



# Abdusalam Gsiea

PHYSICS PROFESSOR

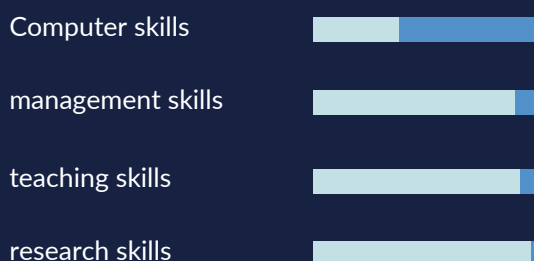
## Contact

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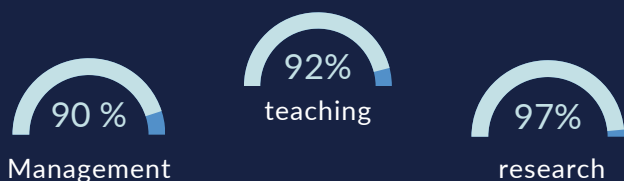
## Language

English  
Arabic

## Skills Summary



## Expertise



## About Me

Highly skilled in materials science, semiconductor physics, and computational modeling, I have a Ph.D. from Newcastle University. my doctoral work centered on the origin of p-type doping in zinc oxide (ZnO) using group-V elements, employing density functional theory (DFT) to uncover innovative insights into dopant stabilization and defect dynamics in semiconductor materials.

## Experience

### 1. Teaching Physics Course

- Statistical physics
- Solid State physics
- Thermodynamic Physics
- Atomic physics
- Quantum Mechanics

### 2. Research

- Diamond Surface
- Electron Paramagnetic Resonance
- Semiconductors material
- Emerging materials
- Polymers

### 3. Conference attendance

- International conference (ICEMA) 2014 at Istanbul, Turkey
- International conference (IECECE) 2013, Dubai, UAE
- AIMPRO meeting April 2010, University of Nottingham, UK
- Postgraduate Research Newcastle upon Tyne, UK.
- Postgraduate Research 2009 Newcastle upon Tyne, UK
- AIMPRO meeting Institute of Material Jean Rouxel, Nantes, Fr

## Education

### PHD nanomaterials engineering

- PhD nanomaterials engineering Newcastle University Uk
- Msc Physics Tripoli University
- Bsc Physics Tripoli University

## **Work Experience**

2017 – 2024

Teaching Physics Courses Such as Statistical Physics, Solid State Physics laboratory and Thermodynamic Physics at Tripoli University.

2016 – 2017

Teaching Physics Courses Such as Atomic Physics, and Thermodynamic Physics. Supervisor for three students research as well at Tripoli University

2014 – 2016

Assistance Professor

A member of the selection committee teaching assistants at the University of Tripoli  
Head of Graduate Studies, Faculty of Science, Azzaytuna University, Libya. Lecturer Teaching Physics Courses Such as statistical Physics, and nuclear Physics at Tripoli University. In addition Teaching physics courses such as Electromagnetic Theory, Optics physics, and atomic physics at Azzaytuna University.

2013 – 2014

Head of Graduate Studies, Faculty of Science, Azzaytuna University, Libya. Teaching Physics Courses Such as statistical Physics, and nuclear Physics at Tripoli University. In addition Teaching physics courses such as Electromagnetic Theory, and atomic physics at Azzaytuna University .

2012 – 2013

Head of Graduate Studies, Faculty of Science, Azzaytuna University, Libya. Teaching Physics Courses Such as Electric, Magnetism and atomic Physics at Tripoli University . In addition Teaching Physics Courses such as Electromagnetic Theory and Electric Physics at Azzaytuna University.

2011 – 2012

Head of Graduate Studies, Faculty of Science, Azzaytuna University, Libya. Teaching Physics Courses Such as Electric, Magnetism and atomic Physics at Tripoli University . In addition Teaching Physics Courses such as Electromagnetic Theory and Electric Physics at Azzaytuna University.

2008 – 2011

Head teacher, of the Libyan School at Newcastle upon Tyne, United Kingdom. In addition PhD studies at Newcastle upon Tyne University.

