

Curriculum Vitae



Personal Data

Name:	Hanaa Salem Mohamed Salem Marei
Academic Position:	Assistant Professor
Administrative Position:	Support Academic and Guidance Unit General Manager – Faculty of Engineering Director of the Quality Assurance Unit - Faculty of Artificial Intelligence
Faculty:	Faculty of Engineering
Department:	Electronics and Communications Engineering
Major Specialty:	Computer Sciences
Minor Specialty:	Artificial Intelligence – Image Processing
Current Position:	Assistant Professor
Office address:	Delta University for Science and Technology – Faculty of Engineering
Work phone:	+20-50-2770140 (Ext. 209)
Edu-Mail:	Hana.salem@deltauniv.edu.eg Hana_future@hotmail.com
Mobile:	01061745455 - 01226176181

Education

B.SC.	
Graduation Year:	May 2000
University:	Mansoura University - Faculty of Engineering
Specialization:	Communication Engineering
Graduation Grade:	Good
Master Degree	
Graduation Year:	June 2010
University:	Mansoura University
Specialization:	Master's Degree in Computer Engineering
Title:	Real Time Facial Expression Recognition System

PHD Degree	
Graduation Year:	January 2017
University:	Mounofia University - Faculty of Electronic Engineering
Specialization:	Computer Science and Engineering – Artificial Intelligent and Image Processing
Title:	Multi-Agent based Intelligent Decision Support System for Medical Database

Languages

1- Arabic

2- English

Academic position

Teaching Assistant

Organization	Country	From	To
Delta Higher Institute for Computers	Egypt - Mansoura	6/11/2000	9/2007
Delta Higher Institute of Engineering and Technology	Egypt - Mansoura	9/2007	9/2008
Delta University for Science and Technology	Egypt - Gamasa	2008	2010

Assistant Lecture

Organization	Country	From	To
Delta University for Science and Technology	Egypt - Gamasa	7/2010	2016

Assistant Professor

Organization	Country	From	To
Delta University for Science and Technology	Egypt - Gamasa	1/2017	Now

Memberships & Awards

Organization Name	Membership / Award
1. Member of the Egyptian Engineers' Syndicate	Membership
2. The Distinguished Performance Award in Advancement from Delta University 5/4/2018.	Award
3. Award for supervising the project that won the third place in the International Conference on Electronics, Communications, and Computing at the Japanese University in Alexandria JAC-ECC 2018 in the field of Electronic and Embedded System Track - Project "Automatic Filling System Based on PLC and SCADA Control System the next generation".	Award
4. Award for project supervision that won first place in the International Conference on Electronics, Communications, and Computing at the Japanese University in Alexandria JAC-ECC 2019 in the field of Electronic and Embedded System Track - Project "Bringing 3D Printers to the next generation"	Award

Committees

Committee	Year
Head of the Reception and Public Relation committee, 8th International Conference on Information, Delta Higher Institute for Computers Technology, Egypt.	4-6 October 2008
Member of the Registration Committee, 10th International Conference on Information, Delta University for Science and Technology, Egypt.	4-6 December 2010
Member of the Registration Committee, 14th International Conference on Information, Delta University for Science and Technology, Egypt.	7-9 November 2015
Head of the Reception and Public Relation Committee, 1,2,3,4th Engineering Fair for Construction, Training and Employment, Delta University for Science and Technology, Egypt.	2012-2015

Head of the Reception and Public Relation committee, 6th Engineering Fair for Construction, Training and Employment, Delta University for Science and Technology, Egypt.	2016
Head of Support and Academic Guidance Unit (SAGU), Faculty of Engineering, Delta University.	2014-2022
Member of the Executive Board of the Quality Assurance Unit.	2017-2021
Member of the Committee for Community Participation and Environmental Development, Faculty of Engineering.	2017-2019
Member of Faculty Council, Faculty of Engineering.	2014-2022
Chair of the Organizing Committee of "The Engineering Forum for Training and Employment Annual" at Delta University of Science and Technology, Egypt.	18-19 February 2018
Member of the Executive Board of the Quality Assurance Unit, Faculty of Engineering, Delta University of Science and Technology, Egypt.	2014-2021
Member of the Committee of Community Service and Environmental Development, Faculty of Engineering, Delta University of Science and Technology, Egypt.	2017-2020
Member of Education and Students Affairs Committee, Faculty of Engineering, Delta University of Science and Technology, Egypt.	2017-2022
Member of the new Artificial Intelligence in Cancer Journal Editorial Board	2021-04-01 - 2024-12-31
Member of Faculty Council, Faculty of Artificial Intelligence.	2021/2022
Director of the Quality Assurance Unit - Faculty of Artificial Intelligence	2021/2022
Member of the Board of Directors of the Quality Assurance Center at the university	2021/2022
Member of the self-study committee for institutional accreditation at the university	2022/2021

