

Ministry of higher education  
Majmaah university  
College of Science  
Department of Physics



وزارة التعليم العالي  
جامعة المجمعة  
كلية العلوم  
قسم الفيزياء

# Curriculum Vitae of Physics Faculty Member

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جامعة المجمعة  
Majmaah University

# Curriculum Vitae of Physics

## Faculty Members

## Physics Department

1435/1436

2014/2015

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## Full List of All Department Members

### a) Staff Names

م	Name	Rank	Field	Univ. Of Last Degree	E-mail
1)	Thamer Alharbi	Assis. Prof.	Nuclear physics	Surrey/ England	<a href="mailto:t.alharbi@mu.edu.sa">t.alharbi@mu.edu.sa</a>
2)	Abdulmajid Abdulmjeed	Professor	Solid State	QAU/ Pakistan	<a href="mailto:a.abdulmajid@mu.edu.sa">a.abdulmajid@mu.edu.sa</a>
3)	Mohamed Ali Zaidi	Professor	Solid State	Tuanis Science / Tuanis	<a href="mailto:m.zaidi@mu.edu.sa">m.zaidi@mu.edu.sa</a>
4)	Mohamed Abushayeb	Assoc. Prof.	High Energy	Rajasthan Jaipur/ India	<a href="mailto:m.abushayeb@mu.edu.sa">m.abushayeb@mu.edu.sa</a>
5)	Samir Al-Zobaidi	Assis. Prof.	Material Science	Tennessee / USA	<a href="mailto:s.alzobaidi@mu.edu.sa">s.alzobaidi@mu.edu.sa</a>
6)	Mohamed Gaafar	Assis. Prof.	Solid state	Minia /Egypt	<a href="mailto:m.gaafar@mu.edu.sa">m.gaafar@mu.edu.sa</a>
7)	Abdu Idris Omer	Assis. Prof.	Electronic system engeneering	Putra Mmalaysia/	<a href="mailto:a.idris@mu.edu.sa">a.idris@mu.edu.sa</a>
8)	Ibrahim Shaarany	Assis. Prof.	Theoretical physics	Suez canal/ Egypt	<a href="mailto:i.shaarany@mu.edu.sa">i.shaarany@mu.edu.sa</a>
9)	Hassan Hanafy	Assis. Prof.	Atomic Physics	Cairo / Egypt	<a href="mailto:h.hanafy@mu.edu.sa">h.hanafy@mu.edu.sa</a>
10)	Kaled Abdessalem	Assis. Prof.	Biophysics	Paris 7 / France	<a href="mailto:k.abdessalem@mu.edu.sa">k.abdessalem@mu.edu.sa</a>
11)	Ahmed Adel	Assis. Prof.	Theoretical physics	Cairo / Egypt	<a href="mailto:aa.ahmed@mu.edu.sa">aa.ahmed@mu.edu.sa</a>
12)	Mahmoud Ahmed	Assis. Prof.	Laser Physics	Kassel/ Germany	<a href="mailto:m.ahmad@mu.edu.sa">m.ahmad@mu.edu.sa</a>
13)	Adam Bashiti	Assis. Prof.	Nanotechnol ogy	New Delhi/ India	<a href="mailto:a.bahishti@mu.edu.sa">a.bahishti@mu.edu.sa</a>
14)	Moh. Shaker	Assis. Prof.	Radiation	Aligarh/ India	<a href="mailto:ms.khan@mu.edu.sa">ms.khan@mu.edu.sa</a>
15)	Kamran	Assis. Prof.	Material Energy	Beijing/ Chaina	<a href="mailto:m.kamran@mu.edu.sa">m.kamran@mu.edu.sa</a>
16)	Elassad	Assis. Prof.	Nuclear Physics	Monastir/ Tunisia	<a href="mailto:e.jemii@mu.edu.sa">e.jemii@mu.edu.sa</a>
17)	Hammad	Assis. Prof.	Medicine Physics	Bahawalpur/ Pakistan	<a href="mailto:m.hammad@mu.edu.sa">m.hammad@mu.edu.sa</a>

# Dr. Thamer Alharbi



Assistant Professor  
Physics Department  
Faculty of Science, Zulfi  
Majmaah university

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<http://faculty.mu.edu.sa/talharbi/>

## Research Interests:

Radiation Detectors  
Nuclear accelerators  
Half-lives of excited states

## Language Skills

Arabic, English

## Qualification (Career and University Education)

2006	B. Sc. Degree	Qassim University, Kingdom of Saudi Arabia
2009	M.Sc. Degree	Surrey University, England
2013	Ph.D Degree	Surrey University, England

## Career

2013-Present	Assistant Professor at Department of Physics , College of Science, Majmaah University , Saudi Arabia
2013-Present	Head of Physics Department , College of Science, Majmaah University , Saudi Arabia
2013- Present	Vice Dean of scientific research and postgraduate studies

## Publication

1. Gamma-ray Fast-Timing Coincidence Measurements from the  $^{18}\text{O}+^{18}\text{O}$  Fusion-Evaporation Reaction Using a Mixed  $\text{LaBr}_3$ -HPGe Array; Applied Radiation and Isotopes, Volume 70, Issue 7, July 2012, 1337-1339.
2. Electromagnetic transition rates in the N=80 nucleus  $^{138}\text{Ce}$ ; Phys. Rev. C. 87, 014323, (2013).

3. Electromagnetic Transition Rate measurements in the N=80 Isotone,  $^{138}\text{Ce}$ ; J. Phys.: Conf. Ser. 381, 012057 (2012)
4. Half-life of the I=4<sup>-</sup> Intruder State in  $^{34}\text{P}$ : M2 Transition Strengths Approaching the Island of Inversion; Phys. Rev. C 85, 064303 (2012).
5. Half-life of the I= 4<sup>-</sup> Intruder State in  $^{34}\text{P}$  Using LaBr<sub>3</sub>: (Ce) Fast Timing; Phys.: Conf. Ser. 381 012063 (2012).
6. Half-life of the  $^7\text{Li}$ -induced reactions for fast-timing with LaBr<sub>3</sub>: Ce detectors; AIP Conf. Proc. 1491, pp 93-96 (2012).
7. Half-life of the yrast 2<sup>+</sup> state in  $^{188}\text{W}$ : Evolution of deformation and collectivity in neutron-rich tungsten isotopes, Phys. Rev. C. 88, 044301 (2013)
8. Half-life Measurements of Excited states in  $^{132}\text{Te}$  and  $^{134}\text{Xe}$ , Acta Physica Polonica B Vol. 44 (2013).

### Teaching Experience

Nuclear Physics I	Phys. 481	Majmaah University
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### Conferences

IOP Nuclear Physics	England	19/ 4/ 2010
Nuclear Isomers: Structure and Applications	England	21/5/2010
Nuclear Physics	Poland	6/9/2010
Nuclear Structure Challenges with Radioactive Beams	Turkey	14/9/2010
PRESPEC Decay Physics	England	12/1/2011
Nuclear and Particle Physics Divisional	England	7/4/2011
IRRMA-8 Industrial Radiation and Radioisotope Measurement Applications	USA	26/6/2011

### Practical Skills

Microsoft Office

Latex Writing

# Prof. Dr. Abdul MAJID Abdul Majeed



Professor  
Department of Physics  
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## Research Interests:

Nanostructure synthesis and Characterization  
Nanostructured device fabrication and Characterization  
Semiconductor materials and devices (3<sup>rd</sup> Generation Solar Cells)

## Language Skills

English (R,W,S), Urdu (R,W,S), Punjabi (R,W,S) and Arabic (R,W)

## Qualification (Career and University Education)

1983	B. Sc. Degree (Physics, Pure Mathematics, Applied Mathematics)	University of Punjab, Lahore. Pakistan
1986	M.Sc. Degree (Physics)	University of Peshawar, Peshawar, Pakistan.
2006	PhD Degree (Semiconductor Physics)	Quaid-i-Azam University, Islamabad, Pakistan Title: <i>Study of Deep Levels Associated with some Heavy Transition-Metals in MOCVD GaAs.</i> Supervisor: <b>Dr. M. Zafar Iqbal</b> (Meritorious Professor).
2009	Post Doctorate ( <i>Nanotechnology,</i> )	Department of Electronic Materials Engineering (EME), Research School of Physical Sciences and Engineering (RSPHYSSE), Australian National University (ANU), Canberra ACT-0200, Australia Title: <i>Experimental Study of Quantum Structured Optoelectronic Devices: Intermediate Band Solar Cells</i> Supervisor: Professor <b>Chennupati Jagadish</b> (Federation Fellow)

## Career

### Full-time Faculty Member

Mar. 26, 2013 – Continue	<i>Professor,</i> Department of Physics, Majmaah University, College of Science, Alzulfi, Saudi Arabia
May 30, 2007 – Mar. 25, 2013 (Conti.....On Ex-Pakistan Leave)	<i>Professor (BPS-21)</i> Department of Physics, University of Azad Jammu and Kashmir, Muzaffarabad, Pakistan

Jun 24, 2008 – Mar. 26, 2009	<i>Visiting Fellow (Academic)</i> at Australian National University Canberra, Australia. (Post Doctoral Fellowship awarded by Higher Education Commission (HEC) of Pakistan,
Feb. 10, 2007 - May 29, 2007	<i>Professor (BPS-20)</i> Department of Physics, University of Azad Jammu and Kashmir, Muzaffarabad, Pakistan
Aug. 12, 2004 – Feb. 09 2007	<i>Associate Professor</i> Department of Physics, University of Azad Jammu and Kashmir, Muzaffarabad, Pakistan
Feb. 12, 1994 – Aug. 11, 2004	<i>Assistant Professor</i> Department of Physics, University of Azad Jammu and Kashmir, Muzaffarabad, Pakistan
Sep. 21, 1987 – Feb. 11, 1994	<i>Lecturer in Physics</i> Department of Physics, University of Azad Jammu and Kashmir, Muzaffarabad, Pakistan

#### Experience Administrative (Extra-Responsibilities)

Jan. 01, 2009– Mar. 25, 2014	Chairman, Department of Physics, University of AJ&K
Oct. 01, 2009 – Mar. 25, 2014	Director, High-tech centralized instrumental Lab.
Jun. 01, 2009– Mar. 25, 2014	Incharge/Supervisor, Nanotechnology/Semiconductor Physics Lab, Department of Physics, University of AJ&K
Oct. 31, 2006 – Jun 24, 2008	Additional Controller of Examinations
Aug. 15, 2005 – Sept 10, 2012	Member, University Affiliation Committee
Aug. 01, 2005 – Oct. 8, 2005	Chairman, University Technical Committee: Equipment
Aug. 08, 2004– Oct. 8, 2005	Chairman, University (AJ&K) Web Site Developer

#### Short Visits

Jul. 09-16, 2011	<b>Scanning Electron Microscope:</b> Jeol JSM-6510LV/JSM-6610LV, One week Training at Jeol Instruments Ltd. Tokyo, Japan
------------------	--

#### Publication

2014	M. Fakhar-e-Alam, Shubana Rahim, M. Atif, M. Hammad Aziz, M. Imran Malick, S. S. Z. Zaidi, R. Suleman, Abdul Majid, <i>ZnO Nanoparticles as Drug Delivery Agent for Photodynamic Therapy</i> , <i>Laser Phys. Lett.</i> 11, 025601
2014	Sajad Hussain, Chuanbao Cao, Waheed S. Khan, Ghulam Nabi, Zahid Usman, Abdul Majid, Thamer Alharbi, Zulfiqar Ali, Faheem K Butt, Muhammad Tahir, Muhammad Tanveer, and Faryal Idress, " <i>Cu2O/TiO2 nanoporous thin-film heterojunctions: Fabrication and electrical characterization</i> " <i>Materials Science in Semiconductor Processing (Available online 28 November 2013)</i> <a href="http://dx.doi.org/10.1016/j.mssp.2013.11.018">http://dx.doi.org/10.1016/j.mssp.2013.11.018</a>
2012	Nasar Ahmed, A. Majid, M. Rashid, B. Shakeela, Z. Aziz, Ayaz. Arif Khan, M. A. Khan, Nagma Haider and R. H. Siddiqui, <i>Growth of Zn/ZnO core/shell system supported by indented sites</i> , (manuscript: submitted to <i>Nano Research Letters</i> )
2011	Muhammad Rafique, Matiullah, Saeed Ur Rahman, Said Rahman, Muhammad Ikram Shahzad, Bushra Azam, Ishfaq Ahmed, Abdul Majid & Muhammad Iqbal Siddique - <i>Assessment of indoor radon doses received by the dwellers of Balakot – NWFP, Pakistan: a pilot study</i> , <i>Carpathian Journal of Earth and Environmental Sciences</i> , 6, 133-140.
2010	A. Majid, C. Jagadish, L. Fu and H. Tan, <i>MOCVD grown Quantum Dot-in-a-Well Solar Cells</i> , <i>Key Engineering Materials</i> , 442, p-398-403, Trans Tech Publications, Switzerland.
2009	Nazir A. Naz, Umar S. Quarashi, A. Majid and M. Zafar Iqbal, <i>Ruthenium related deep-level defects in n-type GaAs</i> , <i>Physica B</i> , 404, 4956.
2008	M. Zafar Iqbal, A. Majid, Nazir A. Naz and Umar S. Qurashi, <i>4d transition-metal impurity rhodium in GaAs grown by metal-organic chemical vapor deposition</i> , <i>J. Appl. Phys.</i> , 104, 113708.



- 2008 **L. Fu, A. Majid, G. Jolley, S. Mokkaoti, H. H. Tan, and C. Jagadish**, *Application of self-assembled quantum dots for optoelectronic devices*, **Australia Japan Nanophotonics Workshop ANU, Canberra, December 09-10.**
- 2008 **Khizar-ul-Haq, M. A. Khan, U.S.Qurashi and Abdul Majid**, *Interaction of alpha radiation with iron doped n-type silicon*, **Microelectronics Journal** 39, 797.
- 2007 **Nazir A. Naz, Umar S. Qurashi, Abdul Majid, M. Zafar Iqbal**, *Doubly-charged state of EL2 defect in MOCVD grown Gas*, **Physica B**, 401, 250.
- 2007 **Suleman Khan, Naseer Ahmed, Akhlaq Ahmad Khan Amanullah Khan and A. Majid**, *Lie Group Analysis of a linear Nonholonomic Dynamical System*, **Sci. Int.** 19, 83.
- 2007 **Abdul Majid**, *Efficient Low Level Signal Measuring Instrument Lock-In Amplifier*, **Sci. Echo**, 15 July.
- 2006 **M. Zafar Iqbal, A. Majid, A. Dadgar and D. Bimberg**, *Electric-field-enhanced thermal emission from osmium-related deep level in n-GaAs*, **Advances in Science and Technology Vol. 46 pp. 73**, **Trans Tech Publications, Switzerland.**
- 2005 **A. Majid, M. Zafar Iqbal, A. Dadgar and D. Bimberg**, *Osmium Related Deep Levels in MOCVD Grown GaAs*, **J. Appl. Phys.**, 98, 083709.
- 2005 **M. Zafar Iqbal, A. Majid, A. Dadgar and D. Bimberg**, *Deep Levels in Osmium Doped p-type GaAs Grown by Metal-organic Chemical Vapor Deposition*, **27th International Conference on the Physics of Semiconductors**, Arizona, USA. **AIP Conf. Proc.** 772, 147.
- 2005 **A. Majid, M. Zafar Iqbal, A. Dadgar and D. Bimberg**, *Deep Levels in Ruthenium Doped p-type MOCVD GaAs*, **27th International Conference on the Physics of Semiconductors**, Arizona, **AIP Conf. Proc.** 772, 143.
- 2003 **A. Majid, M. Zafar Iqbal, A. Dadgar and D. Bimberg**, *Deep Levels in Rhodium-Doped p-type MOCVD GaAs*, **Physica B**, 340, 362.
- 2003 **M. Zafar Iqbal, A. Majid, A. Dadgar and D. Bimberg**, *Osmium Related Deep Levels in n-type GaAs*, **Physica B**, 340, 358.
- 2003 **A. Majid, M. Zafar Iqbal, Shah Haidar Khan, Akbar Ali, Nasim Zafar, A. Dadgar and D. Bimberg**, *Characteristics of Deep Levels Associated with Rhodium Impurity in type GaAs*, **J. Appl. Phys.**, 94, 3115.
- 2001 **M. Zafar Iqbal, A. Majid, Shah Haidar Khan, Akbar Ali, Nasim Zafar, A. Dadgar and D. Bimberg**, *Rhodium Related Deep Levels in n-type MOCVD GaAs*, **Physica B**, 308, p816-819.
- 1999 **M. Zafar Iqbal, U. S. Qurashi, A. Majid, Aurangzab Khan, Nasim Zafar, A. Dadgar and D. Bimberg**, *Deep Levels Associated with Alpha Irradiation of n-type MOCVD InP*, **Physica B**, 273, 839.
- 1997 **A. Majid, A. Hussain and M. A. R. Khan**, *Determination of Optical Constant and Thickness of Zn<sub>0.9</sub>Cd<sub>0.1</sub>S Thin Films*, **Kashmir Res. J. N. Sci.**, Vol 1 (1), 27.
- 1997 **A. Majid and G. A Khan**, *A Proposed Automated Computerized Hall Profiling System for Characterization of Semiconductor Materials*, **Kashmir Res. J. N. Sci.**, Vol 1 (2), 87.
- xxxx **Abdul Majid**, *Effect of lambda correct electric field on emission rates of osmium related deep level in n-type Gas* (**Manuscript ready for submission**).
- xxxx **A.Majid, C. Jagadish, L. Fu. and H. Tan**, *Luminescence behaviour of MOCVD grown 10 layers Quantum Dot and quantum Well in GaAs*, (**to be submitted in Physica Status Solidi - Rapid Research Letters**)
- xxxx **A.Majid, L. Fu. H. Tan and C. Jagadish**, *Comparison of MOCVD grown AlGaAs and InGaAs Dot-in-a-Well Intermediate Band Solar Cells*, (**manuscript in process for Applied Physics Letters**)

#### Conference Presentations

- Nov. 07-11, 2010 **Fu, L. Jolley, G. Lu, H.F. Majid, A. Tan, H.H. Jagadish, C.**, *Temperature effect on device characteristics of InGaAs/GaAs quantum dot solar cell*, **23rd Annual Meeting of the IEEE Photonics Society, 2010, Denver, CO.**

- Dec. 14-16, 2009** Fu, L. Jolley, G. Mokkaḡati, S. Majid, A. Lu, H.F. Tan, H.H. Jagadish, C. III–V quantum dots for optoelectronic device applications, **International Conference on Computers and Devices for Communication, 2009 (CODEC 2009)**. Kolkata Print ISBN: 978-1-4244-5073-2 INSPEC Accession Number: 11136798, Date of Current Version: 05 February 2010.
- Dec. 09–11, 2009** L. Fu, G. Jolley, A. Majid, S. Mokkaḡati, H. H. Tan, and C. Jagadish, *Application of self-assembled quantum dots for optoelectronic devices*, **International Conference on Advanced Nanomaterials and Nanotechnology (ICANN-2009)** Guwahati, Assam (India),.
- Jun. 26-31, 2002** A. Majid, M. Zafar Iqbal, Akbar and Ali, *A Hole Emitting Metastable Defect in n-type GaAs*, presented at 27<sup>th</sup> **International Nathiagali Summer College; Nathiagali, NWFP, Pakistan.**
- Jun. 26-31, 2002.** A. Majid, M. Zafar Iqbal, Akbar and Ali *Extended Defect of Rhodium in MOCVD Grown n-GaAs*, presented at 27<sup>th</sup> **International Nathiagali Summer College; Nathiagali, NWFP, Pakistan.**
- Jul. 02- 08, 2001** A. Majid, M. Zafar Iqbal and Akbar Ali, *Investigation of Rhodium Related Deep Levels in MOCVD Grown n-GaAs*, presented at 26<sup>th</sup> **International Nathiagali Summer College; Nathiagali, NWFP, Pakistan.**
- Nov. 20-22, 2000.** A. Majid, S. H. Khan, M. Zafar Iqbal and Akbar Ali, *Deep Level Transient Spectroscopy of Rhodium Doped n-GaAs*, presented at 8<sup>th</sup> **National Symposium on “Frontiers in Physics”, Govt. College University, Lahore.**
- Nov. 20-22, 2000** S. H. Khan, A. Majid, M. Zafar Iqbal and Akbar Ali, *Field Effect on Thermal Electron Emission from Rhodium in n-GaAs*, presented at 8<sup>th</sup> **National Symposium on “Frontiers in Physics”, Govt. College University, Lahore.**

