

**Personal Information:**

Essam Ali Mahmood

Date of birth:

Nationality: Iraq

Gender: Male

Marital status: Married

Contact Info:

Address: Iraq/ Baghdad

Phone/ WhatsApp:

009647733438269

Emails:

e.a.alnuaimy@gmail.com

essam@uoturath.edu.iq

LANGUAGES

Arabic ●Excellent

English ●Excellent

Franch ●None

WORK EXPERIENCE

12/2022 – to date

Assistant Professor, College of Health and Medical Technologies, Optical Technologies Department, AL-Turath University, Iraq.

Responsibilities:

- Head of Department.
- Courses Taught: Refractive errors, Lasers in medicine, Computer basics.

19/2012 – 08/2016

Assistant Professor, Zarqa University, Jordan, Electrical Engineering Department, Engineering College.

Responsibilities:

- Courses Taught: Signal Analysis, Electromagnetic Fields, Microprocessor & Assembly Language, Microprocessor & Assembly Language Lab, Probability and Random Variables, and Microcontrollers.

10/2009 – 07/2012

Assistant Professor, Gulf University, Bahrain, Electrical Engineering Department, Engineering College

Responsibilities:

- Courses Taught: Electromagnetic Fields, Electric Circuits, Optoelectronics, Integrated Circuits, Electric Circuits Lab, and Programmable Logic Controllers (PLC).

10/2008 – 08/2009

Assistant Professor, Al-Ahliyya Amman University, Jordan, Communications & Electronics Engineering Department, Engineering College

Responsibilities:

- Courses Taught: Electronics, Communication Systems, Measurements & Instrumentation, and Digital Electronics.

09/2004 – 08/2008

Assistant Professor, Philadelphia University, Jordan, Communications & Electronics Engineering Department, Engineering College

Responsibilities:

- Courses Taught: Electronics I, Electronics II, Digital Electronics, Communication Circuits, Optical Communications, and Calculus.

02/2002 – 08/2004

Assistant Professor, Hashemite University, Jordan, College of Engineering, Electrical & Computer Engineering Department

Responsibilities:

- Courses Taught: Microprocessors, Microprocessors Based Systems, Computer Organization, VLSI, Digital Systems Design, Electronic Circuits, Digital Electronic Devices, and Electric Circuits.

01/1998 – 06/2001

Electronic Materials Research Center (EMRC), University of Wales Swansea, United Kingdom.

Responsibilities:

- The main responsibility was engaging in research activities, for developing pulsed laser processing techniques for amorphous and polycrystalline semiconductor materials and thin film devices.

Experience

- 1993 / Participation in a conference at the University of Leeds / Britain / Conference title: The importance and applications of thin-film semiconductors.
- 1994 / Participation in a conference in the city of Stuttgart / Germany / Conference title: The first conference on the use of lasers in the processing and

examination of thin-film semiconductors.

- 1995 / Participation in a conference in the city of Chelsea / London / Britain / Conference title: Technology of manufacturing thin-film semiconductors and their applications in the manufacture of electronic circuits.
- 1995 / Participation in a conference in the city of Verna / Bulgaria / Conference title: The Eighth International Conference on Electronics, Optoelectronics and Thin-film Magnetic Films.
- 1996 / Participation in a conference in the city of Chelsea / London / Britain / Conference title: Technology of manufacturing thin-film semiconductors and their applications in the manufacture of electronic circuits.
- 2006 / Participation in the Sixth Philadelphia University Conference / Amman / Jordan / Conference title: The Sixth Philadelphia University International Engineering Conference (IPEC2006).
- 2012 / Participation in a workshop held in the Gulf University / Bahrain / workshop title: Academic Staff Development Training Workshop on Educational Technologies.

