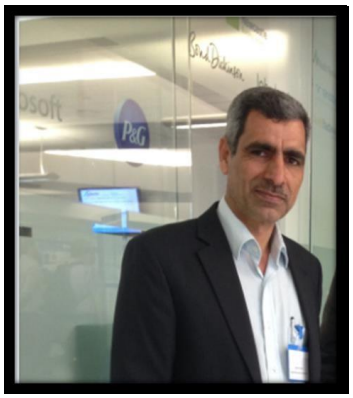
Dr. Salam Nazhan Ahmed AL Zaidi, PhD in Optoelectronics



University of Diyala
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Education:

BSc and MSc in 1999 and 2005 from College of Science, Al-Mustansiria University, Iraq. PhD in Optoelectronics from Northumbria University at Newcastle, UK

Thesis:

OPTICAL AND ELECTRICAL CHARACTERISTICS OF VERTICAL-CAVITY SURFACE-EMITTING LASERS FOR FREE SPACE OPTICAL COMMUNICATIONS

Research Experience

Jan 2013 – Jan 2016 **PhD Student**
Faculty of Engineering and Environment
Department of Physics and Electrical Engineering
Northumbria University,
Newcastle upon Tyne, United Kingdom

Dec 2012 – Jul 2013 **Characteristics of VCSELs under external optical feedback**

Bangor University, School of Electronic Engineering
Bangor, United Kingdom

Study Characteristics of VCSELs under external optical feedback and rotated polarization angle

May 2011 – Nov 2012 **PhD Student**
Bangor University, School of Electronic Engineering
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Jul 2002 – Sep 2010 **Lecturer**
University of Diyala,

Current experiences and working on; Theoretical knowledge together with practical laboratory experience in the VCSEL characteristics with the external optical feedback, polarization properties study under variable angle of polarization rotating optical feedback, VCSEL properties with the modulation signal for wireless optical communication.

Awards & Grants: PhD from Northumbria University, Newcastle upon Tyne,

United Kingdom

Skills & Activities

Skills Optoelectronics, Photonics, Optics, Optical Physics, Semiconductor Laser and applications, Laser devices, Characteristics of VCSELs under external optical feedback, Nonlinear Optics, Laser Dynamics and Chaos Synchronization, Optical Switching, polarization switching, Optical Communications, Optical Devices, Wireless Communications

Languages: Arabic, English

Memberships: IEEE member, OCRG members

Interests: Main research interests are an optical and electrical characteristic of semiconductor laser diode, mainly
vertical-cavity surface emitting lasers (VCSELs) for free space optical communications, the research area including; polarization switching, relative intensity noise, hysteresis properties, nonlinear

dynamics and chaos synchronization under optical feedback, practical and theoretical investigation.

Publication Highlights

Salam Nazhan is an author of about 14 research papers:

Journal Publications

1. **Salam Nazhan,** Zabih Ghassemlooy, Krishna Busawon: *Harmonic distortion dependent on optical feedback, temperature and injection current in a vertical cavity surface emitting laser*. Journal of Physics D Applied Physics 03/2016; 49(145107). DOI:10.1088/0022-3727/49/14/145107
2. **Salam Nazh**an Ahmed, Zabih Ghassemlooy, Krishna Busawon: *Chaos synchronization in vertical-cavity surface-emitting laser based on rotated polarization-preserved optical feedback*. Chaos 01/2016; 26(1):013109. DOI:10.1063/1.4940766
3. **Salam Nazhan**, Z. Ghassemlooy, K. Busawon, A. Gholami: *Investigation of Polarization Switching of VCSEL subject to Intensity Modulated and Optical Feedback*. Optics & Laser Technology 11/2015; 75. DOI:10.1016/j.optlastec.2015.07.008
4. **Salam Nazhan**, Zabih Ghassemlooy, Krishna Krishna Busawon, Asghar Gholami: *Suppressing the Nonlinearity of Free Running VCSEL Using Selective-Optical Feedback*. IEEE Photonics Technology Letters 01/2015; 28(2). DOI:10.1109/LPT.2015.2489467