### Teaching Experience

Semiconductors	PHYS473	BS Physics	Majmaah University, College of Science, Al-Zulfi, Saudi Arabia.
Solid State Physics	PHYS471	BS Physics	Majmaah University, College of Science, Al-Zulfi, Saudi Arabia.
Method of Mathematical Physics	PHYS203	BS Physics	Majmaah University, College of Science, Al-Zulfi, Saudi Arabia.
Solid State Physics	PHY-5602	M.Sc. Physics.	University of Azad Jammu and Kashmir, Muzaffarabad, Pakistan
Physics Lab-VI: Solid State Physics	PHY-5606	M.Sc. Physics.	University of Azad Jammu and Kashmir, Muzaffarabad, Pakistan
Elective Advance Course-I: (Solid State Physics): Band Theory of Solids	PHY-636	M.Sc. Physics.	University of Azad Jammu and Kashmir, Muzaffarabad, Pakistan
Elective Advance Course-II (Solid State Physics) Dielectric and Magnetics properties of Solids	PHY-646	M.Sc. Physics.	University of Azad Jammu and Kashmir, Muzaffarabad, Pakistan
Elective Advance Course-Composite Advance topics in Solid State Physics (Research Students)		M.Sc. Physics.	University of Azad Jammu and Kashmir, Muzaffarabad, Pakistan
Physics of Semiconductors	PHY-7105	M.Phil./Ph.D.	University of Azad Jammu and Kashmir, Muzaffarabad, Pakistan
Physics of Semiconductors Devices	PHY-7205	M.Phil./Ph.D.	University of Azad Jammu and Kashmir, Muzaffarabad, Pakistan
Nanoscience and technology	PHY-7214	M.Phil./Ph.D.	University of Azad Jammu and Kashmir, Muzaffarabad, Pakistan
Electrodynamics.	PHY-7102	M.Phil./Ph.D.	University of Azad Jammu and Kashmir, Muzaffarabad, Pakistan
Material Studies Of Electron Emission	PHY-7211	M.Phil./Ph.D.	University of Azad Jammu and Kashmir, Muzaffarabad, Pakistan
Defects In Materials And Measuring Techniques	PHY-7212	M.Phil./Ph.D.	University of Azad Jammu and Kashmir, Muzaffarabad, Pakistan

**Supervision of Research Students:****Ph.D. Research Thesis: (Listed as Enrolment Year)**

- 2012 Nasar Ahmed, *Synthesis and characterization of Metal Oxide Core/shell system for drug delivery.* (Status: Research work in progress)
- 2012 Muhammad Rashid Khan, *Doping effect of transition metals in ZnO tetrapods for device fabrication.* (Status: Research work in progress)
- 2011 Muhammad Athair, *Optical Properties of Quantum Structured Semiconductor Materials for Solar Cells.* (Status: Research work in progress)

**M. Phil. Research Thesis: (Listed as Enrolment Year)**

- 2012 Khurram Shahzad, *Study of Chemical Vapour Deposition (CVD) System for fabrication of Zinc Oxide nanostructures* (Status: Research work in progress)
- 2012 Majid Khalil, *Characterization of thermally annealed ZnO nano-structures* (Status: Research work in progress)
- 2012 Shahbana Raheem, *Biomedical applications of ZnO nanoparticles* (Status: Research Lab work completed Thesis write-up in progress)
- 2012 Bushra Aziz, *Irradiation Effect on ZnO Nano Structures* (Status: Thesis submitted for evaluation)
- 2011 Muhammad Iftikhar, *n-ZnO/p-Si Based junction Diode and its Characteristics* (Status: Thesis submitted for evaluation)
- 2011 Nasar Ahmed, *Fabrication and Characterization Zn/ZnO Core/Shell System* (Status: Completed/Awarded)
- 2011 Muhammad Rashid Khan, *Catalyst Assisted Growth and Characterization of ZnO Nano-Structures* (Status: Completed/Awarded)
- 2011 Shakeela Bibi (in progress), *Dark Current Analysis of Quantum Dot Intermediate Band Solar Cell,* (Status: Completed/Awarded)
- 2011 Zubia Aziz (in progress), *Study of Nanoporous Anodic Aluminium Oxide* (Status: Completed/Awarded)

**M.Sc. Student's Reports:**

- 2012 M. Umar Fayaz, *Characterization of Cobalt doped ZnO nanoparticle*
- 2012 Usman Hamza and Tousef Ahmed, *Characterization of Cadmium doped ZnO Tetrapods.*
- 2011 Atif Bashir, *Synthesis and Characterization of Metal doped ZnO nano particles.*
- 2011 Jan Muhammad, *Study of size dependent parameters on Synthesis of Copper doped ZnO nano particles*
- 2009 Mohammad Habib Yasin and Mohammad Asif Latif, *Effect of Etching Parameters on Porosity of Fabricated Porous Silicon.*
- 2009 Ghazala Razaq, Raqia Khatoon and Mizrah Tariq, *Optical properties of thermally annealed chlorine doped  $Zn_{0.2}Cd_{0.8}S$ .*
- 2008 M. Rashid Khan, Raja Kurram Shazad and Wajid Taj, *Fabrication of Porous p-type Silicon.*
- 2007 Muhammad Yousaf, *Energy Band Structure of Carbon Nanotubes using Atomistix Virtual Nano Lab.*
- 2007 Saeed-ul Hassan Gilani, *Fabrication of porous on n-Type Silicon.*
- 2007 Ishtiaq Ahmed and Naeem Akhtar, *Study of Organic Light Emitting Diode.*
- 2007 Darakhshanda Jabeen, *Study of Fabrication of porous on p-Type Silicon.*

2006 **Habib-ur-Rehman**, *Study the Formation Porous Silicon.*

2006 **Khalid Mehmood**, *Fabrication & Characterization of Carbon Nanotubes.*

2006 **Zulqar-Nain Habib**, *Fabrication and Characterization of Metal Nanotubes.*

2006 **Mohsin Rafique**, *Study and numerical calculation of electronic structure of Si.*

2006 **Tariq Aziz**, *Study of electronic structure of GaAs with the help of Density Function Theory.*

1996 **Akhtar Hussain and M. Abdul Rauf Khan**, *Optical Properties of Chlorine Doped Zn<sub>0.9</sub>Cd<sub>0.1</sub>S Thin Films.*

1992 **Akram-ul-Haq**, *Optical Properties of Zn<sub>x</sub>Cd<sub>1-x</sub>S Thin Films Evaporated by Electron Bombardment.*

1990 **Nigahat G. M. and Fauzia Tayyib**, *Temperature Dependent Electrical Conductivity of Doped Germanium.*

1990 **Ajaz Hassan Raza**, *Temperature Dependent Hall Effect of Doped Germanium.*

1989 **Abdul Hamid Khan**, *Measurement of Lattice Parameters of Potassium Bromide by X-Ray Diffraction.*

1989 **Muhammad Rafique**, *Study of Lattice Parameters of Sodium Chloride.*

1989 **Najam-ul Hassan**, *Determination of Lattice Parameters of Potassium Iodide by X-Ray Diffraction.*

#### Projects/Reports:

2010-2011 **AJ&K University research support project - Fabrication and Characterisation of Porous Silicon.** (In progress)

2010-2011 **HEC project maintenance of Scientific equipments (Scanning electron microscope: Jeol JSM-6510LV) (Done final report submitted).**

2008-2009 **Post Doctoral Research Report on Experimental Study of Quantum Structured Optoelectronic Devices: Intermediate Band Solar Cells, Submitted in partial fulfilment of requirement of postdoctoral fellowship of Higher Education Commission (HEC) of Pakistan/Australian National University (ANU) Department of Electronic Materials Engineering (EME), Research School of Physical Sciences and Engineering (RSPHYSSE), Canberra ACT-0200, Australia**

1995-1996 **University/ U.G.C. Project - Characterisation of some Technologically important Materials in Thin Films form (done and facilitated the two M.Sc. research projects).**

1999-2005 **Commission of European Communities project No. CII-CT93-0076. A partially supported for Collaborative Study on Transition Metal Doped III-Vs Compound Semiconductors (Done as research project of Ph.D.)**

xxxx **HEC Infrastructure Facilities project: Provision of Liquid Nitrogen Plant: A Basic Infrastructure for Experimental Sciences "Cryogenics, Key to Advanced Science and Technology" (submitted via UAJK).**

#### Training Experience

Mar. 10-13, 2011 Sputter coater: **Jeol JFC-1600**

Jun 15-20, 2010 Fourier Transform Infrared Spectrometer: **Perkin Elmer Spectrum 100 with ATR**

May 23-26 2010 UV-Vis-IR Spectrometer: **Perkin Elmer Lambda-950**

**Computer Courses:**

Oct. 1989 - Jan. 1990, FORTRAN-77, **Computer Centre, Azad Jammu and Kashmir University (AJ&KU), Muzaffarabad, Pakistan.**

Jan. 1987 to Aug. 1987 Computer Orientation, **P.O.F. Welfare Computer Centre, Wah Cantt, Pakistan.**

#### Technical Courses:

<b>Oct. 1983 to May 1984,</b>	Electrician Course, <b>Allama Iqbal Open University, Islamabad, Pakistan.</b>
<b>Oct. 1982 to May 1983,</b>	Electrical Wiring, <b>Allama Iqbal Open University, Islamabad, Pakistan.</b>
<b>Jun. 1977 to Jan. 1978,</b>	Photography, <b>London Institute of Photography (Pvt), Karachi, Pakistan.</b>

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#### Conferences/ Seminar Organized

<b>June 08, 2011</b>	<b>Seminar on “Vacuum Science and Technology”, University of Azad Jammu and Kashmir, Muzaffarabad.</b>
<b>April 12-14, 2004</b>	<b>Tutorial Course and Symposium on Topics in Semiconductors, Quaid-i-Azam University, Islamabad, Pakistan.</b>
<b>April 15-17, 2004</b>	<b>Workshop on Nanotechnologies, Quaid-i-Azam University, Islamabad, Pakistan.</b>
<b>April 08-10, 1999</b>	<b>Tutorial Course and Symposium on Topics in Semiconductors, Quaid-i-Azam University, Islamabad, Pakistan.</b>

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#### Computer Experience **Application Programmes**

**Microsoft Windows, Origin, Sigma Plot, Microsoft Excel, Microsoft Word, Microsoft Power Point, Corel Draw, Adobe PhotoShop, Home suite, Netscape composer etc.**

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#### **Membership of Scientific and Technical Societies**

- Life member Pakistan Institute of Physics (PIP), Lahore, Pakistan.
- Life member Pakistan Society for Semiconductor Science and Technology (PS<sup>3</sup>T), Quaid-i-Azam University, Islamabad; Pakistan.
- Member Pakistan Physical Society (PPS). Islamabad; Pakistan.
- Associate Member, Institute of Nanotechnology (IoN), USA.
- Member Test and Technology Technical Council (ttc), USA, a sister society of IEEE, USA.
- Member, The Australian Research Council Nanotechnology Network (ARCNN), Australia.

## Pro. Dr. Mohamed Ali Zaidi



Full Professor  
Physics Department  
Faculty of Science, Zulfi  
Majmaah university

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**E-Mail:** m.zaidi@mu.edu.sa

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<http://faculty.mu.edu.sa/hhanafy>

### Research Interests:

- Solid state physics and semiconductors.
- Theoretical study and electrical characterization of electrically active defects in semiconductors by technical DLTS (Deep Level Transient Spectroscopy),  $C(V)$ ,  $I(V)$  and  $G(\omega)$ .
- \_ Photovoltaic cells
- \_ Quantum Mechanics

### Language Skills

Arabic- English – French

### Qualification (Career and University Education)

B. Sc. Degree (Physics) " Good" Faculty of Science of Tunis, Tunis University

MS. C. Degree (Mathematics) " Good" Physics of semiconductor Central School of Lyon France

PhD Degree (Physics) " Right Honorable " Internal part at Faculty of Science of Tunis, Tunis University  
External part Laboratory of Solid Physics group, University of Paris VI Jussieu Paris France

### Career

\_\_ Full Professor Faculty of Science of Monastir University of Monastir Tunisia  
01/9./2001 to now

\_\_ Head of department of physics Faculty of Science of Monastir University of Monastir Tunisia 01/7./2008 to 31/08/2011

\_\_ Associated Professor Faculty of Education in Salalah Oman 10/30/1998 to 01/09/2001

\_\_ Head of Unit Physics Faculty of Education in Salalah Oman 10/30/1998 to 01/09/2001

\_\_ Associated Professor Faculty of Science of Monastir University of Monastir Tunisia 10/03/1993 to 30/10/1998

\_\_ Assistant Professor Faculty of Science of Monastir University of Monastir Tunisia 01/15/1989 to 03/10/1993.

\_\_Assistant Faculty of Science of Monastir University of Monastir Tunisia  
10/20/1982 to 01/15/1989  
\_\_Professor of the Higher Institute of Mathematics Sousse University of Sousse  
Tunisia 01/10./2011 to 01/23/2013  
\_\_Full Professor Higher Institute of Military Sousse Tunisia 01/09./2002 to  
30/06/2005

#### Short Visits

\_\_A working visit to France in Lille laboratory IEMN Lille (France) for a week in the scope of a contract CMCU between Tunisia and France I was the Head of Mission.

\_\_A working visit to France in Lyon LPM for a week in the scope of a contract CMCU between Tunisia and France. I was the Head of Mission.

\_\_Working visit to Morocco in Mohammedia School of Science and Technology for a week in the scope of a contract between Tunisia and Morocco, I was the Head of Mission

\_\_ Post doc (6 months) LPM Laboratory INSA of Lyon France

\_\_ Post doc (6 months) Laboratory of Solid Physics Group Paris VI University Jussieu France

#### Publication

**1-Direct-current and radio-frequency characteristics of passivated AlGa<sub>N</sub> / Ga<sub>N</sub> / Si high electron mobility transistors.**

**•H. Mosbahia, M. Gassoumi, Houcine Mejri,, C. Gaquièred \*,M.A. Zaidi, H. Maaref**  
**Current Applied Physics Current Applied Physics 2013•**

**2-Deep traps responsible for capacitance hysteresis in AlGa<sub>N</sub> / Ga<sub>N</sub> FAT-HEMT's**  
**M. Charfeddine M. A. Zaidi, H. Maaref JOURNAL OF OPTOELECTRONICS AND**  
**ADVANCED MATERIALS Vol. 17, No.7-8, July - August 2013, p. 130 - 135**

**3-Numerical Investigation of Kink Effect Correlated with Defects in AlGa<sub>N</sub> / Ga<sub>N</sub> High Electron Mobility Transistors.**

**M. Charfeddine, M. A. Zaidi and H. Maaref**

**Journal of Computational and Nanoscience Vol. 10, 1-7, 2013**

**4- Analysis of Deep Levels in AlGa<sub>N</sub> / Ga<sub>N</sub> High Electron Mobility Transistor on Si Substrate Using Capacitance DeepLevel Transient Spectroscopy**

**M. Charfeddine H. Mosbahj, MA Zaidi, and H. Maaref Advanced Science,Engineering and Medicine Vol. 5, pp. 1 to 4.2013**

**5- -Direct-current and radio-frequency characteristics of passivated AlGa<sub>N</sub> / Ga<sub>N</sub> / Si high electron mobility transistors**

**H. Mosbahj, M. Gassoumi, Imen Saidi, Houcine Mejri C. Gaquière M.A.Zaidi H. Maaref**  
**Current Applied Physics 13 (2013) 1359-1364**

**6-Effect of surface passivation by Si<sub>N</sub>/SiO<sub>2</sub> of AlGa<sub>N</sub> / Ga<sub>N</sub> high-electron mobility transistors on Si substrate by deep level transient spectroscopy method**

**Malek GASSOUMI \*, Hana MOSBAHI, Mohamed Ali ZAIDI, Christophe GAQUIERE, Hassen MAAREF Journal of Semiconductors, Volume 47, Issue 7. (2013)**

**7-Critical behavior in Fe-doped manganites La<sub>0.8</sub>Ba<sub>0.2</sub>Mn<sub>1-x</sub>Fe<sub>x</sub>O<sub>3x = 0.15</sub> and x = 0.2**

S.Ghodhbane, A.Dhahri. N.Dhahri, J.Dhahri, M.A.Zaidi Journal of Alloys and Compounds  
Journal of Alloys and Compounds

**8- 2-D Theoretical Model for Current-Voltage Characteristics in AlGa<sub>N</sub>/Ga<sub>N</sub> HEMT's.**

Charfeddine, Manel; Belmabrouk, Hafedh; Zaidi, Mohamed Ali; Maaref, Hassen  
Journal of Modern Physics (21531196) . Aug2012, Vol. 3 Issue 8, p881-886. 6p.

**9- Electrical characterization of AlGa<sub>N</sub>/Ga<sub>N</sub> HEMTs ON Si substrate**

H. Mosbahia, M. Gassoumia,, H. Mejrib , M. A. Zaidi, C. Gaquiere, H. Maaref  
Journal of Electron Devices, Vol. 15, 2012, pp. 1225-1231

**10- Theoretical investigation of kink effect with deep defects and temperature in AlGa<sub>N</sub>/Ga<sub>N</sub> HEMTs**

M. CHARFEDDINE<sup>a\*</sup>, H. MOSBAHI<sup>a</sup>, M. A. ZAIDI<sup>a,b</sup>, H. MAAREF<sup>a</sup> Journal of Electron Devices,  
Vol. 15, 2012, pp. 1225-1231

**11- Poole-Frenkel assisted emissions from a barrier trap in AlGa<sub>N</sub> / Ga<sub>N</sub> / Si HEMTs"**

Malek GASSOUMI, Houcine MEJRI, Christophe GAQUIERE, Mohamed Ali ZAIDI, Hassen  
MAAREF Journal of Electron Devices, Vol. 11, 2011, pp. 538-54

**12- Electrical Characterization of Traps in AlGa<sub>N</sub> / Ga<sub>N</sub> FAT-HEMT's on Silicon Substrate by CV and DLTS Measurements}**

Manel Charfeddine, Malek GASSOUMI \*, Hana Mosbahi, Christophe Gaquière, Mohamed  
Ali Zaidi1, Hassen Maaref. Journal of Modern Physics, Vol. 2 (10), p. 1229 (2011)

**13- Electron traps studied in AlGa<sub>N</sub> / Ga<sub>N</sub> HEMT on Si substrate using capacitance deep level transient spectroscopy.**

H. MOSBAHI, M. GASSOUMI, M. CHARFEDDINE, M A. ZAIDI, C. GAQUIERE, H.MAAREF  
Journal of Optoelectronics and Advanced Materials Vol.12 (11), (2010)

**14- Deep levels in AlGa<sub>N</sub>/Ga<sub>N</sub> HEMTs on silicon substrate are characterized by current deep level transient spectroscopy**

H. MOSBAHI, M. GASSOUMI, C. GAQUIERE, M. A. ZAIDI, H. MAAREF *Optoelectronics and Advanced Materials – Rapid Communications*, Vol 4(11); (2010), p. 1783

**15- Deep levels in AlGa<sub>N</sub> / Ga<sub>N</sub> HEMTs on silicon substrate are characterized by current deep level transient spectroscopy.**

.MOSBAHI, M.GASSOUMI, C.GAQUIERE, M.A.ZAIDI, and H.MAAREF  
MADICA 2010», Tabarka (Tunisie)

**16- Investigation of deep levels in AlGa<sub>N</sub>/Ga<sub>N</sub> HEMTs on silicon substrate by conductance deep level transient spectroscopy**

H. Mosbahi, M. Gassoumi, M. Charfeddine, C. Gaquiere, M.A. Zaidi, H. Maaref  
Design and Technology of Integrated Systems in Nanoscale Era (DTIS), 2010 5th  
International Conference on; 04/2010

**17- Deep level investigation by capacitance and conductance transient spectroscopy in AlGa<sub>N</sub>/Ga<sub>N</sub>/SiC HEMTs**

M. GASSOUMI, B. GRIMBERT, M. A. POISSON, . FONTAINE, M. A. ZAIDI, C. GAQUIERE  
JOURNAL OF OPTOELECTRONICS AND ADVANCED MATERIALS, Vol. 11, No. 11, November  
2009, p. 1713 - 1717



**18- AlGa<sub>N</sub> / Ga<sub>N</sub> / Si HEMT's and capacitance deep level transient spectroscopy (DLTS) •**  
H. Mosbahi, M. Gassoumi, M.A. Zaidi, C. Gaquiere, H. Maaref International Meeting on  
Materials for Electronic Applications, IMMEA 2009

**19-Electronic properties of multi-quantum dot structures in Cd<sub>1-x</sub>Zn<sub>x</sub>S  
alloysemiconductors.**  
Safta, N., Sakly, A., Mejri, H., Zaïdi, M.A. European Physical Journal B 53 (2006)

**20- Effects of high doping on the bandgap bowing for Al<sub>x</sub>Ga<sub>1-x</sub>N**  
Safta, N. Mejri, H. Belmabrouk, H. Zaïdi, M.A. *Microelectronics Journal* (2006)  
37 (11) PP. 1289 - 1292

**21- Electric field effect on the electron emission from Te-DX in Al<sub>x</sub>Ga<sub>1-x</sub>As**  
L. Bouzrara, R. Ajjel, H. Mejri, M.A. Zaidi, H. Maaref  
Materials Science and Engineering C 26 (2006) 580-582

**22- Alloy splitting of Te-DX in Al<sub>x</sub>Ga<sub>1-x</sub>As analysis using the deep level transient  
spectroscopy technique**  
L. Bouzrara, R. Ajjel, H. Mejri, M.A. Zaidi, H. Maaref  
Microelectronics Journal 37 (2006) 586-590

**23- “ Excitonic recombination processes in GaAs grown by close space vapor transport ”**  
L. Bouzrara, R. Ajjel, H. Mejri, M.A. Zaidi, S. Alaya, J. Mimila-Arroyo, H. Maaref  
Microelectronics Journal 35 (2004) 577-580

**24- Electron traps in metal organic chemical vapor deposition grown Ga<sub>1-x</sub>Al<sub>x</sub>As .**  
R Ajjel, L. bouzrara , M.A.Zaidi, H.Maaref and G.Bremond,  
Physica (B).15-19 (2003).