EDUCATION

1993 - 1998

**University of Wales Swansea, United Kingdom,
Ph.D. in Lasers and Thin Films Electronic Materials**

1985 - 1989

**University of Baghdad, IRAQ
Bachelor of Science [B.Sc.] in (Physics),
Standard: Good**

SKILLS

- Programming ability in MATLAB and Python.
- 2- Using NI Multisim Simulator.
- 3- Using PVsyst Software for Solar Systems Design.

RESEARCH FIELD

- *Pulsed Laser Processing of Semiconductor Materials and Devices*
- *Interaction of Lasers with Matter*
- *Application of Lasers in Eye Care*
- *Modeling and Simulation with Python*
- *Renewable Energy*

PUBLICATIONS

- **Design and implementation of fully automated solar powered irrigation system, Mohammad Fawzi Al Ajlouni, Essam Ali Al-Nuaimy, Salman Abdul-Rassak Sultan, Ali Hammod AbdulHussein Twaij, Al Smadi Takiialddin. IJCSNS International Journal of Computer Science and Network Security, VOL.24 No.4, April 2024, page 197.**
- **Importance of Distance Education and its Rise during the Period COVID-19,**

Essam A. Al-Nuaimy, Ali H. A. Twaij, and Hussam A. Mahmood, *International Journal of Educational Researchers*, Volume 12, Issue 2 June 2021, pp. 29-34

- KrF excimer laser doping of Si into GaN, E.A. Al-Nuaimy, *Journal of Microelectronics and Solid-State Electronics*, Vol. 4, No. 1, 2015, pp. 8-11.
- Bipolar Junction Transistor Fabrication Using Excimer Laser Assisted Spin-on Doping Technique", E.A. Al-Nuaimy, H. A. Abdulqader, *Journal of Electron Devices*, Vol. 6, 2008, pp. 197-202.
- Fabrication and characterization of double oxide high voltage high temperature poly-Si thin film transistors, H.A. Abdulkadir, E.A. Al-Nuaimy, *Fourth conference on Scientific Research Outlook & Technology Development in the Arab World (SRO4)*, 2006, Damascus, Syria.
- Thin base bipolar transistor fabrication using excimer laser assisted spin-on doping techniques, E.A. Al-Nuaimy, H.A. Abdulkadir, *Sixth International Philadelphia Engineering Conference, IPEC2006*, Amman, Jordan, page 204.
- E.A. Al-Nuaimy, "Instrumentation and Measurements", E-learning Course, Avicenna Virtual Campus, UNESCO, Dec 2006.
- Properties of n+ and p+ polysilicon films fabricated by an excimer laser activated spin-on Dopant technique, E.A. Al-Nuaimy, J.M. Marshall, S. Muhl, *Journal of Non-Crystalline Solids*, Vol 227-230, page 949-953 (1998).
- Laser processing of thin film materials and devices, J.M. Marshall, E.A. Al-Nuaimy, A.J. Salih, S.P. Lau and J.M. Maud: in *Proceedings of the Ninth International School on Future Directions in Thin Film Science and Technology*, Editors: J.M. Marshall, N. Kirov, J.M. Maud and A. Vavrek (World scientific Publishing Co., Singapore, 1997), page 136.
- Excimer laser crystallization and doping of source and drain regions in high quality amorphous silicon thin film transistors, E.A. Al-Nuaimy, J.M. Marshall, *Appl. Phys. Lett.*, Vol 69, page 3857 (1996).
- Structural and electronic properties of n+ doped laser crystallized polysilicon, E.A. Al-Nuaimy, J.M. Marshall, T.E. Dyer and A.R. Hepburn: in *Eighth International School on Electronic, Optoelectronic and Magnetic Thin Films* (Varna, Bulgaria, September 1995), page 712.
- Fabrication of thin film doped (n+ type) polysilicon layers using the spin-on-dopant technique", E.A. Al-Nuaimy, J.M. Marshall, T.E. Dyer and A.R. Hepburn: in *First International Symposium on Semiconductor Processing and Characterization with Lasers* (1994, Stuttgart, Germany), page 67.