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Dr. Fatma Taher
Associate Professor

Personal Information

- Place of birth : Dubai, U.A.E
- Gender : Female
- Marital Status : Married
- Nationality : U.A.E
- Driving License : Valid UAE License
- Languages : Arabic & English

Objective

- My objective is to make best use of my knowledge & experience in the growth of my association.
- Accomplished career demonstrating consistent success as an Educator and relentless Researcher at higher education levels.
- Outstanding track record in assuring student success with high teaching skills.
- Seasoned in conceiving and building programs from the ground up through proven competencies in projects and program management, and staff support and empowerment.
- Effective communicator with excellent planning, organizational, and negotiation strengths as well as the ability to lead, reach consensus, establish goals, and attain results.
- Specialist whose qualifications include a PhD degree in Computer Engineering; with detailed knowledge in Digital Image Processing, Computer Sciences, Programming Languages, Artificial Intelligence and Computing with Artificial Neural Networks.
- Several years of experience in the creation and deployment of solutions for Medical Image Processing and Analysis for diverse medical purposes. Leading groups in successful conferences organizations across a wide platform of topics.
- Love to learn new software and use newer technology every day and be involved in challenging projects, especially in the field of Image Processing (medical image analysis, remote sensing satellite imaging), Intelligent Services, Artificial Intelligence, Big Data, IT Strategy and Internet Applications.

Personal Feature

Educated, Self-Confident, Hard Worker, Ambitious, Patient and Organized, Planning, Decision Making, Communication, Human Resource Management, inspiration and Leadership.

Education

- ❒ PhD in Computer Engineering, Khalifa University, Abu Dhabi, UAE, May 5th 2014.
  - *Thesis Title*: Early Detection of Lung Cancer based on Sputum Color Image Analysis.
  - *Advisor*: Prof. Hussain Al-Ahmad, Dr. Naoufel Werghi. Professors at Khalifa University.
- ❒ M.Sc.(honor) in Computer Science, University of Sharjah, Sharjah, UAE, Conferred on May. 9th, 2007.
  - *Thesis Title*: Lung Cancer Diagnosis based on Sputum Color Images Analysis
  - *Advisor*: Dr. Rachid Sammouda, Assistant Professor at the Department of Computer Science, University of Sharjah.
- ❒ B. Sc. (honor) in Computer Science, University of Sharjah, Sharjah, UAE, 2001.
  - Accumulative GPA is 3.7/4.0.
  - Placed on honor list 8 times.
- ❒ High School Certificate Science-based Program, Ajman, UAE.
  - High School score: 95.5%.

Professional Certificates

- ❒ ICDL Certificat, International Computer Driving License ® Syllabus Version 4.0, 2007.
- ❒ Web design using Dream Weaver software.
- ❒ Basic administration of Microsoft windows 2000 Oracle Developer.
- ❒ IELTS score: 7
- ❒ TOEFL IBT: 103
- ❒ English Program from the BRITISH COUNSIL
- ❒ Course in Total Quality Management(TQM) Tools for Engineering

Computer Skills & Teaching Areas

- ❒ Programming (C, Pascal , Prolog , Assembly , HTML ,Visual Basic, Visual Studio C++ , open GL, Java and MATLAB)
- ❒ Software (MS Office all versions, Visual Basic, Adobe Photoshop, Dream Weaver, Flash, Paint Shop, Visio)
- ❒ Platforms (Dos 6.0, Windows NT 4 (Server / Workstation, Unix & Linux, Windows).
- ❒ Other Courses (Database Application, Software Engineering, Computer Network, Network Essential, Graphics, Formal Language and Automata theory, Object Oriented Programming, Data Structure and Algorithms, Operating Systems, Compiler Design, Design Analysis of Algorithms, File processing and Data management, Image processing, Data Mining, Pattern Recognition, Remote Sensing, Cloud Computing, Artificial Intelligence, Innovation and Entrepreneurship.

Communication Skill

- ❒ Fluent spoken and written Arabic & English.
- ❒ Strong interest in learning other languages, especially: French.
- ❒ Ability to work in different fields other than computers.

Professional Experience

- ❒ August 2022- Present, Associate Professor and Director for CTI Next Generation Research Center, Zayed University, Dubai.
- ❒ August 2019- Present, Associate Professor in the college of Technological Innovation, Zayed University, Dubai.
- ❒ August 2018- Present, CEO for Happiness, Positivity and Tolerance at Zayed University.
- ❒ Nov. 2019- July 2022, Associate Professor & Assistant Dean for Research and Outreach in the College of Technological Innovation at Zayed University, Dubai.
- ❒ Summer School Directors for AY 2019/2020.
- ❒ Dec. 2017 – Oct. 2019, Associate Professor & Assistant Dean for student affairs at the College of Technological Innovation, Zayed University, Dubai.

- ❒ Sept. 2017- Dec. 2017, assistant professor, at the College of Technological Innovation, Zayed University, Dubai.
- ❒ May 2014 - August 2017, assistant professor, at the Department of Electronic and Computer Engineering, Khalifa University, Abu Dhabi.
- ❒ January 2010-April 2014, research assistant in the Department of Electronic and Computer Engineering, Khalifa University, Sharjah
- ❒ September 2007-2009, Lecturer, the Department of Computer Science, University of Sharjah.
- ❒ September 2001-June 2007, Teaching Assistant, the Department of Computer Science, University of Sharjah.
- ❒ During the past years, I taught the following courses:
    - Introduction to IT.
    - Introduction to Computer Science 1.
    - Introduction to Multimedia.
    - Internet Technology.
    - Computer Programming in C, C++ and Java.
    - MATLAB Programming.
    - Image Processing.
        - Signal Processing.
        - Pattern Recognition.
        - Artificial Intelligence.
        - Data Mining.
        - Machine learning.
        - Cloud Computing.
        - Innovation and Entrepreneurship.
        - Human Computer Interaction.
        - Senior Design Project.
        - Graphics Design.
        - Medical Image Analysis.
        - Software Engineering.

- ❒ June-Aug 2000, Trainee in Dubai Municipality, I have worked as a trainee in Dubai Municipality, Dubai, Providing user support for the following products:
    - Microsoft Office 97 & 2000
    - Microsoft Windows 9x
    - Antivirus software
    - Network operations and procedures.
- ❒ Sept. 2002 - Sept. 2003, coordinators of the Computer Science Society in the Department of Computer Science at the University of Sharjah, several activities had been organized, to list a few:
    - Organizing the second computer exhibition in the University City: Computer Generation Exhibition 2002 (CompuGex).
    - Publishing a periodical magazine for the Department of Computer Science.
    - Organizing training courses in Photoshop, Web Page Design and Flash for University's students.
- ❒ June-Sept. 1999, Trainee in Juma'a Al Majed Center, I have been involved in Juma'a Al Majed Center as a member in the following:
    - Internet team.
    - Researches.
    - Teaching staff in using the Internet.
    - Management support.

Projects

- ❒ E-mall system: By using Access 2000, ASP. This is an online purchase system that handles all purchases online and also covers the management activities.
- ❒ Handicaps: By using Access 2000, HTML. It handles all the activities and functionalities of all handicaps centers in the emirate of Sharjah, and provides different types of reports, both statistical and administrative.