**25- Poole Frenkel assisted emission from donor level Chromium doped GaP.**  
R Ajjel, M.A.Zaidi, G.Bremond, G.Guillot and J.C.Bourgoin.  
.Applied. Phys. Lett. 72,302 (1998)

**26- The Dx Center in GaAsP alloys**  
M.M.Ben Salem, M.A.Zaidi, M. Zazoui, H Maaref and J.C.Bourgoin  
Phys.State.Sol.(b) 209, 363-374 (1998)

**27- Deep level analysis of n type in GaAl<sub>1-x</sub>P<sub>x</sub> alloys.**  
M.M.Ben Salem, M.A.Zaidi, H Maaref and J.C.Bourgoin  
J.Applied.Phys. 78,4004 (1995).

**28- Defects in electron GaAlAs alloys**  
M.A.Zaidi, H.Maaref, M.Zazoui and J.C.Bourgoin  
. J.Applied.Phys. 74,284 (1993)

**29- Defects in electron GaAlAs alloys**  
M.A.Zaidi, H.Maaref, M.Zazoui and J.C.Bourgoin  
J.Applied.Phys. 74,284 (1993)

**30- Hole capture cross section of Dx centers in  
Ga<sub>1-x</sub>Al<sub>x</sub>As.**  
M.A.Zaidi, H.Maaref, M.Zazoui and J.C.Bourgoin

23 Phys. Rev. B 44, 7987 (1991)

30- Defects in electron irradiated n –type GaP and GaInP.

M.A.Zaidi, H Maaref, M.Zazoui and J.C.Bourgoin  
Materials Science Forum Vol.143-147 (1994)

31- Defects in electron irradiated GaInP

J.Kryniki, M.A.Zaidi, M.Zazoui, H.Maaref, J.C.Bourgoin, M.Diforte Poisson, Chrynlinsky,  
SL.Delage and H.Blank  
J.Applied.Phys. 74,260 (1993)

32- Recombination Centers in Czochralski grown p type .

M.Zazoui , M.A.Zaidi, J.C.Bourgoin and G.Stroobl  
J.Applied.Phys. 74,3944 (1993)

33- Minority carrier cross section of the EL2 defects in GaAs.

M.A.Zaidi, H.Maaref, and J.C.Bourgoin Applied. Phys.Lett.  
(1992)

34- Poole Frenkel emission deep levels in electrons Germanium.

M.A.Zaidi, H.Maaref and J.C.Bourgoin  
Semicond. Science Technol. 4, 93(1989)

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### Teaching Experience

Classical mechanics

Electromagnetism

Electronics

Electrostatic

Magnetostatic

general physical

modern Physics

optical instruments

Geometric optics

Mathematics

Physical optics

Relativity

Waves and vibrations

Quantum Mechanics 1

Quantum Mechanics 2

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Fluid mechanics	
Semi-conductor	
Properties of matter	
Electrical characterization of components	
Physics of Solids I	
Physics of Solids II	
Group theory	
Quantum Mechanics 3	
Mathematics	

### Training Experience

Training "Deep level transient Spectroscopy " Monastir University , Tunisia  
 Training "Optical Deep level transient Spectroscopy ", INSA of Lyon France  
 Training " Electron beam processing or electron irradiation ", University Paris V France

### Conferences

Tunisia France Physics Conference	2000
Conference on Semiconductor and applications	2004
Conference "missing mass"	1993

### Practical Skills

Degree in Mathematics
the French language
Computer

## Dr. Mohammad kheare Abu Shayeb



Associated Professor  
Physics Department  
Faculty of Science, Zulfi  
Majmaah university

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### Research Interests:

Experimental high energy physics  
Quark gluon plasma  
Heavy ion Interactions

### Qualification (Career and University Education)

<b>Ph.D in (Physics )</b>	)High Energy Physics	<i>University of Rajasthan-Jaipur-INDIA-awarded on March 2003</i>
M.Sc (Physics)	Nuclear Physics	<i>Dr. B. S Marathwada University- Aurangabad – India, awarded on Apr 1996. Placed in Second Division.</i>
B.Sc (Physics)	Physics	<i>Dr. B. S Marathwada University- Aurangabad – India, awarded on Apr 1996. Placed in Second Division.</i>

### Employment

2011-2014	<b>Associated professor</b> ( Al Majmaah University)KSA
2011-2011, July	<b>Dean of science faculty</b> (al-Hussein Bin talal University)
2011	<b>Associated professor</b> (al Hussein bin talal university)
2010-2011	<b>Vice Dean of Science faculty</b> <i>Al-Hussein B T U, Ma'an, Jordan</i>
2008 sep-2009	<b>Dean of Science faculty</b> (acting) <i>Al-Hussein B T U, Ma'an</i>
2004, apr- 2008, Sep	<b>Vice Dean of Science faculty</b> <i>Al-Hussein B T U, Ma'an, Jordan</i>
2008, Apr	<b>Head of Physics department</b> , <i>Al-Hussein B T U, Jordan</i>
2004	<b>Asst Poff</b> , Al-Hussein Bin Talal University, <i>Ma'an, Jordan</i>
2002-2003	<b>Teaching</b> , Granada College affiliated to, Balqa University, <i>Jordan</i>

<b>Industry collaboration</b>	<b>N/A</b>
<b>Patents and proprietary right</b>	<b>N/A</b>
<b>Last Publication</b>	<p>Hanan H. Saleh &amp; <b>Mohammad Abu Shayeb</b>” Natural radioactivity distribution of southern part of Jordan (Ma’an) Soil, <a href="#">Annals of Nuclear Energy</a> (Impact Factor: 0.8). 01/2014; 65:184–189</p> <p><b>Mohammad abu Shayeb</b> (2014) Photon multiplicity distributions for Pb+Pb, Nb &amp; Ni interactions. <i>submitted</i></p>

## Dr. Samir Al-Zobaidi



Assistant Professor  
Physics Department  
Faculty of Science, Zulfi  
Majmaah university

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### Research Interests:

Polymer crystallization, characterization, and processing

### Language Skills

Arabic (native), English.

### Qualification (Career and University Education)

1987-1991	B. Sc. Degree (Physics)	College of Science / University of Jordan / Jordan
1992-1994	MS. C. Degree (Physics/Laser and modern spectroscopy)	College of Science / Aligahr Muslim University / India First Division
1996-2002	PhD Degree (Materials Science)	College of Materials Science and Engineering / University of Tennessee / USA.

### Career

2009-2012	<b>Head of physics department</b>	College of science in al-Zulfi / <i>Majmaah University / Saudi Arabia</i>
2006-recent	<b>Assistant Professor</b>	College of science in al-Zulfi / <i>Majmaah University Saudi Arabia</i>
2004-2006	<b>Researcher</b>	Department of design and mechanical technology / <i>Royal Scientific Society (RSS) / JORDAN</i>
2003-2004	<b>Physics Teacher for IGCSE classes,</b>	<i>Rawdat Al-Ma'aref Schools &amp; College / JORDAN</i>

### Short Visits

### Publication

Crystallization of ethylene-octene copolymers at high cooling rates. **Wagner, J., Abu-Iqyas, S., Monar, K., and Phillips, P. J.; Polymer (1999), 40(16), 4717-4721.**

The Influence of sequence length distribution on the linear growth of ethylene-octene copolymers. **Annual Technical Conference -Society of Plastics Engineers (1998), 56<sup>th</sup> (Vol. 2), 1516-1520.**

The effect of adding thiacalix[4]arene compound on polypropylene/clay nanocomposite. **The**

**international conference on Materials Science and its Applications “development and Innovation”. Feb. 2012. Taif, KSA.**

Chain-extended Crystals in Ethylene-Octene Copolymers. **American Physical Society (APS). March meeting 2002. Indianapolis, Indiana. USA**

Phase Diagrams and Phase Transformations in Ethylene-Octene Copolymers. **American Physical Society (APS). March meeting 2002. (Poster session) Indianapolis, Indiana. USA**

The Influence of Regime on Band Spacing in an Ethylene Copolymer. **American Physical Society (APS). March meeting 2002. Indianapolis, Indiana. USA**

Crystallization of Polyethylene and its Octene Copolymers Over a Wide Range of Supercooling. **American Physical Society (APS). March meeting 2001. (Poster session) Portland, OR. USA**

The crystallization mechanism of (metallocene) Ethylene-octene copolymer (LLDPE) as a function of the applied pressure. **American Physical Society (APS). March meeting 2001. Portland, OR. USA**

The Influence of sequence length distribution on the linear growth of ethylene-octene copolymers. **Annual Technical Conference -Society of Plastics Engineers (ANTEC) (1998), Atlanta, GA. USA**

**“The effect of pressure and temperature on the mechanical properties of polymer/clay nanocomposites” Grant number SR-S-007-040 funded by SABIC. (2007)**

**“The effect of adding thiacalixarene compounds on the exfoliation and intercalation of polypropylene / clay nanocomposites”. Grant number SR-S-009-040 funded by SABIC. (2009)**

**“The effect of the digestive juice enzymes on the biodegradation of polyethylene/montmorillonite nanocomposites after its exposure to UV radiation”. Grant number SR-S-009-001 funded by SABIC, (2009).**

### Teaching Experience

General Physics I	PHYS 201	College of Science / Zulfi	Majmaah University
General Physics II	PHYS 202	College of Science / Zulfi	Majmaah University
Modern Physics	PHYS 351	College of Science / Zulfi	Majmaah University
Modern Physics Lab.	PHYS 494	College of Science / Zulfi	Majmaah University
Electromagnetism Lab.	PHYS 393	College of Science / Zulfi	Majmaah University
Quantum mechanics I	PHYS 352	College of Science / Zulfi	Majmaah University
Quantum Mechanics II	PHYS 453	College of Science / Zulfi	Majmaah University
Atomic and Molecular Physics	PHYS 454	College of Science / Zulfi	Majmaah University
General Physics for medicine and dentistry students	PHYS 145	College of Medicine / Majmaah	Majmaah University
General Physics for medicine and dentistry students	PHYS 145	<b>College of Dentistry / Zulfi</b>	Majmaah University

### Conferences

**The international**

Taif, KSA

Feb. 2012

<b>conference on Materials Science and its Applications "development and Innovation".</b>		
<b>American Physical Society (APS).</b>	Indianapolis, Indiana. USA	March meeting 2002
<b>American Physical Society (APS).</b>	Portland, OR. USA	March meeting 2001
<b>Annual Technical Conference -Society of Plastics Engineers (ANTEC)</b>	Atlanta, GA. USA	1998

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#### Training Experience

**"DSC, TGA, DMA Rheology" Annual workshop series presented by TA instruments, Knoxville TN 1999.**

**"Cambridge international diploma for teachers and trainers" Training course, conducted by Cambridge International Examinations at the British Council, Amman 2003**

**"ISO/IEC 17025 Application and Requirements" Training course conducted by the Quality Assurance Department/ Royal Scientific Society, Amman, October 2004.**

**"Innovation Promotion and Technology Commercialization Workshop" A workshop presented by the Royal Scientific Society (RSS), Princess Sumaya University for Technology (PSUT) and the Higher Council for Sciences & Technology (HCST). Amman, Jordan 14<sup>th</sup> and 15<sup>th</sup> September 2005**

**A seminar was addressed on the modified atmosphere packaging as part of "The improvement and marketing of the fresh produce" workshop organized by the Central Market-Great Amman Province (Jordan), July 2004.**

**"Introduction to electronics" A training course aimed to train high school teachers in Al-Zulfi on how to: identify the different circuit components, connect electric circuits, and measure the electric parameters.**

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#### Practical Skills

##### ICDL

**Optical Microscope, Electron microscopes, FTIR, Mechanical testing machines. DSC, X-ray Diffraction.**



## Assoc. Prof. Dr. Mohamed S. Gaafar



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Mathematics Department  
Faculty of Science, Zulfi  
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### Research Interests:

Materials synthesis and characterization

Ultrasonic, FTIR, XRD (Radial Distribution Function for amorphous materials), Thermal properties using (DSC & DTA) Raman spectroscopy, Polarized light optical microscope and UV-VIS spectrophotometry.

Nano materials

### Language Skills

English (very good reading and writing), Duetsch (little experience in reading and writing) and Arabic (excellent reading and writing).

### Qualification (Career and University Education)

B. Sc. Degree (Biophysics) B. Sc in Biophysics – Faculty of Science – Cairo University (1993) with grade (Very Good) for the average of 4 years.

MS. C. Degree (Biophysics) M. Sc in Ultrasonic characterization of materials entitled “Ultrasonic Investigation of Some Rubber Blends for Preparing Ultrasonic Phantom” Faculty of Science-Biophysics Department - Cairo University, (2001).

PhD Degree (Physics ) Ph.D in Ultrasonic characterization of materials entitled "Ultrasonic Velocity and Attenuation Measurements for Characterizing Some Tellurite Glasses", Faculty of Science - Physics Department - Menia University, (2005).

### Career

(1996) Demonstrator at Department of Ultrasonic, National Institute for Standards – EGYPT, (1996).

(2001) Assistant Lecturer at Department of Ultrasonic, National Institute for Standards – EGYPT, (2001).

(2005) Assistant Professor at Department of Ultrasonic, National Institute for Standards – EGYPT, (2005).

(2010) Associate Professor at Department of Ultrasonic, National Institute for Standards – EGYPT, (2010).

(2010) - Associate Professor at Department of Physics , Faculty of Science, Majmaah university , Saudi Arabia, (2010) - Continue.

Experiences Training :

1- Travelled to Denmark in 1999 for five months in Technical University of Denmark – Industrial Acoustics Department -Lyngby – Copenhagen, for training on building setup of thermoacoustic sensor and using this system for calibration of ultrasonic transducers.

2- ISO Guide 25, uncertainty, statistics, ultrasound, and in optical measurement.

3- Travelled to Germany, Darmstadt, in a post doc - DFG fellowship September (2007).

4- Travelled to Soul - South Korea 14-29 June 2009 in a training program of National Standards and Precision Measurements.

#### Short Visits

1999	Technical University of Denmark – Industrial Acoustics Department -Lyngby – Copenhagen
2007	Germany, Darmstadt, in a post doc - DFG fellowship
2009	KRISS - Soul - South Korea

#### Publication

1- M. A. Sidkey, A. A. Yehia, N. A. Abd El Malak and M. S. Gaafar, "Compatibility Studies on Some Rubber blend Systems by Ultrasonic Techniques", *Materials Chemistry & Physics*, 74, 23-32, (2002).

2- M. A. Sidkey, A. A. Yehia, N. A. Abd El Malak and M. S. Gaafar, "Elastic Properties of Some Rubber Blends", *Journal of Pure & Applied Ultrasonics*, 23 (3 & 4), 43-50, (2001).

3- M. A. Sidkey and M. S. Gaafar, "Ultrasonic studies on network structure of ternary TeO<sub>2</sub> – WO<sub>3</sub> – K<sub>2</sub>O glass system", *Physica B*, 348, 46-55, (2004).

4- M. A. Sidkey and M. S. Gaafar, "Ultrasonic relaxation of ternary TeO<sub>2</sub> – WO<sub>3</sub> – K<sub>2</sub>O glass system", *Physics and Chemistry of Glasses*, Vol. 45 (1), 7-14, (2004).

5- M. S. Gaafar and S. Y. Marzouk, "Study on Some Physical Properties of Er<sup>3+</sup> doped SiO<sub>2</sub> – Na<sub>2</sub>O – B<sub>2</sub>O<sub>3</sub> Glasses Using Ultrasonic Velocity and FTIR Spectroscopy", *NORBERT KREIDL MEMORIAL International Course and Conference ICC-06, EGYPT*, (2006).

6- M. S. Gaafar and S. Y. Marzouk, "Mechanical and Structural Studies on Sodium Borosilicate Glasses Doped with Er<sub>2</sub>O<sub>3</sub> Using Ultrasonic Velocity and FTIR Spectroscopy", *Physica B*, 388, 294, (2007).

7- S. Y. Marzouk and M. S. Gaafar, "Ultrasonic study on some borosilicate glasses doped with different transition metal oxides", *Solid State Communications*, 144, 478, (2007).

8- M. El-Gazery and M. S. Gaafar, "Modified Reference HS-Block for Directivity Pattern and Resolution Calibration of Contact Probe", *Egypt. J. Meas. Sci. Technol.*, 2, 79-93, (2007).

9- M. S. Gaafar, E. A. El-Sayad, S. Y. Marzouk, "Ultrasonic Study of Cu<sub>x</sub>Ag<sub>1-x</sub>InTe<sub>2</sub> bulk material", *Archives of Acoustics*, 33 (3), 363-372, (2008).

10- M. A. Sidkey; A. Abd El-Moneim; M. S. Gaafar; N. S. Abd El-Aal; L. Abd El-Latif; I. M. Youssof, "Elastic and structural properties of vanadium lithium-borate glasses", *Philosophical Magazine*, 88 (11), 1705-1722, (2008).

11- M. S. Gaafar, Y. B. Saddeek and L. Abd El-Latif, "Ultrasonic Studies on Alkali Borate Tungstate Glasses", *Journal of Physics and Chemistry of Solids*, 70 (1), 173, (2009).

12- M. S. Gaafar, F. H. El-Batal, M. El-Gazery and S. A. Mansour, "Effect of Doping Different Transition Metals on the Acoustical properties of Alkali Borate Glasses", *Acta Physica Polonica A*, 115 (3), 671, (2009).

13- Y. B. Saddeek, M. S. Gaafar, N. S. Abd El-Aal and L. Abd El-Latif, "Structural Analysis of Some Alkali Diborate glasses", *Acta Physica Polonica A*, 116 (2), 211, (2009).

14- M. S. Gaafar, N. S. Abd El-Aal, O. W. Gerges and G. El-Amir, "Elastic Properties and Structural Studies on Some Zinc-Borate Glasses derived from Ultrasonic, FT-IR, and X-ray techniques", *Journal of Alloys and Compounds*, 475, 535, (2009).

15- M. S. Gaafar; S. Y. Marzouk; H. Mady, "Ultrasonic and FT-IR Studies on Bi<sub>2</sub>O<sub>3</sub> – Er<sub>2</sub>O<sub>3</sub> – PbO Glasses", *Philosophical Magazine*, 89 (26), 2213-2224, (2009).

16- M. S. Gaafar, H. A. Afifi and M. M. Mekawy, "Structural studies of some

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phospho-borate glasses using ultrasonic pulse-echo method, DSC and IR spectroscopy", *Physica B*, 404, 1668, (2009).

17- Y. B. Saddeek and M. S. Gaafar, "Physical and structural properties of some bismuth borate glasses", *Materials Chemistry & Physics*, 115, 280, (2009).

18- M. S. Gaafar, L. I. Soliman, S. Y. Marzouk, "Ultrasonic Characterization of  $\text{Bi}_2(\text{Te}_{1-x}\text{Se}_x)_3$  System", *Archives of Acoustics*, 34 (4), 407-417, (2009).

19- N. A. Darwish, M. S. Gaafar, N. Abd El-Aal, A. A. Abd El-Megeed, "Investigation of aging effect on the mechanical properties of silicone rubber using ultrasonic, DMA and FT-IR techniques", *Kautschuk Gummi Kunststoffe (KGK)*, in press.

20- H. A. Afifi, N. S. Abd El-Aal, M. S. Gaafar, M. M. Mekawy and E. Ali, "Measurement of viscosity using ultrasonic pulse echoe method and cone-plate viscometer", *International Congress On Ultrasonics – ICU*, Santiago – Chili, January 11-17, (2009).

21- A. Abo Kandil and M. S. Gaafar, "Effect of different types of carbon black on the mechanical and acoustic properties of EPDM", *Journal of Applied Polymer Science*, 117(3), 1502, (2010).

22- Y. B. Saddeek, M. S. Gaafar, Safaa A. Bashier, "Structural influence of PbO by means of FTIR and acoustics on calcium alumino-borosilicate glass system", *Journal of Non-Crystalline Solids*, 356, 1089, (2010).

23- H. E. Nasr, M. S. Gaafar, O. Abdel-Kareem, F. Abd El-Aziz, "Morphological, Rheological and Ultrasonic Characterizations of ECO-Friendly Micro-emulsion Lattices Based on Acrylate Monomers", *Journal of American Science*, 6(9), 897, (2010).

24- M.A. Nour, M.S. Gaafar, A. Eid, A.A. El-Ebissy, "The effects of nickel chelate of aminopyridineanilide combined with modified clay on flame retardance enhancement of polyethylene composites prepared by ultrasonic irradiation", 14<sup>th</sup> European Conference on Composite Materials, 7-10 June, 2010, Budapest, Hungary

25- M. S. Gaafar, Mostafa A. M. Abdeen, S. Y. Marzouk, "Structural investigation and simulation of acoustic properties of some tellurite glasses using artificial intelligence technique", *Journal of Alloys and Compounds*, 509, 3566, (2011).

26- **A.A. El-Daly, Farid El-Tantawy, A.E. Hammad, M.S. Gaafar, E.H. El-Mossalamy, A.A. Al-Ghamdi**, "Structural and elastic properties of eutectic Sn–Cu lead-free solder alloy containing small amount of Ag and In", *Journal of Alloys and Compounds*, 509, 7238, (2011).

27- G.E. El-Falaky, M.S. Gaafar, N.S. Abd El-Aal, " Ultrasonic relaxation in Zinc-Borate glasses", *Current Applied Physics*, 12, 589, (2012).

