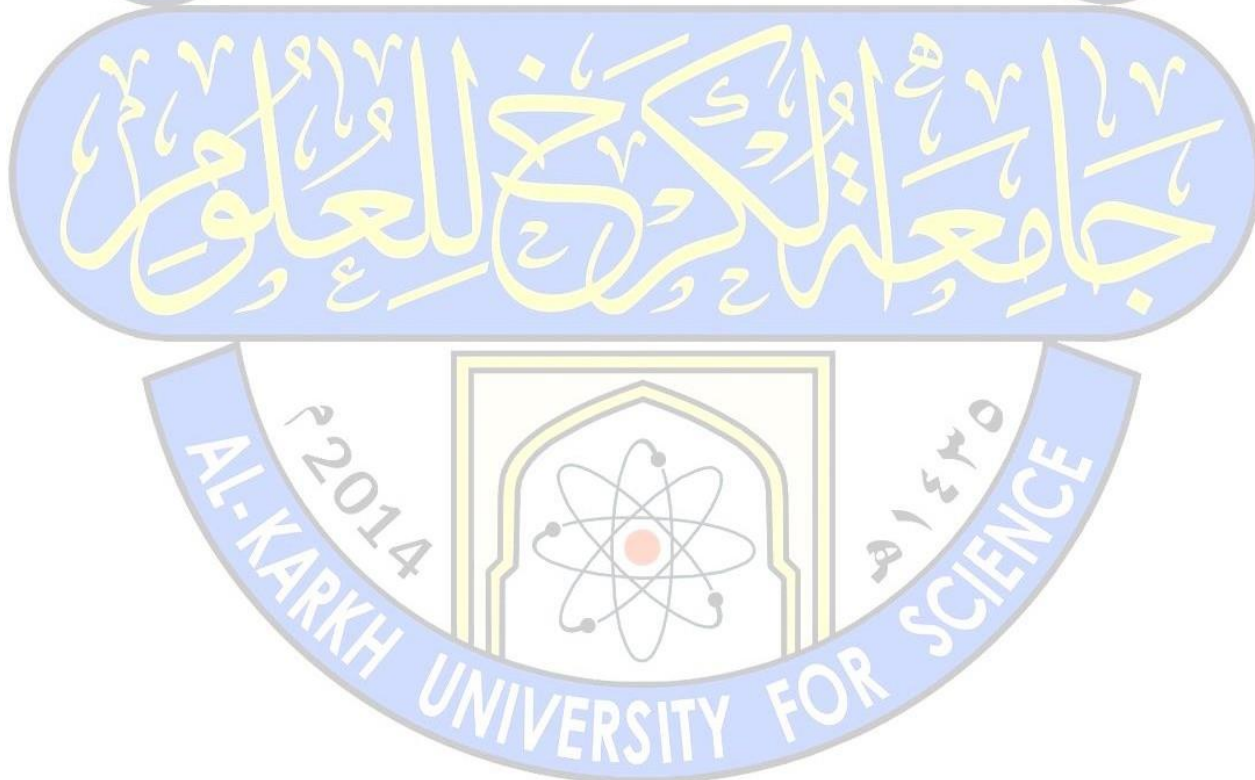
No.	Entity (institute/college)	University	Duration
1-			
2-			

Third: Published research

No.	Subject	Year
1-		
2-		

Fourth: Teaching Experience

No.	Department	Subject	Year
1-			
2-			



Curriculum Vitae (CV)

Name: **Dr. Haider Ghani Abdul-zahra Hashem**

Date and place of birth: 3/9/1984

General specialty: Iraqi

Specialization: Applied Physics

The scientific title: Lecturer

Affiliation: University of AL- karkh – College of science

Mobile No: **07747778302**

Email: haider.ghani8@kus.edu.iq

Scopus: <https://www.scopus.com/authid/detail.uri?authorId=57222515753>

Research Gate: <https://www.researchgate.net/profile/Haider-Abdulzahraa>

Google Scholar website:

scholar.google.com/citations?view_op=new_articles&hl=ar&imq=Haider+G.+Abdulzahraa

ORCID ID: 7001-2973-0002-0000

LinkedIn:

Web of Science:

First: Academic Qualifications.

