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Personal Statement

A Professional, team-player, well organized, and a highly committed university faculty with 15 years of experience in both research and teaching. I have 8-years teaching experiences at the undergraduate level and technical level in addition to 7-years of research experience distributed between 2 years of research in my MSc and 5-years research experience at the University of Sheffield during my PhD study. My main field of interest is the optical semiconductor devices and optical communications.

Work History

University of Duhok (UoD) **April 2016 - Present**
Lecturer
My duties can be summarized by preparing and updating syllabus, handouts, and slides for undergraduate students throughout the academic year. The duties including testing of students through a number of channels including quizzes, homeworks, and exams and analysing the outcome of my work to develop for the following academic year. My duties also included supervision and implementation of projects done mainly by students from years 2nd, 3rd, and 4th. Beside my academic duties I had to fill a number of adminstrative positions including Quality Assurance Departmental Officer, Examination Committee, Design Day Committee and Final Year Projects Committee.

American University of Kurdistan (AUK): **Jan 2022 – June 2022**
Adjunct Professor.
As an adjunct professor I had the duties of updating and delivering two modules, (Signal and Systems) and (Information Theory), to undergraduate students in both senior and junior years. At the end of the semester, I had to provide the head of the department a number of full reports to evaluate the process throughout the semester. The reason of that was the ABET accreditation that AUK was targeting.

Duhok Polytechnic University – Zakho Technical Institute (ZTI) **Sept. 2017 - April 2018**
Visiting Lecturer
Similar to my teaching duties at UOD, yet, my duties were limited to one module (Electronics) at ZTI.

University of Sheffield **Sept. 2011 – June 2016**
PhD Researcher
As a PhD student at University of Sheffield I had research duties to develop a number of semiconductor devices for both communication and medical applications operates at 980nm and shorter wavelength (650nm). To develop these devices I needed to go from simulation(s) of these devices, to fabricating them, and ended with characterizing them using optical and electrical techniques.

University of Duhok **Oct. 2008 - May 2011**
Assitant Lecturer

My duties can be summarized by preparing and updating syllabus, handouts, and slides for undergraduate students throughout the academic year. The duties including testing of students through a number of channels including quizzes, assignments, and exams and analysing the outcome of my work to develop for the following academic year. My duties also included supervision and implementation of projects done mainly by students from years 2nd, 3rd, and 4th

The courses that I have Taught are:
Statistics and Random Signals, Digital Logic, Optical Communication Systems, DC and AC Electrical Circuits, Physical Electronics, Digital Integrated Circuit Design, Electronics, Computer Programming, Academic Debate (UoD), Signal and Systems, and Information Theory (AUK), Power Electronics, Industrial Management (ZTI)

Professional Experience

Conference Organization Committee Member

- Conference of Computer Science and Software Engineering (CSASE2020), 2020
- 2nd Conference of Computer Science and Software Engineering (CSASE2022), 2022

Peer-Reviewed Articles for:

- 2nd International Conference of Material Engineering and Science (IConMEAS 2019)
- Conference of Computer Science and Software Engineering (CSASE2020)
- Current Advances in Materials Applications» in the journal [[Materials Science Forum]]
- 3rd International Conference on Recent Innovations in Engineering

Member of the following committees

- Head of Departmental Quality Assurance Committee (Sept 2022 – Recent), College Quality Assurance Committee (Member) (2022-Recent), Electrical and Computer Engineering Department/College of Engineering.
- Quality Assurance Committee at Electrical and Computer Engineering Department, (member
- Examinations Committee (Member) (2018-2021), Electrical and Computer Engineering Department.
- Departmental Quality Assurance Officer (Jan 2020 – 2021) College Quality Assurance Committee (Member) (2019-2020), Electrical and Computer Engineering Department/College of Engineering.
- Departmental Seminars Chairman, (2017-2021), (Sept. 2022- Recent) Electrical and Computer Engineering Department.
- Final Year Project Committee (Member) (2019-Recent), Electrical and Computer Engineering Department.

Design Day Symposium (College Organizational Committee Member)

An Annual symposium of students' projects of College of Engineering at the University of Duhok. (2018-Present)

Education

PhD: Electronic and Electrical Engineering **Sept. 2011- June 2016**
Low Reflectivity Facet Realization in GaAs-Based Optoelectronic Devices Using Self-Aligned Stripe Process
Department of Electronic and Electrical Engineering – School of Engineering
University of Sheffield, Sheffield, United Kingdom

Dissertation:
In my thesis I proposed two broadband devices operate in the NIR region implementing rear facets with very low reflectivity to suppress the lasing occurs in the similar devices without such facets. Another devices operates in the visible region were proposed using another type of buried heterostructure. My duties during my research period included simulation, fabrication, and characterization of these devices using a wide range of techniques and equipment.

MSc: Laser and Optoelectronics Engineering **Sept. 2005-Sept. 2008**
Simulation of 3D laser Scanner for Object Dimensional Inspection
Laser and Optoelectronic Engineering Department - College of Engineering,
Al-Nahrain University - Baghdad, Iraq

Modules Completed:
Semiconductor Devices, Advanced Laser Designs Technology, Infrared Systems Engineering, Advanced Laser Physics, Power Electronics, Technical English, Advanced Laser Applications, Electromagnetic Radiation System, Electronic Instrumentation and Error Analysis, Optical Signal Processing, and Modern Control

Dissertation:
In my MSc Project I proposed an algorithm used to simulate the operation of 3D laser scanner using triangulation method. The simulation was designed to reproduce cubes with various dimensions.