- ❒ Library system: By using Access 2000. It handles all the activities that are associated with any library, borrowing, registering books.
- ❒ M.Sc. Thesis
    - *Title*: Lung Cancer Diagnosis Based on Sputum Color Images Analysis.
    - *Abstract*:

      In this thesis, we have developed an automatic Computer Aided Diagnosis (CAD) system for early detection of lung cancer based on the analysis of pathological sputum color images. These images are classified into red dye and blue dye images according to the Papanicalaou standard staining method which had been used in preparing these images. The detection of lung cancer in its early stages can be helpful for medical treatment to limit the danger. We expect that the proposed CAD system will increase the diagnostic confidence. We have evaluated our CAD system using a database of 1000 sputum color images, collected from Tokyo Center of the lung cancer. We have obtained 92% sensitivity. The testing phase in this thesis indicates that our CAD system is useful to increase the efficiency of the mass screening process and has the potential to increase the chance of early diagnosis of lung cancer.
- ❒ Ph.D. Thesis
    - *Title*: Early Detection of Lung Cancer based on Sputum Color Image Analysis.
    - *Abstract*:

      Lung cancer continues to rank as the leading cause of cancer deaths worldwide. One of the most promising techniques for early detection of cancerous cells relies on sputum cell analysis. This was the motivation behind the design and the development of a new computer aided diagnosis (CAD) system for early detection of lung cancer based on the analysis of sputum color images. The proposed CAD system encompasses of four main processing steps. First is the preprocessing step which utilizes a heuristic rule-based algorithm and a Bayesian classification method using the histogram analysis. In this step, the region of interest (ROI) representing the sputum cell is detected and extracted. Then, in the second step, the mean shift segmentation is applied to segment the nuclei from the cytoplasm. The third step is the feature analysis. In this step, geometric and chromatic features are extracted from the nucleus region. These features are used in the diagnostic process of the sputum images. Finally, the diagnosis is done using a rule-based algorithm alongside the neural network and support vector machine (SVM) for classifying the cells into benign or malignant. For each step, different aspects of technical issues, methodologies, implemented training, testing dataset and validation methods are handled, as well as comparison performance via a series of experiments.

      A database of 1000 sputum color images collected by the Tokyo center of lung cancer from different patients was used to test the new CAD system. In the extraction process, it was found that the Bayesian classification outperforms the heuristic rule-based classification. The Bayesian classification attains a consistent accuracy of 98%. In the segmentation process, the mean shift approach significantly outperforms the Hopfield neural network (HNN) technique. The integration of both spatial and chromatic information further improved the segmentation performance. In the classification process: it was found that the SVM achieved a higher classification rate compared to rule-based and ANN classifiers. The final results showed that the techniques used outperformed conventional methods. The proposed CAD system achieved a reasonable accuracy above 97% with high true positive rates that can basically meet the requirement of clinical diagnosis.

Research Interests

My research interests are in the areas of signal and image processing, medical image analysis, especially in detecting of the cancerous cells using up to date artificial intelligence and machine learning techniques, multimedia and watermarking detection. Data Mining, pattern recognition, computer vision, artificial intelligence, database system, remote sensing especially in satellite imaging, internet of things (IOT) and smart cities.

Publications

❒ ***Published in Refereed Journals:***

1. R. Sammouda and **F. Taher**, Comparison of Hopfield Neural Network and Fuzzy Clustering in Segmenting Sputum Color Images for Lung Cancer Diagnosis, Published in the World Science Engineering Academy Society WSEAS Journal, vol. 3, no. 11, pp. 629-637, November 2006.
2. **F. Taher**, Naoufel Werghi, Hussain Al-Ahmad and Rachid Sammouda, "Lung Cancer Detection by Using Artificial Neural Network and Fuzzy Clustering Methods", American Journal of Biomedical Engineering, pp. 136-142, vol. 2, no. 3, June 2012.
3. **F. Taher**, Naoufel Werghi, Hussain Al-Ahmad, "Automatic Sputum Color Image Segmentation for Lung Cancer Diagnosis", KSII Transactions on Internet and Information System, pp. 68-80, vol. 7, no. 1, January 2013.
4. **F. Taher**, Naoufel Werghi, Hussain Al-Ahmad and Christian Donner, "Extraction and Segmentation of sputum cells for Lung Cancer Early Diagnosis", Algorithms Journal of Machine Learning for Medical Imaging, pp. 512-531, vol. 6, August 2013.
5. **F. Taher**, Naoufel Werghi and Hussain Al-Ahmad, "Computer Aided Diagnosis System for Early Lung Cancer Detection", Algorithms, vol. 8, no. 4, pp. 1088-1110, Nov. 2015.
6. A. Shalaby, **F. Taher**, M. El-Baz, M. Ghazal, M. Abou El-Ghar, and A Taqieldeen, and A. El-Baz, "Probabilistic Modeling of Blood Vessels for Segmenting Magnetic Resonance Angiography Images," Medical Research Archives, vol. 5, no. 6, March 2017, http: //dx.doi.org/10.18103/mra.v5i3.1031.
7. A. Shaffie, A. Soliman, M. Ghazal, **F. Taher**, N. Dunlap, B. Wang, V. Van Berkel, G. Gimel'farb, A. Elmaghraby, and A. El-Baz, "A Generalized Deep Learning Based Diagnostic System for Early Diagnosis of Various Types of Pulmonary Nodules," Technology in Cancer Research & Treatment Journal, 2018. DOI: 10.1177/1533033818798800.
8. A. Shaffie, A. Soliman, M. Ghazal, **F. Taher**, N. Dunlap, B. Wang, V. Berkel, G. Gimelfarb, A. Elmaghraby, and A. El-Baz, "Lung Nodule Classification based on the Integration of Higher Order MGRFAppearance Model and Geometric Features", Technology in Cancer Research & Treatment, 2018.
9. M. Shehata, F. Khalifa, A. Soliman, M. Ghazal, **F. Taher**, M. El-Ghar, A. Dwyer, G. Gimel'farb, R. Keynton and A. El-Baz, "Computer-Aided Diagnostic System for Early Detection of Acute Renal Transplant Rejection Using Diffusion-Weighted MRI", IEEE Transactions on Biomedical Engineering, vol. 66, no. 2, pp. 539-552, 10.1109/TBME.2018.2849987, Feb. 2019.
10. Alkadi. R, Elbaz. A, **F. Taher**, N. Werghi, "A 2.5D deep learning-based approach for prostate cancer detection on T2-weighted magnetic resonance imaging", Lecture Notes in Computer Science, Volume 11132 LNCS, Pages 734-739, 2019.
11. R. Alkadi, **F. Taher**, A. El-Baz, and N. Werghi, "A Deep Learning-Based Approach for the Detection and Localization of Prostate Cancer in T2 Magnetic Resonance Images," Journal of Digital Imaging, pp. 793-807, vol. 32, no. 5, 2019.
12. **F. Taher**, A. Soliman, H. Kandil, A. Mahmoud, A. Shalaby, G. GIMEL'FARB and A. El-Baz, "Accurate Segmentation of Cerebrovasculature from TOF-MRA Images using Appearance Descriptors", IEEE Access Journal, vol. 8, no. 9044725, pp. 96139 – 96149, March 2020. DOI: 10.1109/ACCESS.2020.2982869
13. H. Kandil, A. Soliman, **F. Taher**, M. Ghazal, A. Khalil, G. Giridharan, R. Keynton, J. R. Jennings, and A. El-Baz, "A Novel Computer-Aided Diagnosis System for the Early Detection of Hypertension based on Cerebrovascular Alterations," NeuroImage: Clinical, Elsevier, p. 102107, vol. 25, 2020.
14. A. Mahmoud, **F. Taher**, A. Kunhu, H.Al-Ahmad, "Single Image Super-Resolution Algorithm using PSNR in the wavelet domain", *Journal of Advanced Research in Dynamical and Control Systems*, vol. 12, no. 1, pp.677-691, Jan 2020.