Academic Degree	University	College	Date
Bachelor degree	University of Technology	College of Applied science	2005 - 2026
Master degree	University of G. G. S Indraprastha	College of Engineering Physics	2010- 2011
Doctorate degree	University of Technology	College of Applied science	2016- 2017

Second: Professional Experience

No.	Entity (institute/college)	University	Duration
1-			



Third: Published research

No.	Subject	Year
1-	Effects of the surface of solar-light photocatalytic activity of Ag-doped TiO ₂ nanohybrid material prepared with a novel approach	2021
2-	Electron transport layer engineering with rubidium chloride alkali halide to boost the performance of perovskite absorber layer	2021
3-	Reinforcing Glaze Layer of Restorative Dental Zirconia by Adding Nano Alumina Ceramics	2021
4-	Lithium chloride-based interface engineering at electron transport and perovskite layers to boost the performance of perovskite photovoltaics	2022
5-	Tin oxide/reduced graphene oxide hybrid as a hole blocking layer for improving 2D/3D heterostructured perovskite-based photovoltaics	2022
6-	Introduction of cadmium chloride additive to improve the performance and stability of perovskite solar cells	2022
7-	Improving photovoltaic stability and efficiency of hole-transporting layer-free perovskite solar cells with benzhydroxamic acid additive	2023
8-	Improving the efficiency of perovskite photovoltaics using a hierarchical 2D/3D/2D structure	2025

Fourth: Teaching Experience

No.	Department	Subject	Year
1-	Department of anesthesia and intensive care techniques	Medical physics	2018-2019
2-	Department of medical physics	Introduction to medical physics	2018-2019
3-	Department of prosthodontic	Dental material	2020-2021
4-	Department of medical physics	Fundamentals of Computer Science	2025-2026

Curriculum Vitae (CV)

Name: Nora Hekmat Mutasher

Date and place of birth:

General specialty: Science of Physics

Specialization: Laser and Molecular Physics

The scientific title: Lecturer Dr.

Affiliation: Al-Karkh University of Science, College of Science,
Medical Physics Department

Mobile No:

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Scopus:

Research Gate:

Google Scholar website:

ORCID ID:

LinkedIn:

Web of Science:

First: Academic Qualifications.

Academic Degree	University	College	Date

Second: Professional Experience

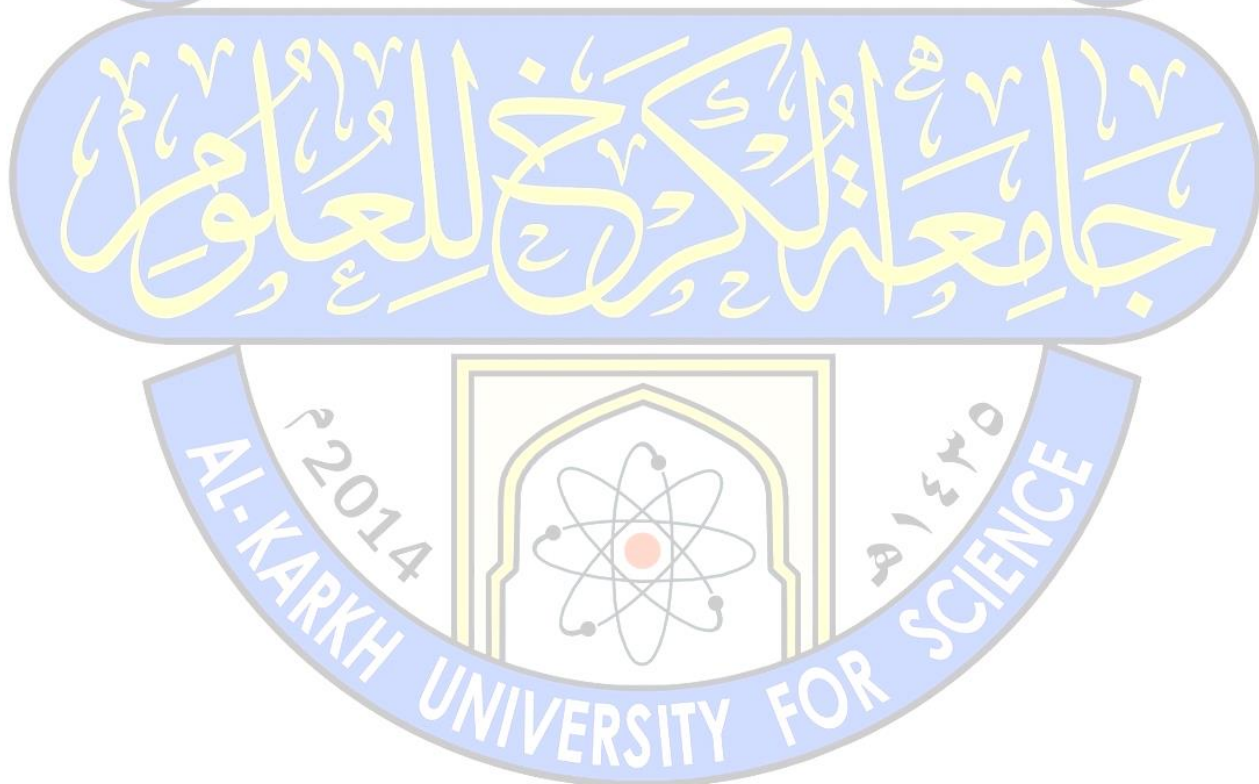
No.	Entity (institute/college)	University	Duration
1-			
2-			

