



Gameel Saleh, Ph.D.

Associate Professor

POSITION

Associate Professor in Biomedical Engineering Department, at Imam Abdulrahman Bin Faisal University (IAU)

Personal Data

Date of Birth | 15.03.1975

College of Engineering, Biomedical Engineering Department

Imam Abdulrahman Bin Faisal (Dammam, Saudi Arabia)

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Nationality | Yemen – City: Aden

Language Proficiency

Language	Read	Write	Speak
Arabic	✓	✓	✓
English	✓	✓	✓
German	✓	✓	✓

Academic Qualifications (Beginning with the most recent)

Date	Academic Degree	Place of Issue	Address
2009-2013	Ph.D. with Distinction (Magna Cum Laude) In Electrical and Electronics	University of Duisburg- Essen	NRW, Germany
2006-2008	Master of Science in Electronics and Communications Engineering	Jordan University of Science and Technology (JUST)	Irbid, Jordan
1996-2001	Bachelor of Science in Electrical and Electronics Engineering (With Distinction)	Aden University	Aden, Yemen
1991-1996	Diploma in Electrical Power Engineering (With Distinction)	Industrial Technical Institute	Aden, Yemen

PhD and Master Thesis Title:

PhD	Metamaterial for Ultrahigh field Magnetic Resonance Imaging (MRI) Applications
Master	Power Control and Beamforming Systems using Particle Swarm Optimization



Professional Record: (Beginning with the most recent)

Job Rank	Place and Address of Work			Date
Associate Prof.	Imam Abdulrahman Bin Faisal University	Dammam	Saudi Arabia	2022- present
Assistant Prof.	Imam Abdulrahman Bin Faisal University	Dammam	Saudi Arabia	2016- 2022
Assistant Prof.	Aden University	Aden	Yemen	2014-2015
Lecturer	Aden University	Aden	Yemen	2008-2009
Teaching Assistant	Aden University	Aden	Yemen	2002-2015
Network Switching System (NSS) Engineer	Spacotel-Yemen Company	Aden	Yemen	2001-2002

Administration Duties:

Administrative Position	Date
Member, University Consultation Committee for Curriculums development	2022- present
Chairman, College Curriculums and Programs Development Unit	2021- present
Chairman, College Quality and Accreditation Committee	2020 -2021
Chairman, College Graduation Projects Committee	2020 -2021
Chairman, Quality-Academic-and Accreditation committee in the biomedical engineering department	2016 - 2022
Member, College of Engineering Professional Exam Committee	2020-present
Member, BMED scientific research committee	2022-present

Scientific Achievements (UPDATES:

<https://scholar.google.com/citations?user=fQB28dUAAAAJ&hl=en>)

Books:

#	Name of Investigator(s)	Research Title	Journal/ Date of Publication
1	G Saleh	<i>Artificial Ground Planes for Magnetic Resonance Coils.</i>	Lambert Academic Publishing, 11. August 2014.

Patents:

#	Name of Investigator(s)	Research Title	Journal/ Date of Publication
1	G. Saleh et.al	Heterogeneous Multimodal Breast Phantom	USPTO Filed Patent App 537339US, Serial Number of 17/678,567 with a filing date of February 23, 2022,
2	G Saleh	Dual Tuned Wearable Metamaterial for Dual Resonant Antennas, G. Saleh	USPTO Filed Patent App. Serial Number of 17/568,426 with a filing date of January 4, 2022,



3	A Abuelhaija, G Saleh	DUAL TUNED MAGNETIC RESONANCE MEDICAL IMAGING DEVICE	USPTTO Filed Patent App. 17/958,171 - 2023
4	A Abuelhaija, G Saleh	Magnetic resonance imaging medical device.	Granted USPTO Patent 11,579,223 – 2023
5	A. Abuelhaija, G Saleh	Transmit/Receive Switch based on Microstripline Coupler	Granted USPTO Patent: United State Patent and Trademark Office (USPTO), Nov. 18 th , 2022

Articles:

