

Name	Mothana A. Hassan	E-mail	<a href="mailto:mothana.a.hassan@uotechnology.edu.iq">mothana.a.hassan@uotechnology.edu.iq</a>	
Education: PhD in Laser Engineering Applications				
Degree	Discipline	Institution	Year	
PhD	Laser Engineering Applications	University of Huddersfield/ United Kingdom	2016	
MSc	Laser Engineering	Laser and Optoelectronic Engineering Department/University of Technology/Iraq	2005	
BSc	Electrical and Electronic Engineering	University of Technology/Iraq	1998	
Academic experience:				
Institution	Rank	Title	When	Full Time/Part Time
University of Technology	Lecturer	PhD	31 years Since 1993-2024	Full Time
Non-academic experience:				
Company or entity	Title	position	When	Full Time/Part Time
Non	NA	NA	NA	
Certifications or professional registrations:				
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Current membership in professional organizations:				
<ol style="list-style-type: none"> <li>1. Membership in The European Society for Precision Engineering and Nanotechnology (euspen).</li> <li>2. Applied Optics journal reviewer.</li> <li>3. Surface Topography: Metrology and Properties (IOP Journal) reviewer.</li> <li>4. Surface Review and Letters (World Scientific) reviewer.</li> <li>5. Member of Iraqi Engineers Syndicate.</li> <li>6. Member of the Association of Laser and Optical Electronics.</li> <li>7. Member of the Association of University Lecturers.</li> </ol>				
Honors and awards:				
<b>AWARDS AND MEDALS</b>				
<ol style="list-style-type: none"> <li>1. Appreciation certificate from Ministry of Higher Education/Iraqi Cultural Attaché at/ London.</li> <li>2. Thankful and appreciation from Iraqi Cultural Attaché Consul/ London.</li> <li>3. Received the honor of the Iraqi Consul General in Manchester/UK.</li> <li>4. Received the certify that my article (Surface profile measurement using spatially dispersed short coherence)/ IOP journal/UK, has been selected by the Editorial Board</li> </ol>				

of Surface Topography: Metrology and Properties for inclusion in the '2014 Article Highlights' collection.

5. Best paper at the 11<sup>th</sup> International Conference and Exhibition on Laser Metrology, Coordinate Measuring Machine and Machine Tool Performance (LAMDMAP), ) **A single-shot line-scanning spatially dispersed short coherence interferometer using Fourier transform profilometry** ), organised by the European Society for Precision Engineering and Nanotechnology (euspen). Keynote paper during a session entitled New Developments in Measurement Techniques.

Service activities (within and outside of the institution):

NA

Briefly list the most important publications and presentations from the past five years – title, co-authors if any, where published and/or presented, date of publication or presentation:

1. M.Hassan, B. Alnedawy, M. Fakry "Embedded Optical Fibre Link Interferometer Sensors for Snapshot Surface Inspection Using Synthetic Wavelength Technique"/ Applied optics/in process/2021
2. Mothana A. Hassan, Haydn Martin, Liam Blunt, and Xiang Jiang, "Synthetic wavelength to increase the snapshot optical sensor's elevated vertical measurement ranges," Appl. Opt. 58, 9051-9058 (2019).
3. Nabaa K. Hassan, Makram A. Fakhri, Evan T. Salim, Mothana A. Hassan, Gold nano particles based optical fibers for a different sensor" in a review, Materials Today: Proceedings, 2021,
4. Hassan, M.A. (2018). An Investigation on Optical Measuring Systems using Different Types of Optical Fibre Links and Performance of Optical Sensors. Volume 7 Issue 1, International Journal of Science and Research (IJSR), DOI: 10.21275/ART20179613.
5. Al Tameemi W, Hassan, M.A, (2018). A Review on The Effects of Chemotherapy Drugs and Cooling Alone or In Combination on The Cell Cycle. International Journal of Science and Research, 7(1).
6. Hassan, M. A., Martin, H., & Jiang, X. (2017). Development of a spatially dispersed short-coherence interferometry sensor using diffraction grating orders. Applied optics, 56(22), 6391-6397.
7. Hassan, Mothana A., Haydn Martin, and Xiangqian Jiang. "Surface profile measurement using spatially dispersed short coherence interferometry." Surface Topography: Metrology and Properties 2.2 (2014): 024001. UK
8. Hassan, M. A., Martin, H., & Jiang, X. (2015). A single-shot line-scanning spatially dispersed short coherence interferometer using Fourier transform profilometry. euspen.2015. UK
9. Hassan, Mothana A., Haydn Martin, and Xiangqian Jiang. "Surface profile measurement using spatially dispersed short coherence interferometry.", The 11<sup>th</sup> International Symposium on Measurement Technology and Intelligent Instruments (ISMTII) in Aachen and Braunschweig/Germany, 1-5 July 2013, Aachen and Braunschweig, Germany, ISBN. 978-3-86359-138-0.
10. Hassan, Mothana A., Haydn Martin, and Xiang Jiang. "Investigations on measurement speed of spatially Dispersed short coherence interferometer." (2013): 43-48. UK
11. Hassan, Mothana A., Xiang Jiang, and Haydn Martin. "Comparison of the fringe visibility created by zero and first order diffracted beams in a dispersive interferometer." (2012):

