

## Abdullah Idrees Mustafa

**Electron Optics Physics** 

# 5. ACADEMIC & TECHNICAL EXPERIENCE

#### 5.1 Positions

2017 – 2020	Deputy Director of Physics Department, College of Science, University of Mosul,
2017 – till now	Member of Scientific Committee of Physics Department, College of Science, University of Mosul,
2017 –2020	Department Council Member of Physics Department, College of Science, University of Mosul,
2013 – till now	Assistant Proof at Department of Physics, College of Science, University of Mosul,

#### 5.2 Professional Skills

### 5.2.1 Courses Taught

Mathematics, Physical Mathematics, Advanced Physical Mathematics, Practical Nuclear Physics, Optics Physics, Practical Optical Physics, Electron Optics, Advanced Electron Optics, Electromagnetics Theory, Advanced Electromagnetics Theory, Advanced Electrodynamics, Principles of Programming, Advanced programming, Fundamentals of Software Engineering, Artificial Intelligence, Web Programming, Numerical Methods, Advanced Numerical Methods, FEM, FDM.

### 5.2.3 <u>Programming</u>

FORTRAN, MATLAB, MATHMATICA, C, C++, Visual Basic, Java, PHP, HTML, JADE, MySQL, JavaScript, JACK, SQL, LUA, Python, Android.

### 5.2.4 <u>Mastering of Simulation Programs</u>

AMAG, EOD, M11, M12, M13, E11, E12, E13, FLUX, COMSOL, ANSYS, SIMION,

### 5.2.5 Modelling & Design

Object Oriented Design, Unified Modeling Language (UML), Reverse Engineering, Database, 3D Modelling, Graphical User Interface (GUI) and Games.

## 5.2.5 Programs Owner

Magnetic Electron Lens Objective Properties, (MELOP), Focal Length Calculator (FLC)

#### **Details**

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#### **Social Profiles**

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## 6. PROJECTS

# 6.1 Research Projects

- 1 Team member and founder of Electron Microscopy in University of Mosul, 2010.
- 2 Network Intrusion Detection System for DOS Attack Types Using SVM and Network Data Analyzer for DOS Attack Types (NDADAT), Private research associate, Putrajaya, Malaysia, 2011.
- 3 A Huffman Code for Text Data Compression, project, Al-Hadba'a University College, Mosul, Iraq, 2007.
- 4 Online Pattern Matching by Regular Expression Technique, project, Al-Hadba'a University College, Mosul, Iraq, 2007.
- 5 An AVL tree Data Structure for Students Registration Records, project, Al-Hadba'a University College, Mosul, Iraq, 2006.

# 6.2 Industrial Projects

- 1 Al-Etihad Payroll Management System, for Al-Etihad Company, Duhok, Iraq (2005).
- 2 Focal Length of Immersion Electrostatic Lens Calculations, for the University of Mosul, College of Science, Physics Dept., Mosul, Iraq (2005).
- 3 Online Retail Store, for Games Castle, Mosul, Iraq (2004).
- 4 Microfinance Institution Management System, for Microfinance Institution, Mosul, Iraq (2004).
- 5 Al-Noor Properties Management System, for Al-Noor Company, Mosul, Iraq (2004).
- 6 Magnetic Electron Lens Objective Properties, (MELOP), for the University of Mosul, College of Science, Physics Dept., Mosul, Iraq (2020).

- 1. "The Effect of the Snout Shape Geometry of the Polepiece on the Objective Lens Parameters.", Dirasat, Pure Science, Volume 33, No.1,2006.
- 2. "The Magnetization of the Single Polepiece Magnetic Electron Lens Using Different Coil Models.", Raf. J. Sci., Vol.17, No. 2 Physics, Special Issue, pp.37-46, 2006.
- 3. "The Electron Optical Properties of the Round Magnetic Electron Lens.", Raf. J. Sci., Vol.17, No. 2 Physics, Special Issue, pp.59-69, 2006.
- "Design and fabrication of the multi-polepiece electrostatic lens of truncated cone polepiece shape" in the IESC"2008, the International Engineering Sciences Conference, Syria, Aleppo, University of Aleppo, November 2-4,2008.
- 5. " A Rotation Free Image of Triple Polepiece Projector Lens Design ", Raf. J. Sci., Vol.21, No.2, pp.57-64, 2010.
- 6. "Design and Fabrication of the Single Polepiece Magnetic Electron Lens of Truncated Cone Polepiece Shape", Raf. J. Eng., Vol. 19, No. 3, pp. 49-54, 2011.
- 7. "The Confront Electrodes Faces Curvature Effect on the Electron Gun Performance", Raf. J. Sci., Vol. 23, No.2 pp. 138-147, 2012.
- 8. "The Effect of Bore Diameters in Two Electrodes Electrostatic Immersion Lens Design", Raf. J. Sci., Vol. 24, No.2 pp. 82-91, 2013.
- 9. "Effect of the Electrode Bore Angle on the Two-Electrode Electrostatic Immersion Lens Design", JJP, Volume 6, Number 1, pp. 1-5, 2013.
- "Calculate and Analysis of Air Mass and Solar Angles of Mosul City", Raf. J. Sci., Vol. 27, No.4, pp.57-65, 2018.
- 11. "The Effect of the Light Diffusers on Spatial Uniformity of the Solar Simulator", Raf. J. Sci., Vol. 28, No.1, pp.69-80, 2019.
- 12. "Focal Length Measurement Application for Electrostatic Immersion Lenses Approximations", DOI:10.4206/. n26-1.20/ aus.2019

# 8. Membership

- 1 Science Direct
- 2 Research Gate
- 3 Academia.edu
- 4 IEEE (ID: 94151662)
- 5 Scopus (ID: 37036085800)
- 6 Stack Overflow

# 9. DECLARATION

I hereby declare that the above written particulars are true to the best of my knowledge and belief. Additional references are available on request.

(Abdullah I. Mostafa)

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