15. H. Abdeltawab, F. Khalifa, **F. Taher**, N. Alghamdi, M. Ghazal, G. Beache, T. Mohamed, R. Keynton, and A. El-Baz, "A Deep Learning-Based Approach for Automatic Segmentation and Quantification of the Left Ventricle from Cardiac Cine MR Images", published in Computerized Medical Imaging and Graphics at Elsevier Journal, vol.81, pp. 1-11, March 2020, https://doi.org/10.1016/j.compmedimag.2020.101717.
16. **F. Taher,** N. Prakash, A. Al Zaabi, "Early Detection of Lung Cancer-A Challenge", International Journal of Computing and Digital Systems, vol. 10, no. 1, pp. 2-11, ISSN: 2210-142X, April 2021,DOI:http://dx.doi.org/10.12785/ijcds/100142,https://journal.uob.edu.bh/handle/123456789/4044
17. M. Elsharkawy**,** A. Sharafeldeen, **F. Taher**, A. Shalaby, A. Soliman , A. Mahmoud**,** M. Ghazal and A. El-Baz, "Early Assessment of Lung Function in Coronavirus Patients Using Invariant Markers from Chest X-Rays Images", Scientific Reports: Nature, 2021, vol. 11(1), pp. 1-11. DOI: https://doi.org/10.1038/s41598-021-91305-0.
18. **F. Taher**, N. Parkash, "Automatic Cerebrovascular Segmentation Methods-A Review," IAES International Journal of Artificial Intelligence (IJ-AI), vol. 10, no. 3 ,pp. 576-583, Sept. 2021, ISSN: 2252-8938, DOI: 10.11591/ijai.v10.i3.pp576-583
19. X. Yingjiaoa, S. Baishuna, W. Zhiqina, **T. Fatma**, "Long-Distance Running Training System based on Inertial Sensor Network", published in the Journal of Intelligent & Fuzzy Systems, vol. Pre-press, no. Pre-press, pp. 1-9, 20th March 2021, DOI: 10.3233/JIFS-189832.
20. **F. Taher** , H. Kandil, Y. Gebru, A. Mahmoud , A. Shalaby , S. El-Mashad, and A. El-Baz, "A Novel MRA-Based Framework for Segmenting the Cerebrovascular System and Correlating Cerebral Vascular Changes to Mean Arterial Pressure", Applied Sciences, MDPI, Appl. vol. 11, Sci. 2021, 11, 4022. https://doi.org/10.3390/app11094022, 2021 .
21. **F. Taher** , H. Kandil, H. Mahmoud, A. Mahmoud , A. Shalaby, M. Ghazal, M. Alhalabi , H. Singh Sandhu and A. El-Baz, "A comprehensive Review of Retinal Vascular and Optical Nerve Diseases based on Optical Coherence Tomography Angiography", Applied Sciences, MDPI, Appl. Sci. 2021, 11, 4158. https://doi.org/10.3390/app11094158, 2021.
22. **F. Taher**, N. Prakash, A. Shaffie, A. Soliman, and A. El-Baz, "An Overview of Lung Cancer Classification Algorithms and their Performances," IAENG International Journal of Computer Science, vol. 48, no. 4, pp1021-1027, 2021.
23. K. Shankar, E. Perumal, M. Elhoseny, **F. Taher**, B. B. Gupta, A. A. Abd El-Latif, "Synergic Deep Learning for Smart Health Diagnosis of COVID-19 for Connected Living and Smart Cities", ACM Transactions on Internet Technology, vol. 22, no. 3, August 2022. Article No.: 61, pp 1–14, https://doi.org/10.1145/3453168.
24. **F. Taher**, A. Eysa, D. Fahmy, A. Shalaby, A. Mahmoud, M. El-Melegy, A. Abdel Razek, and A. El-Baz, "COVID-19 and Myocarditis: A Brief Review," Frontiers in Bioscience-Landmark, 2022; 27(2): 073, http://doi.org/10.31083/j.fbl2702073
25. I. Farahat, A. Sharafeldeen, M. Elsharkawy, A. Soliman, A. Mahmoud, M. Ghazal, **F. Taher**, M. Bilal, A. Abdel Razek, W. Aladrousy, S. Elmougy, A. Tolba, M. El-Melegy, A. El-Baz, "The Role of 3D CT Imaging in the Accurate Diagnosis of Lung Function in Coronavirus Patients," Diagnostics 2022, vol. 12, no. 3, pp. 696, DOI: https://doi.org/10.3390/diagnostics12030696
26. T. Ozdemir, **F. Taher**, B. O. Ayinde, J. Zurada, and O. Ozmen, "Comparison of Feedforward Perceptron Network with LSTM for Solar Cell Radiation Prediction", Applied Sciences, MDPI, Appl. Sci. 12, 4463, 28th April 2022, https://doi.org/10.3390/
27. H. Kandil, A. Soliman, N. Elsaid, A. Saied, N. Saleh, A. Mahmoud, **F. Taher** and A. El-Baz "Studying the Role of Cerebrovascular Changes in Different Compartments in Human Brains in Hypertension Prediction", Appl. Sci. 2022, 12(9), 4291; https://doi.org/10.3390/app12094291
28. **F. Taher**, N. Alghamdi, H. Kandil, A. Sharafeldeen, A. Elnakib, A. Soliman, Y. ElNakieb, A. Mahmoud, M. Ghazal and A. El-Baz, "Segmentation of Infant Brain Using Nonnegative Matrix Factorization", Applied Sciences, MDPI, Appl. Sci. 12, 5377, 26th May 2022 https://doi.org/10.3390/app12115377
29. G. Saleh, N. Batouty, S. Haggag, A. Elnakib+, F. Khalifa+, F. Taher, M. A. Mohamed, R. Farag, H. Sandhu, A. Sewelam, and A. El-Baz, "The Role of Medical Image Modalities and AI in the Early Detection, Diagnosis and Grading of Retinal Diseases: A Survey," Bioengineering 2022, vol. 9, no. 8, pp. 366, DOI: https://doi.org/10.3390/bioengineering9080366.
30. Z. Zhang; H. Al Hamadi; E. Damiani; C. Yeob Yeun; **F. Taher,** "Explainable Artificial Intelligence Applications in Cyber Security: State-of-the-Art in Research", IEEE Access Journal, pp. 2169-3536, 5th Sept. 2022. DOI: 10.1109/ACCESS.2022.3204051.

