

## Dr. Hesham Enshasy

Assistant Professor



### Personal Data:

Nationality | Canadian  
Date of Hire | 11/9/2011  
Date Rank Obtained | 11/9/2011  
Department | Electrical Engineering  
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### Education:

Academic Degree	Major	specialty	Place of Issue	Address	Date
Doctorate (PhD)	Engineering Physics	Photonics	McMaster University	Hamilton, Ontario, Canada	2010
Masters (M.Sc.)	Electrical Engineering	Semiconductors	University of Nebraska-Lincoln	Lincoln, Nebraska, USA	2000
Bachelor (B.Sc.)	-	Solid state Electronics	Garyounis University	Benghazi, Libya	1992

### PhD, Master or Fellowship Research Title: (Academic Honors or Distinctions):

PhD	STUDY OF OUTPUT POWER OF BROADLY TUNABLE InGaAsP/InP AMQW LASERS
Master	Aluminum oxy-nitride coatings for oxidation resistance of epoxy films

### Experiences:

Title of Job	Address of Work	Country	Date	
Assistant Professor	King Faisal University	Saudi Arabia	From	9/2011
			To	present
Postdoctoral fellow	Texas A&M	Canada + Qatar	From	7/2009
			To	9/2010
Research Assistant	McMaster University	Canada	From	2005
			To	2009
Process Development Engineer	T-Network	USA	From	7/ 2001
			To	7/2003

Process Engineer	CTS-Wireless communications	USA	From	5/1999
			To	7/2001
Research Assistant Engineer	Nebraska University - Lincoln	USA	From	9/1997
			To	5/1999

### Research Interests:

1. Photonics Devices
2. Semiconductors technology
3. Sensors
4. Laser Diodes

### Publications:

#	Name of author(s)	Title of Publication	Publisher and Date of Publication	Link of Publication
1	Qasem Abu Al-Haija, Mashhour Al-Tarayrah, <b>Hesham Enshasy,</b>	Time-Series Model for Forecasting Short-term Future Additions of Renewable Energy to Worldwide Capacity	IEEE Explore Jan 2020	<a href="#">Link</a>
2	Qasem Abu Al-Haija, Mohamad Musab Asad, Ibrahim Marouf, Ahmad Bakhuraibah, <b>Hesham Enshasy</b>	FPGA SYNTHESIS AND VALIDATION OF PARALLEL PREFIX ADDERS	Journal of Acta Electronica Malaysia, Vol. <b>3</b> , (No.2), pp. 31-36, 2019	<a href="#">Link</a>
3	<b>Hesham Enshasy</b> , Ibrahim Al-Badi, Qasem Abu Al-Haija, Muath Al-Saleh1 , Abdulrahman Bu-Shalf, Abdullah Al-Dosseri	A Comprehensive Design of Unmanned Ground Search and Rescue Robot	Journal of Information and Computing Science Vol. <b>14</b> , (No.1), pp.052-080, 2019	<a href="#">Link</a>
4	<b>Hesham Enshasy</b> , Qasem Abu Al-Haija, Hasan Al-Amri, Mohamed Al-Nashri, Sultan Al-Muhaisen, Mashhour Al-Tarayrah	A COMPREHENSIVE CONSTRUCTION OF HYDROGEN-HYDROGEN-OXYGEN (HHO) CELL AS RENEWABLE ENERGY STORAGE	Journal of Research in Engineering and Applied Sciences (JREAS), Vol. <b>04</b> , Issue 01, Jan 2019	<a href="#">Link</a>
5	<b>Hesham Enshasy</b>	Industrial Tunable Diode Lasers, Market Place, The know-how of Design Technology, Application and Challenges	Photonic Uusal Optik, Elektro-Optik ve Fotonik Calistayi, Turkey, Sept. 2018.	
6	<b>Hesham M. Enshasy</b> , Amjad Omar, Hussain Alnuairi, and Chang Mosong	Microwave NDT for In-Situ Monitoring of Fresh/Saline Water Fraction in Natural Gas Flow	International Journal of Electronics Volume <b>104</b> (5), <b>2017</b> .	<a href="#">Link</a>