28- S.Y. Marzouk, L.I. Soliman, M. S. Gaafar, H.A. Zayed, A.H. Serag El-Deen, " Dielectric Properties and Conductivity of Some Alkali Borate Glasses Doped With Cobalt Oxide", *Journal of Applied Sciences Research*, 8, 2325 (2012).

29- M. S. Gaafar, S. Y. Marzouk, H. A. Zayed, L. I. Soliman, A. H. Serag El-Deen, "Structural studies and mechanical properties of some borate glasses doped with different alkali and cobalt oxides", *Current Applied Physics*, 13, 152, (2013).

30- Y. B. Saddeek, M. S. Gaafar, "Study of the rigidity of semi-conducting vanadate glasses and its importance in the use of coatings", *Bull. Mat. Sci.*, Accepted for publication, In press (2013).

31- M. S. Gaafar, Y. A. Azzam, "Acoustic Relaxation of Some Lead Niobium Tellurite Glasses", *Bull. Mat. Sci.*, Under review (2013).

32- M. S. Gaafar, A. El-Wakil, M. Yousuf, "Study of the effect of radiation and frequency on

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the electrical properties and ultrasonic properties of polyethylene", Archives of Applied Science Research, 5(2), 158, (2013).

33- R. El-Mallawany, M. S. Gaafar, Y. A. Azzam, "Prediction of Ultrasonic parameters at low temperatures for Tellurite glasses", Materials Letters, Under review (2014).

34- R. El-Mallawany, M. S. Gaafar, N. Veeraiah, "Calculated Bulk Modulus and Poisson's Ratio of Some Tellurite Glasses", Materials Characterization (2013).

35- M. S. Gaafar, "Theoretical determination of ultrasonic velocities of tellurite and Borate glasses using Makishima and Mackenzie model", in preparation (2014).

36- N. Elkhoshkhany, R. Abbas, M. S. Gaafar, R. El-Mallawany, A. Abd Almuhsin, "Elastic Moduli of Tellurite Glasses  $\text{TeO}_2\text{-ZnO-Nb}_2\text{O}_5\text{-Gd}_2\text{O}_3$ ", Physica and Chemistry of Solids, Under Review (2014).

37- R. El-Mallawany, M. S. Gaafar, M. A. Abdeen, S. Y. Marzouk, "Simulation of acoustic properties of some tellurite glasses", Ceramics International, 40(5), 7389, (2014).

38- M. S. Gaafar, " Structural Investigations on Some Cadmium-Borotellurate Glasses Using Ultrasonic, FT-IR and X-ray techniques", Journal of Alloys and Compounds, Under Review (2014).

### My H. Index is 11

<http://scholar.google.com/eg/citations?user=toAJWG4AAAAJ&hl=en>

### Teaching Experience

Electronics	B.Sc in Engineering	Faculty of Industrial Educations	EGYPT
Measurement	B.Sc in Engineering	High Institute for Engineering	EGYPT
Sound and Light	B.Sc in Physics	Faculty of Science – Suez Canal University	EGYPT
Heat and Properties of Matter	B.Sc in Physics	Faculty of Science – Suez Canal University	EGYPT
Health Physics	B.Sc in Physics	Faculty of Science – Suez Canal University	EGYPT
Thermodynamics	B.Sc in Physics	Faculty of Science – Suez Canal University	EGYPT
Thermodynamics	B.Sc in Engineering	Basic Sciences Dept. – Arab Academy of Sciences and Technology	EGYPT
General Physics (PHIS-101)	B.Sc in Physics	College of Science – Majmaah University	KSA
Waves and Vibrations	B.Sc in Physics	College of Science – Majmaah University	KSA
Biophysics	B.Sc in Physics	College of Science – Majmaah University	KSA
Health Physics	B.Sc in Physics	College of Science – Majmaah University	KSA
Thermodynamics	B.Sc in Physics	College of Science – Majmaah University	KSA
Modern Physics 1	B.Sc in Physics	College of Science – Majmaah University	KSA

		University	
Electromagnetism 1	B.Sc in Physics	College of Science – Majmaah University	KSA
General Physics (104)	B.Sc in Physics	College of Science and Human Educations – Majmaah University	KSA
Solid State Physics 1	B.Sc in Physics	College of Science – Majmaah University	KSA
Solid State Physics 2	B.Sc in Physics	College of Science – Majmaah University	KSA
Solid State Physics Lab.	B.Sc in Physics	College of Science – Majmaah University	KSA
General Physics (104)	B.Sc in Computer Science (Tagseer)	College of Science – Majmaah University	KSA

#### Conferences

- 1- As an Organizing Committee and audience of the Ultrasonics International '99 joint with 1999 World Congress on Ultrasonics, 29 June – 1 July 1999, held in Technical University of Denmark -Denmark.
- 2- 6th Arab International Conference on Polymer Science and Technology, 1 – 5 September (2001) Ismaelia – Sharm El-Sheikh, Egypt.
- 3- NORBERT KREIDL MEMORIAL International Course and Conference ICC-06, EGYPT, (2006), Ras Sudr, EGYPT.
- 4- The XXVII conference, Solid State Physics and Materials Science, 24th – 27th, Gulf of Suez, Ein Soukhna, Egypt, (2008).
- 5- International Congress On Ultrasonics – ICU, Santiago – Chili, January 11-17, (2009).
- 6- The XXVIII conference, Solid State Physics and Materials Science, Gulf of Suez, Ein Soukhna, Egypt, (2009).

#### Thesis Supervised and Reviewed

- 1- Safaa A. Bashier, Supervisor for the PHD thesis entitled "The Role of Radiation in the Structural Investigations of Some Lead Borate Glasses", Biophysics Dept. – Faculty of Science – Cairo University - EGYPT, Awarded - (2010).
- 2- Ghada El-Amir, Supervisor for the PHD thesis entitled "Structural Investigation of Some Zinc Borate Glasses", Biophysics Dept. – Faculty of Science – Cairo University - EGYPT, Awarded - (2010).
- 3- Abeer H. Serag El-Deen, Supervisor for the PHD thesis entitled "Characterization of Some Borate Glasses", Physics Dept. – Women's College for Arts, Science and Education – Ain Shams University - EGYPT, Awarded - (2012).
- 4- Reviewer for the PHD thesis entitled ""Acoustical behaviour of some three component liquid systems and characterization of few glass specimen", Physics Dept. - Annamalai University, INDIA, Awarded (2008).

#### Conferences/Workshops/Seminar Organized

- 1- Organizing Committee for the Ultrasonics International '99 joint with 1999 World Congress on Ultrasonics, 29 June – 1 July 1999, held in Technical University of Denmark -Denmark.
- 2- Scientific and Quality seminars in College of Sciences, Majmaah University.
- 3- Organizing Committee for Academic Accreditation to ASIIN in College of Sciences,

#### Memberships of Scientific and Technical Societies

- 1- Life member in Egyptian Society of Solid State, EGYPT.
- 2- Life member in Egyptian Society of Biophysics, EGYPT.
- 3- Reviewer member in the following Elsevier journals;
  - 1- Materials Chemistry and Physics Journal.
  - 2- Journal of Alloys and Compounds
  - 3- Physics and chemistry of Glasses
  - 4- Journal of Non-Crystalline Solids
  - 5- Physica B: Condensed Matter
  - 6- Radiation Instruments
- 4- Editorial Committee of the Marquis Who is Who.
- 5- Editorial board of the journal of Modern Applied Sciences.
- 6- Life member in Egyptian Society of Polymer Sciences and Technology, EGYPT.

#### Computer Skills

Microsoft Windows, Origin Lab., Microsoft Excel, Microsoft Word, Microsoft Power Point, Adobe Photoshop, Adobe PDF Writer, Basic Language Programming, C & C++ Programming, .....etc.

#### Practical Skills

- 1- Ultrasonic Pulse Echo technique.
- 2- FTIR.
- 3- Polarized Light Optical Microscope.
- 4- Semi-crystalline polymers and Liquid crystals.

#### Project/Reports:

- 1- 1431-1432, two projects have been made in cooperation with Dr. Yasser B. Saddeek funded from Majmaah University.
- 2- 1432-1433, one project has been made in cooperation with Dr. Y. Azzam and funded from Majmaah university.
- 3- 1433-1434, one project is in progress and funded from Majmaah university.

#### Extra Participation Experiences:

- 1- Participated as a reviewer of the scientific projects for the Islamic development bank – Saudi Arabia, for the year (2009).
- 2- Participated as a reviewer for 11 search works for the Materials Chemistry and Physics journal, Journal of Alloys & Compounds and Physics & Chemistry of Glasses.
- 3- Participate as a member researcher through the ultrasonic dept. – National Institute of Standards in a search project with the Egyptian Academy of Scientific Research and Technology (ASRT) and the Russian - Emanuel Institute.
- 4- Participate as one of the Editorial Committee of the Marquis Who is Who from 2007 to date.
- 5- Participate as a member of the editorial board of the journal of Modern Applied Sciences.
- 6- Have been chosen as one of the top 100 scientists in (2009) selected by the International Biographical Centre (IBC) – Cambridge University – England.

## Prof. Dr. Abdu Idris Omer



Professor Assistant  
Physics Department  
Faculty of Science, Zulfi  
Majmaah university

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### Research Interests:

#### Electronic Systems

Microelectronics

#### Language Skills

Arabic, English

### Qualification (Career and University Education)

1985-1992	B. Sc. Degree (Electronics)	Division Two Upper, Grade "very good ", Faculty of science and Technology, Wad Medani, Gezira University.
1996-1998	MS. C. Degree (Experimental Electronics)	Faculty of Engineering, Universiti Putra Malaysia, Kualau Lumpor, Malaysia.
1998-2002	PhD Degree (Electronic systems Engineering )	Faculty of Engineering, Kuala lumpor, Universiti Putra Malaysia. <u>External part</u> at Stockholm University , Sweden

### Career

1993-1995	Demonstrator at Department of Applied Physics Electronics & Instrumentation, faculty of science and Technology, Wad Medani, Gizera University
2002-2009	Assistant Professor at Department of Applied Physics, Electronics & Instrumentation, Faculty of Science and Technology , Wad Medani, Gizera University
2010-	Assistant Professor at Department of Physics, Faculty of Science, Majmaah university , Saudi Arabia

### Short Visits

2010-	Visiting Lecturer for Physics Department , Majmaah university
-------	---

### Publication

- 1- Abdu Idris Omer, Taleb M.M. " ARCHITECTURE OF INDUSTRIAL AUTOMATION SYSTEMS", European Scientific Journal January 2014 edition vol.10, No.3 ISSN: 1857 – 7881 (Print) e - ISSN 1857- 7431,
- 2- Abdu Idris Omer, Taleb M.M." MEASUREMENT SYSTEMS: CHARACTERISTICS AND MODELS", European Scientific Journal March 2014 edition vol.10, No.9 ISSN: 1857 – 7881 (Print) e - ISSN 1857- 7431.
- 3- Taleb M. Maslamani , Abdu Idris Omer, " DEVELOPMENT OF SOLAR THERMOELECTRIC GENERATOR", European Scientific Journal March 2014 edition vol.10, No.9 ISSN: 1857 – 7881 (Print) e - ISSN 1857- 7431.
- 4- Sulieman M.S. Zobly and Abdu I. Omer “Development a simulated method for continuous monitoring radiation in the nuclear medicine department (Wad Medani)”, *Gezira j. of eng. & applied sci.4 (1) :1 – 14 (2009)*
- 5- Sulieman M.S. Zobly and Abdu I. Omer “Developing an Induction Heating & hardening System”, *Gezira j. of eng. & applied sci.3 (2) :38 – 51(2008).*
- 6- Yousif A. Abdu I. Omer, “Development of a computerized system for weft insertion based on Dobby device mechanism”, *Gezira j. of eng. & applied sci.4 (1) :120 – 136 (2009).*
- 7- Khalid O. Daffallah, Mutaz M. Fadl Allah, Abdu I. Omer, "Design and Development of a Photovoltaic Water Pumping" *Gezira j. of eng. & applied . sci. 5 (1) :1 –15 (2010).*
- 8- Abdu Idris Omer, "Modeling and Analyzing Electric Circuits", 1<sup>st</sup> Global Virtual Conference April, 8. - 12. 2013.
- 9- Abdu I. Omer, Mohammed A. Alhadi, "Development of a Microcontroller Based Security Lock for a Car Engine", 1<sup>st</sup> Global Virtual Conference April, 8. - 12. 2013
- 10- Abdu, I. Omer, Zamri, I. and Rahman W. “Development of Computer-based interfacing board for Chlorpyrifos detection using an Amperometric Biosensor”, *Proceedings of the 13<sup>th</sup> National Biotechnology Seminar 2001*, Jointly organized by National Biotechnology Directorate, Ministry of Science, Technology and the Environment, Malaysia, pp. 224-226, from 10-13<sup>th</sup> Nov. 2001 in the Bayview Beach Resort, Penang, Malaysia.
- 11- Abdu, I. Omer, Bambang S. Suparjo, Rahman W. Wagiran “Multi-channel PC-Based Instrumentation System”. *Proceedings of the National Real-time Technology and applications Symposium (RENTAS 2000)*, pp 99-103. Auditorium MIMOS, MIMOS Berhad, Technology Park, Malaysia, Kuala lumpur, Malaysia. 17-18 Oct. 2000
- 12- Abdu, I. Omer, Bambang S. Suparjo, Rahman W. Wagiran, Zamri, I. “An



Amperometric Sensor for the Detection of Organophosphate Pesticide”, Conference on 1999 IEEE National Symposium on Microelectronics, organized by The institution of Electrical and Electronic Engineers Inc. IEEE Malaysian Section Electron Devices Chapter, September 6-7, 1999 The Pan Pacific Resort Pangkor, Malaysia.

13- Zamri, I. and Abdu, I. Omer “Biosensor System to Detect Organophosphate Pesticide”, Proceedings of the 9<sup>th</sup> Malaysian Society of Plant Physiology Conference 1998, Organized by Malaysian Society of Plant Physiology, 1-2 Sep. 1998.

14- Zamri, I. Salmah AA, Abdu I. Masnizar M. and Anuar A. “Development of Fiber Optic Biosensor For Detection of Pesticide Residues Using Enzyme as a Bioreceptor”, Proceedings of the 12<sup>th</sup> National Biotechnology Seminar 2000, Jointly Organized by Molecular Biology BCC at Universiti of Malaya and Biotech Ministry of Science Technology & the Environment, Malaysia, pp. 49-51. From 12-15<sup>th</sup> Nov. 2000 at Lumut, Perak Darul Ridzuan, Malaysia.

### Teaching Experience

General Physics	PHIS101	AlZulfi Science	Majmaah University
General Physics	PHYS202	AlZulfi, Science	Majmaah University
General Physics	PHIS104	AlZulfi Science	Majmaah University
Electronics 1	PHIS324	AlZulfi Science	Majmaah University
Electronics 2	PHIS425	AlZulfi, Science	Majmaah University
Electronics	PHYS422	AlZulfi, Science	Majmaah University
Transistor Circuits	Electronics	Wad Medni, Science and Technology	Sudan
Electronic Design	Electronics	Wad Medni, Science and Technology	Sudan
Microprocessors	<b>Electronics</b>	<b>Wad Medni, Science and Technology</b>	Sudan

### Conferences

Universiti Putra Malaysia, World Engineering Congress 1999, Malaysia

### Training Experience

Training " National Training course on interfacing in scientific Experiments " , Sudan Atomic Energy

Commission, Sudan.

Training " How to use a computer for teaching Engineering Sciences using the MatLab software " National Assembly, Ministry of Higher Education and Scientific Research, Sudan.

Training " National training course on microprocessor-based instruments including operation, troubleshooting and repair ", Sudan Atomic Energy Commission, Sudan.

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### Practical Skills

Computer assembly, maintenance and troubleshooting course ", Irfan Technologies Sdn, Bhd, kualalumpure, Malaysia.

## Ass. Prof. Ibrahim Shaarany Hegy Mahmoud



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Physics Department  
Faculty of Science, Zulfi  
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### Research Interests:

**Theoretical Physics:** (Particle Physic)

### Language

Arabic, English

### Qualification (Career and University Education)

1990-1993	B. Sc. Degree (Physics)	Grade "Very Good with Honor", Faculty of science, Suez Canal University (Egypt).
1996-1998	MS. C. Degree (Theoretical Physics)	Faculty of Science, Faculty of science, Suez Canal University (Egypt).
2002-2004	PhD Degree (Theoretical Physics )	Faculty of Science, Suez Canal University (Egypt).

### Career

1993-1998	Demonstrator at Department of Physics, faculty of Science, Suez Canal University (Egypt).
1998-2004	Assistant Lecturer at Department of Physics, faculty of Science, Suez Canal University (Egypt).
2004 - 2006	Lecture at Department of Physics, faculty of Science, Suez Canal University (Egypt).
2006-2010	Assistant Professor at Faculty of Science and Art, Ben-Gazzy university , Lybia
2011-Now	Assistant Professor at Department of Physics , Faculty of Science, Majmaah university , Saudi Arabia

### Publication

1- **I.S. Mahmoud and T. Abd El-Azim**, "*Photoproduction of Lightest Neutral MSSM Higgs Boson*", 4th Conference on Nuclear and Particle Physics, 11-15 Oct. 2003, Fayoum, Egypt

**I.S. Mahmoud**, "*Production of Heavy Neutral MSSM Higgs Boson in Photon-Electron Colliders*", 4th Conference on Nuclear and Particle Physics, 11-15 Oct. 2003, Fayoum, Egypt

2- **I.S. Mahmoud**, "*The Higgs mass using E-infinity theory*"  
*Journal of Chaos, Solitons & Fractals, Volume 30, Issue 2,*

- 3- **I.S. Mahmoud**, "*Production of Lightest Neutral MSSM Higgs Boson in Association with Neutralinos pair at Electron Positron Colliders*", prepared for submitting to the European physical journal c.
- 4- **I.S. Mahmoud and T. Abd El-Azim**, "*Production of Lightest Neutral MSSM Higgs Boson in Association with sLepton pair at Electron Positron Colliders*" prepared for submitting to the *International Review of Physics (IREPHY)* (6) 2012 .

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#### Teaching Experience

Electrodynamics, Electromagnetism, Electricity and Magnetism, Special theory of Relativity, Quantum Mechanics	Suez Canal University, Egypt
Quantum Mechanics, Mathematical Physics, General Physics, Electricity and Magnetism,	Majmaah University, KSA

---

#### Conferences

Egypt France Mathematics Conference	France Embassy	2010
Conference on Topology and its Application	Tanta	2010
Fifth Annual Conference	Cairo	2007

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#### Training Experience

Training Workshop of E-Learning, American University in Egypt, Cairo, Egypt, from 15/11/2005 to 30/12/2005.
Training " E- Learning ", Majmaah University , Saudi Arabia
Training " The culture of E-learning" Majmaah University , Saudi Arabia
Training " The Skills of E-learning" Majmaah University , Saudi Arabia

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#### Practical Skills

Unix, Linux (RedHat, Mandriva), Windows
MatLab, Mathematica, Maple, Origin, Grace, Latex, SWP, Calcchep, FeynArt, FeynCalc.
Latex Writing , Web Design , Dream weaver

---

## Dr. Hassan Hanafy



Associate Professor  
Physics Department  
Faculty of Science, Zulfi  
Majmaah University

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**Mobile:** +966582912273

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**E-Mail:** [h.hanafy@mu.edu.sa](mailto:h.hanafy@mu.edu.sa)

**Office:** Room S-160

**Link to Homepage:** <http://faculty.mu.edu.sa/hhanafy>

### Research Interests:

**Atomic Collision:** (ion – surface collision & e-atom/ion collision)

Photonic Crystals: (electromagnetic waves propagations & photonic band gaps)

### Language

Arabic, English

### Qualification (Career and University Education)

1997-1999	PhD Degree (Atomic Physics )	<u>Internal</u> part at Faculty of science, Beni-Suef, Cairo University
2000-2002		<u>External</u> part at Stockholm University , Sweden
1991-1995	MS. C. Degree (Experimental Physics)	Faculty of Science, Beni-Suef, Cairo University.
1985-1989	B. Sc. Degree (Physics)	Grade “very good “, Faculty of Science, Beni-Suef, Cairo University.

### Career

1989-1995	Demonstrator , Physics Department, faculty of science, Beni-Suef, Cairo University
1995-2002	Lecturer , Physics Department, Faculty of Science, Beni-Suef, Cairo University
2002-2011	Assistant Professor, Physics Department, Faculty of Science, Beni-Suef, Cairo University
2011- now	Assistant Professor , Physics Department, Zulfi College of Science, Majmaah university , Saudi Arabia
2012 – now	Associate Professors, Physics Department, Faculty of Science, Beni-Suef, Cairo University

### Short Visits

2000-2002	Atomic physics Department, Stockholm University , Sweden
2011-	Assistant Professor, Physics Department, Zulfi College of Science, Majmaah university , Saudi Arabia.