Publications

Title
1. Hanaa Salem , Ahmed Saleh, and Aida Osman, "Real-Time Facial Expression Recognition Based on Fusion Features for E-Learning Applications". Mansoura Fifth International Engineering Conference, Sharm El-Shiekh, Egypt, November 2009 .
2. Hanaa Salem , Ahmed Saleh, and Aida Osman, "Real-Time Facial Expression Recognition Based on Combining PCA and K-means clustering". Mansoura Fifth International Engineering Conference, Sharm El-Shiekh, Egypt, November 2009 .
3. Hanaa Salem , Gamal Attiya, and Nawal El-Fishawy, "A Survey of Multi-Agent based Intelligent Decision Support System for Medical Classification Problems", International Journal of Computer Applications (IJCA), Vol. 123, No.10, Pages 20-25, August 2015 . DOI: 10.5120/ijca2015905529
4. Hanaa Salem , Gamal Attiya, and Nawal El-Fishawy, "Gene Expression Profiles based Human Cancer Diseases Classification", Proceedings of the 11th International Computer Engineering Conference (ICENCO'2015), Faculty of Engineering, Cairo University, Egypt, IEEE, Pages 181-187, December 29-30, 2015 . DOI: 10.1109/ICENCO.2015.7416345
5. Hanaa Salem , Gamal Attiya, and Nawal El-Fishawy, "Intelligent Decision Support System for Breast Cancer Diagnosis by Gene Expression Profiles", 33rd National Radio Science Conference (NRSC 2016), Aswan, Egypt, IEEE, Pages 421- 430, Feb 22-25, 2016 . DOI: 10.1109/NRSC.2016.7450870
6. Hanaa Salem , Gamal Attiya, and Nawal El-Fishawy, "New Hybrid Algorithm for Human Cancer Diseases Classification", Minufiya Journal of Electronic Engineering Research, Vol. 25, No. 2, Pages 267-282, 2016 . DOI: 10.21608/MJEER.2016.64116
7. Hanaa Salem , Gamal Attiya, and Nawal El-Fishawy, "Early Diagnosis of Breast Cancer by Gene Expression Profiles", Springer, Pattern Analysis and Application, (ISSN: 1433-755X) (Impact Factor = 1.527 JCR-SCI 2019), Vol. 19, No. 3, Pages 1-12, 2016 .
8. Hanaa Salem , Gamal Attiya, and Nawal El-Fishawy, "Classification of Human Cancer Diseases by Gene Expression Profiles", Elsevier, Applied Soft Computing Journal (ISSN: 1568-4946) (Impact Factor = 2.857 JCR-SCI 2015), Vol. 50, Pages 124–134, 2017 . https://doi.org/10.1016/j.asoc.2016.11.026
9. Hanaa Salem , Ibrahim Abo-El-azm, Amira Muhammed, Bakr Abo Bakr Mohamed, Mai Mahmoud, and Mayada Mohamed, " Automatic Filling System Based on PLC and SCADA System", the scientific conference of students "Future Scientists", Damietta University and Delta University for Science and Technology, 15-16 April 2018 , Egypt.
10. Hanaa Salem , Seif-Eldin Ahmed Shorbila, Mohamed Abdelwahed, Abdelrahman Hazem, Alaa Gaber, Eman Gamal, Lamia Ashraf, " Smart Meter that Monitor Power Signal Components to Network (IOT Approach)", Scientific conference of students "Future