Third: Published research

No.	Subject	Year
1-		
2-		

Fourth: Teaching Experience

No.	Department	Subject	Year
1-			
2-			



Curriculum Vitae (CV)

Name: Farah Abdul Al-kafi Lazem

Date and place of birth: 15/3/1993 Baghdad

General specialty: physics

Specialization: Laser and Optoelectronic

The scientific title: Lecturer Dr.

Affiliation: Department of Medical Physics, College of Science, Al-Karkh University for Science, Iraq

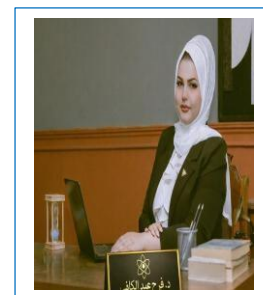
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Scopus: <https://www.scopus.com/authid/detail.uri?authorId=57204503568>

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-https://www.researchgate.net/profile/Farah-Lazem?ev=hdr_xprf



First: Academic Qualifications.

Academic Degree	University	College	Date
PhD	Baghdad University	College of Science for Women	2025
MSc	Baghdad University	College of Science	2021
	Baghdad University	College of Science	2015

Research Interest

- 1- Plasma application.**
- 2- gliding arc reverse vortex flow Plasma System. Optical fiber micro resonators.**
- 3- Whispering gallery mode applications.**
- 4- Medical image processing.**
- 5- Medical imaging.**

Publicatio	<ol style="list-style-type: none"> 1. Construction and spectral characterization of the gliding arc reverse vortex flow plasma system at atmospheric pressure.
ns	<p>InJournal of Physics: Conference Series 2021 Jul 1 (Vol. 1963, No. 1, p. 012084). IOP Publishing.</p> <ol style="list-style-type: none"> 2. The Thermal Properties of Gliding arc Plasma Produced by Laboratory Reverse Vortex Flow System. Iraqi Journal of Physics. 2021 Sep 1;19(50):1-8. 3. A low-cost gliding arc reverse vortex flow plasma system for laboratory purposes. InAIP Conference Proceedings 2022 Nov 8 (Vol. 2394, No. 1). AIP Publishing. 4. Terahertz Whispering Gallery Mode Resonators: Influence of Geometric Properties on Spectral Performance for Sensing Applications(accepted). 5. Whispering Gallery Mode Resonators in the Terahertz Range: A Review of Challenges and Prospects(under review). 6. Mathematical Modeling of Whispering Gallery Mode Resonators for High-Sensitivity Refractive Index Sensing(under review).
Conferenc es	<ol style="list-style-type: none"> 1-2nd international conference of physics and applied science. 2- 1st samarra international conference for pure and applied science.

Teaching Experience	<p>1- Medical image analysis subject, fourth stage, Department of Medical Physics, College of Science, Al-Karkh University. 2021, 2022, 2023, 2024, 2025</p> <p>2- Medical image processing subject, fourth stage, Department of Medical Physics, College of Science, Al-Karkh University. 2021, 2022, 2023, 2024, 2025</p> <p>3- Physics of Medical Devices, third stage, Department of Medical Physics, College of Science, Al-Karkh University.</p>
	<p>4- Medical imaging subject, second stage, Department of Medical Physics, College of Science, Al-Karkh University</p> <p>5- Digital electronics subject, fourth stage, Department of Medical Physics, College of Science, Al-Karkh University.</p> <p>6- Supervising several graduation research papers for the fourth stage in the Department of Medical Physics, Al-Karkh University of Sciences 2022, 2023, 2024, 2025.</p>
Work experience	<p>1- In the field of teaching for the preparatory and middle stages of teaching physics and mathematics for the years 2017, 2018.2019.</p> <p>2- the field of university teaching and scientific research since 2021 after obtaining a master's degree at Al-Karkh University of Science.</p>
Language	Arabic -mother tongue, and English.
Skills	<p>-Good user of the computer, Microsoft program, primary MATLAB, COMSOL multiphysics, Use of medical devices for CT and X-ray imaging, Work on plasma systems.</p> <p>-I have skills in working under pressure and with a working group.</p>