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## Publication

- 5- H. Hamdy, M. A. K. El-Fayoumi, M. M. Mahdy, H. Hanafy and F. Shahin “ Excitation Function and Polarisation of Optical Radiation Induced by Electron Impact on Helium” *Egypt. J. Phys.* Vol. 27, No. 1-2 pp. 17-29 (1996).
- 6- T. Ali, H. Hanafy and F. Shahin “ Excitation Cross Section of the Calcium  $\lambda=468.52$  nm line by Electron Impact” *4<sup>th</sup> Radiation Conference, Alexandria* 15-19 Nov.(1998).
- 7- H. Hamdy, M. A. K. El-Fayoumi, M. M. Mahdy, H. Hanafy and F. Shahin “ Polarisation Measurements of the Emitted Light Induced by Electron Impact on Zinc Atoms” *Egypt. J. Phys.* Vol. 31, No. 2 pp. 189-196 (2000).
- 8- Gy. Viktor, M. Bjorkhage, H. Hanafy, S. Leontein, A. paal, Z. D. Pesic, E. Lindroth, and R. Schuch " X- ray Emission from Slow Highly Charged Pb Ions Colliding with Metal Surfaces", 20<sup>th</sup> Summer School and International Symposium on the Physics of Ionized Gases, *Zlatibor, Yugoslavia*, September 4-8, (2000).
- 9- R. Schuch , H. Hanafy, Z. D. Pesic, Gy. Viktor, V. Hoffmann, D.Niemann, and N.Stolterfoht. " Scattering of Highly Charged Ions from Solid Surfaces", 20<sup>th</sup> Summer School and International Symposium on the Physics of Ionized Gases, *Zlatibor, Yugoslavia*, September 4-8, (2000).
- 10- Z. D. Pesic, H.Hanafy, V. Hoffmann, D.Niemann, R. Schuch, N.Stolterfoht and Gy. Viktor, " Energy and Angular Dependence of Neutralization in Scattering of Highly Charged Argon Ions from a Gold Surface" 20<sup>th</sup> Summer School and International Symposium on the Physics of Ionized Gases, *Zlatibor, Yugoslavia, September 4-8*, (2000).
- 11- H.Hanafy, M. Bjorkhage, S. Leontein, E. Lindroth, Z. D. Pesic, B. Rosner, J. Weimer, Gy. Viktor, and R. Schuch, “Observation of Internal Dielectronic Excitation with Slow Highly Charged Lead Ions hitting a Surface” *Physica Scripta. T92* , 147-50(2001)  
<http://iopscience.iop.org/1402-4896/2001/T92/008> - Google Search
- 12- H. Hanafy, M. Bjorkhage, Z. D. Pesic, , E. Lindroth, Gy. Viktor, A. paal and R. Schuch, “ Relaxation time of Highly Charged Lead ions hitting a Metallic Surface” *Annual Report, Manne Siegabhn Laboratory, Sweden*, 52-54 (2000)
- 13- Z. D. Pesic, J. Anton, S. Atanassova, H. Hanafy, Gy. Viktor, J. Weimer, M. Bjorkhage, S. Leontein and R. Schuch, “ Photon-Photon Coincidence Study in the Relaxation of Highly Charged Lead ions Colliding with Tantalum Foil” *Annual Report, Manne Siegabhn Laboratory, Sweden*, 32-34 (2001).
- 14- M. A. El-Fayoumi, M. Mhahdy and H. Hanafy “Radiative Rates and Lifetimes for Highly Ionized Zinc Ions”, *Sixth Radiation Physics Conference, Assiut, Egypt*, 27-30 Oct. (2002). *Arab J. Nucl. Sci. Appl.* , 36 - part 1 , 415, (2003)
- 15- H. Hanafy, G. Omar, and F. Shahin "Resonant Transfer Excitation Followed by X rays for  $Ar^{(8+,11+,13+)}$  Ions with L-Shell Excitation", *XXIII International Conference on Photonic, Electronic and Atomic Collisions. Stockholm University, Sweden*, 23-29 July, (2003).

16- Gy. Viktor, J. Anton, S. Atanassova, A. Enulescu, H. Hanafy, A. Paal, Z. D. Pesic, and R. Schuch "Hollow Atom Relaxation Dynamics in Thin Metal Foils", *XXIII International Conference on Photonic, Electronic and Atomic Collisions. Stockholm University, Sweden, 23-29 July, (2003).*

17- Gy. Viktor, S. Atanassova, M. Bjorkhage, H. Hanafy, S. Leontein, Z. D. Pesic, and R. Schuch "Multiplet Photon Emission from Highly-Charged Pb Ions Interacting with Metal Foils", *XXIII International Conference on Photonic, Electronic and Atomic Collisions. Stockholm University, Sweden, 23-29 July, (2003).*

18- H. Hanafy, G. Omar, and F. Shahin, "Isonuclear Trends of Resonant Transfer Excitation for the Collision of  $Ar^{(8+,11+,13+)}$  Ions with L-Shell Excitation" *First International Conference Modern Trends in Physics Research, Cairo Uni., Egypt, 4-9 April (2004).* *AIP, 748, 118-125, (2005).*

19- Hassan Hanafy "Resonant Electron Capture for Be-like Ions with K- and L-shell Excitation" *VII Radiation Physics and Protection Conference, Ismaillia, Egypt, 27-30 Nov., (2004).* *Arab J. Nucl. Sci. Appl. , 36 , 35-43, (2005).*

20- Z. D. Pesic, Gy. Viktor, S. Atanassova, J. Anton, M. Bjorkhage, A. Paal, H. Hanafy and R. Schuch " Relaxation of slow highly charged ions hitting thin metallic foils, *Phys. Rev. A75 , 12903 (2007)*

<https://journals.aps.org/pr/abstract/10.1103/PhysRevA.75.012903>

21- M. Shaban, H. Hanafy , H. Hamdy and F. Shahin, "Optical Excitation Function of the Sr and  $Sr^+$  resonance lines" *VIII Radiation Physics and Protection Conference, Beni Sueif- Fayoum, Egypt, 13-15 Nov., (2006).* *Arab J. Nucl. Sci. Appl., 40 , 405-413 , (2007).*

22- H. Hanafy, G. Omar, and F. Shahin, "Resonant Transfer Excitation Cross sections for Phosphorus Ions with K-shell Excitation" *accepted for publication in World Scientific Conference Proceedings (2008).{in press}.*

23- H. Hanafy and F. Shahin, "Emission of x-Rays through the Recombination in the Collision of F-like Ions with Energetic Free Electrons", *Egyptian J. Solid vol. (31), no (2), 259-267, (2008).*

24- Z. D. Pesi, Gy. Viktor, H. Hanafy, A. Enulescu, and R. Schuch, " Two-photon coincidence studies of highly-charged ion relaxation in solids" *Eur. Phys. J. D 54.*

<http://epjd.epj.org/articles/epjd/abs/2009/10/d09199/d09199.html>

25- Arafa H Aly, and Hassan S. Hanafey" Polarization modes control on the transmittance characteristics of one dimensional photonic crystal", *J. Comput. Theor. Nanosci., 8,1916, 2011.*

<http://www.ingentaconnect.com/content/asp/jctn/2011/00000008/00000010/art00003>

26- Arafa H. Aly, Ehab Abdel-Rahman, Hassan S. Hanafey, " Numerical Studies on Electromagnetic Waves Properties in Metallic-Dielectric Photonic Crystal" , *Journal of Electromagnetic Analysis and Applications, 2011, 3, 465-470.*

<http://www.scirp.org/journal/CTA.aspx?paperID=8339>

27- Arafa H Aly, Ahmed Mehaney, and Hassan S. Hanafey, " Phononic Band Gaps in one Dimensional Mass Spring System", *PIERS Proceedings 1043-1047, March 27-30, Kuala Lumpur, MALAYSIA, 2012.*

<http://piers.org/piersproceedings/piers2012KualalumpurProc.php?start=200>

#### Teaching Experience

Low Temperature Physics	PHYS 451	College of Science / Zulfi	Majmaah University
General Physics I	PHYS 201	Faculty of Science Beni-Suef	Beni-Suef University

General Physics II	PHYS 202	College of Science / Zulfi	Majmaah University
General Physics II	PHYS 202	Faculty of Science Beni-Suef	Beni-Suef University
Optics	PHYS 323	Faculty of Science Beni-Suef	Beni-Suef University
Optics	PHYS 323	College of Science / Zulfi	Majmaah University
Optics Lab.	PHYS 493	College of Science / Zulfi	Majmaah University
Modern Physics	PHYS 351	Faculty of Science Beni-Suef	Beni-Suef University
Modern Physics Lab.	PHYS 494	College of Science / Zulfi	Majmaah University
Electronic Lab.	PHYS 392	Faculty of Science Beni-Suef	Beni-Suef University
Electronic Physics	PHYS 422	Faculty of Science Beni-Suef	Beni-Suef University
Radiation Physics	PHYS 353	Faculty of Science Beni-Suef	Beni-Suef University
Wave and Vibration	PHYS 321	College of Science / Zulfi	Majmaah University
Atomic and Molecular Physics	PHYS 454	College of Science / Zulfi	Majmaah University
Atomic and Molecular Physics	Phys 454	Faculty of Science Beni-Suef	Beni-Suef University

#### Conferences

Third International Conference on 'Modern Trend of Physics Research' MTPR-08 Physics Dept., Faculty of Science, Cairo University 6 – 10 April 2008

#### Training Experience

Training " E- Learning ", Majmaah University , Saudi Arabia

Training " The culture of E-learning" Majmaah University , Saudi Arabia

Training " The Skills of E-learning" Majmaah University , Saudi Arabia

#### Practical Skills

ICDL (International Computer Driving License )



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### Research Interests:

Mechanical Engineering, Biomechanics

Computational and experimental biomechanical analysis of the cardiovascular system and its application to clinical diagnosis and intervention,

Cardiovascular prostheses, and medical devices

### Language Skills

Arabic (native), English, French.

### Qualification (Career and University Education)

<b>1993-1998</b>	B. Sc. Degree (Physics)	Faculty of science / University of Monastir/ Tunisia
	MS. C. Degree (Rheology of the material, complex materials and industrial fluids)	University Paris 7-denis Diderot / French
<b>2001-2002</b>		
<b>2003-2008</b>	PhD Degree (Mechanical Engineering : Biomechanics)	University Paris 7-denis Diderot / French

### Career

2012-recent	<b>Assistant Professor</b> College of science in al-Zulfi / <i>Majmaah University</i> Saudi Arabia
2010-2012	<b>Assistant Professor</b> Higher Institute of Applied Mathematics and Computer sciences/ University of Kairouan/ TUNISIA
2009-2012	<b>Assistant Professor</b> Higher Institute of Medical Technologies of Tunis.
2008-2014	<b>Researcher</b> laboratory of Biophysics / <i>Higher Institute of Medical Technologies of Tunis</i> / TUNISIA
2004-2010	<b>Physics Teacher for MES, Schools &amp; College</b> / TUNISIA
2002-2004	<b>Physics Teacher for MES, Schools &amp; College</b> / FRENCH

### Short Visits

### Publication

Khaled Ben Abdessalem, Propagation D'onde Dans Un Milieu Viscoélastique : application au système artériel, Presses Académiques Francophones AV Akademikerverlag GmbH & Co. KG, ISBN 978-3-8381-7335-1(2012)

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K.B. Abdessalem and R. B. Salah, Pulse wave velocity in arteries using centre line velocity and radius Effect of terminal impedance and measurement errors", Signals and Telecommunication Journal, Mars 2013.

K.B. Abdessalem, P. Flaud, W. Shtout & R. B. Salah, Non-invasive method for measuring local pulse wave velocity in arteries: part I, Computer Methods in Biomechanics and Biomedical Engineering Volume 15, Supplement 1, September 2012, pages 108-109

K.B. Abdessalem, P. Flaud, W. Shtout & R. B. Salah, Non-invasive method for measuring local pulse wave velocity in arteries: part II, Computer Methods in Biomechanics and Biomedical Engineering Volume 15, Supplement 1, September 2012, pages 63-65

K. B. Abdessalem; S. Mansouri; R. B. Salah; S. B. Abdessalem, New technique of flow rate and pressure separation within the arterial system: Part II, Computer Methods in Biomechanics and Biomedical Engineering, 12: 11-12 (2010).

K. B. Abdessalem; S. Mansouri; R. B. Salah; S. B. Abdessalem, New technique of flow rate and pressure separation within the arterial system: Part I, Computer Methods in Biomechanics and Biomedical Engineering, 12: 9-10 (2010).

K. B. Abdessalem and S.B. Abdessalem, New technique of characteristic impedance determination within the arterial system: Part II, O. Dössel and W C. Schlegel (Eds.): WC 2009, IFMBE Proceedings 25/IV, pp. 1361–1364, (2009).

K. B. Abdessalem and S. B. Abdessalem, New technique of characteristic impedance determination within the arterial system: Part I. O. Dössel and W C. Schlegel (Eds.): WC 2009, IFMBE Proceedings 25/IV, pp. 1953–1956, 2009

K. B. Abdessalem and S. B. Abdessalem, Effect of positioning measurement probes on the determination of propagation coefficient using two-point methods, Computer Methods in Biomechanics and Biomedical Engineering, 12: 19-22 (2009).

K. B. Abdessalem, W. Sahtout, P. Flaud, M. H. Gazah and Z. Fakhfakh, Numerical simulation of non-invasive determination of the propagation coefficient in arterial system using two measurements sites, The European Physical Journal Applied Physics 40: 211-219(2007).

K. B. Abdessalem and S. B. Abdessalem, New technique of flow rate and pressure separation within the arterial system, American Society of Biomechanics Annual Conference—August 26–29, (2009).

S. Mansouri, I. Maaoui, R. Ben Salah, H Mahjoubi, A Mami, K. B. Abdessalem and S.B. Abdessalem, FPGA-Based derivative module for plethysmographic signal, Medical Physics and Biomedical Engineering World Congress - the triennial scientific meeting of the IUPESM-Munich, Germany, 7 – 12 September, 2009.

K. B. Abdessalem, W. Sahtout, P. Flaud, Z. Fakhfakh, New method for determining the wave speed in the arterial system, 2nd International Francophone Congress for Advanced Mechanics, Aleppo-Syria, 14-16 May, 2007.

K. B. Abdessalem, W. Sahtout, P. Flaud and Z. Fakhfakh, Non-invasive determination of the position of obstruction in arterial system, Third International Conference on Advances in Mechanical Engineering and Mechanics, ICAMEM 06, Hammamet, 17,19 Dec. 2006.

K. B. Abdessalem, W. Sahtout, P. Flaud, Z. Fakhfakh, 2006, New noninvasive method of determination of wave speed and attenuation in arterial system, Third International Conference on Advances in Mechanical Engineering and Mechanics, ICAMEM 06, Hammamet, 17,19 Dec. 2006.

K. B. Abdessalem, Sahtout W, and Flaud P, Fakhfakh Z, Non-invasive determination of the propagation coefficient from measurements of velocity in three sections of an arterial trunk, 5th National Conference of flow and Transfers, Monastir, 19-21 March 2006.

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### Teaching Experience

<b>General Physics I</b>	PHYS 201	Higher Institute of Applied Mathematics and Computer Sciences	Kairouan University
<b>General Physics II</b>	PHYS 202	College of Science / Zulfi	Majmaah University
<b>Health Physics</b>	PHYS 334	College of Science / Zulfi	Majmaah University
<b>Vibration and Waves I</b>	PHYS 231	College of Science / Zulfi	Majmaah University
<b>Electromagnetism Lab.</b>	PHYS 392	College of Science / Zulfi	Majmaah University
<b>Basic Statistical Mechanics and Low Temperature physics</b>	PHYS 473	College of Science / Zulfi	Majmaah University
<b>Vibration and Waves II</b>	PHYS 332	College of Science / Zulfi	Majmaah University
<b>Mathematical Physics II</b>	PHYS 302	College of Science / Zulfi	Majmaah University
<b>Geometrical Optics</b>	PHYS 332	Higher Institute of Applied Mathematics and Computer Sciences	Kairouan University
<b>Optics Lab</b>	PHYS 393	College of Science / Zulfi	Majmaah University
<b>Thermodynamics</b>	PHYS 241	Higher Institute of Applied Mathematics and Computer Sciences	Kairouan University
<b>Classical Mechanics</b>	PHYS 211	Higher Institute of Applied Mathematics and Computer Sciences	Kairouan University
<b>Biophysics</b>	PHYS 361	College of Science / Zulfi	Majmaah University
<b>Bio-rheology, cardiovascular biomechanics</b>		Higher Institute of Medical Technologies	University Tunis
<b>Fluid mechanics Modeling and numerical methods for physics</b>		Higher Institute of Medical Technologies	University Tunis
<b>Computational physics</b>	PHYS 405	<b>Higher Institute of Medical Technologies</b>	University Tunis
<b>General Physics Courses for Medical, Science, and Engineering .Students</b>	PHYS 101	College of Engineering/ Zulfi	Majmaah University

### Conferences

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**Training Experience**

Activinspire

E-education system and bridges

Basic

Integration of technology in university teaching

Skills of e-learning systems

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**Practical Skills**

Computational physics (finite volume, finite elements, spectral methods)

Ultrasound, Laser-Doppler, particle imaging velocimetry

Modeling and numerical simulation, COMSOL Multiphysics, MATLAB,

Linux, Windows XP, Adobe PhotoShop, Adobe Acrobat, Macromedia Dream Weaver,

Macromedia Flash MX, Microsoft PowerPoint, Microsoft Excel.

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## Dr. Ahmed Adel



Assistant Professor  
Physics Department  
Faculty of Science, Zulfi  
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### Research Interests:

Low energy Nuclear Reactions  
Synthesis and Structure of Superheavy Nuclei  
Heavy ion Interactions

### Language Skills

Arabic, English

### Qualification (Career and University Education)

2000-2004	B. Sc. Degree (Physics)	Grade "Excellent with Distinction", Faculty of Science, Cairo University
2005-2007	MS. C. Degree (Theoretical Nuclear Physics)	Faculty of Science, Cairo University
2007-2010	PhD Degree (Theoretical Nuclear Physics)	Faculty of Science, Cairo University

### Career

2004-2007	Demonstrator at Department of Physics, Faculty of Science, Cairo University
2007-2010	Assistant Lecturer at Department of Physics, Faculty of Science, Cairo University
2010 – 2013	Lecture at Department of Physics, Faculty of Science, Cairo University
2013-Present	Assistant Professor at Department of Physics, Faculty of Science, Majmaah University, Saudi Arabia

### Short Visits

2011	Scholar at Joint Institute of Nuclear Reactions, Dubna, Moscow Oblast, Russia
2013	Scholar at Joint Institute of Nuclear Reactions, Dubna, Moscow Oblast, Russia

### Publication

9. M. Ismail, A. Y. Ellithi, M. M. Botros, and **A. Adel**, "Systematics of  $\alpha$ -decay half-lives around shell closures", *Physical Review C* 81, 024602 (2010).

10. M. Ismail, A. Y. Ellithi, M. M. Botros, and **A. Adel**, "Binding energies of even-even superheavy nuclei in a semi-microscopic approach", *Physics of Atomic Nuclei* 73, 1660 (2010).

11. M. Ismail, A. Y. Ellithi, H. Elgebaly, M. M. Botros, and **A. Adel**, "On the sharp surface model for coulomb and nuclear interactions between two deformed nuclei", *International Journal of Modern Physics E* 19, 371 (2010).
12. M. Ismail and **A. Adel**, "Orientation dependent behavior of the Coulomb barrier parameters for deformed-deformed nuclei", *Nuclear Physics A* 859, 1 (2011).
13. M. Ismail and **A. Adel**, "Azimuthal angle dependence of the Coulomb barrier parameters for the interaction between two deformed nuclei", *Physical Review C* 84, 034610 (2011).
14. M. Ismail and **A. Adel**, "Shell corrections for heavy and superheavy nuclei", *International Journal of Modern Physics E*, vol. 21, 1250062 (2012).
15. V. A. Rachkov, **A. Adel**, A. V. Karpov, A. S. Denikin, and V. I. Zagrebaev, "Effect of neutron transfer in the fusion process near and below the Coulomb barrier", *AIP Conference Proceedings*, vol. 1491, pp. 381-382, 2012.
16. **A. Adel**, V. A. Rachkov, A. V. Karpov, A. S. Denikin, M. Ismail, W. M. Seif, and A. Y. Ellithi, "Effect of neutron rearrangement on subbarrier fusion reactions", *Nuclear Physics A*, 876, 119 (2012).
17. M. Ismail and **A. Adel**, "Correlation between  $\alpha$ -particle preformation probability and the energy levels of parent nuclei", *Physical Review C* 86, 014616 (2012).
18. **V. A. Rachkov, A. Adel, A. V. Karpov, A. S. Denikin, and V. I. Zagrebaev**, "Effect of neutron transfer channels in fusion reactions with weakly bound nuclei at subbarrier energies", *Bulletin of the Russian Academy of Sciences: Physics*, vol. 77, no. 4, pp. 411-415, 2013.
19. **M. Ismail, and A. Adel**, "Effect of energy level sequences and neutron-proton interaction on  $\alpha$ -particle preformation probability", *Nuclear Physics A*, vol. 912, pp. 18-30, 2013.
20. **M. Ismail, and A. Adel**, "Prediction of nuclear spin based on the behavior of  $\alpha$ -particle preformation probability", *Physical Review C*, vol. 88, issue 5, pp. 054604, 2013.
21. **M. Ismail, and A. Adel**, " Effect of deformation parameters,  $Q$  value, and finite-range NN force on  $\alpha$ -particle preformation probability", *Physical Review C*, vol. 89, pp. 034617, 2014.