<p>Scientists", Damietta University and Delta University for Science and Technology, 15-16 April 2018, Egypt.</p>
<p>11. Kh. Shazly, M. Eid, and H. Salem, "An Efficient Hybrid Approach for Twitter Sentiment Analysis based on Bidirectional Recurrent Neural Networks", International Journal of Computer Applications (0975 – 8887), Volume 175 – No.17, September 2020.</p>
<p>12. M. Atlam, H. Torkey, H. Salem, N. El-Fishawy, "A new Feature Selection Method for Enhancing Cancer Diagnosis based on DNA Microarray", in Proc. of 37th NATIONAL RADIO SCIENCE CONFERENCE (NRSC), 2020. DOI: 10.1109/NRSC49500.2020.9235095</p>
<p>13. H. Torkey, M. Atlam, N. El-Fishawy, H. Salem, "Machine Learning Model for Cancer Diagnosis based on RNAseq Microarray", Menoufia J. of Electronic Engineering Research (MJEER), Vol. 30, No. 1, Jan. 2021. DOI: 10.21608/MJEER.2020.20533.1000</p>
<p>14. O. M. Elzeki, M. Abd Elfattah, H. Salem, A. Ella Hassanien and M. Shams, " A novel Perceptual Two Layer Image Fusion using Deep Learning for Imbalanced COVID-19 Dataset", PeerJ Computer Science 7:e364 https://doi.org/10.7717/peerj-cs.364 PeerJ Computer Science; 2021. Article WHO COVID ID: covidwho-1079813 https://search.bvsalud.org/global-literature-on-novel-coronavirus-2019-ncov/resource/en/covidwho-1079813</p>
<p>15. Atlam, M., Torkey, H., El-Fishawy, N., & Salem, H. 2021. Coronavirus disease 2019 (COVID-19): survival analysis using deep learning and Cox regression model. Pattern Analysis and Applications, 1-13. DOI: 10.1007/s10044-021-00958-0</p>
<p>16. O. M. Elzeki, Sh. Sarhan, M. Abd Elfattah, H. Salem, and M. Y. Shams, "Biomedical Healthcare System for Orthopedic Patients Based on Machine Learning", ARPN Journal of Engineering and Applied Sciences, VOL. 16, NO. 5, Pp. 616-622, MARCH 2021.</p>
<p>17. Torkey H, Atlam M, El-Fishawy N, Salem H. 2021. A novel deep autoencoder-based survival analysis approach for microarray dataset. PeerJ Computer Science 7:e492 https://doi.org/10.7717/peerj-cs.492</p>
<p>18. Shams, M. Y., Elzeki, O. M., Abouelmagd, L. M., Hassanien, A. E., Abd Elfattah, M., & Salem, H. (2021). HANA: A Healthy Artificial Nutrition Analysis model during COVID-19 Pandemic. Computers in Biology and Medicine, 104606. https://doi.org/10.1016/j.combiomed.2021.104606</p>
<p>19. Salem, H., Attiya, G., & El-Fishawy, N. (2021). Multi-Agent based Intelligent Decision Support Systems for Cancer CLASSIFICATION. https://doi.org/10.17048/AM.2020.122</p>
<p>20. Hikal, N. A., Shams, M. Y., Salem, H., & Eid, M. M. Detection of black-hole attacks in MANET using adaboost support vector machine. Journal of Intelligent & Fuzzy Systems, Vol. 41, no. 1, pp. 669-682, 2021. DOI: 10.3233/JIFS-202471</p>

21. **Hanaa Salem** and M. S. M. Elksasy, "IoE Applications to Fight Against Pandemics: 3D Printing Aiding in Sustainable Technology", ARPN Journal of Engineering and Applied Sciences, VOL. 16, NO. 23, DECEMBER **2021**.
22. ElAraby, M. E., Elzeki, O. M., Shams, M. Y., Mahmoud, A., & **Salem, H. (2022)**. A novel Gray-Scale spatial exploitation learning Net for COVID-19 by crawling Internet resources. Biomedical Signal Processing and Control, 73, 103441.
DOI: [10.1016/j.bspc.2021.103441](https://doi.org/10.1016/j.bspc.2021.103441)
23. **Salem, H.**, Kabeel, A. E., El-Said, E. M., & Elzeki, O. M. (**2022**). Predictive modelling for solar power-driven hybrid desalination system using artificial neural network regression with Adam optimization. Desalination, 522, 115411.
<https://doi.org/10.1016/j.desal.2021.115411>
24. **Salem, H.**, Shams, M. Y., Elzeki, O. M., Abd Elfattah, M., F Al-Amri, J., & Elnazer, S. (**2022**). Fine-Tuning Fuzzy KNN Classifier Based on Uncertainty Membership for the Medical Diagnosis of Diabetes. Applied Sciences, 12(3), 950.
<https://doi.org/10.3390/app12030950>
25. **Salem, H.**, Negm, K. R., Shams, M. Y., & Elzeki, O. M. (**2022**). Recognition of Ocular Disease Based Optimized VGG-Net Models. In Medical Informatics and Bioimaging Using Artificial Intelligence (pp. 93-111). Springer, Cham.
DOI: https://doi.org/10.1007/978-3-030-91103-4_6
26. El-Hasnony, I.M.; Elzeki, O.M.; Alshehri, A.; **Salem, H.** Multi-Label Active Learning-Based Machine Learning Model for Heart Disease Prediction. Sensors **2022**, 22, 1184.
<https://doi.org/10.3390/s22031184>
27. Salem, H., El-Hasnony, I. M., Kabeel, A. E., El-Said, E. M., & Elzeki, O. M. (**2022**). Deep Learning model and Classification Explainability of Renewable energy-driven Membrane Desalination System using Evaporative Cooler. Alexandria Engineering Journal, 61(12), 10007-10024.
<https://doi.org/10.1016/j.aej.2022.03.050>