31. **F. Taher**, M. Shoaib, H. Emara, K. Abdelwahab, F. Abd El-Samie, M. Haweel, "Efficient Framework for Brain Tumor Detection Using Different Deep Leaning Techniques", Frontiers in Public Health Journal, vol. 2, no.5, 31st August 2022, http://doi.org/10.3389/fpubh.2022.959667
32. M. Elgendy, H. Balaha, M. Shehata, A. Alksas, M. Ghoneim, F. Sherif, A. Mahmoud, A. Elgarayhi, **F. Taher**, M. Sallah, M. Ghazal, A. El-Baz, "Role of Imaging and AI in the Evaluation of COVID-19 Infection: A Comprehensive Survey", published in the Frontiers in Bioscience-Landmark Journal, vol. 27, no. 9, Sept. 2022, https://doi.org/10.31083/j.fbl2709276
33. **F. Taher,** A. Abdelaziz, "Neutrosophic C-Means Clustering with Optimal Machine Learning Enabled Skin Lesion Segmentation and Classification", published in International Journal of Neutrosophic Science, vol. 19, no. 1, PP: 177-187, 08 August 2022, Doi: https://doi.org/10.54216/IJNS.190113.
34. H. Abdeltawab, F. Khalifa, Y. ElNakieb, A. Elnakib, **F. Taher**, N. Alghamdi, H. Sandhu, A. El-Baz, "Predicting the Level of Respiratory Support in Covid-19 Patients using Machine Learning", Bioengineering Journal, vol. 9, no. 536, pp. 1-14, https://doi.org/10.3390/bioengineering910053, 9th October 2022.
35. **F. Taher**, R. Haweel, U. Al Bastaki; E. Abdelwahed, T. Rehman, T. Haweel, "Fast COVID-19 Detection from Chest X-Ray Images Using DCT Compression", Applied Computational Intelligence and Soft Computing Journal, vol. 2022, Article ID 2656818, 7 pages, 2022. https://doi.org/10.1155/2022/2656818.
36. A. Saddik, R. Latif, F. Taher, A. El Ouardi and M. Elhoseny, "Mapping Agricultural Soil in Greenhouse Using an Autonomous Low-Cost Robot and Precise Monitoring", Sustainability in Special Issue Online Algorithms and Green Data for Sustainable Development journal, pp. 1-27, vol. 14, no. 23, 15539, https://doi.org/10.3390/su142315539
37. **F. Taher**, M. Elhoseny, M. Hassan, I. brahim and M. El-Hasnony, "A Novel Tunicate Swarm Algorithm with Hybrid Deep Learning Enabled Attack Detection for Secure IoT Environment", Published in IEEE Access, vol. 10, pp. 127192 – 127204, 2022. http://doi.org/10.1109/ACCESS.2022.3226879
38. **F. Taher**, Eysa, A., Fahmy, D., Shalaby, A., Mahmoud, A., El-Melegy, M., Abdel Razek, A.A.K., El-Baz, "A COVID-19 and myocarditis: a brief review", Frontiers in Bioscience – Landmark Journal, vol. 27, no. 2, http://doi.org/10.31083/j.fbl2702073
39. **F. Taher**, H. Al Hamadi, M. S. Alzaidi, H. Alhumyani, D. H. Elkamchouchi, Y. H. Elkamshoushy M. Haweel, M. Fathy and S. Abdel Fatah, "Design and Analysis of Circular Polarized Two-Port MIMO Antennas with Various Antenna Element Orientations", Micromachines Journal, 2023, 14(2), art. no. 380. https://doi.org/10.3390/mi14020380
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41. M. Kuhail, J. Berengueres, **F. Taher**, M. Alkuwaiti, and S. Khan, "Haptic Systems: Trends and Lessons Learned for Haptics in Spacesuits", Electronics, MDPI, 12, 1888, https://doi.org/10.3390/, 2023
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43.

❒ ***Published in Refereed Conference Proceedings:***

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45. **F. Taher** and R. Sammouda, Comparison of Hopfield Neural Network and Fuzzy Clustering in Segmenting Sputum Color Images for Lung Cancer Diagnosis, Proceeding in ISSPA, Poster Session, UAE, Sharjah, Feb12-15, 2007.

46. **F. Taher** and R. Sammouda, Identification of Lung Cancer based on shape and Color, Proceeding of the 4th International Conference on Innovation in Information Technology, pp.481-485, Dubai, UAE, Nov. 2007.
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14. A. Elnakib, M. Ghazal, **F. Taher**, A. Mahmoud, and A. El-Baz, “3 D Computational Methods for Identifying Left Ventricle Heart Pathologies,” in *Computer-Assisted Diagnoses: Diabetes and Cardiovascular Disease, Elsevier*, 10.1016/b978-0-12-817428-9.00003-6,pp. 59-93, 2021.

15. H. Kandil*, A. Soliman+, A. Mahmoud+, **F. Taher**, and A. El-Baz, "Medical Image Analysis for the Early Prediction of Hypertension," Cardiovascular and Coronary Artery Imaging, Volume 2, Editors: A. El-Baz and J. Suri, Elsevier 2022,(in press).
16. A. Naglah*, M. Ghazal, **F. Taher**, A. Mahmoud+, and A. El-Baz, "Texture Interpretability of Fundus Imaging and Diabetic Retinopathy: A Review," Photo Acoustic and Optical Coherence Tomography Imaging Volume 3: Fundus Imaging for the Retina, Editors: A. El-Baz and J. Suri, IOP publisher, 2022 (in press).
17. A. Shaffie*, A. Soliman+, A. Mahmoud+, **F. Taher**, M. Ghazal, and A. El-Baz, "Lung Cancer diagnosis using 3D-CNN and Spherical Harmincs Expansions," Artificial Intelligence in Cancer Diagnosis and Prognosis, Volume 1: Lung and kidney cancer, Editors: A. El-Baz and J. Suri, IOP publisher, ISBN10: 0750335939, ISBN13: 9780750335935, 2022.
18. K. Hammouda*, F. Khalifa+, A. Soliman+, A. Mahmoud+, M. Ghazal, **F. Taher**, M. Abou El-Ghar, M. Badawy, H. Darwish, and A. El-Baz, "A Radiomic Features-Based Pipeline for Accurate Bladder Cancer Staging," Texture Analysis in Image Processing, vol. 1, Editors: A. El-Baz and J. Suri, NYC: Chapman and Hall/CRC, 2022 (in press).
19. H. Abdeltawab*, F. Khalifa+, **F. Taher**, M. Ghazal, A. Mahmoud+, and A. El-Baz, "Left Ventricle Segmentation and Quantification using Deep Learning," Cardiovascular and Coronary Artery Imaging, Volume 2, Editors: A. El-Baz and J. Suri, Elsevier, 2023.
20. **F. Taher**, (2023). Early Lung Cancer Detection by Using Artificial Intelligence System. In: , et al. Biomedical Signal and Image Processing with Artificial Intelligence. EAI/Springer Innovations in Communication and Computing. EAI/Springer, pp. 373-397, Cham. https://doi.org/10.1007/978-3-031-15816-2_19.

❒ ***Book***

1. **F. Taher**, Early Detection of Lung Cancer based on Sputum Color Image Analysis, Noor Publishing, ISBN: 978-3-330-80589-7, 2017.

❒ ***Patent***

1. **F. Taher**, R. Sammouda, "Computer Aided Diagnosis (CAD) system for early detection of lung cancer based on the analysis of pathological sputum color images", US Patent # 60/956,713, August 2007.
2. **F. Taher,** Ayman El-Baz, "Cerebrovascular Segmentation from MRA Images", USA – Patent Application granted by United States Patent and Trademark Office (USPTO) under the number : 10768259.Grant: 8th Sept. 2020, https://patents.justia.com/patent/10768259

❒ ***Grants***

1. Khalifa University Internal Research Fund (KUIRF) Level 1: 2014-2016:
   Project Title: Early Lung cancer detection by using advanced deep learning techniques, Khalifa university, Fund of AED 500,000.
2. Khalifa University Internal Research Fund (KUIRF) Level 2: 2016-2018:
   Project Title: A Noninvasive CAD System for Early Detection of Lung Cancer, Khalifa university. Fund of AED 2,000,000.