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### Teaching Experience

General Physics	Phys. 101	Cairo University
Statistical Mechanics	Phys. 351	Cairo University
Classical Mechanics	Phys. 221 & Phys. 222	Cairo University
Quantum Mechanics	Phys. 321	Cairo University
Computational Nuclear Physics	Phys. 427	Cairo University
General Physics	Phys. 128	Majmaah University
Nuclear Physics I	<b>Phys. 481</b>	<b>Majmaah University</b>

### Conferences

Attended the "International Workshop on "Nuclear Science and Education"	Cairo University	2009
Italian Scientific Seminar Series in Egypt "Present Status of Research in Controlled Thermonuclear Fusion" by Dr. Francesco Romanelli.	Cairo University	2010

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### Training Experience

Training "The Credit Hour System", Cairo University, Egypt
Training "Competing for Research Funds", Cairo University, Egypt
Training "Scientific Publication", Cairo University, Egypt

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### Practical Skills

Programming Using "Fortran and C++"
Mathematica
Latex Writing

---

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Physics Department  
Faculty of Science, Zulfi  
Majmaah university

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### Research Interests:

Computational Atomic physics

Laser diode Spectroscopy and Optoelectronic Devices

Metallic nanoparticles and its applications

### Language Skills

Arabic, English, and German

### Qualification (Career and University Education)

1992-1995	B. Sc. Degree (Physics & Mathematics)	Grade "Very good", Faculty of Science, Al-Azhar University Assuit Branch, Egypt
1996-1997	Pre-Courses for M. Sc	Faculty of Science, Al-Azhar University
1997-2002	M. Sc. Degree (Theoretical solid state Physics)	Faculty of Science, Al-Azhar University Assuit Branch, Egypt
2003-2006	Research on Atomic Structure calculations	Faculty of Science- Physics Dep.- Cairo university
2006-2010	PhD Degree Applied Physics	Department of Electro technique /Informatics Faculty of Engineering, Kassel University, Germany

### Career

1996-2003	Demonstrator at Department of Physics, Faculty of Science, Al-Azhar University Assuit Branch, Egypt
2003-2006	Assistant Lecturer at Department of Physics, Faculty of Science, Al-Azhar University Assuit Branch, Egypt
2010-2014	Lecture at Department of Physics, Faculty of Science, Al-Azhar University Assuit Branch, Egypt
2014-Present	Assistant Professor at Department of Physics , Faculty of Science, Majmaah University , Saudi Arabia

### Scholarships

2006-2010	Ph.D Scholarship at Institute of nano structural technologies and analytics (INA) - Department of Electro technique /Informatics Faculty of Engineering, Kassel Germany
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### Publications

- 1- H. Krause, J. Sonksen, **M. Ahmad**, V. Viereck, O. Mikami, and H. Hillmer, **Aufbau**



- eines faserbasierten Laserresonators mit zwei Fabry-Pérot Kavitäten und einer gemeinsamen aktiven Zone für Sensorikanwendungen, 109. DGaO Konferenz, B24+, 2008. [http://www.dgao-proceedings.de/download/109/109\\_b24.pdf](http://www.dgao-proceedings.de/download/109/109_b24.pdf)
- 2- Julian Sonksen, **Mahmoud Ahmad**, Nico Storch, Hubert Krause, Sven Blom, Alexander Potzl, Hartmut Hillmer, " **Controlling and Tuning the Emission of Semiconductor Optical Amplifier for Sensor Application by Means of Fiber Bragg Gratings**" Proceedings of the 8th WSEAS International conference on Microelectronics, Nanoelectronics, Optoelectronics (MINO '09),59,2009. <http://www.wseas.us/e-library/conferences/2009/istanbul/MINO/MINO09.pdf>
  - 3- **M. Ahmad**, J. Sonksen, N. Storch, H. Krause, J. Shrestha, S. Blom, A. Pötzl, B. Khudhair, and H. Hillmer, " **Semiconductor laser based sensors for intelligently networking sensing systems**" Seventh International Conference on Networked Sensing Systems(INSS2010) Kassel, Germany, Jun 2010, p. 101-106,. (ISBN 978-1-4244-7909-2). <http://ieeexplore.ieee.org/xpl/articleDetails.jsp?arnumber=5574062>
  - 4- **M. Ahmad**, and H. Hillmer " **Highly Sensitive Sensor Based on Intracavity Laser Absorption Spectroscopy By means of Relative Intensity Noise**" The Fourth Arab International Conference in Physics and Materials Science (4<sup>th</sup> CPMS Conference 2012) Alexandria, Egypt
  - 5- E. R. Shaaban, E. A. Abdel Wahab, **M. Ahmad**" **Optical characterization of As-S thin films induced by plasma immersion Oxygen ion implantation**" physica scripta 2013 <http://iopscience.iop.org/1402-4896/88/1/015703>
  - 6- Abou El-Maaref, **Mahmoud Ahmad** and S.H. Allam " **Fine-structure calculations of energy levels, oscillator strengths and transition probabilities for Sulfur-like Fe XI**" Atomic data and nuclear data tables (2013) <http://www.sciencedirect.com/science/article/pii/S0092640X13000880>
  - 7- **Mahmoud M Ahmad**, Essam A Abdel-Wahab, A A El-Maaref, Mohammed Rawway, Essam R Shaaban " **Irradiation of silver and agar/silver nanoparticles with argon, oxygen glow discharge plasma, and mercury lamp**" *SpringerPlus* 2014, 3:443 <http://www.springerplus.com/content/3/1/443>

### Teaching Experience

General Physics	Al Azhar University
Atomic physics	Al Azhar University
Digital & Analog electronics	Al Azhar University
Quantum Mechanics	Al Azhar University
Optics Physics	Al Azhar University

### Conferences

Attended the Sensor+Test conference	Nuremberg ,Germany	2009
Seventh International Conference on Networked Sensing Systems(INSS2010) Kassel	Kassel, Germany	2010
The Fourth Arab International Conference in Physics and Materials Science (4th CPMS Conference 2012)	Alexandria, Egypt	2012

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**Practical Computer Skills**

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**Very good experience in Matlab Software.**

**Very good experience in FORTRAN.**

**Very good experience in latex.**

**Very good experience in Linux systems( Suse, Ubuntu and RedHat)**

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## Dr. Adam Abdullah Bahishti



Professor (Assistant)  
Department of Physics  
Faculty of Science, Al-Zulfi  
Majmaah University

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### Contacts

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**Link to Homepage:**

<http://faculty.mu.edu.sa/abahishti>

### Research Interests:

Synthesis of Chalcogenide Glasses

Synthesis of nano-chalcogens

Optical and Electrical Characterization

Laser Irradiation (N<sub>2</sub>)

### Language Skills

English, Hindi, Urdu

### Qualification (Career and University Education)

2012	Ph.D. (Physics)	Jamia Millia Islamia (Central University), New Delhi – India <b>Title:</b> Design and fabrication of Photon Drag-Detectors and TEA CO <sub>2</sub> Laser as their evaluation and study the laser irradiation effect on amorphous semiconductor Supervisor : Prof. M. Zulfeqar Co-Supervisor : Prof. M. Husain
2005	M. Sc. (Physics)	Dr. R.M.L Avadh University, Faizabad - India
2003	B. Sc. (Hon) Physics, Mathematics	Dr. R.M.L. Avadh University, Faizabad-India

### Career

2013-2014	Assistant Professor (Guest Teacher) in Applied Physics, D/O Applied Science & Humanities, Faculty of Engineering & Technology, Jamia Millia Islamia, New Delhi - India
2012-2013	Assistant Professor (Guest Teacher) in Physics, Department of Bio-Science, Jamia Millia Islamia, New Delhi - India

### Short Visits

### Publication

- 1- "DC conductivity and high field behavior of Se<sub>100-x</sub>Tex Alloy"  
Mohsin Ganaie, Shabir Kumar, **Adam A Bahishti**, M.Zulfeqar; Physics of Semiconductor Devices, 2014, pp 625-630  
[http://link.springer.com/chapter/10.1007/978-3-319-03002-9\\_159#page-1](http://link.springer.com/chapter/10.1007/978-3-319-03002-9_159#page-1)
- 2- "The study of optical parameters and DC conductivity of Se<sub>100-x</sub>Hg<sub>x</sub> thin films"  
Neetu , **Adam A. Bahishti**, M. Zulfeqar; Physica B: Physics of Condensed Matter, Volume 407, Issue 18, p. 3868-3871  
<http://www.sciencedirect.com/science/article/pii/S092145261200614X>
- 3- "Photoconductivity of Se<sub>85-x</sub>Te<sub>15</sub>Hg<sub>x</sub> thin films"

Neetu Chaudhary, **Adam A. Bahishti**, M. Zulfeqar; Physica B 407 (2012) 2267–2271  
<http://www.sciencedirect.com/science/article/pii/S092145261200244X>

- 4- “Effects of laser irradiation on optical properties of a-Se<sub>100-x</sub>Te<sub>x</sub> thin films”  
**Adam A Bahishti**, M Husain and M. Zulfeqar; Radiation Effects and Defects in Solids Incorporating Plasma Science and Plasma Technology, Volume 166 (2011) Issue 7, 529  
<http://www.tandfonline.com/doi/abs/10.1080/10420150.2011.578629>

- 5- “Effect of Laser Irradiation on Thermal and Optical Properties of Selenium-Tellurium Alloy”  
**Adam A. Bahishti**, M. A. Majeed Khan, B. S. Patel, F.S.Al-Hazmi and M. Zulfeqar; Journal of Non-Crystalline Solids; 355 (2009) 2314–2317  
<http://www.sciencedirect.com/science/article/pii/S0022309309004827>

- 6- “Optical Properties of Selenium-Tellurium Nanostructured Thin Film Grown by Thermal Evaporation”.  
Karunapati Tripathi, **Adam A. Bahishti**, M. A. Majeed Khan, M. Husain, and M. Zulfeqar. Physica B 404 (2009) 2134–2137  
<http://www.sciencedirect.com/science/article/pii/S0921452609002075>

- 7- “Effect of Laser Irradiation on The Optical Properties of Amorphous Se<sub>96-x</sub>Te<sub>4x</sub> Thin Films”  
**Adam A. Bahishti**, M. A. Majeed Khan, S. Kumar, M. Husain and M. Zulfeqar, Chalcogenide Letters Vol. 4, No. 12, December 2007, p. 155 – 160  
<http://www.chalcogen.ro/Zulf-irrad.pdf>

**Google Scholar Profile Link:** (h-index = 3)

<http://scholar.google.com/citations?user=TACKQ0wAAAAJ&hl=en>

#### Teaching Experience

<b>Electromagnetism – 1</b>	PHYS321	College of Science, Majmaah University	KSA
Wave and Vibration	PHYS231	College of Science, Majmaah University	KSA
Modern Physics Lab	PHYS494	College of Science, Majmaah University	KSA
General Physic I	PHYS201	Jamia Millia Islamia, New Delhi	INDIA
General Physic II	PHYS202	Jamia Millia Islamia, New Delhi	INDIA
Electromagnetism I	PHYS221	Jamia Millia Islamia, New Delhi	INDIA
Electromagnetism II	PHYS322	Jamia Millia Islamia, New Delhi	INDIA
Thermodynamics	PHYS241	Jamia Millia Islamia, New Delhi	INDIA
Modern Physics	PHYS351	Jamia Millia Islamia, New Delhi	INDIA
Quantum Mechanics I	PHYS352	Jamia Millia Islamia, New Delhi	INDIA
Wave and Vibration	PHYS231	Jamia Millia Islamia, New Delhi	INDIA
Electronics	PHYS423	Jamia Millia Islamia, New Delhi	INDIA
Nuclear Physics I	PHYS481	Jamia Millia Islamia, New Delhi	INDIA
Laser Physics	PHYS355	Jamia Millia Islamia, New Delhi	INDIA
Semiconductor Physics	PHYS473	Jamia Millia Islamia, New Delhi	INDIA

#### Conference/Seminar Attended

1. National Conference on Nanotechnology and Renewable Energy (NCNRE-14), April 28-29, 2014; Jamia Millia Islamia, New Delhi-110025
2. One day seminar on “Progress in Physics of Materials and Theoretical Physics” on 3<sup>rd</sup> February 2012, Jamia Millia Islamia, New Delhi.
3. XVI<sup>th</sup> International Workshop on Physics of Semiconductor Devices (IWPSD-2011), 19-22 December 2011, IIT Kanpur.

4. XV<sup>th</sup> International Workshop on Physics of Semiconductor Devices (IWPSD-2009), 15-19 December 2009, Jamia Millia Islamia, New Delhi.
5. National Seminar on Condensed Matter, High Energy and Nuclear Physics, 23-24 March, 2009, Jamia Millia Islamia New Delhi.
6. Natural Science InfoFest NSIF-08, March 4-6, 2008, Faculty of Natural Sciences, Jamia Millia Islamia, New Delhi-110025.
7. Non Equilibrium Phenomena in Condensed Matter, 21-23 February 2008, Indian National Science Academy, Bahadur Shah Zafar Marg, New Delhi-110002.
8. Seminar on Development in Materials, High Energy and Nuclear Physics, February 20-21, 2008, Jamia Millia Islamia, New Delhi-110025.
9. National Seminar on Nano Materials & Devices, January 30, 2008, Jamia Millia Islamia, New Delhi-110025.
10. Sixth Abdus Salam Memorial Lecture 2007-08 by Prof. Douglas D. Osheroff (Noble Laureate), Stanford University, Stanford, California, U.S.A. on "How Advances in Science are Made" 24<sup>th</sup> November 2007 at jamia millia islamia, New Delhi-110025.
11. One day seminar on "Applications of Conducting Polymers and Nano-materials in Science and Technology" on 19<sup>th</sup> September 2006, Jamia Millia Islamia, New Delhi.

#### Workshop/Conference organized as an Organizing member

- National Conference on Nanotechnology and Renewable Energy (NCNRE-14), April 28-29, 2014; Jamia Millia Islamia, New Delhi-110025

#### Research and designing Activities:

- A)** Two type of photon drag detectors have been designed and fabricated in Jamia Millia Islamia University, New Delhi-India for a major project sponsored by Laser Science and Technology Centre of Defence Research and development organization (DRDO-LASTEC), India.

##### Type A Photon-drag Detector

- (i) Resistivity : 1.0  $\Omega$ -cm, p-type  
(ii) Size : 2mm $\times$ 2mm $\times$ 20mm

This will have detector resistance of about 50 $\Omega$  and will be useful for fast-response time, typically in the sub nano-second region.

##### Type B Photon drag detector

- (i) Resistivity : 2.5  $\Omega$ -cm, p-type  
(ii) Size : 2.5mm $\times$ 2.5mm $\times$ 30mm

This will have detector resistance of about 120 $\Omega$  and will be useful for general purpose detection of gain-switched TEA CO<sub>2</sub> laser.

- B)** TEA CO<sub>2</sub> laser has been designed and fabricated for the same project of DRDO-LASTEC.

- C)** Following Synthesis and characterization techniques can be handled:-

- Thermal Evaporation/Condensation Unit
- RF-sputtering System.

- Differential Scanning Calorimeter.
- Dielectric Measurement System.

- DC-sputtering System.
- Spin Coating System.
- Low Pressure Chemical Vapor Deposition System (LPCVD).
- UV-visible spectrophotometer (Campec M550).
- Ampoule Sealing System.

- I-V Characterization System.
- TEA Nitrogen Laser.
- TEA CO<sub>2</sub> Laser
- Scanning Electron Microscope (SEM) model no. 6380 make JEOL, Japan.

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### Training Experience

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### Computer Skills

Microsoft office (Word, Excel, Power point, outlook)

Adobe Acrobat 5.0

Origin lab

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### Scholarship/Award

- Junior Research Fellowship (**JRF**) from Defence Research and Development Organization, India since September 2006 to September 2009.
  - Senior Research Fellowship (**SRF**) from “Council of Scientific and Industrial Research (CSIR)”, India, since April-2010 to March 2011.
-

## Dr. Mohd. Shakir Khan



Assistant Professor  
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### Research Interests:

Nuclear Radiation Physics  
Solid State Nuclear Track Detectors (SSNTD's)  
Environmental Monitoring & Radiation Protection in the environment

### Language Skills:

English, Hindi, Urdu, Arabic

### Qualification (University Education):

**B. Sc. Degree (Physics)** Dr. B. R. Ambedkar University, Agra, India

**M. Sc. Degree (Physics)** Dr. B. R. Ambedkar University, Agra, India

**M. Phil. Degree (Applied Physics)** Aligarh Muslim University, Aligarh, India

**Ph.D. Degree (Applied Physics)** Aligarh Muslim University, Aligarh, India

### Career:

**2011-2013** Junior Research Fellow, Department of Applied Physics, Aligarh Muslim University, Aligarh, India

**15/05/2013 to 06/11/2013** Assistant Professor, Department of Physics, JJT University, Rajasthan, India

**07/11/2013 to 12/07/2014** Assistant Professor, Department of Physics, Sobhasaria Group of Institutions, Rajasthan Technical University, India

**2014- till now** Assistant Professor, Department of Physics, College of Science, Al-Zulfi, Majmaah University, Saudi Arabia

### Training Experience:

1. Ph.D. course module on "Measurement Techniques and Cryogenics" at IUAC, New Delhi-110067, during 27 March to 27<sup>th</sup> April, 2008.
2. Faculty development program held at Shri Jagdishprasad Jhabarmal Tibrewala University, Jhunjhunu, Rajasthan, India, on 4<sup>th</sup> June, 2013.
3. OHSAS 18001:2007, Occupational Health & Safety Management System awareness training held on 3<sup>rd</sup> -5<sup>th</sup> January 2015, Kingdom of Saudi Arabia.

### Foreign Visits:

Egypt	Invited Speaker, International workshop on Nuclear Sciences and its Peaceful applications (NSPA) at Faculty of Science, Cairo University, Egypt, during 17–19 March, 2009.
Mexico	To present research papers, 25 <sup>th</sup> International Conference on Nuclear Tracks in Solids at Instituto de Fisica, Universidad Nacional Autonoma de Mexico, Puebla, Mexico, during 4–9 September, 2011.

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#### Publications (in International journals):

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- 8- **M. Shakir Khan**, T. Alharbi (2015): Study of Indoor Radon, Thoron and their Progeny levels in the dwellings of district Mainpuri of North India. Environmental Earth Sciences (Submitted).
  - 9- Deepak Verma, **M. Shakir Khan** (2014). Assessment of indoor radon, thoron and their progeny in dwellings of Bareilly city of Northern India using track etch detectors. Romanian Journal of Physics, 59(1-2): 172–182.  
[http://www.nipne.ro/rjp/2014\\_59\\_1-2.html](http://www.nipne.ro/rjp/2014_59_1-2.html)
  - 10- **M. Shakir Khan**, Ameer Azam (2014): Measurements of Indoor Radon, Thoron and their Progeny Using Twin Cup Dosimeters in Rural Areas of Northern India. Environmental Earth Sciences, 71(3): 1319–1325.  
<http://link.springer.com/article/10.1007/s12665-013-2538-1>
  - 11- Deepak Verma, **M. Shakir Khan** (2013): Measurement of indoor radon and thoron in the dwellings of Faizabad city using plastic track detectors. Indian Journal of Pure and Applied Physics, 51(4): 219–222.  
<http://nopr.niscair.res.in/handle/123456789/16565>
  - 12- Deepak Verma, **M. Shakir Khan**, Mohd. Zubair (2012): Measurements of Indoor Radon, Thoron and their Progeny in Farrukhabad city of Uttar Pradesh, India. Iranian Journal of Radiation Research, 10(3–4): 193–196.  
<http://en.journals.sid.ir/ViewPaper.aspx?ID=302099>
  - 13- M. Zubair, **M. Shakir Khan**, D. Verma (2012): Measurements of radium concentration and radon exhalation rates of soil samples collected from some areas of Bulandshahr district, Uttar Pradesh, India using plastic track detectors. Iranian Journal of Radiation Research, 10(2): 83–87.  
<http://en.journals.sid.ir/ViewPaper.aspx?ID=301804>
  - 14- Deepak Verma, **M. Shakir Khan**, Mohd. Zubair (2012): Assessment of Effective Radium Content and Radon Exhalation Rates in Soil Samples. Journal of Radioanalytical and Nuclear Chemistry, 294(2): 267–270.  
<http://link.springer.com/article/10.1007/s10967-012-1694-1>
  - 15- **M. Shakir Khan**, D.S. Srivastava, Ameer Azam (2012): Study of Radium Content and Radon Exhalation Rates in Soil Samples of Northern India. Environmental Earth Sciences, 67(5): 1363–1371.  
<http://link.springer.com/article/10.1007/s12665-012-1581-7>
  - 16- **M. Shakir Khan**, Ameer Azam (2012): Depth Dependent Study of Radon, Thoron and their progeny in Tube-Wells. Journal of Radioanalytical and Nuclear Chemistry, 294(2): 289–293.  
<http://link.springer.com/article/10.1007/s10967-011-1487-y>
  - 17- Deepak Verma, **M. Shakir Khan**, Mohd. Zubair (2012): Radon and its progeny measurements in dwellings of Farrukhabad city of Uttar Pradesh in Northern India. Indian Journal of Pure and Applied Physics, 50: 355–357.  
<http://nopr.niscair.res.in/handle/123456789/14176>
  - 18- Mohd. Zubair, **M. Shakir Khan**, Deepak Verma (2011): Radium Studies in Sand Samples Collected from Sea Coast of Tirur, Kerala, India Using LR-115 Plastic Track Detectors. International Journal of Applied Science and Engineering, 9(1): 43–47.  
<http://www.airtilibrary.com/Publication/alDetailedMesh?docid=17272394-201104-201108170008-201108170008-43-47>
  - 19- **M. Shakir Khan**, A.H. Naqvi, A. Azam, D.S. Srivastava (2011): Radium and Radon Exhalation Studies of Soil. Iranian Journal of Radiation Research, 8(4): 207–210.  
<http://en.journals.sid.ir/ViewPaper.aspx?ID=210709>
  - 20- **M. Shakir Khan**, M. Zubair, Deepak Verma, A.H. Naqvi, Ameer Azam, M.K. Bhardwaj (2011): The Study of Indoor Radon in the Urban Dwellings Using Plastic Track Detectors. Environmental Earth Sciences, 63(2): 279–282.  
<http://link.springer.com/article/10.1007/s12665-010-0701-5>
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- 21- Mohd. Zubair, **M. Shakir Khan**, Deepak Verma (2011): Assessment of indoor, thoron and their decay products in the surrounding areas of Firozabad, Uttar Pradesh, India. Archives of Applied Science Research, 3(1): 77-82.  
<http://scholarsresearchlibrary.com/aasr-vol3-iss1/AASR-2011-3-1-77-82.html>
- 22- **M. Shakir Khan**, A. H. Naqvi, Ameer Azam (2009): Depth Dependence Radon Study in Indian Tube-Wells. Asian Journal of Chemistry, 21(10): S292-295.
- 23- **M. Shakir Khan**, A. H. Naqvi, Ameer Azam (2008): Study of Indoor Radon and its Progeny Levels in Rural Areas of North India Using LR-115 Plastic Track detectors. Radiation Measurements, 43: S385-S388.  
<http://www.sciencedirect.com/science/article/pii/S1350448708001091>
- 24- A. K. Mahur, **M. Shakir Khan**, A. H. Naqvi, Rajendra Prasad, Ameer Azam (2008): Measurement of effective Radium Content of sand samples collected from Chhatrapur Beach, Orissa, India using track etch technique. Radiation Measurements, 43: S520- S522.  
<http://www.sciencedirect.com/science/article/pii/S1350448708002254>

#### Publications (in Books):

- 25- **M. Shakir Khan** (2012): Chapter 2: Radon: Its properties and applications, In: Handbook of Radon: Properties, applications and health. Zachary Li and Christopher Feng (Editors) Nova Science Publishers, Hauppauge, NY. ISBN: 978-1-62100-177-5. pp. 37-62.  
[https://www.novapublishers.com/catalog/product\\_info.php?products\\_id=35567](https://www.novapublishers.com/catalog/product_info.php?products_id=35567)
- 26- **M. Shakir Khan**, Ameer Azam, A.H. Naqvi, Deepak Verma, M. Zubair, M.K. Bhardwaj (2010): Radium and Radon Exhalation Studies in Soil Samples. In: Recent Trends in Radiation Physics Research. ISBN: 978-81-7906-227-2. pp. 356-357.