110-115. UK

12. Hassan, Mothana A., Jiang, Xiang and Haydn, Martin (2012) Fast surface metrology using wavelength scanning and dispersive white light interferometry. In: Proceedings of The Queen's Diamond Jubilee Computing and Engineering Annual Researchers' Conference 2012: CEARC'12. University of Huddersfield, Huddersfield, p. 148. ISBN 978-1-86218-106-9
13. Mothana A.Hassan "Wavelet Theory In (WDM) Technique For Transfer Coding Data." (2009): 1-16. Journal of the college of basic education, Iraq
14. Mothana A. Hassan "Image Coding Using Wavelet Theory ", Journal of Engineering and Development, 2007 Volume: 11 Issue: 3 Pages: 194-205. Iraq
15. Sabah Abdul-Hassan Gittaffa , Razi G. Al- Azawi, Mothana A.Hassan, "Digital Image Compression Using Fourier Transform and Wavelet Technique", Journal of Engineering and Development, 2006 Volume: 10 Issue: 4 Pages: 152-164. Iraq.
16. Arif, S. M, Mahdi, B. R, Hassan, M. A (2010) Retical is an optical processor and spatial filter in the guidance thermal mechanism, Diyala Journal for Pure Science DJPS, volume: 6, Issue: 4, pages: 320-325,
17. Arif, S. M, Mahdi, B. R, Hassan, M. A (2010) Study of Light Propagation in Atmosphere, Diyala Journal for Pure Science DJPS, volume: 6, Issue: 1, pages: 375-380

**(PATENT PENDING)**

#### **INTERNATIONAL CONFERENCE**

1. Hassan, Mothana A., Haydn Martin, and Xiangqian Jiang. "**Surface profile measurement using spatially dispersed short coherence interferometry.**", The 11<sup>th</sup> International Symposium on Measurement Technology and Intelligent Instruments (ISMTII) in Aachen and Braunschweig / Germany, 1-5 July 2013, Aachen and Braunschweig, Germany, ISBN. 978-3-86359-138-0.
2. Hassan, Mothana A., Martin, Haydn and Jiang, Xiang (2015) **A single-shot line-scanning spatially dispersed short coherence interferometer using Fourier transform profilometry.** In: Laser Metrology and Machine Performance XI, LAMDAMAP 2015. EUSPEN, Huddersfield, UK. ISBN 978-0-9566790-5-5.

#### **University of Huddersfield conferences**

1. Diamond Jubilee Proceeding of Annual Researcher's Conference 2012, Computing and Engineering CEARC12/ Huddersfield/ UK, (**Comparison of the Fringe Visibility Created by Zero and First Order Diffracted Beams in a Dispersive Interferometer**). pp. 110-115. ISBN 978-1-86218-106-9. UK.
2. Annual Researcher's Conference 2013 Computing and Engineering CEARC'13 2013, (**Investigations on Measurement Speed of Spatially Dispersed Short Coherence Interferometer**). pp. 43-48. ISBN: 978-1-86218-121-2. UK.