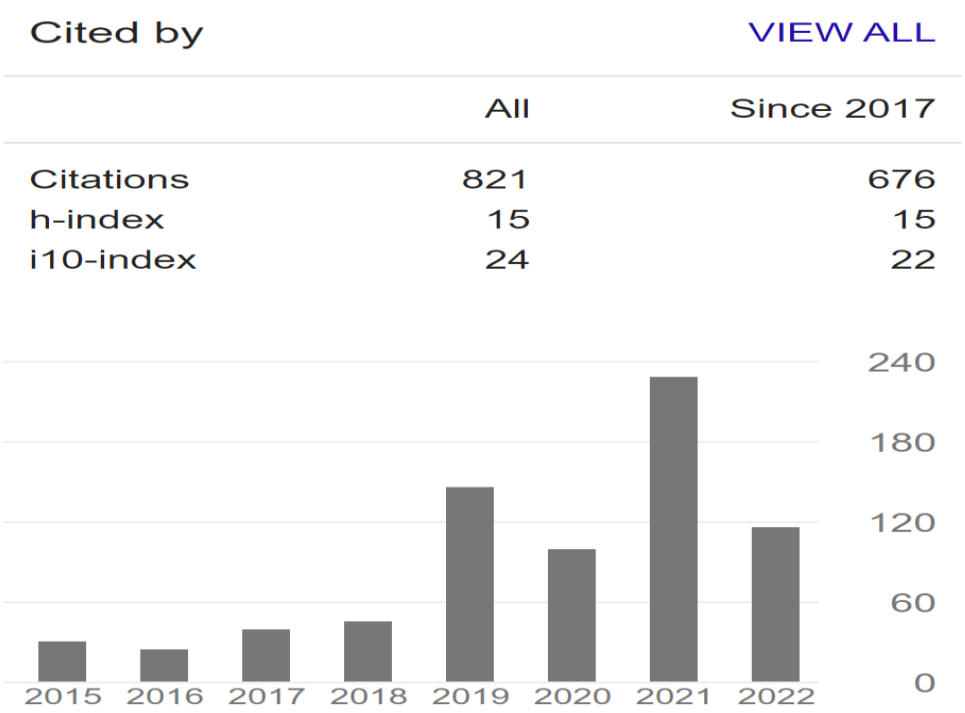
3. Al JALILA SEED GRANTS 2016-2017:
   Project titled: Early Diagnosis and Staging of Prostate Cancer using Magnetic Resonance Imaging. Khalifa University. Fund of AED 300,000.

4. Zayed University Internal Grant: 2018-2020:
   Project titled: MR Imaging and visualization of physiological indexes in Myoregeneration
   Fund of AED 200,000.

5. Al JALILA SEED GRANTS 2018-2020:
   Project title: A Computer-Aided Diagnostic System for Early Assessment of Retinopathy in Diabetic Patients using OCT and OCTA Images (AJF2018053). Fund of 300,000.

6. Zayed University Internal Grant: 2020-2022:
   Artificial Intelligence System for Early Assessment of Lung Function in Coronavirus Patients, Fund of AED 100,000.
7. Zayed University Internal Grant: 2020-2022: Early Detection of Hypertension using MRA, Fund of AED 279,700.
8. UAE University and Zayed University joint Grant, PI: Dr. Fatma Taher leading the project, 1st Jan. 2022-31st Dec. 2023, "Big Data Security Analytics for the Scalable Generation of Cyber Threat Intelligence", Fund of AED 388,000.
9. UAE University and Zayed University joint Grant, Co_PI: Dr. Fatma Taher, 1st Jan. 2022-31st Dec. 2023, Astro Haptic Footwear: Human Augmentation for Mars Exploration", Fund of AED 385,500.
10. Zayed University Internal Grant: 2022-2024: Factors Influencing Acceptance, Adoption and Trust in Metaverse Technology in UAE, Fund of AED 299,725.
    Emirati Research Grant: Project titled: A Comprehensive Computer-Aided Diagnostic System for Early Assessment of Renal Tumors, Fund of AED 100,000.

❒ ***Google Scholar***



https://scholar.google.com/citations?hl=en&user=r&user=r_letp0AAAAJ

	Google Scholar	
	All	**Since 2017**
Citations	821	676
h-index	15	15
i10-index	24	22
	Research Gate	
Citations	633	
Research Gate Score	20.02	
Impact Points	110	
Read	11890	
	Scopus	
Citations	370	
h-index	11	
	Web of Science	
Citations	224	
h-index	9	

Postgraduate Supervision

A- Master Projects

1. Early Diagnosis and Staging of Prostate Cancer using Magnetic Resonance Imaging, Ruba Hassan, Khalifa University, Abu Dhabi, UAE, defense 5th Nov. 2018.
2. Adaptive Security and Predictive Risk Control System using ML, Noura Abdulla, Zayed University, Dubai, UAE, defense 9th Dec. 2021.
3. Machine-Learning based solution to detect and classify suspicious E-mails, Zhang Zhibo, Khalifa University, UAE, defense 13th Sept. 2022.

B- Ph. D Projects

1. Artificial Neural Network and Deep Learning based prediction solar radiation suspicious E-mail, Tuğba Özdemir's, Duzce University, Istanbul, Turkey, defense 21st April 2022.

2. Dr. Fatma Taher is an external supervisor for student: Zaid Jamal Saeed at Birkbeck College, University of London, PhD thesis title: Forecasting Cyber Events, 10th April 2021 to present.

Postgraduate Examiner

A- Master Projects

1. Automatic Polyp Detection in Endoscopy Videos. Bilal Taha, supervised by Dr. Jorge Dias, Khalifa University, 11th Sept. 2018, Abu Dhabi, UAE
2. Detection of Calcification in Abdominal Aortic Aneurysms. Safa Salahat supervised by Dr. Naoufel Werghi, Khalifa University, 14th March 2019, Abu Dhabi, UAE.

B- PhD. Projects

1. Design and Development of Computational Intelligence Techniques for Diagnosis of Alzheimer's Disease using Brain Images, by: Sherin. A, supervisor: Dr. R. Rajeswari M.C.A., Ph.D. defense: 2nd Feb. 2022, Bharathiar University, Coimbatore, India.

Undergraduate Supervision

1. Senior Design Project: Title: Automatic Extraction of 2D Cerebrovascular System, by using medical image analysis for the brain. Khalifa University, Fall 2015.
2. Senior Design Project: Title: Analysis of colorization algorithms for Black and White Movies, by using image processing techniques, Khalifa University, Spring 2016.
3. Senior Design Project: Title: Simplock Prototype, design a Mobile App., for the aforementioned smart door lock, would have full control over their doors without having to physically access the door lock. Khalifa university, Fall 2017.
4. Senior Design Project: Title: Virtual Bikes Technology Limited Company, presenting a novel method in developing Virtual Reality Technology that will be used in the gyms, homes and everywhere by the people. Khalifa University, Spring 2017.
5. Senior Design Project: Title: Smart Insulin Injection, the product is designed for people with diabetes, where it provides them with the care they need regarding the insulin doses they have to take daily. Khalifa University, Spring 2017.
6. Senior Project: Title: Alam Ailan (Ailan's World) Design and animation Project with fully automation characters, Zayed University, Spring 2018.
7. Senior Project: Title: SERENDIP, to create a website that helps the brides find everything they need in one website, Zayed University, Fall 2018.
8. Senior Project: Title: MoboMart, Self-driving Autonomous Supermarket, Zayed University, Fall 2018.
9. Senior Project: Title: People Safety Mobile App, Zayed University, Spring 2019.
10. Senior Project: Title: Drones Forensics, Zayed University, Fall 2019.
11. Senior Project: Title: Plant Donation Application, Zayed University, Spring 2020.
12. Senior Project: Title: Anomaly Detection Security Attacks, Zayed University, Fall 2020.
13. Senior Project: Title: Application for monitoring and controlling agricultural production, Zayed University, Spring 2021.
14. Senior Project: Title: Safety Sesnsor, Zayed University, Fall 2021

