

Dr. Marwa Mansour Ali Hadhoud

Associate Professor

Personal Data:

Nationality | Egyptian
Date of Hire | 16th July 2025
Date Rank Obtained | 2019
Department | Biomedical Engineering
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Education:

Academic Degree	Major	specialty	Place of Issue	Address	Date
Doctorate (PhD)	Biomedical Engineering	Biomedical Engineering	Faculty of Engineering – Helwan University	Cairo, Egypt	2012
Doctorate (PhD)	Biomedical Engineering	Biomedical Engineering	Politecnico Di Torino	Torino, Italy	2012
Masters (M.Sc.)	Biomedical Engineering	Biomedical Engineering	Faculty of Engineering – Helwan University	Cairo, Egypt	2007
Bachelor (B.Sc.)	Biomedical Engineering	Biomedical Engineering	Faculty of Engineering – Helwan University	Cairo, Egypt	2003

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

PhD	Strain Analysis of Cardiovascular Images
Master	ECG Classification Using Artificial Neural Networks

Experiences:

Title of Job	Address of Work	Country	Date	
Associate Professor	College of Engineering, King Faisal University	Saudi Arabia	From	16 / 7 / 2025
			To	current
Head of Biomedical Engineering Department	Faculty of engineering, Helwan University	Egypt	From	October 2023
			To	July 2025
Associate Professor	Faculty of engineering, Helwan University	Egypt	From	2019
			To	July 2025
Assistant Professor	Faculty of engineering, Helwan University	Egypt	From	2012
			To	2019

Research Interests:

1. Medical signal Processing
2. Medical Image Processing
3. Bioinformatics
4. Pattern Recognition

Publications:

#	Name of author(s)	Title of Publication	Publisher and Date of Publication	Link of Publication
1	Abdelgawad, N., Hadhoud, M.M.A., El- Wakad, M.T. , and Reda A,	Assessment of hybrid nanocomposite AFOs for pediatric cerebral palsy: mechanical, spectroscopic, and finite element analysis	Scientific Reports 2025	Click Here
2	S. M. Elmakki, M. M. A. Hadhoud and V. F. Ghoneim	Investigation of Amyotrophic Lateral Sclerosis Using Bioinformatics Tools	42 nd National Radio Science Conference (NRSC) 2025	Click Here
3	Hesham, Mai, Ghada Kareem, and Marwa Hadhoud	Enhanced real-time glaucoma diagnosis: dual deep learning approach	Bulletin of Electrical Engineering and Informatics 2025	Click Here
4	N. Abdelgawad, R. Abdelbaset, M. M. A. Hadhoud and M. T. E. Wakad	Validation of Ankle Foot Orthosis Designs Using Finite Element Method	12 th International Japan- Africa Conference on Electronics, Communications, and Computations (JAC-ECC) 2024	Click Here
5	Ahmed, A.D., Hadhoud, M.M.A., Ghoneim, V.F.	Automatic Detection of Multiple Sclerosis Using Genomic Expression	Springer 2024	Click Here
6	Elden, Rana Hossam, Vidan Fathi Ghonim, Marwa MA Hadhoud, and Walid Al-Atabany	Transcriptomic marker screening for evaluating the mortality rate of pediatric sepsis based on Henry gas solubility optimization	Alexandria Engineering Journal 2023	Click Here
7	Elden, R.H., Ghoneim, V.F., Hadhoud, M.M.A., Al-Atabany, W.	Computational Microarray Gene Selection Model Using Metaheuristic Optimization Algorithm for Imbalanced Microarrays Based on Bagging and Boosting Techniques	Springer 2022	Click Here
8	R. H. Elden, V. F. Ghoneim, M. M. A. Hadhoud and W. Al- Atabany	Harris Hawks Feature Optimization for Identifying the Informative Pathogens of Pediatric Sepsis	4 th Novel Intelligent and Leading Emerging Sciences Conference (NILES) 2022	Click Here

9	R. H. Elden, V. F. Ghoneim, M. M. A. Hadhoud and W. Al-Atabany	Studying Genes Related to the Survival Rate of Pediatric Septic Shock	3 rd Novel Intelligent and Leading Emerging Sciences Conference (NILES) 2021	Click Here
10	Marwa M. A. Hadhoud	Automatic Segmentation of the Left Ventricle Cavity from Cine MRI Images	Cairo International Biomedical Engineering Conference (CIBEC) 2018	Click Here
11	Kasem, Maryam A. G., Marwa M. A. Hadhoud, Mohamed A. Eldosoky	Automatic diagnosis of autoimmune diseases by classifying HEp-2 cells	13 th International Computer Engineering Conference (ICENCO) 2017	Click Here
12	Saleh, Rihana H., Hitham M. Abo Bakr, Ibrahim Zidan, and Marwa M. A. Hadhoud	An innovate automatic heart localization method in cardiac Cine MRI using optical flow	8 th Cairo International Biomedical Engineering Conference (CIBEC) 2017	Click Here
13	Mohamed, Basma A., Nancy M. Salem, Marwa M. Hadhoud, and Ahmed F. Seddik	Automatic Segmentation and Classification of Masses from Digital Mammograms	Advances in Image and Video Processing 2016	Click Here
14	Eissa, M. M., Mahmoud M. Elmesalawy, and Marwa MA Hadhoud	Wide area monitoring system based on the third generation universal mobile telecommunication system (UMTS) for event identification	International Journal of Electrical Power & Energy Systems 2015	Click Here
15	De Luca, Elisa, Gian Maria Zaccaria, Marwa Hadhoud, Giovanna Rizzo, Raffaele Ponzini, Umberto Morbiducci, and Massimo Mattia Santoro	ZebraBeat: a flexible platform for the analysis of the cardiac rate in zebrafish embryos	Scientific Reports 2014	Click Here
16	Eissa, Moustafa M., Wael M. Fayek, Marwa MA Hadhoud, Mahmoud M. Elmesalawy, and Ahmed A. Shetaya	Frequency/voltage wide-area measurements over transmission control protocol/internet protocol communication network for generator trip identification concerning missed data	IET Generation, Transmission & Distribution 2014	Click Here
17	M. Hadhoud, M. Eladawy, A. Farag, F. Montevecchi, U. Morbiducci	Left Ventricle Segmentation in Cardiac MRI Images	American Journal of Biomedical Engineering 2012	Click Here
18	M. Hadhoud, M. Eladawy, A. Farag	Left Ventricle Cavity Segmentation from Cardiac Cine MRI	International Journal of Computer Science Issues (IJCSI) 2012	

1 9	M. Hadhoud, M. Eladawy, A. Farag	Region of Interest Localization of Cardiac Structure from Cine MRI Images	9 th International Conference on Information Technology (ITNG) 2012	Click Here
2 0	M. Hadhoud, M. Eladawy, A. Farag	Automatic Global Localization of The Heart From Cine MRI images	International Symposium on IT in Medicine & Education (ITME) 2011	Click Here
2 1	Marwa M. A. Hadhoud, Mohamed I. Eladawy, and Ahmed Farag	Computer Aided Diagnosis of Cardiac Arrhythmias	International Conference on Computer Engineering & Systems (ICCES) 2006	Click Here

Language Proficiency:

1. Arabic , Native
2. English , Advanced