Curriculum Vitae (CV)

Name: Aws Khelil Mohammed

Date and place of birth: 5/1/1991

General specialty: Physics Science

Specialization: Laser and Electro-optics

The scientific title: Assistant Lecturer

Affiliation: University of Al-Karkh, College of Science, Dept. of Medical Physics.

Mobile No:

Email: aws91kh@kus.edu.iq



Scopus:

Research Gate: <https://www.researchgate.net/profile/Aws-Mohammed-3>

Google Scholar website:

ORCID ID: <https://orcid.org/my-orcid?orcid=0009-0004-5460-1140>

LinkedIn:

Web of Science:

First: Academic Qualifications.

Academic Degree	University	College	Date
B.Sc	Baghdad	Science	2012
M.Sc	Baghdad	Science	2015

Second: Professional Experience

No.	Entity (institute/college)	University	Duration
1-	College of Science	Al-Karkh University	Three years
2-	Sama Baghdad High school		Seven years

Third: Published research

No.	Subject	Year
1-	Using laser ablation at different laser energies for synthesis and characterization of TiO ₂ thin films nanoparticles.	2026
2-	Using Silica Shell to Improve the Surface of Magnetite Prepared by Biosynthesis Method.	2024

Fourth: Teaching Experience

No.	Department	Subject	Year
1-	Medical Physics	Laser Lab.	2023-
2-	Medical Physics	Electricity and Magnetism	2025
3-	Medical Physics	Medical devices Lab.	2025
4-	Medical Physics	Nuclear medicine Lab	2025
5-	Medical Physics	General Physics Lab.	2023-2025
6-	Medical Physics	Mechanics Lab.	2026
7-	Medical Physics	Atomic Physics Lab.	2025-2026



Curriculum Vitae (CV)

Name: Dania Dhafer Hameed Al-Abd

Date and place of birth: 12/12/1994 Baghdad Al- Kadhimiya

General specialty: Master of physiology - Medical physics

Specialization: Medical Physics

The scientific title: Assistant Lecturer

Affiliation: Department of Medical Physics College of science, Al-Karkh University of Science

Mobile No: **07904715671**

Email: danyaphy24@kus.edu.iq

Scopus:

<https://www.scopus.com/authid/detail.uri?authorId=58655416600&origin=recordpage>

Research Gate: https://www.researchgate.net/profile/Dania-Dhafer-Hameed?ev=hdr_xprf

Google Scholar: <https://scholar.google.com/citations?user=tl0gO5kAAAAJ&hl=ar>

ORCID ID: <https://orcid.org/0009-0000-4565-5279>

LinkedIn: <https://www.linkedin.com/in/dania-dhafer-hameed-1a1834377?trk=contact-info>

Web of Science:

First: Academic Qualifications.

Academic Degree	University	College	Date
B.Sc	Baghdad University	College of science for women	2015-2016
M.Sc	Al-Nahrain University,	College of Medicine	2020