Research Visit

1. VISUAL INFORMATION LAB., UNIVERSITY OF BRISTOL | May – August 2012
   Conduct research in the field of machine learning in the University of Bristol, UK as part of a student exchange program.
2. MEDICAL IMAGING LAB., CITY UNIVERSITY | June – August 2013
   Conduct research in the field of medical image analysis for lung cancer detection in the City University, London, UK, I was invited by Prof. Panagiotis Liatsis the head of the lab.
3. BIOIMAGING LABORATORY, UNIVERSITY OF LOUISVILLE, KENTUCKY, USA | June - August. 2016
   Conduct research in the field of medical image processing for project titled: Early Detection of Lung Injury using 4D-CT Chest Images, I was invited by Prof. Ayman El-Baz the head of the lab.
4. BIOIMAGING LABORATORY, UNIVERSITY OF LOUISVILLE, KENTUCKY, USA | July - August. 2017
   Conduct research in the field of medical image processing for project titled: Cerebrovascular Segmentation from MRA Images, I was invited by Prof. Ayman El-Baz the head of the lab.
5. BIOIMAGING LABORATORY, UNIVERSITY OF LOUISVILLE, KENTUCKY, USA | July - August. 2018 & 2019: Conduct research in the field of medical image processing for project titled: early detection of prostate cancer.
6. BIOIMAGING LABORATORY, MIT, Boston, USA | August-Sept. 2019

Conduct research in the field of medical image processing and Machine learning & Artificial Intelligence, I was invited with Dr. Roy E. Welsch, Eastman Kodak Leaders for Global Operations Professor of Management, Professor of Statistics and Data Science.

7. CENTRE FOR TELECOMMUNICATIONS RESEARCH (CTR) at King's College London, UK | June 2019
   Conduct research in the field of medical image processing and data analytics, invited by Prof. Mischa Dohler, full Professor in Wireless Communications at King's College London.
8. BIO-ENGINEERING LAB., CITY UNIVERSITY | December 2021
   Conduct research in the field of medical image analysis for COVID 19 research in the City University, London, UK, I was invited by Prof. Veselin Rakocevic the head of the lab.
9. Secure Software-oriented Architecture Research (SESAR) Centre., University degli Studi di Milano| March 2022, conduct research in the field of Artificial Intelligence Systems Using Medical Image Analysis, Milan, Italy, I was invited by Prof. Ernesto Damiani, the head of the Center.
10. Laboratoire Interdisciplinaire des Sciences du Numérique,Gif-surResearch, UPEC UNIVERSITY, Paris, France, June 2022, Conduct research in the field of Artificial Intelligence and Machine Learning I was invited by Prof. Lynda Mokdad the head of the Centre.
11. Nanoelectronics and Devices Center, American University of Cairo, Cairo, Egypt August 2022
    Conduct research in the field of medical image analysis using electronic chips, I was invited by Prof. Yehea Ismail the director of the center.

Reviewer:

Journals

- Editorial Manager (EM), Computer Methods and Programs in Biomedicine Journal.
- IEEE Transactions on Medical Imaging
- IEEE Transaction on Biomedical Engineering
- IEEE Journal of Biomedical and Health Informatics
- IEEE Transactions on Biomedical Circuit and Systems
- Journal of Computational and Mathematical Methods in Medicine
- British Journal of Applied Science & Technology
- Journal of Mechanical Engineering
- Elsevier Computers in Biology and Medicine
- Journal of Intelligent Systems: JISYS.2018.0370.R1
- Elixir International Journal
- International Journal of Recent Advances in science and technology
- International Journal of Biomedical Imaging
- Journal of Electronic Imaging
- Computer Methods and Programs in Biomedicine
- Journal of Medical Imaging and Health Informatics
- Journal of Applied Clinical Medical Physics
- IEEE International Symposium on Biomedical Imaging

Conferences

- IEEE International Conference on Image Processing (ICIP)
- IEEE International Conference on Electronics, Circuits, and Systems (ICECS)
- International Conference on Information Science, Signal Processing and their Applications (ISSPA)
- International Conference on Image Processing, Computer Vision, & Pattern Recognition
- IEEE International Conference on Innovations in Information Technology (IIT)
- IEEE 59thMidwest Symposium on Circuits
- IEEE International Conference on Information and Communication Technology Research
- IEEE AFRICON conference
- BCS International IT Conference.
- International Conference on Communication, Image and Signal Processing (CCISP).
- 6th International Congress on Image and Signal Processing (CISP)
- UAE Graduate Research Conference (UAE GSRC 2017).

Session Chair in Peer-Reviewed Conferences

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- IEEE 59thMidwest Symposium on Circuits (Session: Image processing II)
- IEEE International Conference on Information and Communication Technology Research (Session: Computer network).
- IEEE International Conference on Innovations in Information Technology (IIT) (Session: Big Data Processing for Smart Health Applications)
- IEEE International Conference on Electronics, Circuits, and Systems (session: Bioengineering Circuits & Systems I, 2015).
- IEEE International Conference on Innovations in Information Technology (IIT), , (session: Internet of Things, Oct. 2017).
- IEEE International Conference on Electronics, Circuits, and Systems (ICECS), Batumi, Georgia, 2017. (session: Signal Processing, Dec. 2017).
- IEEE Global Communications Conference GLOBECOM 2018, (session: Wireless Communication, Dec. 2018).

Awards

1. Best research award in the 3rd Forum for Women in Research (QUWA), due to my research in Medical Image analysis using Artificial intelligence techniques, 25 August 2022.
2. Zayed University Provost's Research Fellowship Award, January 2022.
3. ZU President's Award for Employee Excellence 2021 -The Best Innovator, awarded by H. E. Noura Alkaabi, the president of Zayed University.
4. Award for Policy Research Incentive Program 2022, awarded by the Office of Research and the Institute for Social and Economic Research at Zayed University, May 2022.
5. **L'Oréal-UNESCO** For Women in Science Middle East Fellowship 2017.
6. An innovation award at the Emirates Women Award 2016 by H.H Sheik Ahmed Bin Saeed Al-Maktoum president of the Dubai Civil Aviation Authority. Chairman of Dubai Airport & Patron of Dubai Quality Group, 23rd May 2016.
7. Ajman award for innovation, awarded by H.H. Sheikh Ammar Bin Humaid Bin Rashid Al Nuaimi, Crown Prince of Ajman at the Ninth annual government forum, 6th Jan. 2016.
8. **UAE Pioneers award** as the first UAE to create a computer aided diagnosis system for early lung cancer detection based on the sputum color image analysis, awarded by H.H Sheik Mohammed Bin Rashed Al Maktoum, 15th Nov. 2015.
9. Rashid Award for Scientific Outstanding from H.H Sheik Mohammed Bin Rashed Al Maktoum, 16th Nov. 2015 for the PhD award at the Cultural & Scientific Association in Dubai.
10. Emarati Faculty Mobility Award (EFRMA)" 2015 competition.
11. Young Emarati Researchers Prize 2014 awarded from National Research Foundation.
12. Prize (in first position), for the best paper award in the PhD Forum of the 20th IEEE International Conference on Electronics, Circuits, and Systems (ICECS), PhD Forum, Abu Dhabi, UAE, Dec. 8-11, 2013.
13. Prize for the best paper award in the BCS International IT Conference Towards 21st Century Innovations, Abu Dhabi, UAE, 31st March-1st April 2013.
14. Prize for the best PhD excellence Award in leadership day for Khalifa University, 12th February 2012.
15. Prize for the best Master's Thesis, 7th -May, 2008, College of Graduate studies & Research, University of Sharjah.
16. Rashid Award from H.H Sheik Humaid Al-Nuaimi, Ajman, UAE, 2nd -April 2008. (Master Degree).