#	Name of Investigator(s)	Research Title	Journal/ Date of Publication
1	Saleh G , Abuelhaija A, Alfaris B, Aljabr A, Zainalabedin M, Mhareb MHA, et al.	Heterogeneous breast phantom for computed tomography and magnetic resonance imaging.	PLoS ONE 18(4):e0284531.(2023) https://doi.org/10.1371/journal.pone.0284531
2	A Abuelhaija, G Saleh	Two-section branch-line hybrid couplers-based broadband transmit/receive switch.	International Journal of Electrical and Computer Engineering (IJECE) 13 (3)-pp 2600-2607. (2023). http://doi.org/10.11591/ijece.v13i3.pp2600-2607
3	Ashraf Abuelhaija, Gameel Saleh	Dual tuned 1H/31P quadrature microstripline-based transmit/receive switch for 7 Tesla magnetic resonance imaging	International Journal of Electrical & Computer Engineering (2088-8708)/ June 2022
4	A Abuelhaija, G Saleh , Nashwan, S Issa, S Salama	Multi- and dual-tuned microstripline-based transmit/receive switch for 7-Tesla magnetic resonance imaging	International Journal of Imaging Systems and Technology/ March 2022
5	A Abuelhaija, G Saleh , Nashwan, S Salama	T- and Cascaded Pi-Shaped 1H T/R Switches with Realistic Trace Width for 7 Tesla MRI	International Journal on Communications Antenna and Propagation (IRECAP), 2022
6	Gameel Saleh , Ijlal Shahrakh Ateeq, and Ibraheem Al-Naib	Glucose Level Sensing using Single Metamaterial Resonator	Sensors/ April 2021
7	MHA Mhareb, M Zeama, M Elsafi, YS Alajerami, MI Sayyed, G Saleh	Radiation shielding features for various tellurium-based alloys: a comparative study	Journal of Materials Science: Materials in Electronics 32 (22), 26798-26811 / 2021
8	Gameel Saleh	Dual Resonant Wearable Metamaterial for Medical Applications	International Journal on Communications Antenna and Propagation (IRECAP) Vol. 11, No. 2, PP. 8/ April 2021



9	Ashraf Abuelhaija, <u>Gameel Saleh</u> , Tarik Baldawi, Sanaa Salama	Symmetrical and Unsymmetrical Microstripline-based Transmit/Receive Switches for 7 Tesla Magnetic Resonance	International Journal of Circuit Theory and Applications/ April 2021
10	N AlQahtani, R AlJurais, L AlSubaie, L AlAgil, L AlJaafari, <u>Gameel Saleh</u>	Heterogenous Mouse Phantom with Water Tumor Model for Ionizing Imaging Machines	2021 4th IEEE International Symposium on Advanced Electrical and Communication Technologies (ISAECT)
11	Ashraf Abuelhaija, <u>Gameel Saleh</u>	A Pi-Shaped Compact Dual Tuned 1H/23Na Microstripline- Based Switch for 7-Tesla MRI	International Journal on Communications Antenna and Propagation (IRECAP)/ Feb 2021
12	<u>Gameel Saleh</u> , Ashraf Abuelhaia	Dual Tuned Switch for Dual Resonance 1H/13C MRI Coil	IEEE – International IOT, Electronics and Mechatronics Conference (IEMTRONICS 2021) / 2021
13	Budour AlFares, AlJohara AlJabr, AlJohara AlJabr, Munthreen AlMuzain, <u>Gameel Saleh</u> , Maryam AlHashim	Heterogenous Breast Phantom with Carcinoma for Ionizing Machines	IEEE – International IOT, Electronics and Mechatronics Conference (IEMTRONICS 2021)/ 2021
14	Ashyap, A. Y. I., Elamin, N. I. M., Dahlan, S. H., Abidin, Z. Z., See, C. H., Majid, H. A., Al- Fadhali, N., Mukred, J. A. A., <u>Gameel Saleh</u> , & Esmail, B. A.F	Via-less electromagnetic band- gap-enabled antenna based on textile material for wearable applications	PLOS ONE, 28th January 2021
15	RM Hamad, MHA Mhareb, YS Alajerami, MI Sayyed, <u>Gameel Saleh</u> , M Kh Hamad, KhA Ziq	A comprehensive ionizing radiation shielding study of FexSe0. 5Te0. 5 alloys with various iron concentrations	Journal of Alloys and Compounds. Available online since 24 October 2020
16	M Kh Hamad, MHA Mhareb, YS Alajerami, MI Sayyed, <u>Gameel Saleh</u> , Y Maswadeh, KhA Ziq	Radiation shielding properties of Nd0. 6Sr0. 4Mn1– yNiyO3 substitute with different concentrations of nickle	Radiation Physics and Chemistry Volume 174, September 2020, 108920
17	H. Alotaibi, L. Algholaiqah, W. Abusibil, <u>Gameel Saleh</u>	Automated Stance Controlled- Knee-Ankle-Foot Orthosis	The IEEE 8 th international conference on modelling, simulation, and automation (ICMSAO19) conference in Bahrain; 15-17 April 2019
18	Adel YI Ashyap, Zuhairiah Zainal Abidin, Samsul Haimi Dahlan, Huda A Majid, <u>Gameel Saleh</u>	Metamaterial inspired fabric antenna for wearable applications	International Journal of RF and Microwave Computer-Aided Engineering, USA, Wily Blackwell, ISI- indexed, March 2019, Pe21640