Conference Publications

1. **Salam Nazhan**, Z. Ghassemlooy, K. Busawon and N. Aziz *Chaotic Signal Dynamics of VCSEL for Secure Optical Communication*. 10th IEEE/IET International Symposium on Communication Systems, Networks and Digital Signal Processing, Prague/ Czech Republic, July 2016
2. **Salam Nazhan**, Z. Ghassemlooy, K. Busawon: *VCSEL under selective optical feedback for chaotic-optical wireless communication*. UKSim-AMSS 9th European Modelling Symposium on Mathematical Modelling and Computer Simulation, Madrid, 6 – 8 October 2015; 10/2015
3. **Salam Nazhan**, Z. Ghassemlooy, K. Busawon, Joaquin Perez: *Polarization Resolved Intensity Noise of VCSEL Subject to Modulation Signal with Variable Polarization*

Angle of Optical Feedback. 4th International Workshop on Optical Wireless Communication, 07-08 September 2015, Istanbul, Turkey; 09/2015

4. **Salam Nazhan,** Zabih Ghassemlooy, Krishna Busawon: *Variable-Polarization Optical Feedback Induced High-Quality Polarization-Resolved Chaos Synchronization in VCSEL*. Science and Information Conference 2015, London UK; 07/2015
5. **Salam Nazhan**, Pep Canyelles-Pericas, Zabih Ghassemlooy, Krishna Busawon: *Chaotic regime modulation in VCSEL based on Rotated Polarisation-Preserved Optical Feedback*. Photonics Global Conference (PGC, Singapore; 06/2015
6. **Salam Nazhan** Ahmed, Zabih Ghassemlooy, Krishna Busawon: *High-quality Chaos Syncronization in VCSEL polarization modes under Optical Feedback*. Northumbria University 2015 Research Conference; 05/2015
7. **Salam Nazhan**, Krishna Busawon Z. Ghassemlooy, Stanislav Zvanovec: *Relative Intensity Noise of Vertical-Cavity Surface-Emitting Lasers Subject to Variable Polarization-Optical Feedback*. 7th Opticwise MC/WG Meeting & 3rd International Workshop on Optical Wireless Communications 2014, Funchal, Madeira Island, Portugal; 09/2014
8. **Salam Nazhan**, Zabih Ghassemlooy, Krishna Busawon, Joaquin Perez: *Hysteresis Properties Induced by Variable Polarization Angle in the Polarization Switching of VCSELs*. 9th IEEE IET International Symposium on COMMUNICATION SYSTEMS, NETWORKS, AND DIGITAL SIGNAL PROCESSING – 23-25 July 2014, Manchester, UK; 07/2014
9. **Salam Nazhan**, Zabih Ghassemlooy, Senior Member IEEE Salam Nazhan, Krishna Busawon: *Investigation of current modulation effects on threshold current of an 850nm single-mode VCSEL*. Northumbria Research Conference 2014, Northumbria University; 05/2014
10. **Salam Nazh**an, Z. Ghassemlooy, K. Busawon: *Polarization properties of Vertical-Cavity Surface-Emitting Lasers subject to variable optical feedback polarization angle*. Second Scientific Conference, Diyala, 16 – 17 December 2015, Baquba, Diyala, Iraq; 12/2015

Conferences and Workshops Attendance

1. Science and Information Conference 2015, London UK; 07/2015
2. Northumbria University Research Conference; Newcastle upon Tyne, UK, 05/2015
3. 4th International Workshop on Optical Wireless Communication, 07-08 September 2015, Istanbul, Turkey; 09/2015

4. 9th IEEE, IET International Symposium on COMMUNICATION SYSTEMS, NETWORKS, AND DIGITAL SIGNAL PROCESSING – 23-25 July 2014, Manchester, UK; 07/2014
5. 7th Opticwise MC/WG Meeting & 3rd International Workshop on Optical Wireless Communications 2014, Funchal, Madeira Island, Portugal; 09/2014
6. Northumbria University Research Conference; Newcastle upon Tyne, UK, 20/05/2014

Website:

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http://ieeexplore.ieee.org/Salam Nazhan (AL Zaidi)
https://www.linkedin.com/in/salam-nazhan-ahmed
https://www.academia.edu/Salam N AL Zaidi