17. Best Research Award in special student session from International Symposium on Single Processing and its Applications ISSPA 12-15, February- 2007, Sharjah. UAE.
18. Rashid Award for Scientific Outstanding from H.H Sheik Mohammed Bin Rashed Al Maktoum, May 2008 in the Cultural & Scientific Association in Dubai.

Service Activities

- ❒ Member of Jury for the L'Oréal-UNESCO For Women in Science Middle East Fellowship for 2022.
- ❒ Attended training organized by IEEE on Conflict of Interest: Handling Competing Loyalties, 2022.
- ❒ Attended training organized by IEEE on Conflict of Interest: Handling Competing Loyalties, 15th Dec, Integrity in Action: Compliance for IEEE Volunteers, 15th Dec, 2022.
- ❒ Participated in the Annual Radiology meeting in UAE, 2022.
- ❒ Member of the organizing committee for the 14th annual Undergraduate Research Conference on Applied Computing, Nov 23rd and 24th, 2022, Dubai, UAE.
- ❒ Supervised Elite Stream students on their Capstone Project, Emirates Schools Establishment, UAE, 2022.
- ❒ Member of the organizing committee of Graduate Students Research Conference on 24th March 2022,UAE.
- ❒ General Chair for 28th IEEE International Conference on Electronics Circuits and Systems (ICESS 2021), 28th Nov. -1st Dec. 2021, Dubai, UAE.
- ❒ Chair of **IEEE UAE** Section for 2021-2022.
- ❒ Chair of **IEEE UAE** Section for 2019-2020.
- ❒ Vice Chair of **IEEE UAE** Section for 2017-2018.
- ❒ Vice Chair of **IEEE UAE** Women in Engineering (WIE) for 2016-2017.
- ❒ Chair of the Education Committee in British Computer Society 2016-2018.
- ❒ The first Emirati to earn a PhD in Engineering from a University in the UAE, 2014.
- ❒ A member of the steering Committee in the Happiness and Wellbeing Council at Zayed University, 2018- up to Date.
- ❒ A member of the National Program for Happiness and Wellbeing across UAE Government, 2018 -up to date.
- ❒ ADEK's Program and Institutional Review Process: Methodology and Techniques' for E-Learning Held in Zoom : 25th-26th October 2020.
- ❒ Member of CFAIS 2020 Technical committee, which is responsible for ensuring a well-balanced, high-quality conference program, Sept. 2020.
- ❒ Member of the Organizing Committee and the chair of the publication for the twelfth Annual Undergraduate Research Conference on Applied Computing (URC 2020).
- ❒ Attended a training for 'ADEK's Program and Institutional Review Process: Methodology and Techniques, Held in Zoom 25th 26th October 2020.
- ❒ Chair of Women in Signal processing and member of the Organizing Committee for 2020 IEEE International Conference on Image Processing (ICIP) , and the Chair of Women in Signal processing, 25th-28th Oct. 2020.
- ❒ Higher Education Retreat, 23-24 Feb 2018.
- ❒ Training Program in Future Foresight organized by the Prime minister office, March (20-22), April (8-9), May (8-10), 2018.

- ❒ Resilience Leadership Training organized by the Provost office at Zayed University, 27-28 Feb. 2018.
- ❒ A member of the College Council (Technological Innovation College), 2017-Date.
- ❒ A member of the Steering Committee of 10th IEEE GCC Conference & Exhibition, Kuwait, April 2019.
- ❒ A member of the Organizing Committee of the 16th IEEE International Conference on Imaging Systems and Techniques IST, to be held at Abu Dhabi, Nov. 2019.
- ❒ I was a member of the organizing committee in the 8th Gulf Programming Contest (GPC), host by the college of Technological Innovation at Zayed University, 21-22 March 2018.
- ❒ A member of the Organizing Committee of the 19th IEEE International Conference on Web Information Systems Engineering(WISE), at Zayed University, Dubai, 12-15 Nov. 2018.
- ❒ Attending the Science of Happiness online course and got the certificate, Nov. 2018.
- ❒ Attending Bahrain International eGovernment Forum, 7-8 Oct. 2018.
- ❒ Attending IEEE Student day 15th April 2017, which was organized at Khalifa University & I am a member of the organizing committee.
- ❒ A member of the Steering Committee of 24th IEEE International Conference on Electronics, Circuits, and Systems (ICECS), Batumi, Georgia, 2017.
- ❒ A member of the Steering Committee of 20th IEEE International Conference on image Processing (ICIP), to be help in Abu Dhabi 2020, **one of the top conferences ranked A**.
- ❒ Zayed University Senior Project Coordinator, 2017 - Date.
- ❒ Served as a member of the technical program committee and a Judge in Mohamed Bin Zayed International Robotics Challenge, which was held at Abu Dhabi from 16th -18th March 2017 organized by Khalifa University.
- ❒ Attending the workshop of "Windsor Women in Leadership Female Leaders in the Science, Innovation & Research Sectors", organized by British Council at UAE & Windsor Leadership in UK, which was held at Windsor, UK, from 17-19 Jan. 2017
- ❒ Attending a workshop in 3D printing for medical images projects, organized by Dubai Health and Authority, 29 May 2017.
- ❒ Attending the workshop of "Biomedical Engineering and Biorobotics", organized by British Council links program with Biomedical Engineering Department at Khalifa University, which was held at Khalifa university, Abu Dhabi from 3-6 Oct. 2016.
- ❒ Participated as a judge on the Judging Panel for undergraduate students in the student research day, which was held at Abu Dhabi University 9th May 2016.
- ❒ Co-chair in Japan Trip which was organized for Khalifa university students and staff, which was held on 21st -28th Jan. 2016.
- ❒ Participated as a judge for the UAE drones for good award, which was held in Dubai from 4-6 Feb. 2016.
- ❒ Participated to represent my research in lung cancer detection, in the Innovation Exhibition in Dubai Police Force, which was held in Dubai 21st March 2016.
- ❒ Participated as a judge in the Judging Panel for Think Science competition, organized by the Emirates Foundation, which was held in Dubai from 17-19 April 2016.
- ❒ A member of the organizing committee of Emirates Skills 2016, and one of the consultants in Mobile application competition, to be held in Abu Dhabi from 10-11 May 2016.
- ❒ Participated as an expert (judge) in the Mobile competition in Emirates skills, which was held in ADEC Abu Dhabi 28-30 April 2015.