19	Gameel Saleh , K. Solbach, D. Erni, A. Ashyap.	Tuning of High Impedance Surfaces using Coaxial Cables for Magnetic Resonance Imaging Machines	International Journal of RF and Microwave Computer-Aided Engineering, USA, Wiley Blackwell, ISI- indexed, Issue 7; Vol. 28; P e21477; published 10.09.2018
20	Gameel Saleh , Fatimah Alkaabi, Noor Al-Hajhouj, Fatimah Al-Towailib, Safa Al-Hamza	Design of non-invasive glucose meter using near-infrared technique	Journal of Medical Engineering and Technology, Taylor and Francis, UK, first published: 07 March 2018
21	Gameel Saleh , Fatima Sibaii, Najla Alashban, Haneen Alkhateeb, Fatma Hegazi, Mariam Hegazi	Effects of tissues and geometric shapes of phantoms on the specific energy absorption rate (MRI application)	International Journal of RF and Microwave Computer-Aided Engineering, USA, Wiley Blackwell, ISI- indexed, 25 January 2018
22	Alzahrani, W.; Alabdullah, B.; Alghamdi, S.; Alshuwayer, R.; Almuhsin, S.; Saleh, G.	Design of Flexible Textile Wearable Antennas for Telemedicine Applications	International conference on Radiation Medicine (ICRM 2018), Riyadh, Saudi Arabia, 11-15. Feb. 2018.
23	Alashban, N; Sibaii, F; Alkhateeb, H; Hegazi, F; Hegazi, M; Saleh, G	The Enhanced Meander Dipole Radiofrequency Coil for 7 Tesla Magnetic Resonance Imaging Machines	International conference on Radiation Medicine (ICRM 2018), Riyadh, Saudi Arabia, 11-15. Feb. 2018.
24	Al afif, H; Al swiket, W; Al alawi, M.; Al Rabie, Z.; Alshafei, F.; Ateeq, I.; Saleh, G.	Wireless Blood Pressure Self-Monitoring System	International conference on Radiation Medicine (ICRM 2018), Riyadh, Saudi Arabia, 11-15. Feb. 2018.
25	Adel Y I. Ashap, Z.Z. Abidin, Gameel Saleh , Norun Abdul Malek	Flexible Wearable Antenna on Electromagnetic Band Gap using PDMS substrate	TELKOMNIKA journal paper (Telecommunication, Computing, Electronics and Control) – Sep. 2017
26			
27	Saleh, G. ; Touati, F.; Erni, D.; Solbach, K.	“Artificial Ground Plane for Magnetic Resonance Coils to Reduce the Energy Specific Absorption Rate”	QF-ARC'14, Doha, Qatar, Volume: 1, 2014
28	Saleh, G. ; Solbach, K.; Rennings, A; Erni, D.	SOFT Surfaces to Improve The H/E Field Ratio of Stripline Coil for 7Tesla MRI	ISMRM2013, Salt Lake City, Utah, USA, 20-26 April 2013.
29	Saleh, G. ; Solbach, K.; Rennings, A; Erni, D.	Four-Leaf-Clover-Shaped EBG Structure to Improve The H/E Field Ratio of Stripline Coil for 7Tesla MRI	EuCAP2013, Gothenburg, Sweden, 8-12 April 2013.



30	Saleh, G. ; Solbach, K.; Rennings, A.	SAR Reduction for Dipole RF Coil Element At 7 Tesla by using Dielectric Overlay	<i>LAPC2012</i> , Loughborough, England-UK, Nov. 2012.
31	Saleh, G. ; Solbach, K.; Rennings, A.	EBG Structure to Improve the B1 Efficiency of Stripline Coil for 7 Tesla MRI	<i>EuCAP2012</i> , Prag, Czech Republic, March. 2012.
32	Saleh, G. ; Solbach, K.; Rennings, A.	EBG Structure for Low Frequency Applications	<i>GeMiC 2012</i> , Illmenau, Germany, Feb. 2012
33	Saleh, G. , M. Khodier.	“Joint Beamforming and Power Control for Interference Reduction in Wireless Communications Using Particle Swarm Optimization,”	<i>Int.Journal of Electronics and Communications AEU</i> , Germany. 2010.
34	Saleh, G. ; Khodier.	M, “Radio Resource Management – Interference Reduction Using PSO”.	2 nd Engineering conf. in Aden University, 2008.



