السيرة الذاتية

AMAL
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CURRICULUM VITAE

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SUMMARY

Dedicated Assistant Professor with +15 years of experience in the teaching field, with the ability to communicate with students of varying degrees and diverse backgrounds. Focused on creating positive environments in which students can learn and grow constantly. Passionate in teaching students by directing them toward a successful understanding of the material taught in order to reach their goals and excel by making the most of a learning experience.

EDUCATION

Doctor of Philosophy Degree in Physics| University of Dundee, UK
SEP 2007 – FEB 2012
PhD Thesis – An Investigation of Ferrite Nanoparticles as Potential Contrast Agents for Magnetic Resonance Imaging

Master's Degree | Faculty of Pure Science, University of Sheffield, UK
SEP 2003 – MAR 2005
MSc in Polymers for Advanced Technologies

Bachelor's Degree | Faculty of Science, University of Tripoli, Libya
FEB 1992 – JUL 1995
Graduated from Physics department and ranked first in Faculty of Science class of 1995

EXPERIENCE

Assistant Professor | Physics Department, University of Tripoli
JAN 2018 – PRESENT
Achievements/Tasks

1. Engaged in the research within a team for using MATLAB and Mathcad programming to solve the Schrodinger Equation for variety of potentials energy functions applications. I was also involved within another team on applied nanoscience to develop transparent conductive flexible electrodes to use in solar cells.

2. Designing of new courses and materials.
3. Supervised several projects for undergraduate students.
4. Management of exams as department coordinator and responsible for administrative tasks.

Lecturer | Faculty of Education- Janzour, University of Tripoli
MAR 2014 – DEC 2017
Achievements/Tasks

1. Evaluation of undergraduate projects as a member of the examinations board.

2. Supervising students in practical education course at multiple high schools.

3. Successfully lectured 15 courses including electromagnetic physics, electromagnetic theory, quantum mechanics 1, statistical physics, atomic physics, mathematical physics 1&2 and solid-state physics, as well as general physics for engineering students that include temperature and properties of the materials, sound and light, statics, and fluid mechanics.

4. Attending a wide range of Physics labs, that are Physics lab 1 (Mechanics, Temperature and Material Properties), Physics lab 2 (Sound, Light and Electricity), Physics lab 3 (Electric Circuits), Advanced Solid State Physics Lab.

Lecturer | Faculty of Engineering, University of Al-Jabel Al-Garby
FEB 2013 – MAR 2014
Achievements/Tasks

1. Preparing lectures for class in an interesting and effective way with problem sheets to help.

2. Successfully managed university hall lectures with over 100 students.

3. Organized implemented and monitored programs and assessments.

Assistant Lecturer | Institute of Comprehensive Study Occupations
JAN 2006 – JUN 2007
Achievements/Tasks

1. Honored for outstanding productive and creativity in lectures.

2. Managed multiple classes with 25-35 students.

Teaching Assistant | Faculty of Engineering, University of Al-Jabel Al-Garby
SEP 1996 – JUL 2002
Achievements/Tasks

1. Assisting scientists and researchers during lab experiments and tests.

2. Able to perform technical, non-technical procedures and paperwork required for experiments.

3. Knowledge of working with harmful materials and variety of methods.

High School Teacher | 11th of July High School
SEP 1995 – JUN 1996
Achievements/Tasks

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1. Responsible for ensuring that all students fully comprehended the taught curriculum and provided support to students who required extra guidance.

2. Adopted distinctive teaching methodologies, documented all lessons, organized group discussions and mentored trouble student.

LANGUAGES

Arabic: ● ● ● ● ●
English: ● ● ● ●
Tamazight: ● ● ● ●

SKILLS

- Able to inspire, comfort, build self-esteem and mentor.
- Excellent knowledge of theories and concepts of Physics and Mathematics.
- Proficient in Microsoft Office
- Skillful using MATLAB and Mathcad programming.
- Create a positive comfortable learning environment.
- Time management and class organization.
- Ability to work under pressure, solve problems and make decisions.

PUBLICATIONS

- Co-Author: Amal Hamed. **Synthesis, characterization and surface modification of $ZnCrFeO_4$ nanoparticles.** Materials Science and Engineering C 33 (2013) 1623–1628

- Co-Author: Amal Hamed. **Characterization of $Mn_{0.7}$ $Zn_{0.3}$ Fe_2 O_4 nanoparticles prepared by two-stage annealing**. Materials Technology: Advanced Performance Materials 28 NO 6 (2013) 339-346

- Co-Author: Amal Hamed. **Reaction time measurement**. Journal of the Libyan Academy for Basic and Applied Sciences. Volume 15\ Second issue-July 2016

- Author: Amal Hamed. **Synthesis and Characterization of $Mn_{0.7}Cr_{0.3}Fe_2O_4$ nanocrystals** / Journals of Massarat Elmeya, the National Library 8/2017 second year, second issue, second part March 2017.

- Author: Amal Hamed. **Determination g-Factor of Lithium Phthalocyanine using Electron Spin Resonance**. Journals of Massarat Elmeya, The National Library 9/2017 fourth issue.

- Co-Author: Amal Hamed**, Calculating the lower angular excited states in two dimensions using Finite Difference Time Domain method**, *In Proc*. International Conference on Advanced Engineering, Technology and Applications (ICAET). PP 49-54. 2021.

- Co-Author: Amal Hamed, **Obtaining the Higher Excited States in Two Dimensions Using the Finite Difference Time Domain Method**, 2021 IEEE 1st International Maghreb Meeting of the Conference on Sciences and Techniques of Automatic Control and Computer Engineering MI-STA, 2021, pp. 13-18, doi: 10.1109/MI-STA52233.2021.9464420.

- Co-Author: Amal Hamed, **Calculation of the Lower Angular Excited States for Two Dimensional Finite Rectangular Well Potential Using Finite Difference Time Domain Method**. International Science and Technology Journal. Volume 26, NO 26. PP 107-120. 2021.

- Co-Author: Amal Hamed, **The Solutions of Two Dimensional Finite Square Well Potential Problem Using the Finite Difference Time Domain Method.** Second IEEE International conference on signal, control and communication (SCC 2021), PP 334-338. 978-1-6654-0270-5/21/$31.00©2021 IEEE