#### Publications (in national conference proceedings):

- 27- **M. Shakir Khan**, Ameer Azam, D. S. Srivastava (2012): Measurements of Radon and its Progeny Using Twin Cup Dosimeters in Rural Dwellings of North India. In the proceeding of 19<sup>th</sup> National Symposium on Radiation Physics (NSRP-19) at Radisson BLU Resort Temple Bay, Mamallapuram, Tamil Nadu, India during December 12-14, 2012. pp. 429- 430.  
[http://inis.iaea.org/search/search.aspx?orig\\_q=RN:44072163](http://inis.iaea.org/search/search.aspx?orig_q=RN:44072163)
- 28- Deepak Verma, **M. Shakir Khan** (2012): Radon and its Progeny Study in the Indoor Environment of Bareilly city in Northern India. In the proceeding of 19<sup>th</sup> National Symposium on Radiation Physics (NSRP-19) at Radisson BLU Resort Temple Bay, Mamallapuram, Tamil Nadu, India during December 12-14, 2012. pp. 488-489.  
<http://inis.iaea.org/search/searchsinglerecord.aspx?recordsFor=SingleRecord&RN=44072180>
- 29- Deepak Verma, **M. Shakir Khan** (2012): Analysis of Radium Content and Radon Exhalation Rates in Soil Samples Using LR-115 Plastic Track Detectors. In the proceeding of 19<sup>th</sup> National Symposium on Radiation Physics (NSRP-19) at Radisson BLU Resort Temple Bay, Mamallapuram, Tamil Nadu, India during December 12-14, 2012. pp. 560-561.  
<http://inis.iaea.org/search/searchsinglerecord.aspx?recordsFor=SingleRecord&RN=44072199>
- 30- **M. Shakir Khan**, Ameer Azam, D. S. Srivastava (2011): Measurements of Concentrations of Radon and Its Progeny Using Twin Cup Dosimeters in the Dwellings of Rural Areas of Kanshiram Nagar, North India. In the proceeding of 17<sup>th</sup> National Symposium on Solid State Nuclear Track Detectors and Their Application (SSNTD-17) held at M. S. University of Baroda, Vadodara, Gujarat during 17-19 October, 2011. pp.76.
- 31- Deepak Verma, **M. Shakir Khan** (2011): Measurement of Indoor Concentration of radon and its Progeny Using SSNTD's. In the proceeding of 17<sup>th</sup> National Symposium on Solid State Nuclear Track Detectors and Their Application (SSNTD-17) held at M. S. University of Baroda, Vadodara, Gujarat during 17-19 October, 2011. pp.54.
- 32- **M. Shakir Khan**, M. Zubair, Deepak Verma, A.H. Naqvi, Ameer Azam, M.K. Bhardwaj (2009): Indoor Radon and its Short-lived Daughter Products Measurements in the Urban Dwellings of Northern India. In the Proceeding of DAE-BRNS "Nuclear and Radiochemistry Symposium" held at Mithibai College, Mumbai-400056, India, during 7-10 January, 2009, pp. 601-602.
- 33- Mohd. Zubair, **M. Shakir Khan**, Deepak Verma, M.K. Bhardwaj (2009): Assessment of home radon and its decay products in factory area Firozabad district, Uttar Pradesh, India. In the Proceeding of National Conference on Accelerator and Low Level Radiation Safety (NCALLRS), held at Inter University Accelerator Centre, New Delhi-110067, India, during 18-20 November, 2009. Book of Abstract pp.128.
- 34- Mohd. Zubair, **M. Shakir Khan**, Deepak Verma, M.K. Bhardwaj (2009): Measurement of

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radon concentration and effective dose rate in industrial area using LR-115 type II detectors. In the Proceeding of National Conference on Accelerator and Low Level Radiation Safety (NCALLRS), held at Inter University Accelerator Centre, New Delhi-110067, India, during 18–20 November, 2009. pp.55.

35- **M. Shakir Khan**, Ameer Azam, A.H. Naqvi, Deepak Verma, M. Zubair, M.K. Bhardwaj (2009): Radium and Radon exhalation studies in soil samples. In the Proceeding of 18<sup>th</sup> National Symposium on Radiation Physics (NSRP-18), held at Department of Physics, University College of Science, M.L. Sukhadia University, Udaipur–313001 (Rajasthan) India, during 19–21 November, 2009. pp.155.

36- Mohd. Zubair, **M. Shakir Khan**, Deepak Verma, M.K. Bhardwaj (2009): Investigation of Radon Exhalation Rate and Radium from Soil Samples Using SSNTD's. In the Proceeding of 16<sup>th</sup> National Symposium on Solid State Nuclear Track Detectors and Their Applications (SSNTD-16), held at Department of Physics, Guru Nanak Dev University, Amritsar-143005, Punjab, India, during 9–11 November, 2009. Book of Abstract pp.37.

37- M. Shakir Khan, Ameer Azam, A.H. Naqvi, Deepak Verma, M. Zubair, M.K. Bhardwaj (2009): Measurements of Indoor Air Concentrations of Radon, Thoron and their Progeny Using Twin Cup Dosimeters in Rural Areas of Northern India. In the Proceeding of 16<sup>th</sup> National Symposium on Solid State Nuclear Track Detectors and Their Applications (SSNTD-16), held at Department of Physics, Guru Nanak Dev University, Amritsar-143005, Punjab, India, during 9–11 November, 2009. pp.22.

38- **M. Shakir Khan**, A.H. Naqvi, Ameer Azam (2009): Depth Dependence Radon Study in Indian Tube-Wells. In the Proceeding of National Conference on Advanced Materials and Radiation Physics (AMRP-2009) held at Department of Physics Sant Longowal Institute of Engineering and Technology (Deemed to be University) Longowal, Sangrur (Punjab) – 148106, India, during 9–10 March, 2009. pp.93.

39- **M. Shakir Khan**, A.H. Naqvi, D.S. Srivastava, Ameer Azam (2007): Measurement of Radium Content and Radon Exhalation Rates in Soil Samples Using LR-115 Type II Plastic Track Detectors. In the Proceeding of 17<sup>th</sup> National Symposium on Radiation Physics (NSRP-17), Saha Institute of Nuclear Physics, Kolkata, India, during 14–16 November, 2007. pp.140.

40- **M. Shakir Khan**, A.H. Naqvi, Ameer Azam, D.S. Srivastava (2007): Measurement of Radium Content and Radon Exhalation Rates in Soil using Track Etch Technique. In the Proceeding of 15<sup>th</sup> National Symposium on Solid State Nuclear Track Detectors and their Applications, H.N.B. Garhwal University, Badshahi Thaul Campus, Tehri Garhwal-249199, India, during 21–23 June, 2007. pp.89.

41- Ameer Azam, **M. Shakir Khan**, M. Tariq, A.H. Naqvi, D.S. Srivastava (2007): Indoor Radon Measurements in Some Dwellings of District Rampur (U.P) using LR-115 Type-II Plastic Track Detectors. In the Proceeding of 15<sup>th</sup> National Symposium on Solid State Nuclear Track Detectors and their Applications, H.N.B. Garhwal University, Badshahi Thaul Campus, Tehri Garhwal–249199, India, during 21–23 June, 2007. pp.89.

42- M. Shakir Khan (2006): Indoor Radon Measurement in Dwellings using Solid State Nuclear Track Detectors (SSNTDs). In the Proceeding of 62<sup>nd</sup> BRNS-IANCAS National Workshop on Radiochemistry and its applications to Multiple Areas, Chemistry Dept., Mithibai College, Mumbai- 400056, India, during 28<sup>th</sup> Oct.,–11<sup>th</sup> Nov., 2006.

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#### **Publications (in international conference proceedings):**

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43- Deepak Verma, **M. Shakir Khan** (2012): Analysis of radium content and radon exhalation rates in soil samples using LR-115 plastic track detectors. In the proceedings of Third International Geo-Hazards Research Symposium (IGRS-2012) held at Department of Physics, H.N.B. Garhwal University, Badshahi Thaul Campus, Tehri Garhwal, India, during 10–14 June, 2012. pp.86.

44- **M. Shakir Khan**, Ameer Azam, M. Mohisin Khan (2012): Study of indoor radon, thoron and their progeny levels in the dwellings of district Mainpuri of north India. In the proceedings of Third International Geo-Hazards Research Symposium (IGRS-2012) held at Department of Physics, H.N.B. Garhwal University, Badshahi Thaul Campus, Tehri Garhwal, India, during 10–14 June, 2012. pp.85.

45- **M. Shakir Khan**, Deepak Verma (2012): Measurements of Radon and its Progeny using twin cup dosimeters in rural dwellings of North India. In the proceedings of International Conference on Radiation Environment–Assessment, Measurements & Its Impact [RADENVIRON–2012] held at Department of Physics, School of Physical Sciences, Babasaheb Bhimrao Ambedkar University, Lucknow, India, during 12–14 April, 2012. pp.92.

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- 46- Deepak Verma, **M. Shakir Khan** (2012): Assessment of Indoor Concentration of Radon, Thoron and their Progeny using plastic track detector. In the proceedings of International Conference on Radiation Environment- Assessment, Measurements & Its Impact [RADENVIRON-2012] held at Department of Physics, School of Physical Sciences, Babasaheb Bhimrao Ambedkar University, Lucknow, India, during 12-14 April, 2012. pp.65.
- 47- **M. Shakir Khan**, Ameer Azam (2011): Measurements of Radium Content and Radon Exhalation rates in Rock and Sand Samples. In the proceeding of 25<sup>th</sup> International Conference on Nuclear Tracks in Solids” held at Instituto de Fisica, Universidad Nacional Autonoma de Mexico, Puebla, Mexico, during 4-9 September, 2011. pp.84.
- 48- **M. Shakir Khan**, Ameer Azam (2011): Study of Radon and its Progeny in the Dwellings of District Mainpuri Using LR-115 Detectors. In the proceeding of 25<sup>th</sup> International Conference on Nuclear Tracks in Solids” held at Instituto de Fisica, Universidad Nacional Autonoma de Mexico, Puebla, Mexico, during 4-9 September, 2011. pp.86.
- 49- Deepak Verma, **M. Shakir Khan**, Mohd. Zubair, M.K. Bhardwaj (2010): Assessment of Effective Radium Content and Radon Exhalation Rates in Soil Samples. In the Proceeding of Fourth International Symposium on Nuclear Analytical Chemistry (NAC-IV), held at Bhabha Atomic Research Centre, Trombay, Mumbai-400085, India, during 15-19 November, 2010. pp.194.
- 50- **M. Shakir Khan**, Ameer Azam, A.H. Naqvi, Deepak Verma, M. Zubair, M.K. Bhardwaj (2010): Depth Dependent Study of Radon, Thoron and their progeny in Tube-Wells. In the Proceeding of Fourth International Symposium on Nuclear Analytical Chemistry (NAC-IV), held at Bhabha Atomic Research Centre, Trombay, Mumbai-400085, India during 15-19 November, 2010. pp.192.

#### Teaching Experience:

Engineering Physics I	B. Tech	Sobhasaria College of Engg., Rajasthan	India
Engineering Physics II	B. Tech	Sobhasaria College of Engg., Rajasthan	India
General Physics II	B.S in Physics	College of Science, Al-Zulfi, Majmaah	KSA
Nuclear Physics Lab	B.S in Physics	College of Science, Al-Zulfi, Majmaah	KSA

#### Conferences/Workshops/Symposia:

1. International workshop on Nuclear Sciences and its Peaceful applications (NSPA), held at Cairo University, Egypt, during 17-19 March, 2009.
2. Fourth International Symposium on Nuclear Analytical Chemistry (NAC-IV), held at Bhabha Atomic Research Centre, Trombay, Mumbai-400085, India, during 15-19 November, 2010.
3. 25<sup>th</sup> International Conference on Nuclear Tracks in Solids” held at Instituto de Fisica, Universidad Nacional Autonoma de Mexico, Puebla, Mexico, during 4-9 September, 2011.
4. Third International Geo-Hazards Research Symposium (IGRS-2012) held at Department of Physics, H.N.B. Garhwal University, Badshahi Thaul Campus, Tehri Garhwal, India, during 10-14 June, 2012.
5. 4<sup>th</sup> International conference on Challenges in Rural Electrification by Unconventional Energy Generation held at Shri Jagdishprasad Jhabarmal Tibrewala University, Jhunjhunu, Rajasthan, India, during 10-11 October, 2013.
6. 14<sup>th</sup> National Symposium on Solid State Nuclear Track Detectors & their Applications held at Dept. of Applied Physics, Aligarh Muslim University, Aligarh-202002, India, during 10-12 November, 2005.
7. National Conference on recent advances in Material Sciences (RAMS-2006) held at Dept. of Physics, Kurukshetra University Kurukshetra-136119, Haryana, India, during 27-29 September, 2006.
8. 62<sup>nd</sup> BRNS-IANCAS National Workshop on Radiochemistry and its Applications to Multiple Area held at Chemistry Dept., Mithibai College, Mumbai- 400056, India, during 28<sup>th</sup> Oct.,-11<sup>th</sup> Nov., 2006.
9. National Workshop on Nuclear and Atomic techniques based Pure and Applied Science held at University of Kalyani Nadia, Kolkata, India, during 29-30 March, 2007.
10. National Conference on Accelerator and Low Level Radiation Safety held at IUAC New

Delhi-110067, India, during 25–27 April, 2007.
11. 15 <sup>th</sup> National Symposium on Solid State Nuclear Track Detectors and their Applications (SSNTD-15) held at Department of Physics, H.N.B. Garhwal University, Badshahi Thaul Campus, Tehri Garhwal-249199, India, during 21–23 June, 2007.
12. 17 <sup>th</sup> National Symposium on Radiation Physics (NSRP-17) held at Saha Institute of Nuclear Physics, Kolkata, India, during 14–16 November, 2007.
13. 65 <sup>th</sup> BRNS-IANCAS National Workshop on Radiochemistry and Applications of Radioisotopes held at Dept. of Physics, Kurukshetra University Kurukshetra, Haryana, India, during 29 <sup>th</sup> Nov.,–8 <sup>th</sup> Dec., 2007.
14. National workshop on Solid State Nuclear Track Detectors (NWSSNTD) held at Dept. of Physics, S.S. (P.G) College Shahjehanpur (U.P), India, during 14–15 December, 2007.
15. Fourth DAE-BRNS Workshop on Hadron Physics held at Dept. of Physics, Aligarh Muslim University, Aligarh-202002, India, during 18–23 February, 2008.
16. DAE-BRNS Theme meeting RADON-2008 on “Advances in the methods of assessment of exposure due to radon, thoron and their decay products” held at BARC, Mumbai-400085, India, during 11–13 March, 2008.
17. Sixteenth National Symposium on Environment (NSE-16) held at Dept. of Environmental Science & Engineering, Guru Jambheshwar University of Science & Technology, Hisar, Haryana, India, during 16–18 July, 2008.
18. National Workshop on Radiation Science and Applications held at Burdwan University, Burdwan-713104, West Bengal, India, during 10–12 November, 2008.
19. National Seminar on New Era in Nuclear and Particle Physics held at Burdwan University, Burdwan-713104, West Bengal, India, during 28–29 November, 2008.
20. DAE-BRNS “Nuclear and Radiochemistry Symposium (NUCAR-2009)” held at Mithibai College, Mumbai-400056, India, during 7–10 January, 2009.
21. National Conference on “Recent Developments in Science & Technology” held at Shri Varshney Mahavidyalaya, Aligarh-202002 (U.P), India, during 15–16 February, 2009.
22. National Conference on Advanced Materials and Radiation Physics (AMRP-2009) held at Department of Physics Sant Longowal Institute of Engineering and Technology (Deemed to be University) Longowal, Sangrur (Punjab)-148106, India, during 9–10 March, 2009.
23. National Workshop on Oxide Materials held at Department of Applied Physics, AMU, Aligarh-202002, India, during 12–13 May, 2009.
24. 16 <sup>th</sup> National Symposium on Solid State Nuclear Track Detectors and Their Applications (SSNTD-16), held at Department of Physics, Guru Nanak Dev University, Amritsar-143005, Punjab, India, during 9–11 November, 2009.
25. 18 <sup>th</sup> National Symposium on Radiation Physics (NSRP-18), held at Department of Physics, University College of Science, M.L. Sukhadia University, Udaipur 313001 (Rajasthan) India, during 19–21 November, 2009.
26. National Seminar on Contemporary Trends in Nuclear Physics, held at Department of Physics, Aligarh Muslim University, Aligarh, India, during 20–21 October, 2010.
27. National Conference on Recent Trends in Engineering & Mathematical Sciences (NCRTEMS-2011) at Applied College of Management & Engineering, Palwal (Haryana), India, during 24–25 February, 2011.
28. Workshop on Nanoscience and Nanotechnology (ALIGARH NANO-I) held at Dept. of Applied Physics, Aligarh Muslim University, Aligarh-202002, India, during 26–27 March, 2011.
29. National Conference on Nanoscience and Nanotechnology (ALIGARH NANO-II) held at Dept. of Applied Physics, Aligarh Muslim University, Aligarh-202002, India, during 10–12 March, 2012.
30. Workshop on Environmental Radioactivity Monitoring (WENREM) at SRI Guest House, Anupuram, Kalpakkam, Tamil Nadu, India, during December 10–11, 2012.
31. 19 <sup>th</sup> National Symposium on Radiation Physics (NSRP-19) at Radisson BLU Resort Temple Bay, Mamallapuram, Tamil Nadu, India during December 12–14, 2012.
32. National Conference on Nanoscience and Nanotechnology (ALIGARH NANO-III) held at Dept. of Applied Physics, Aligarh Muslim University, Aligarh-202002, India, during 15–16 March, 2013.
33. National workshop on Syllabus Coverage and Lesson Planning held at Sobhasaria Group of Institutions, Sikar, Rajasthan, India, on 28 <sup>th</sup> December, 2013.
34. Nanotechnology seminar held at college of science, Majmaah University, KSA, on 13 <sup>th</sup> April, 2015.

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**Fellowships/Awards/Grants:**

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1. Maulana Azad National Fellowship (MANF) during 01/04/2011 to 31/03/2013.
  2. DST/CSIR grant to attend the “25<sup>th</sup> International Conference on Nuclear Tracks in Solids” held at Institute De Fisica, Universidad Nacional Autonoma de Mexico at Puebla, Pue, Mexico, during 4–9 September, 2011.
  3. International Centre for Theoretical Physics (ICTP) grant to attend the International workshop on Nuclear Sciences and its Peaceful applications (NSPA) held at Faculty of Science, Cairo University, Egypt, during 17–19 March, 2009.
  4. UGC fellowship during 01/01/2007 to 31/03/2011.
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**Memberships of Scientific and Technical Societies:**

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- 7- Life Member of Nuclear Track Society of India (NTSI).
- 8- Member of International Nuclear Track Society (INTS), Rome, Italy.
- 9- Member of International Geo-Hazards Research Society, Dresden, Germany.