MASTER and Bachelor Courses Taught by the Faculty

#	Program	Courses
1	MASTER Courses	Medical Imaging Techniques
2	Bachelor courses	Magnetic Resonance Imaging
		Signals and Systems in Biomedical Engineering
		Electromagnetics
		Electrical Circuits
		Electronics
		Communication Systems
		Digital Signal Processing
		Antennas and Propagation
		Analog and Digital Electronics
		Computer Programming
		Digital Design

Awards

#	Award Title	Description
1	The Outstanding Award in Research	This is a recognition from dean college of engineering as the third best researcher in the college in the academic year 2021/2022 , received on May 10 th , 2022.
2	The Excellence Award in Teaching	This is a recognition from dean college of engineering as the best instructor in teaching in the department in the academic year 2021/2022 , received on May 10 th , 2022.
3	The best presented paper	The best conference presented paper in the IEEE IEMTRONICS conference April 20 th , 2021- Toronto, CANADA
4	MSc scholarship from the German Academic Exchange Service (DAAD)	MSc scholarship from the German Academic Exchange Service (DAAD) for the distinguished students (2006-2008).
5	PhD scholarship from the German Academic Exchange Service (DAAD)	PhD scholarship from the German Academic Exchange Service (DAAD) for the distinguished students (2009-2013).

Funded Projects

#	Research Title	Participation
	Design and implementation of economical Automated Peritoneal Dialysis Machine (240,000 SR)	<u>CO-PI: Gameel Saleh</u> , Deputyship for Research & Innovation, Institutional Fund, Ministry of Education in Saudi Arabia through (2022-2023)
2	Development of novel non-invasive systems for the characterization of the blood glucose levels (1.5 million SR)	<u>CO-PI: Gameel Saleh</u> , supported by Saudi Ministry of Education; Research and Development Office RDO: (2019-2022)
3	An integrated approach with in vivo molecular imaging and machine learning to characterize tissue microenvironment for accurate diagnosis and prognosis of infection, inflammation, and cancer (7.5 million SR)	<u>CO-PI: Gameel Saleh</u> , Deputyship for Research & Innovation, Ministry of Education in Saudi Arabia through the project number IF-2020-013-Eng at IAU University (2020-2022)
4	Radio Frequency Safety against Electromagnetic Field Exposure in Magnetic Resonance Imaging (PI)- 47000 SR	<u>PI: Gameel Saleh</u> , Supported by Deanship of Scientific Research, IAU university, under the grant (2017-268-Eng)



5	Electromagnetic Band Gap Structures for MRI Applications (4.5 million Euro)	Supported by DFG-Germany (2011-2013)
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Guest/Selected invited Lectures for Undergraduate Students

#	Activity/Course Title and Code	Subject	College and University or Program	Date
1	Seminar speaker	Power Allocations using PSO	Aachen University - Germany	2008
2	Seminar speaker	Power Control and Transmit Beamforming using PSO	Ilmenau University of Technology	2009

Ongoing Research Supervision (Senior Design Projects)

#	Degree Type	Title	Institution	Date
1	Bachelor	Design a Non-invasive Microwave Glucose Sensor for Glucose detection using CSRR	IAU University	2022-2023
2	Bachelor	Design Non-invasive Optical Sensor for early Detection of Hyperbilirubinemia	IAU University	2022-2023
3	Bachelor	Design and Development of RAT Phantom for PET/MR Machines	IAU University	2021-2022
4	Bachelor	Design and Development of Multimodal Brest Phantom	IAU University	2020-2021
5	Bachelor	RFID for Transferring and Monitoring Vital Signs	IAU University	2019 - 2020
6	Bachelor	Automated Stance Controlled Knee-Ankle-and Foot Orthosis (ASCKAFO)	IAU University	2018 - 2019
7	Bachelor	Wearable Antenna for Biomedical Applications	IAU University	2017 - 2018
8	Bachelor	Non-invasive Blood Glucose Level Monitoring	IAU University	2016-2017
9	Bachelor	RF Coils for Ultrahigh Field MRI	IAU University	2015-2016

Community Service

Volunteer Work

#	From	To	Description	Organization
1	2019	2019	MRI Lectures and LAB trainings for the BME senior Female students at King Faisal University	Biomedical Engineering department – King Faisal University
2	2017	2018	Supervision of two projects, that participated to the Ministry of Education Award "Innovation/IBDAA Competition"	AlHusan Secondary Schools - Dammam

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

1	Microwave Studio MW-CST
2	HFSS
3	EMPIRE Xccel
4	Matlab, C++, and LabVIEW
5	Microsoft Office



Recent attended workshops/trainings/seminars

1	ABET ePAW4 February 2021 for Accreditation Board for Engineering and Technology
2	"LabVIEW Core I Course" "LabVIEW Core II Course" Organized by National Instrument (NI) comp., at KFUPM university, Dhahran Technology Valley
3	" Data Acquisition Using NI-DAQmx" Organized by National Instrument (NI) comp., at IAU university, Dammam
4	"Assessment of Learning Outcomes" NCAAA Workshop Organized BY NCAAA
5	"Self-Study Report" NCAAA Workshop Organized by NCAAA
6	"Saudi Arabian Qualifications Framework" SAQF Qualifications Registration Procedures Training Program
7	"Academic Quality Practitioners" ETEC-NCAAA Workshop

Last Update

Gameel Saleh
April 2023