Second: Professional Experience

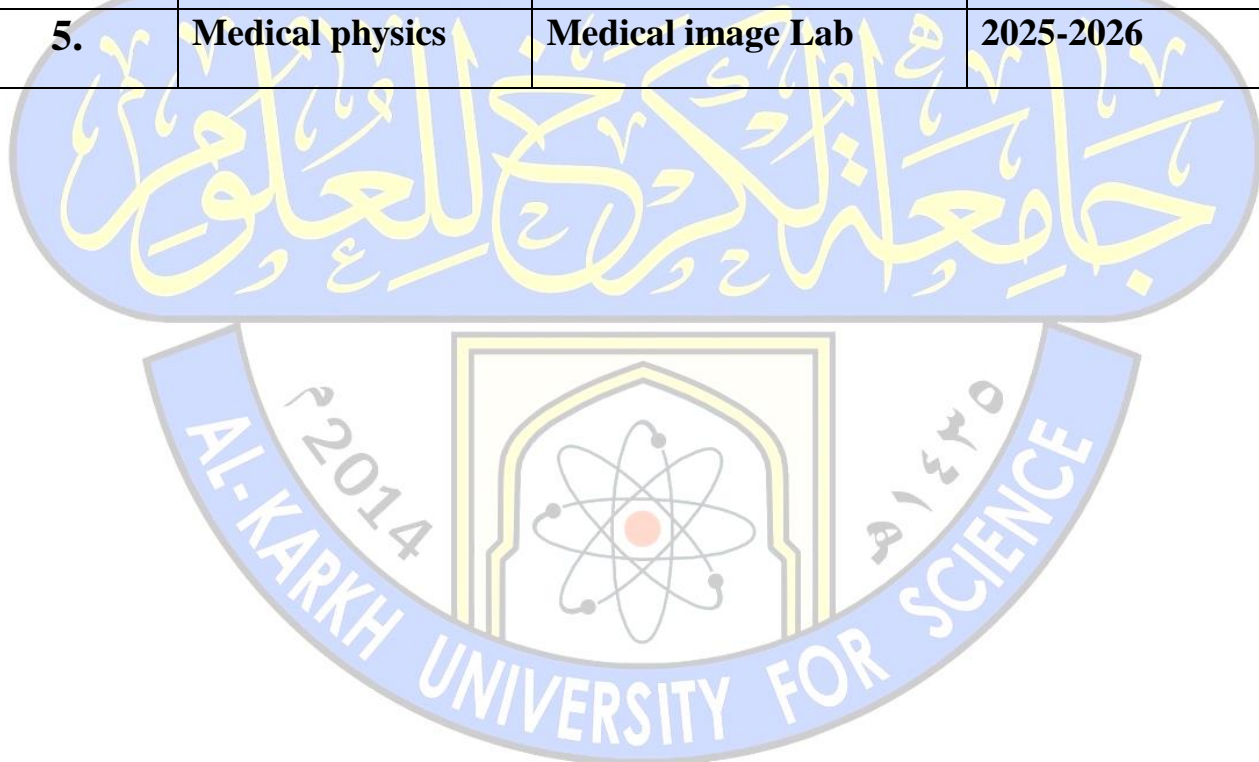
No.	Entity (institute/college)	University	Duration
1.	College of science	Al-Karkh University of Science	2022-2023

Third: Published research

No.	Subject	Year
1.	Tuning Energetic Disorder and Charge Transport in P3HT: PCBM Based Solar Cells Using Phthalocyanine Derivatives	2026

Fourth: Teaching Experience

No.	Department	Subject	Year
1.	Medical physics	Physiotherapy techniques	2022-2023
2.	Medical physics	Medical Physics Laboratory	2022-2023
3.	Geophysics	Principles of Electromagnetic Lab	2024-2025
4.	Medical physics	Medical physics Lab	2025-2026
5.	Medical physics	Medical image Lab	2025-2026



Curriculum Vitae (CV)

Name: WAEL ALI SAEED

Date and place of birth: ALANBAR 1991

General specialty: Physics

Specialization: materials science and nanoengineering

The scientific title: Assist. Lec.

Affiliation: Al Karkh University of Sciences KUS: Baghdad,
Iraq, IQ - Medical Physics



Mobile No:

Email: wael.ali@kus.edu.iq

Scopus: <https://www.scopus.com/authid/detail.uri?authorId=57204695017>

Research Gate: https://www.researchgate.net/profile/Wael-Aldulaimi-2?ev=hdr_xprf

Google Scholar website:

<https://scholar.google.com/citations?user=oGo3ec8AAAAJ&hl=ar>

ORCID ID: <https://orcid.org/0000-0001-7709-9457>

LinkedIn:

Web of Science:

First: Academic Qualifications.