**Reviewer member of journals:**

1. Environmental Earth Sciences (Springer).
2. Journal of Radioanalytical and Nuclear Chemistry (Springer).
3. Iranian Journal of Radiation Research.
4. Journal of Radiation Research and Applied Sciences (Sciencedirect)
5. Editorial member, International Journal of Engineering and Mathematical Sciences.

**Computer Skills:**

Microsoft Windows, Origin Lab., Microsoft Excel, Microsoft Word, Microsoft Power Point, Adobe Photoshop, CASSY LAB 2, ...etc.

**Practical Skills:**

- 5- Scanning Electron Microscope (SEM)
  - 6- Optical Microscope
  - 7- Compton Scattering
  - 8- Rutherford Scattering
  - 9- Poisson Distribution
  - 10- Alpha Spectroscopy
  - 11- Gamma Spectroscopy
-

## Assistant Prof. Dr. Muhammad Arshad Kamran



Assistant Professor  
Department of Physics  
Faculty of Science,  
Al-Zulfi - 11932  
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**E-Mail:** makamran81@gmail.com  
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### Research Interests:

1-D Semiconductors/transition metals doped-Semiconductors Nanostructures Synthesis and Characterization.  
Nanostructured device fabrication and Characterization

### Language Skills

English (R,W,S), Urdu (R,W,S), Punjabi (R,W,S) and Arabic (R,W)

### Qualification (Career and University Education)

2000	B. Sc. Degree (Physics, Mathematics A & B Course)	University of Punjab, Lahore. Pakistan.
2003	M.Sc. Degree (Physics)	University of Punjab, Lahore. Pakistan..
2005	M.Phil (High Energy Physics)	University of Punjab, Lahore. Pakistan. Title: <i>Study of Glueballs and Hybrids</i> . Supervisor: <b>Prof Dr. Fazl-e-Aleem</b>
2014	PhD Degree Materials Science Engineering ( <i>Nanotechnology</i> )	Beijing Key Laboratory of Nanophotonics & Ultrafine Optoelectronic Systems, Beijing Institute of Technology, Beijing 100081, China Title: <i>“Studies on Synthesis, Characterization, Optical and Magnetic Properties of Transition Metal doped CdS Nanostructures”</i> Supervisor: Professor <b>BingSuo Zou</b> (Chang Jiang Scholar)

### Career

#### Full-time Faculty Member

Sep. 10, 2014 – Continue	Assistant Professor, Department of Physics, Majmaah University, College of Science, Alzulfi, Saudi Arabia.
Sep. 09, 2007 – May 10, 2010	Teacher of Advanced Level Physics (Cambridge Systems), English Language School, Dubai, UAE.
Sep. 03, 2005 – Jun. 10, 2007	Teacher of O-Level Physics (Edexcel/Cambridge Systems), Chand Bagh School, Lahore, Pakistan.

#### Experience Administrative (Extra-Responsibilities)

Sep. 09, 2007 – May 10, 2010	Incharge, A-Level Physics Lab, English Language School, Dubai, UAE.
Sep. 03, 2005 – Jun. 10, 2007	Deputy House Master, Qarshi House, Chand Bagh School, Lahore, Pakistan.

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## Publication

- 2014 MUHAMMAD Arshad Kamran, ZHANG Yong-You, LIU Rui-Bin, SHI Li-Jie, B.S.ZOU, A Model on the Mn<sup>2+</sup> Luminescence band redshift with Mn(II) doping and aggregation within CdS:Mn microwires. *C. Physics Letters*, **31**, 06, 067802.
- 2014 Muhammad Arshad Kamran, Ruibin Liu, Li-Jie Shi, and Bingsuo Zou, Large-Scale Synthesis of Highly Pure Cadmium Semi-Spheres and their Anomalous Optical Properties, *Science of Advanced Materials*, **6**, 1-7.
- 2014 Muhammad Arshad Kamran, Ruibin Liu, Li-Jie Shi, Zi-An Li, Thomas Marzi, Christian Schöppner, Michael Farle, and Bingsuo Zou, Tunable Emission Properties by Ferromagnetic Coupling Mn(II) aggregates in Mn-doped CdS nanowires, *Nanotechnology*, **25**, 385201.
- 2014 Muhammad Arshad Kamran, Ruibin Liu, Li-Jie Shi, Afran Bukhtiar, Jing Li, and Bingsuo Zou, Synthesis of Novel Sea-Urchin-like CdS and their Optical Properties, *J of Nanoscience and Nanotechnology*, **14**, 1-7.
- 2014 Muhammad Arshad Kamran, Ruibin Liu, Li Jing, Li-Jie Shi, and Bingsuo Zou, Photoluminescence and magnetic properties of Mn-doped ZnS nanobelts, *Nanoscience and Nanotechnology Letters*, **6**, 1-5.
- 2014 Jing Li, Xiaoxu wang, Ruibin Liu, Lijie shi, Muhammad Arshad Kamran, Haizheng Zhong, Bingsuo Zou, The length controllable synthesis and near-infrared photoluminescence of one-dimensional ternary Cu<sub>4</sub>Bi<sub>4</sub>S<sub>9</sub> semiconductor nanobelts, *Materials Research Bulletin* **2014**, **49**, 180–186.
- 2013 Ruibin Liu, Zi-An Li, Chunhua Zhang, Xiaoxu Wang, Muhammad A. Kamran, Michael Farle, and Bingsuo Zou, Single-Step Synthesis of Monolithic Comb-like CdS Nanostructures with Tunable Waveguide Properties, *Nano Letters* **13**, 2997-3001.
- 2013 Muhammad Arshad Kamran, Ruibin Liu, Lijie Shi, BingSuo Zou, and Qinglin Zhang, Near Infrared Emission Band and Origin in Ni(II)-Doped CdS Nanoribbons by CVD Technique, *J of Physical Chemistry C*, **117**, 17777-17785.
- 2013 Guangda Dong, Yongyou Zhang, Muhammad Arshad Kamran, and Bingsuo Zou, Group delay of single-photon transmission in a waveguide side coupled with a Jaynes-Cummings chain, *J of Applied Physics*, **113**, 143105.
- 2013 Qurat-ul-ain Javed, Fengping Wang, Arbab Toufiq, Mohammad Rafiq, M. Yasir Iqbal, M. Zubair, M. Arshad Kamran, Preparation, Characterizations and Optical Property of Single Crystalline ZnMn<sub>2</sub>O<sub>4</sub> Nanoflowers via Template-Free Hydrothermal Synthesis, *J of Nanoscience and Nanotechnology*, **13**, 2937-2942.
- 2013 Tariq Mahmood, Chuanbao Cao, Rashid Ahmed, Maqsood Ahmed, M.A. Saeed, AbrarAhmed Zafar, TalabHusain & M.A. Kamran, Pressure Induced Structural and Electronic Bandgap properties of Anatase and Rutile TiO<sub>2</sub>, *Sains Malaysiana*, **42**, 2, 231-237.
- 2012 Guangda Dong, Yongyou Zhang, Muhammad Arshad Kamran, and Bingsuo Zou, Tailoring of optical modes of semiconductor microcavities via metal and dielectric gratings, *Optics Letters*, **2012**, **37**, 24.
- xxxx Muhammad Arshad Kamran, Ruibin Liu, Lijie Shi, BingSuo Zou and Abdul Majid, Experimental verification of exciton magnetic polaron in Co(II)-doped CdS nanobelts(Manuscript ready for submission for Applied Physics Letters).
- xxxx Tariq Mehmood and Muhammad Arshad Kamran et al, Elastic, acoustic, electronic and optical properties of anatase TiO<sub>2</sub> under pressure effect: a DFT approach (manuscript submitted in J of Material Science).

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## Conference Presentations

- Aug. 12-16, 2013 International Conference for Top and Emerging Materials Scientists, IC-TEMS 2013 ZHUHAI, China. Speaker

**Talk title:** “*Tuning Structural and Optical Properties by Doping Proper Metal Ion in CdS-based Nanostructures*”.

#### Collaborative Research:

**2013** Worked as a Guest Scientist in Prof. Michael Farle Group in Duisburg-Essen Universtat, Germany.

#### Teaching Experience

Semiconductors	PHYS473	BS Physics	Majmaah University, College of Science, Al-Zulfi, Saudi Arabia.
Solid State Physics	PHYS471	BS Physics	Majmaah University, College of Science, Al-Zulfi, Saudi Arabia.
Material Science	PHYS474	BS Physics	Majmaah University, College of Science, Al-Zulfi, Saudi Arabia.
Advanced Level Physics		Advanced Level	English Language School, Dubai, UAE.
Physics A Course for O-Level		O-Level	Chand Bagh School, Lahore, Pakistan

#### Honor and Awards:

**2012** “Excellent Student Award-PhD” Beijing Institute of Technology, China.

**2013** “Distinguished Student Award-PhD” Beijing Institute of Technology, China .

#### Membership of Scientific and Technical Societies

- Life member Pakistan Institute of Physics (PIP), Lahore, Pakistan.



## Prof. Dr: Elassaad Mustapha JEMII



Assistant Professor  
Physics Department  
Faculty of Science, Zulfi  
Majmaah university

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Zulfi	Zulfi
Saudi Arabia	Saudi Arabia

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<b>Mobile</b>	+966563931053
<b>Fax:</b>	+96664227484
<b>E-Mail:</b>	elassaad_fsm@yahoo.fr

### Research Interests:

Nuclear Physics

Modeling of the CNSTN Irradiator and Isodose curves calculation,

### Language Skills

Arabic (native), English, French.

### Qualification (Career and University Education)

<b>2000-2005</b>	B. Sc. Degree (Physics)	Faculty of Science / University of Monastir/ Tunisia
<b>2007-2009</b>	MS. C. Degree (Solid Physics)	Faculty of Science / University of Monastir/ Tunisia
<b>2009-2014</b>	PhD Degree (Nuclear Physics)	Faculty of Science / University of Monastir/ Tunisia

### Education

2014-  
recent **Assistant Professor** College of science in al-Zulfi / *Majmaah University*  
Saudi Arabia

2006-2013 **Physics Teacher for MES, Schools & College / TUNISIA**

### Publications

1) [E. Jemii](#), M. Mazouz, A. Ben Fredj, L. Ghedira, "Modeling of the Tunisian  $^{60}\text{Co}$  gamma irradiator by a coaxial equal height and equal activity single pencil" *Radiat. Phys. Chem.* pp 1158-1161. (80), (2011).

2) [E. Jemii](#), M. Mazouz, L. Ghedira, "Dose rate calculation in the vicinity of the Tunisian Gamma Irradiation" *World Journal of Nuclear Science and technology (WJNST)*. 2013, (3), pp 28-32.

3) [E. Jemii](#), L. Ghedira, "Dose rate simulation using a GEANT 4 code". *IEEE*

Digital Xplorer, (2014).

4) [E. Jemij](#), M. Mazouz, L. Ghedira, "Photon flux simulation and isodose curves calculation in the vicinity of the Tunisian Irradiator". Submitted recently in journal Radiat.Phys. Chem (2014).

### Conferences

1) [E. Jemij](#), M. Mazouz, L. Ghedira, «Dose rate calculation in a PMMA dosimeter» The Fourth International Renewable Energy Congress. (IREC'2012) December, 20–22, 2012- Sousse (Tunisia)

2) [E. Jemij](#), M. Mazouz, L. Ghedira, «Calcul des courbes isodoses au voisinage de l'irradiateur  $^{60}\text{Co}$  du CNSTN». Société Tunisienne de Physique (STP' 2012). 23 - 25 Novembre 2012. FSM.

3) [E. Jemij](#), M. Mazouz, L. Ghedira, «Simulation par GEANT 4 du débit de dose déposé dans un dosimètre PMMA». Société Tunisienne de Physique (STP' 2012). 23 - 25 Novembre 2012. FSM.

4) [E. Jemij](#), M. Mazouz, L. Ghedira, «Validation des mesures expérimentales de débit de dose par la simulation GEANT 4».VII<sup>ème</sup> Congrès Internationale sur les Energies Renouvelables et l'Environnement (CERE'2013). 19–21 Mars 2013 – Sousse (Tunisie).

5) [E. Jemij](#), M. Mazouz, L. Ghedira, «Détermination des courbes isodoses». VII<sup>ème</sup> Congrès Internationale sur les Energies Renouvelables et l'Environnement (CERE' 2013). 19 – 21 Mars 2013 – Sousse (Tunisie)

6) [E. Jemij](#), M. Mazouz, L. Ghedira, «Simulation of the dose rate using a GEANT 4 code». International Conference of Composite Material and Renewable Energy Applications. (ICCMREA'2014), 22-24 January 2014, Sousse. (Tunisia).

7) [E. Jemij](#), L. Ghedira, «Photon flux calculation in the vicinity of a linear Gamma source», International Conference on Mecanics and Energy. (ICME'2014), 18-20 Mars 2014, Monastir. Tunisia.

8) [E. Jemij](#), L. Ghedira, «Modeling of the Tunisian Gamma Irradiator for insect sterilization by a cylindrical source», International Conference on Mecanics and Energy. (ICME'2014), 18-20 Mars 2014, Monastir. Tunisia.

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#### Practical Skills

Simulation with GEANT 4, C, C++, ROOT.

Linux, Windows XP, Adobe Acrobat, Macromedia Dream Weaver, Macromedia Flash MX, Microsoft PowerPoint, Microsoft Excel.

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## Dr. Muhammad Hammad Aziz



Assistant Professor  
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Faculty of Science, Al-Zulfi - 11932  
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**Fax:** .....

**E-Mail:** m.hammad@mu.edu.sa

**Office:** Room 02

**Link to  
Homepage:** <http://faculty.mu.edu.sa/mhammad>

### Research Interests:

Photodynamic Therapy (PDT) using different nanomaterial  
Advanced Radiotherapy Technique for treatment of Breast Cancer  
Dose Distribution by External Beam Radiotherapy Techniques, MammoSite  
Brachytherapy Technique and High-Dose-Rate (HDR) Brachytherapy Technique

### Language Skills

English (R,W,S), Urdu (R,W,S), Punjabi (R,W,S) and Arabic (R,W)

### Qualification (Career and University Education)

2003	B. Sc. Degree (Physics, Pure Mathematics, Applied Mathematics)	The Islamia University of Bahawalpur, Bahawalpur, Pakistan
2005	M.Sc. Degree (Physics)	The Islamia University of Bahawalpur, Bahawalpur, Pakistan
2008	M.Phil Degree (Medical Physics)	The Islamia University of Bahawalpur, Bahawalpur, Pakistan <b>Title:</b> <i>Comparison of LDR and HDR brachytherapy for cervical tumor coverage of doses</i> <b>Supervisor Prof. Dr. Muhammad Afzal Rao</b>
2012	Ph.D (Medical Physics)	The Islamia University of Bahawalpur, Bahawalpur, Pakistan <b>Title:</b> <i>Dose Distribution of HDR Brachytherapy using Different Sources, Treatment</i>

**Career**

**Full-time Faculty Member**

Mar. 26, 2013 – Continue	<i>Assistant Professor,</i> Department of Physics, Majmaah University, College of Science, Al zulfi, Saudi Arabia
April 1, 2013 to date (Conti.....On Ex-Pakistan Leave)	<i>Assistant Professor (TTS)</i> Department of Physics, COMSATS Institute of Information Technology, Islamabad. Pakistan
October 10, 2012 - March 31, 2013	<i>Assistant Professor (TTS),</i> Department of Physics, G.C University Faisalabad, Pakistan

**Teaching Experience**

Classical Mechanics	PHY-121	BS Physics	Department of Physics, G.C University Faisalabad, Pakistan
Method of Mathematical Physics	PHY-125	BS Physics	Department of Physics, G.C University Faisalabad, Pakistan.
Nuclear Physics	PHY-429	BS Physics	COMSATS Institute of Information Technology, Islamabad. Pakistan
Health Physics	PHY-141	M.Phil Physics.	Department of Physics, G.C University Faisalabad, Pakistan

**Projects/Reports:**

**2013-2014**    **“Nanoparticles Drug delivery for cancer Treatment using Photodynamic Therapy”**  
**Startup Research Grant & Co- Investigator in NRPU Project by HEC, Pakistan**

**Conferences/ Seminar Organized:**

**December 20-21 2013**    *International Conference on Nanotechnology and Biosensors*  
*(Speaker)* “Cytotoxic Effects of Ferrites Nanoparticles in HepG2 cellular Model” **Paris, France**

**June 2 – 3 2008**    *Seminar/workshop on Semiconductor Materials and Nano-Devices* **The Islamia University of Bahawalpur, Bahawalpur, Pakistan**

### Publication List

- 2014 Mahvish Fatima, Muhammad Fakhr-E-Alam, M Atif, S S Zaidi, R Suleman, Muhammad Nadeem Shakoor, Muhammad Afzal, Muhammad Waseem, Muhammad Hammad Aziz. *Apoptotic effect of  $\alpha$ -Fe<sub>2</sub>O<sub>3</sub> and SiO<sub>2</sub> nanoparticles in human rhabdomyosarcoma cell line.* **Laser Phys**, 24, 125602.
- 2014 M. Fakhar-e-Alam, Shubana Rahim, M. Atif, M. Hammad Aziz, M. Imran Malick, S. S. Z. Zaidi, R. Suleman, Abdul Majid, ZnO Nanoparticles as Drug Delivery Agent for Photodynamic Therapy, **Laser Phys. Lett.** 11, 025601
- 2014 Muhammad Hammad Aziz , Yasser Abo-Madyan, Moamen M.O.M. Aly, Frank Schneider, Elena Sperk, Sven Clausen, Frank A. Giordano, Carsten Herskind, Volker Steil, Frederik Wenz, Gerhard Glatting. *Second Cancer Risk After 3DCRT, IMRT and VMAT for Breast Cancer.* **Radiotherapy & Oncology**, 10, 471.
- 2014 Najama Zia, M. Fakhar-e-Alam, M. Atif, W. A. Farooq, M. Hammad Aziz, Afzal Nadeem, Naveed Akhtar Shad, Zia-UL-Haq, M. R. Baig. *Designing of sophisticated automatic lead shielding to reduce radiation dose of <sup>99m</sup>Tc.* **JOURNAL OF OPTOELECTRONICS AND ADVANCED MATERIALS**, 16, 3-4.
- 2014 Muhammad Hammad Aziz, Mahvish Fatima, Muhammad Waseem, Muhammad Fakhr-E-Alam, Muhammad Nadeem Shakoor. *Tumoricidal Effect of  $\alpha$ -Fe<sub>2</sub>O<sub>3</sub> and SiO<sub>2</sub> nanoparticles in Human Rhabdomyosarcoma cell line.* **Advanced Materials Research**, 974, 235.
- 2013 *Muhammad Hammad Aziz*, Mahvish Fatima, Fozia Shaheen, Muhammad Fakhr-e-Alam, Muhammad Afzal, Gerhard Glatting, Frederik Wenz. *Estimation of Second Cancer Risk after IORT, APBI, m-IMRT and VMAT using NCRP Report 116 for Breast Cancer.* **International Journal of Scientific Engineering and Research**, 4, 540.
- 2013 W. Aslam Farooq, Syed Mansoor Ali, Jan Muhammad, Syed Danish Ali, Muhammad Hammad Aziz, Naeem-ur Rehman, Muhammad Hussain. *Synthesis and characterization of Sn<sub>1</sub>Mg<sub>1-x</sub>O<sub>2</sub> thin films fabricated by aerosole assisted chemical vapor deposition.* **Journal of Materials Science: Materials in Electronics**, 24, 5140.
- 2013 Syed Mansoor Ali, Jan Muhammad, Syed Tajammul Hussain, Syed Danish Ali, Naeem Ur Rehman, Muhammad Hammad Aziz. *Annealing effect on structural, optical and electrical properties of pure and Mg doped tin oxide thin films.* **Journal of Materials Science: Materials in Electronics**, 24, 4925-4931.
- 2011 Muhammad Hammad Aziz, Frank Schneider, Sven Clausen, Elena Blank, Carsten Herskind, Muhammad Afzal, Frederik Wenz. *Can the risk of secondary cancer induction after breast conserving therapy be reduced using intraoperative radiotherapy (IORT) with low-energy x-rays?* **Radiat. Oncol**, 6, 174.
- 2011 Muhammad Hammad Aziz, Muhammad Nadeem, Afifa Sarwar, Muhammad Afzal.

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*Comparison of dose distribution by Ring and Fletcher applicators during High Dose Rate Brachytherapy in cervical cancer: A study from a rural center of Punjab, Pakistan.*  
**Vol 05, IEEE CET.**

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## b) Scholarship Names

م	Name	Rink	Field	Position Study	E-mail
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## e) Secretary Names

M	Name	=	=	work	E-mail
1)	Abdalla Alsweeket			Zulfi College	a.alsweeket@mu.edu.sa

## STATISTICS INFORMATION

Occupation	Number	Non-Saudi	Saudi
Professor	2	2	-
Associate Professor	1	1	-
Assistant professor	11	10	1
Lecturer	-	-	-
Demonstrator	3	-	3
Scholarship	3	-	3
<b>Total</b>		<b>13</b>	<b>7</b>

Illustration shows the percentage of Saudi to non-Saudis to the functional framework