Scientific Activities

<ul style="list-style-type: none"> • Microcontroller programming
<ul style="list-style-type: none"> • Professional of computer affairs.
<ul style="list-style-type: none"> • Microsoft Windows 2000, 2003 server Professional.
<ul style="list-style-type: none"> • Internet Essentials.
<ul style="list-style-type: none"> • Hardware fundamentals.
<ul style="list-style-type: none"> • Basic of Networking.
<ul style="list-style-type: none"> • Personal productivity.
<ul style="list-style-type: none"> • FORTRAN and Basic Programming Language.
<ul style="list-style-type: none"> • C & C++ Programming languish.
<ul style="list-style-type: none"> • Matlab
<ul style="list-style-type: none"> • PC. Service
<ul style="list-style-type: none"> • ICDL
<ul style="list-style-type: none"> • VHDL
<ul style="list-style-type: none"> • Dr. Hanaa salem took part in the Erasmus+ staff exchange program according to the following details: Home Institution (with Erasmus cod if appl.): Delta University for Science and Technology (Egypt). Host Institution (with Erasmus cod if appl.): Esterhazy karoly University (HU EGER02) Period of exchange: 2 November to 6 November 2016
<ul style="list-style-type: none"> • Dr. Hanaa salem took part in the Erasmus+ staff exchange program according to the following details: Home Institution (with Erasmus cod if appl.): Delta University for Science and Technology (Egypt). Host Institution (with Erasmus cod if appl.): Esterhazy karoly University (HU EGER02) Period of exchange: 10 February to 17 February 2017
<ul style="list-style-type: none"> • Dr. Hanaa salem Mohamed has attended HP LIFE e-learning Training of Trainer course and has been certified as HP-LIFE e-learning Trainer 8/11/2021

Experience

- **(22 Years' Experience)** Delta Academy for Science and Technology 8 years – Delta University

Teaching Courses

Assistant Lecturer

1. Introduction to Information and Communication Technology
2. Engineering Mathematics (1)
3. Engineering Mathematics (2)
4. Engineering Mathematics (3)
5. Engineering Mathematics (4)
6. Computer programming 1
7. Computer Programming 2
8. Signal Processing
9. Analytical Techniques for Electronic Engineering
10. Digital and Logic Circuits
11. Automatic Control Systems

Assistant Professor

1. **COM 303E: CAD for Digital Circuits** – Communications and Computer Engineering Department - Faculty of Engineering, Delta University of Science and Technology, Egypt.
2. **CCE 209: Computer Networks** – Communications and Computer Engineering Department - Faculty of Engineering, Delta University of Science and Technology, Egypt.
3. **CCE 204: Computer Architecture (1)** – Communications and Computer Engineering Department - Faculty of Engineering, Delta University of Science and Technology, Egypt.
4. **CCE 108: Operating System Design** – Communications and Computer Engineering Department - Faculty of Engineering, Delta University of Science and Technology, Egypt.
5. **COM 306E: Network Security** – Communications and Computer Engineering Department - Faculty of Engineering, Delta University of Science and Technology, Egypt.
6. **COM 301E: Information Theory and Coding** – Communications and Computer Engineering Department - Faculty of Engineering, Delta University of Science and Technology, Egypt.
7. **CCE 208: Probability and Random Process** - Communications and Computer Engineering Department - Faculty of Engineering, Delta University of Science and Technology, Egypt.
8. **CIV 214: Probability and Statistics for Engineers** - Civil Engineering Department - Faculty of Engineering, Delta University of Science and Technology, Egypt.
9. **COM 410: Graduation Project (1)** - Communications and Computer Engineering Department - Faculty of Engineering, Delta University of Science and Technology, Egypt.
10. **COM 420: Graduation Project (2)** - Communications and Computer Engineering Department - Faculty of Engineering, Delta University of Science and Technology, Egypt.