Academic Degree	University	College	Date
B.Sc.	Baghdad	College of Science	2012
M.Sc.	Baghdad	College of science	2015
PhD	Sabancı	Engineering and Natural Sciences	2022

Second: Professional Experience

No.	Entity (institute/college)	University	Duration
1-	College of Science /Medical Physics	University of Mashreq	2023-2024

2-	College of Science /Medical Physics	Al Karkh University of Sciences	2024-
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Third: Published research

No.	Subject	Year
1-	Polymer bridging induced by a single additive imparts easy-to-implement green machinability to yttria-stabilized zirconia (2021)	2021
2-	Chirality switching in ferromagnetic nanostructures via nanosecond electric pulses (2021)	2021
3-	Loss of spin polarization in ferromagnet/ferroelectric tunnel junctions due to screening effects (2018)	2018
4-	Size driven barrier to chirality reversal in electric control of magnetic vortices in ferromagnetic nanodiscs (2023)	2023
5-	Switching analysis of magnetic vortices in reduced dimensions under pulsed electric fields WAS Al-dulaimi (2022)	2022
5-	Chirality Switching in Ferromagnetic Nanostructures Via Nanosecond Electric Pulses (2021)	2021
7-	Rheological Control Enables Printing of Ultra-Lightweight Cement Composite for Warmer Climate (2019)	2019
8-	Loss of spin polarization of tunnelling currents due to electrostatic screening at magnetoresistive ferromagnet/ferroelectric tunnel junctions (2019)	2019
9-	ENHANCEMENT THE THERMAL PROPERTIES OF EPOXY/ CUO NANO COMPOSITES	2026
10-	Structural and photocatalytic insights into anatase TiO ₂ nanostructure for dye degradation	2026

Fourth: Teaching Experience

Course Name	General Specialization	Study Level	Academic Year
Mechanics	Physics / Medical Physics	First level	2023–2024
Diagnostic Radiology	Medical Physics	Third level	2023–2024
Thermodynamics	Physics / Medical Physics	Second level	2023–2024
Acoustics	Medical Physics	Second level	2022–2023
Nuclear Medicine Physics	Medical Physics	Third level	2022–2023

Introduction to Materials Science	Materials Science and Nanotechnology	Second level	2018–2022
Electrical Laboratory	Medical Physics	First level	2024–2025
Atomic Laboratory	Medical Physics	Second level	2024–2025
Mechanics Laboratory	Medical Physics	First level	2024–2025
Magnetism Laboratory	Medical Physics	First level	2024–2025
Computer applications	Medical Physics	Second level	2025-2026
Atomic Laboratory	Medical Physics	Second level	2025–2026
Computer Lab.	Medical Physics	First level	2025-2026

Conference

title: Single polymer additive enables the processing of 3- yttria-stabilized zirconia nanoparticles	35 international conference of the polymer processing society
Control of chirality of magnetic nanostructures via electrodynamics coupling of time varying electric field pulses	Electroceramics XVII conference
Control of Chirality in Magnetic Nanostructures via Nanosecond Electric Pulses	MATERIALS RESEARCH SOCIETY MRS

Scholarships

Sabancı University, graduate program, Full scholarship	2022-2018
Tubitak project, no 117F042	2020-2018

Curriculum Vitae (CV)

Name: Akram Abdullah khalaf

Date and place of birth: 1989 Baghdad

General specialty: physics

Specialization: laser applications

The scientific title: Assist. Lec.

Affiliation: College of Science – Medical physics department

Mobile No: 077034420115

Email: akram.abdullah@kus.edu.iq

Scopus: <https://www.scopus.com/profile/Akram-A.-Khalaf>

Research Gate: <https://www.researchgate.net/profile/Akram-Khalaf-3>

Google Scholar website: <https://scholar.google.com/citations?user=g1r8Z8wAAAAJ&hl=ar>



First: Academic Qualifications.

Academic Degree	University	College	Date
B.Sc.	Baghdad	Ibn Al-Haitham	2011
M.Sc.	Tikrit	Education for pure sciences	2014

Second: Professional Experience

No.	Entity (institute/college)	University	Duration
1-	Applied sciences	University of Technology	2015-2016
2-	Optics techniques department	Al-farabi	2021-2023