2006 – 2008

Study a PhD at school of Electric, Electronic and Computer Engineering Newcastle University, English Language Study as well at Northumbria University, UK.

2003 – 2006

Teaching, Physics Courses at Nasser University, Tripoli Libya.

2002 – 2003

Working on my MSc thesis project, at Tajoura Research Center, Tripoli, Libya.

2001 – 2002

Physician working within a research group, Electronic research center, Tripoli Libya, in addition to lecturing at Tripoli University, Libya.

2000 – 2001

Head of Laser warning receiver unite, Electronic research center Tripoli, Libya.

1996 – 2000

Physician working on semiconductor laser instruments, Electronic research Center, Tripoli Libya.

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### List of Conferences

1. International conference on Engineering Materials and Applications (ICEMA) on January, 27-28, 2014 at Istanbul, Turkey.
2. International conference of Electrical, Computer, Electronic and Communication Engineering (IECECE) 5-6 March 2013, Dubai, UAE.
3. AIMPRO meeting of nano material Engineering 2010, 19 – 22 April 2010, University of Nottingham, Nottingham, UK.
4. Postgraduate Research Conferences 13 – 14 January, Newcastle University, Newcastle upon Tyne, UK.
5. Postgraduate Research Conferences 2009, 21 – 22 January 2009, School of Electrical, Electronic and Computer Engineering, Newcastle University, Newcastle upon Tyne, UK.
6. AIMPRO meeting of nano material Engineering 2008, 10 – 12 December 2008, Institute of Material Jean Rouxel, Nantes, France.

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### List of Publications

1. **A. M. Gsiea**, M. K. Atumi, J. P. Goss, P. R. Briddon, F. A. Gsiea, First-principles Density Functional Study of Nickel and Nickel-complex in Diamond, *Journal of the Faculty of Education Tripoli*, **19**(1), pp. 275-283 (6-2024).
2. **A. M. Gsiea** & M. K. Atumi, Theoretical Study of Phosphorus Impurity Incorporation in ZnO *Rwafed Al- Maerefah Journal – Faculty of Sciences – Azzaytuna University*, **10**, pp. 47-54(6-2023)
3. **A. M. Gsiea**, M. K. Atumi EPR Centers for Nickel Substitutional impurity in Diamond *Journal of the Faculty of Education Tripoli*, **17**(1), pp. 308 -315 (6-2023).
4. M. K. Atumi & **A. M. Gsiea** Defect Properties of Nitrogen-Doped in ZnO. *Rawafed Al-Maerefah Journal – Faculty of Sciences – Azzaytuna University*, **10**(1), pp. 24-30 (6-2023).
5. **A. M. Gsiea** & M. K. Atumi, First-First-principles study of preferential alignment of Si-related defects on (110) in diamond. *Journal of the Faculty of Education Tripoli*, **18**(1), pp. 251-263 (6-2023).
6. M.K. Atumi, J.P. Goss, P.R. Briddon, **A.M. Gsiea**, M.J. Rayson. Hyperfine interaction of H-divacancy in diamond, *Elsevier B.V.* (2020).