Conferences & Workshop

1. Agria Media 2008 Information and Education Technology Conference ICI 27-28 of October 2008.
2. Agria Media 2014 Information and Education Technology Conference ICI 3-7 of October 2014.
3. "Session of Institutional Self- Evaluation for Higher Education ", 15-17 February 2016, NAQAAE, Delta University, EGYPT.
4. "Session of Strategic Planning Higher Education ", 2-5 March 2016, NAQAAE, Delta University, EGYPT.
5. A training course "Education Programs and Courses Specification and Evaluation of Learning Outcomes for H.E. Institutes", 21-23 August 2016, NAQAAE, Delta University, EGYPT.
6. Erasmus+ Staff Exchange Program – Esterhazy – Karoly University (HU EGER02) – 2-6 November 2016.
7. Erasmus+ Staff Exchange Program – Esterhazy – Karoly University (HU EGER02) – 17-24 February 2017.
8. National Conference for Scientific Research "Launching the energies of Egyptians", 24-25 March 2018, the International Conference Center, Cairo, Egypt.
9. Scientific Conference of students at the level of Egyptian universities and institutes "Future Scientists", Damietta University and Delta University of Science and Technology, 16-17 April 2018, Damietta, Egypt.
10. "A workshop of NARS Engineering: Application Tips ", 21 April 2018, NAQAAE, EGYPT.
11. Fifth International Conference "Ensuring the quality of education: reflections ... Horizons ... aspirations", 22-23 April 2018, NAQAAE, Egypt.
12. "Japan – Africa Conference on Electronics, Communications and Computations (JAC-ECC 2018)", 18 th December 2018, EGYPT.
13. "Japan – Africa Conference on Electronics, Communications and Computations (JAC-ECC 2019)", 15-16 December 2019, EGYPT.
14. "The 2021 International Telecommunication Conference- Air Defense College- Alex- Egypt", 14-16 July 2021, EGYPT.
15. Workshop "Programmatic Accreditation: Concepts and Basics" from 11 to 11 June 2019. The National Authority for Quality Assurance and Accreditation of Education.
16. A training course in "Local and International Competitive Research Projects" from 4 to 5 August 2019. Faculty Development Center FLDC - Delta University of Science and Technology.
17. "General Requirements for the Competence of Testing & Calibration Laboratories (ISO/IEC 17025:2017)". International Agency for quality & Technical Development (SWOT), 17 December 2019.

- | |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 18. A training course in "Teaching and Learning Strategies" from 19 to 20 August 2020. Faculty Development Center FLDC - Delta University for Science and Technology. |
| 19. A training course in "Quality of Performance in the Educational Process" from 26 to 27 October 2020. Faculty Development Center FLDC - Delta University of Science and Technology. |
| 20. A training course in "Scientific Research Applications and Engines" from 23 to 24 November 2020. Faculty Development Center FLDC - Delta University for Science and Technology. |
| 21. Training course in "University Accreditation: Self-evaluation" from 8 to 10 August 2021. The National Authority for Quality Assurance of Education and Accreditation. |

External Links

- <https://scholar.google.com/citations?user=26iVLQ4AAAAJ&hl=en>
[Web of Science ResearcherID AAF-3631-2021](https://scholar.google.com/citations?user=26iVLQ4AAAAJ&hl=en)
<https://orcid.org/0000-0002-8714-567x>
<https://www.researchgate.net/profile/Hanaa-Salem-3>

References

- | |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Prof. Dr. Yehia El Mashad, President of Delta University of Science and Technology.
https://www.facebook.com/yehia.elmashad.3 |
| 2. Prof. Dr. Nawal El-Fishawy, Faculty of Engineering Shoubra, Menoufia University, Menouf, Egypt.
https://www.facebook.com/nawal.elfishawy |
| 3. Prof. Dr. Sayed Abo-Elsood Sayed Ward, Faculty of Electronic Engineering, Benha University, Egypt.
Edu-Mail: sayed.ward@feng.bu.edu.eg
Alternative Email: drsayedw@yahoo.com
Mobile: 01220588444 |

Dr. Hanaa Salem

26/5/2022