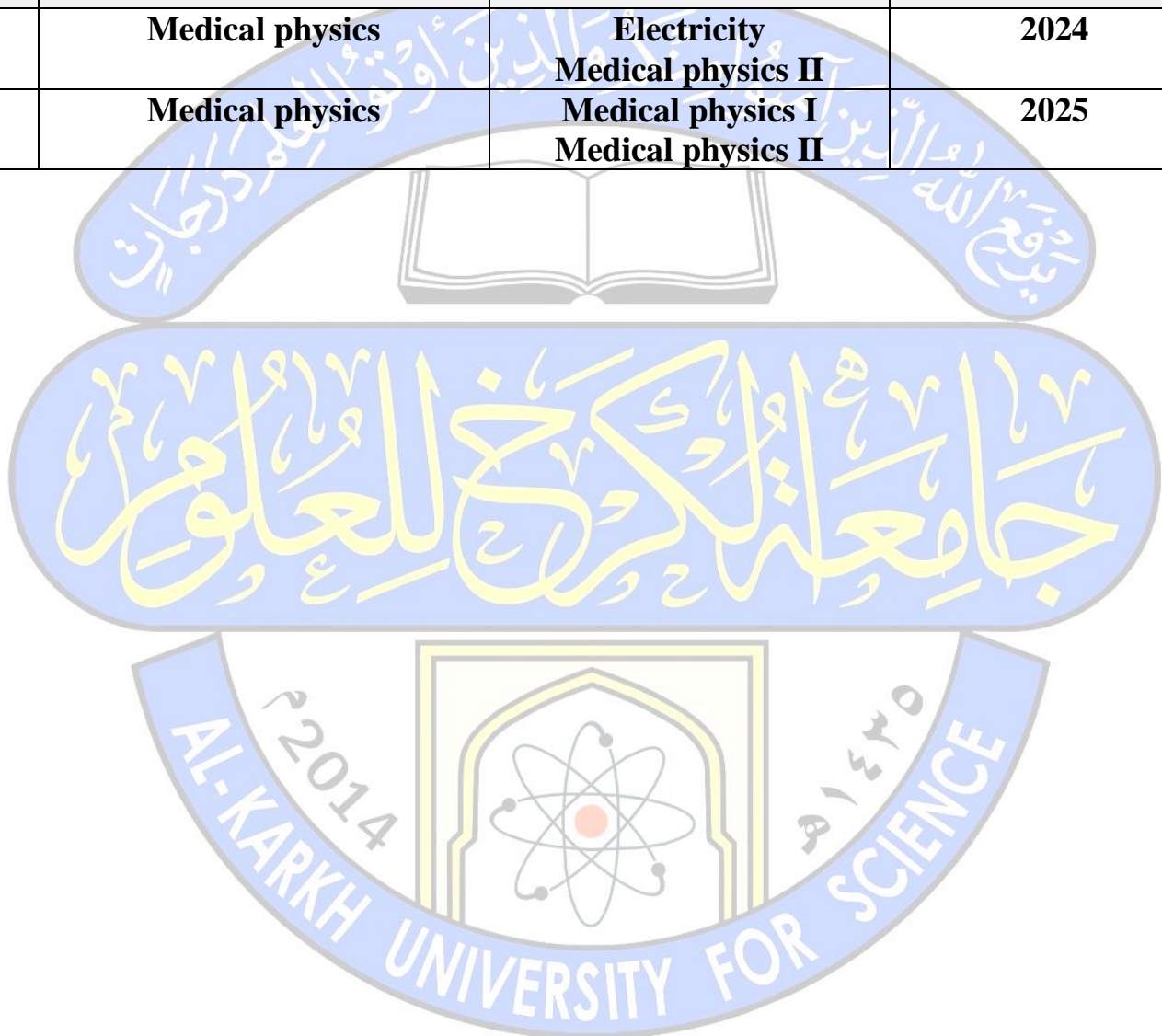
Third: Published research

No.	Subject	Year
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1-	Development of a High Selectivity Biosensor for Rapid Detection of COVID-19 Using Interdigitated Electrode (IDE) Probe Target Hybridization	2025
2-	The Comprehensive Epidemiological Study on Cancer Patterns in Iraq: A National Analysis of Gender and Geographical Disparities	2026

Fourth: Teaching Experience

No.	Department	Subject	Year
1-	Medical physics	Electricity Medical physics II	2024
2-	Medical physics	Medical physics I Medical physics II	2025



Curriculum Vitae (CV)

Name: Shaimaa Ali Rahi

Date and place of birth:

General specialty: Science of physics

Specialization: Nuclear physics

The scientific title: Assistant Lecturer

Affiliation: Al-Karkh University of Science, College of Science,

Medical Physics Department

Mobile No:

Email: Shaimaa.ali@kus.edu.iq

Scopus: <https://www.scopus.com/authid/detail.uri?authorId=57724714000>

Research Gate:

Google Scholar website:

ORCID ID:

LinkedIn:

Web of Science:

First: Academic Qualifications.