BSc: Laser and Optoelectronic Engineering **Sept. 2002- Sept. 2005**
Laser and Optoelectronic Engineering Department - College of Engineering
Al-Nahrain University - Baghdad, Iraq

Modules completed:
Computer Programming, Electrical Circuits, Mathematics, Physics, Engineering Drawing, Material Sciences, Mechanical Engineering, Electronics, Theory of Statistics, Digital Electronics, Communication Networks, Laser Principles, Logic Sciences, Electromagnetic Fields, Quantum Mechanics, Spectroscopy, Management Engineering, Computer Aided Design, Engineering Economics, Electrical Engergy conversion, Laser Physics,

Communication Electronics, Gas Discharge, Engineering Analysis, Detectors, Industrial Management, Digital System Design, Laser Design Theory, Optics, Control Theory, Optical Fibers and Optical Communications, Laser Application, Optical System Engineering, Wave Propagation.

Dissertation:
In my final year dissertation I proposed a mechanical system to control a laser spot. The system undergone a number of tests to justify the outputs.

Publications

1. Omar M.S. Ghazal, Nasser Babazadeh, David T. D. Childs, Benjamin J. Stevens, Richard A. Hogg, and Kristian M. Groom, *"GaAs-based superluminescent diodes with window-like facet structure for low spectral modulation at high output powers",* Semiconductor Science and Technology, 31(3), 2016. https://doi.org/10.1088/0268-1242/31/4/045003.
2. Omar M.S. Ghazal, Nasser Babazadeh, David T. D. Childs, Benjamin J. Stevens, Richard A. Hogg, and Kristian M. Groom, "*GaAs-Based Self-Aligned Stripe Superluminescent Diodes Processed Normal to the Cleaved Facets*", SPIE Photonic West Proceedings, 13-18 February 2016, San Francisco, California, USA. https://doi.org/10.1117/12.2211062
3. Omar M.S. Ghazal (aka Omar M. Salih), Mohammed Z. Al-faiz, " Object Dimension Inspection Utilizing 3D Laser Scanner" The 1st Regional Conference of Eng. Sci. NUCEJ Spatial ISSUE vol.11, No.3, 2008 pp 494-500. https://nahje.com/index.php/main/article/view/550/418

Presentations and Posters

1. Omar M.S. Ghazal, Kristian M. Groom, Nasser Babazadeh, David T. D. Childs, Benjamin J. Stevens, and Richard A. Hogg, "*High-power GaAs-based Superluminescent Diodes with Low Spectral Modulation*", UK Semiconductor 2014, July-2014, Sheffield, United Kingdom.
2. Omar M. S. Ghazal, Kristian M. Groom, Benjamin. J. Stevens, Nasser Babazadeh, David T. D. Childs and Richard A. Hogg, "GaAs Based Superluminescent Diodes Employing Window Facets in a Self-Aligned Stripe," *2014 International Semiconductor Laser Conference*, Palma de Mallorca, 2014, pp. 175-176. DOI: 10.1109/ISLC.2014.220
3. Omar M.S. Ghazal, Kristian M. Groom, Nasser Babazadeh, David T. D. Childs, Benjamin J. Stevens, and Richard A. Hogg, *"GaAs Self-Aligned Stripe Superluminescent Diodes Processed Normal to the Cleaved Facets"*, Semiconductor and Integrated Optoelectronics SIOE'15 Conference, 31st March-2nd April 2015, Cardiff, Wales.
4. Omar M.S. Ghazal, Kristian M. Groom, Nasser Babazadeh, David T. D. Childs, Benjamin J. Stevens, and Richard A. Hogg, *"High-Power GaAs-based Superluminescent Diodes Employing Window-like Facets for Low Spectral Modulation",* Conference of Laser and Electro-Optics (CLEO) Europe -European Quantum Electronics Conference, 21-25 June 2015, Munich, Germany. ISBN: 978-1-4673-7475-0

Professional Training

Bolonga System Implementation at UOD (Workshop)

University of Duhok, Duhok – Kurdistan Region of Iraq, 2019

Biomedical Engineering Department Initiation (WORKSHOP)

University of Duhok & Technische Hochschule Mittelhessen (THM), Istanbul – Turky, 2018

Research Ethics (Module)

University of Sheffield, Sheffield – UK, 2012

Cleanroom and Semi Cleanroom Training

University of Sheffield - Nanotechnology and science center, Sheffield – UK, 2011

Fire and Safety Training Seminar and Workshop

University of Sheffield, Sheffield - UK, 2011

English Language Summer School

English Language Teaching Centre, University of Sheffield, Sheffield – UK May 2011 – Sept. 2011

Key Skills

- Working efficiently under pressure.
- Team player with excellent leadership skills.
- Semiconductor Devices Simulations
- Cleanroom Device Fabrication
- Semi Cleanroom Skills
- Results evaluation using standard measures and metrics.
- MATLAB Programming

Soft Skills

Communication and Networking, Solving Problems, learning new words from other people, eager to help others or offer them help, Self Confidence, Self-assessment and criticism, Innovation, good presentation skills, Planning, Organizing, enjoy traveling for work, Technology trend awareness, Research, Training, and Writing reports and proposals.

Spoken Languages

- **Arabic**: Native Language
- **English**: Fluent
- **French**: Novice

Hobbies & Interests

Reading (Including Scientific, Social, Political Analysis, Sportive, and General Articles)

Camping and Grilling

Sport activities (including not limited to Basketball, Volleyball, Table Tennis, Tennis, and others)

Board games

References

Available on request.