8	M. M. Asad, Ibrahim A. Marouf, and <b>Hesham. M. Enshasy</b>	An Effective Way to Program Microcontrollers For High speed Control Operations	IEEE International Conference on "Intelligent Techniques in Contr., Optimiz. and Signal Proce. (INCOS'17), Krishnankoil, India, March 2017.	<a href="#">Link</a>
9	Qasem A. Hija, <b>Hesham. M. Enshasy</b> and A. Smadi	Estimating Energy Consumption of Diffie Hellman <a href="#">Encrypted Key Exchange</a> (DH-EKE) for Wireless Sensor Network	IEEE International Conference on "Intelligent Techniques in Contr., Optimiz. and Signal Proce. (INCOS'17), Krishnankoil, India, March 2017	<a href="#">Link</a>
10	<b>Hesham M. Enshasy</b>	Performance Improvement of Broadly tunable InGaAsP/InP asymmetric multiple quantum well laser diodes: Doping effect study	SPIE, <b>San Diego 2016.</b>	<a href="#">Link</a>
11	<b>Hesham M. Enshasy</b>	Improve the light power of InP based 100nm tunable AMQW lasers using forced electrical confinement method	Proc. of SPIE, <b>Vol. (9586)</b> , p. 0F1-0F11. , <b>2015</b>	<a href="#">Link</a>
12	<b>Hesham M. Enshasy</b> and Daniel T. Cassidy	The effect of InP based wide-tunable AMQW laser length on power profile	Proc. of SPIE, <b>Vol. (9134 91341M)</b> , p. 1-11, <b>2014</b>	<a href="#">Link</a>
13	<b>Hesham M. Enshasy</b> , Amjad Omar, Hussain Alnuairi, and Chang Mosong	Spectroscopic Sensing for In-Situ Monitoring of Water Fraction in Natural Gas Flow	SPE <b>Vol. (167465-MS)</b> , p. 1-8, <b>2013</b>	<a href="#">Link</a>
14	<b>Hesham M. Enshasy</b> and Daniel T. Cassidy	Effect of doping profile on the output power of broadly tuneable InGaAsP/InP asymmetric multiple quantum well lasers: finite element method simulations and experimental results	IET Optoelectron., <b>Vol. (6)</b> , issue 1, 65, <b>Feb. 2012.</b>	<a href="#">Link</a>
15	<b>Hesham M. Enshasy</b> and Daniel T. Cassidy	Electrical and thermal study of ridge waveguide widely tunable semiconductor diode laser	Canadian Semiconductor Technology Conference Hamilton, Ontario, <b>Aug., 2009</b>	
16	<b>Hesham M. Enshasy</b> and Daniel T. Cassidy	Sub-Micrometer Distance Measurements with a Broadly Tunable Short-External-Cavity InGaAsP/InP Diode Laser	IET Optoelectron., <b>Vol. (1)</b> , issue <b>4</b> , p. 157-162, <b>Aug., 2007</b>	<a href="#">Link</a>



17	N. J. Ianno, <b>H. Enshasy</b> , and R. O. Dillon,	Aluminum Oxynitride Coatings for Oxidation Resistance of Epoxy Films	Elsevier Journal <i>Surface and Technology</i> , <b>Vol. (155)</b> , p.130, 2002	
18	N. Barakat and <b>H. Enshasy</b>	The Quality Imperative in Mass Production of Electronic Parts	Canadian Congress of Applied Mechanics (CANCAM) June <b>2003</b>	
19	<b>H. Enshasy</b> and N. Barakat	Yield Enhancement in Wafer Manufacturing Through Applying Statistical Process Control	CSME May 21-24, 2002, Kingston, Ontario, Canada	
20	N. Barakat and <b>H. Enshasy</b>	A Statistical Approach to Improve Wafer Fabrication Yield	ASME-WAM, <b>Nov. 2002</b> , New Orleans, Louisiana, USA	
21	<b>Enshasy Hesham</b> , and Ianno Ned	DEPOSITION OF CRACK FREE ALUMINUM OXYNITRIDE ( $AlN_xO_y$ )	NASA proceedings, <b>April 1999</b> , Lincoln, Nebraska, USA	

#### Language Proficiency:

1. Arabic
2. English