7. A.M. ELHAJ, A.M. EL KHATIB, K.A. MARGHANI, A.M. GSIEA, M. MOUSTAFA Effects of X-ray Irradiation on Blood Viscosity and Blood Components, **29** (1), pp. 29-37 (1-2019).
8. R. Alhabashi, F. Elfallagh, S. Maddi, M. Atumi, **A. Gsiea**, S. Abdulhamid, K. Ahmed, Preparation of Y<sub>3.0-x</sub>Al<sub>x</sub>Fe<sub>5</sub>O<sub>12</sub> Nano-crystalline Powders at Relatively Low Temperature, *Azzaytuna University Journal* **19**, 1 (2016).
9. **Abdusalam Gsiea**, Ramadan Al-habashi, Mohamed Atumi, Khaled Etmimi, First-Principles Density Functional Study of Nitrogen-Doped P-Type ZnO, *International Journal of Physical and Mathematical Sciences* **10**, 156 (2016).
10. **A. M. Gsiea**, J. P. Goss, P. B. Briddon, Ramadan. M. Al-habashi, K. M. Etmimi and Khaled. A. S. Marghani, Native point defects in ZnO, *International Journal of Materials and Metallurgical Engineering* **8**, 127 (2014).
11. Ramadan Al-habashi, Zulkify Abbas and **Abdusalam Gsiea**, Estimating the Permeability of Ferrite-Polymer Composite via a Numerical Optimization Method, *Material Science & Engineering* **354**, 25 (2014).
12. K. M. Etmimi, P. B. Briddon, J. P. Goss, and **A. M. Gsiea**, Phosphorus: and Phosphorus related in diamond, *World Academy of Science, Engineering and Technology* **78** (2013).
13. **A. M. Gsiea**, J. P. Goss, P. B. Briddon, and K. M. Etmimi, Oxygen-interstitials and group-V element doping for p-type ZnO, *International Journal of Physical and Mathematical Sciences* **75**, 370 (2013).
14. K. M. Etmimi, P. B. Briddon, J. P. Goss, and **A. M. Gsiea**, A density functional theory study of models for N<sub>3</sub> and OK1 EPR centers in diamond, *J. Phys.: Condens. Mater* **22**, 385502 (2010).
15. K. M. Etmimi, P. B. Briddon, J. P. Goss, and **A. M. Gsiea**, Density functional studies of muonium in nitrogen-aggregate containing diamond: the MuX center, *J. Phys.: Condens. Mater* **21**, 364211 (2009).
16. K. M. Etmimi, M. E. Ahmed, P. B. Briddon, J. P. Goss, and **A. M. Gsiea**, Nitrogen-pair Paramagnetic Defects in Diamond: Density Functional Study, *Phys. Rev. B* **79**, 205207 (2009).

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#### **list of workshops**

1. Postgraduate Researchers within the Faculty of SAgE (15/10/2007)
2. Library workshop (17/10/2007).
3. Introduction to the Mentoring Scheme for new Postgraduate Researchers (23/10/2007).
4. Career Management Personal and Professional Development (23/10/2007).
5. Communication Skills – Writing PhD Project Proposal (24/10/2007).
6. Word 2 Creating Effective Tables and Revising Documents (31/10/2007).
7. Power-point – Creating and Presenting a Slide-show (01/11/2007).
8. Access 1 – Introduction to Microsoft Access (07/11/2007).
9. Word 1 Streamlining, Formatting and Structuring Information (04/12/2007).
10. Excel – Producing Charts and pivot Tables (05/12/2007).
11. Communication Skills – How to create an effective conference poster (13/12/2007).
12. Communication Skills: Conferencing (13/12/2007).

13. Introduction and Welcome Reception for Returning Postgraduate Researchers within the Faculty of SAgE (02/10/2008).
14. Library Workshop: Being An Information Literate Researcher (14/10/2008).
15. Library Workshop: Finding Research Information (20/10/2008).
16. Library Workshop: EndNote – Managing Information (27/10/2008).
17. Communication Skills: -Features of Academic Writing (13/11/2008).
18. SCHOOL VALIDATED PGRDP CREDITS (29/01/2009).
19. Research Practice: Risk Assessment (26/02/2009).
20. Career Management: “In Conversation With” (11/03/2009).
21. Career Management: Making a Successful Career Move (out of Academic Research) (20/03/2009).
22. PhD Management: Writing Your PhD Project Proposal (10/03/2010).

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**list of Certificates**

- Certificate of Presentation from World Academy of Science, Engineering and Technology DUBI, UAE March 05-05 , 2013
- Certificate of Presentation from World Academy of Science, Engineering and Technology ISTANBUL, TURKEY JANUARY, 27-28, 2014
- Souk Al-Jumma council committee thankful certificate 2017.
- Certificate of Completion (Risk Assessment) from Newcastle University Safety Office

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**Key skills**

- Computer Skills(excel sheet, word, power point, network installation and ....Etc)
- management skills(time management, general management)
- teaching skills(teaching course)
- Leadership(line manage course, leadership course)

**language**

- Good English (writing, speaking and reading)
- Arabic native

**interested**

surfing Internet, swimming , jogging , walking, watching TV movies and reading.