- ❒ Participated as an expert (judge) in the Assistant Design Competition (ATEDUCOM) which was organized by Sharjah City for Humanitarian Services SCHS and Seoul National University Quality of Life Technology QOLT Center and sponsored by LG Electronics, which will be held in August (16-30), 2015, Sharjah UAE.
- ❒ A member of Curriculum committees in higher education in 2015.
- ❒ Attending the workshop of Researcher Connect Workshop: UAE for the National Research Foundation & Communication skills for researchers, which were held in National Research Foundation, Dubai, 16th - 20th Feb. 2014.
- ❒ I served as a member of the technical program committees of many international conferences such as IEEE ICECS 2013, ICTIST 2011 and IBMSGS 2014.
- ❒ Participated in the First National Forum for researchers of the United Arab Emirates, which was held on 23rd March 2013, Dubai, UAE.
- ❒ Participated in the Winter Session 2012 Retreat which was held on 2nd Feb. 2012, in Jebel Ali Golf Resort, Dubai, I was the representative of PhD Female students.
- ❒ Participated in the Research and Graduate Education Workshop, which was held on 9th Feb. 2012.
- ❒ Participated as a member of the organizing committee of the 4th Khalifa University Career Fair Day which was held on 2nd May 2012, in Sharjah Campus.
- ❒ Participated in the Annual Research Day for VSAP - Visual Signal Analysis and Processing Group, which was held on 29th May 2012, at Khalifa University, Sharjah.
- ❒ Participated as member of the organizing committee in "Al-Kindi student workshop on cryptology", Dec. 11th, 2011 in Abu Dhabi, UAE.
- ❒ Participated as a coordinator of the Computer Science Society and organized many students' activities at the University of Sharjah.
- ❒ Participated as a member of the organizing committee in the Astronomy conference, 22-23 March 2009.
- ❒ Participated in the Second Physics Festival from 7-8 April 2009.
- ❒ A member of the Organizing Committee of the 5th Annual Scientific Research Forum at the University of Sharjah, 29th April 2009.

Keynote Speaker:

1. I was invited as a keynote speaker at GITEX Global on Creating the Digital Future Leaders-Empowering Women in Tech in MEA Region, 11th Oct. 2022 held at Dubai, UAE.
2. I was invited as a keynote speaker at International Conference on Cyber Reliance(ICCR), Nov, 2022, Dubai, UAE.
3. I was invited as a keynote speaker at 7th Annual Radiology Meeting on Artificial Intelligence Systems in Medical Image Analysis, 25th to 27th Oct, 2022, UAE.
4. I was invited as a keynote speaker at Huawei IP club, The Golden Dragon Academy on Huawei Accelerated iMaster NCE-campus course covering software-Defined Networking, Switching, Wi-Fi and SD-WAN technologies, Sept. 14th and 15th 2022, Dubai UAE.
5. I was invited as a keynote speaker at The American University in Cairo on Using Artificial Intelligence Techniques in medical image analysis, Aug, 2022, Egypt.

6. Keynote speaker: Cerebrovascular Segmentation from MRA Images, 3rd World Congress on "Neuroscience and Brain Disorders" held during October 28-29, 2021 | Virtual Conference

7. Invited to be a Chair of Women in Signal processing in the 2020 IEEE International Conference on Image Processing (ICIP), 27th Oct. 2020. I was a keynote speaker in this session where I gave a speech.
8. I was invited as a keynote speaker in the event of Sheikh Khalifa General Hospital due to my long research and experience in the medical image field, in SKGH Innovates Event, Feb. 12th 2020, Umm Al Quwain, UAE.
9. I was invited as a keynote speaker in the panelist of Women in Tech Forum organized by Sharjah Research Technology and Innovation Park to talk about digitalization, IoT, artificial intelligence and the new digital economy and exploring the opportunities and challenges the industry faces in ensuring female inclusion, 18th Feb. 2020, Sharjah, UAE.
10. I was invited as a keynote speaker at the AMITY INTERNATIONAL CONFERENCE ONARTIFICIAL INTELLIGENCE – AICAI2019 at Amity University Dubai during Feb. 4-6, 2019. I gave a speech about: CT-Derived Features for Accurate Detection of Lung Cancer. Also, I chair one session in the conference Titled: Application of Artificial Intelligence in Interdisciplinary Research
11. I was invites as a keynote speaker at 19th Conference for Emariti Women which was held in Al-Khaleej Center for Studies, April 6th 2019.
12. I was invited as a keynote speaker at Dubai Academy in Ramadan to give a talk about Artificial Intelligence Techniques in the Medical field. May 16th 2019.
13. I was invited as a keynote speaker at University of Dubai to talk about IEEE UAE section, 1st October 2019.
14. Participate as A keynote in a panel discussion during the Triple Helix Conference, 13 Nov. 2018, Dubai.
15. Participated as a member in the UAE Government Foresight and Scenarios Program organized by the Prime Minister Office, Module 1, 20-22 March 2018.
16. Participated as a member in the UAE Government Foresight and Scenarios Program organized by the Prime Minister Office, Module 2, 8-9 April 2018.
17. Participated as a member in the UAE Government Foresight and Scenarios Program organized by the Prime Minister Office, Module 3, 8-10 May 2018.
18. I am a member of the advisory board for Al-Qurer program for the Youth, where we give scholarship for the students to complete their Bachelor degree and I am representing Zayed University.
19. Invited talk as a keynote in the Cultural & Scientific Association in Dubai, 19 Feb. 2018.
20. Invited talk as a keynote in International Conference on Computer and Application Dubai, 6-7 Sept. 2017.
21. Invited talk as a keynote in 25th Scientific Federation Conference on Global conference and Expo on Applied Science, Management and Technology 2017, which was held at Crown Plaza Hotel, Dubai, 6-8 April. 2017.
22. I was a keynote speaker at the annual celebration for the founding of the National Council, which was held on Abu Dhabi 7th March 2016.
23. I was a keynote speaker in Emirati women's conference "Excellence and Innovation in 2016", with my project in Lung Cancer Detection, which was held in Abu Dhabi 8th March 2016.
24. Invited talk as a keynote for the IEEE Women in Engineering summit, which was held in Dubai 4th April 2016, supported by IEEE region 8 Society and UAE section.
25. I was invited as keynote to give a speech about “research in UAE” in the student research Colloquium on Manipal University, Dubai on 19th May 2016.

26. Invited talk as a keynote in UAE Women's Day to talk about the innovation in my life organized by Ministry of Health and Prevention, Dubai, which was held on 25th August 2016.
27. Invited talk as a keynote in UAE Women's Day, "From the platform of innovation", organized by Women's Union Association, Sharjah, which was held on 28th August 2016.
28. Invited talk as a keynote in Women in Engineering (WIE) Leadership Summit, which was held at American University in Dubai, 13th Oct. 2016.
29. Invited talk as a keynote in UAE Cancer Congress in Cancer imaging session, which was held at Intercontinental Hotel Festival City, Dubai 20-22 Oct. 2016.
30. Invited talk as a keynote in BCS ICT conference, which was held at Anatara Hotel, Abu Dhabi 30th Oct. 2016.
31. Invited talk as a keynote in Nanotech Dubai 2016 conference, which was held at JW Marriott Hotel, Dubai, 5-7 Dec. 2016.
32. Invited talk as a keynote for the N2Women meeting at WiMob 2015 under the title of "Successful Research Career Transitions", which was held in Abu Dhabi 19th Oct. 2015, supported by IEEE Communications Society, Microsoft Research, HP Labs, Google and IEEE Computer Society (CS) Technical Committee on Computer Communications (TCCC).
33. Invited to organize and gave a workshop in the photoshop for the University of Sharjah Faculty & staff in the information Technology Year 2005.

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