Academic Degree	University	College	Date

Second: Professional Experience

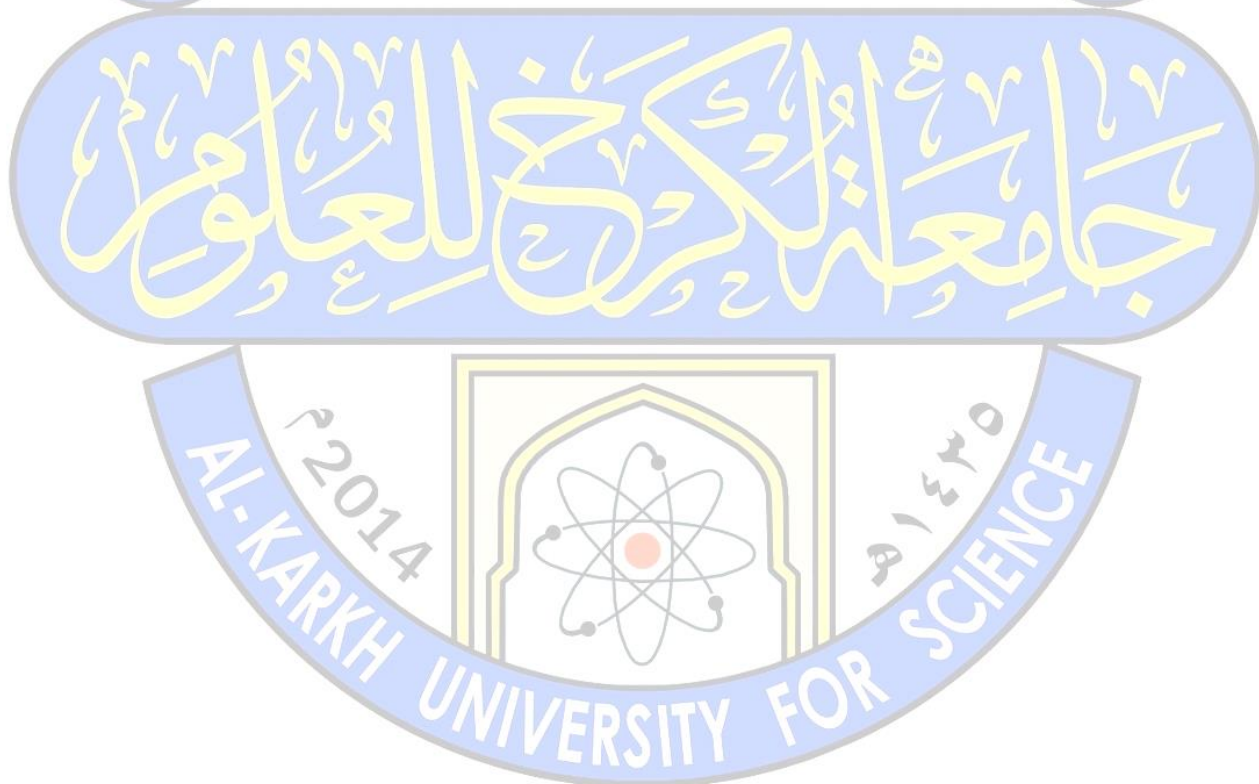
No.	Entity (institute/college)	University	Duration
1-			
2-			

Third: Published research

No.	Subject	Year
1-		
2-		

Fourth: Teaching Experience

No.	Department	Subject	Year
1-			
2-			



Curriculum Vitae (CV)

Name: Tabarak Mohammed Awad

Date and place of birth:

General specialty: Physics

Specialization: General physics

The scientific title: Assistant Lecturer

Affiliation: Al-Karkh University of Science, College of Science,

Medical Physics Department

Mobile No:

Email: tabarak.m.awad@kus.edu.iq

Scopus:

Research Gate:

Google Scholar website:

ORCID ID:

LinkedIn:

Web of Science:

First: Academic Qualifications.

Academic Degree	University	College	Date

Second: Professional Experience

No.	Entity (institute/college)	University	Duration
1-			
2-			

Third: Published research

No.	Subject	Year
1-		
2-		

Fourth: Teaching Experience

No.	Department	Subject	Year
1-			
2-			

