



Omneya Amr Attallah

Personal Information

- **Marital status:** married
- **Date of Birth :** 1 / 3/1983
- **Address:** 9 Abd El-hamid El-Dib st., 10th floor, apartment D, Tharwat, Alexandria, Egypt
- **Phone:** 002-0100-9707003
- **E-mail:** o.attallah@aast.edu, omneyaattallah@gmail.com,
- **Linkedin :** [Omneya Attallah](https://www.linkedin.com/in/omneya-attallah-8729ab129): <https://www.linkedin.com/in/omneya-attallah-8729ab129>
- **GoogleScholar :** [Omneya Attallah](https://scholar.google.com/citations?hl=en&user=QpDDpNEAAAAJ&view_op=list_works&sortby=pubdate) : https://scholar.google.com/citations?hl=en&user=QpDDpNEAAAAJ&view_op=list_works&sortby=pubdate
- **Researchgate :** <https://www.researchgate.net/profile/Omneya-Attallah>

Research Interests

Research interests are; signal processing, image processing, biomedical signal /image processing, computer vision, biomedical engineering, machine/deep learning, artificial intelligence, data mining, feature selection, wearable sensors, smart agriculture

Education

- **2011 – 2015** Aston University, Birmingham, United Kingdom
PhD student in Electronics Department, College of Engineering and Applied Science, Aston University.
- **2006 - 2009** Arab Academy for Science, Technology & Maritime Transport, Alex, Egypt- **M.Sc. in Electronics and Communications Engineering**
- **2001 – 2006** Arab Academy for Science, Technology & Maritime Transport, Alex, Egypt- **B.Sc. (Hons.) in Electronics and Communications Engineering**

Work experience

- **2006 –** Arab Academy for Science, Technology & Maritime Transport, Alex, Egypt - Teaching Assistant at school of Engineering
- **2011-2016** PhD student at Aston University, Birmingham, United Kingdom
- **2016 – march 2020** Arab Academy for Science, Technology & Maritime Transport, Alexandria, Egypt-Assistant Professor and Post-doctoral fellow in Wireless Networks and Communications Group (WiNCG)
- **March 2020-now** Arab Academy for Science, Technology & Maritime Transport, Alexandria, Egypt- Associate Professor at the Electronics and Communication Engineering Department.

Professional and Volunteering Activities

- Researcher in STDF project titled **(Childhood Epilepsy: Overcoming Challenges in Diagnosis and Treatment)**".
- PI of an ITIDA Project entitled **" A Stress Management and Assessment System Using Virtual Reality, Wearables, and Artificial Intelligence"**.
- Mentor at **"Nueromactch Academy"**.
- Reviewer at several reputable high-impacted journals.published journals published by IEEE, Springer, Nature, Elsevier, MDPI, and Wiley publishers
- Editor at International Journal of Imaging Systems and Technology.
- Guest editor at Frontiers in Medicine, Frontiers in Human Neuroscience, Frontiers in Cardiovascular Medicine, and Applied Sciences Journals.
- Invited Speaker at CAICC 23 conference and Breast cancer awareness workshop organized by I by IEEE Alexandria student branch and Baheyia Foundation
- Technical committee member of several international conferences such as ITC-2023, ICCTA 2022, and ICCSPA 2022.
- Mentor at the IEEE YESIST12 Competition
- IEEE Senior Member
- IEEE Women in Engineering Society member
- ACM member
- ACM's Women in Computing Society member

Selected Awards

- Developed the curriculum of the new undergraduate biomedical engineering program at the College of Engineering and Technology at the Arab Academy for Science, technology, and maritime transport.
- Featured in 2023 Stanford University's Top 2% of the World Scientists
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- Bioinformatics Sciences Award for my role and contributions in different sectors of biomedical informatics and artificial intelligence in biological sciences
- Best Oral Presentation of the 12th International Conference on Information Communication and Management (ICICM 2022) held in London, the UK during 13-15 July 2022.
- Association for Women in Computing Travel Award to attend IEEE BIBM 2022 Conference in Las Vegas in 2022.
- Student Travel Grant from the IEEE Signal Processing Society to attend the 2015 IEEE Global Conference on Signal and Information Processing (GlobalSIP)
- Several Research Awards for publishing high-quality journal publications from the Arab Academy for Science and Technology
- Postgraduate Distinction Scholarship offered by the Arab Academy for Science and Technology to complete my M.Sc degree in Electronics and Communication Engineering.
- Undergraduate Distinction Scholarship offered by the Arab Academy for Science and Technology to complete my B.Sc degree in Electronics and Communication Engineering

Selected Publications

- Omneya Attallah, and Dina A. Ragab. "Auto-MyIn: Automatic diagnosis of myocardial infarction via multiple GLCMs, CNNs, and SVMs." *Biomedical Signal Processing and Control* 80 (2023): 104273..
- Omneya Attallah "An Effective Mental Stress State Detection and Evaluation System using Minimum Number of Frontal Brain Electrodes" *Diagnostics* 2020, 10(5), 292
- Omneya Attallah, Rania A. Ibrahim, and Nahla E. Zakzouk. "Fault diagnosis for induction generator-based wind turbine using ensemble deep learning techniques." *Energy Reports* 8 (2022): 12787-12798..
- Ragab, Dina A., Omneya Attallah, Maha Sharkas, Jinchang Ren, and Stephen Marshall. "A Framework for Breast Cancer Classification using Multi-DCNNs." *Computers in Biology and Medicine* (2021): 104245.
- Omneya Attallah "MB-AI-His: Histopathological Diagnosis of Pediatric Medulloblastoma and Its Subtypes via AI " *Diagnostics* 2021, 11(2), 359.
- Omneya Attallah & Maha Sharkas " GASTRO-CADx: a three stages framework for diagnosing gastrointestinal diseases" *PeerJ Computer Science*, 2021, 7:e423.
- Omneya Attallah (2021) CoMB-Deep: Composite Deep Learning-Based Pipeline for Classifying Childhood Medulloblastoma and Its Classes. *Frontiers in Neuroinformatics*. 15:663592. 1-19.
- Omneya Attallah " DIAROP: Automated Deep Learning-Based Diagnostic Tool for Retinopathy of Prematurity" *Diagnostics* 2021, 11(11), 2034,1-19.
- Omneya Attallah "ECG-BiCoNet: An ECG-based pipeline for COVID-19 diagnosis using Bi-Layers of deep features integration, *Computers in Biology and Medicine*, 2022, 105210.
- Omneya Attallah and Ahmed Samir. "A wavelet-based deep learning pipeline for efficient COVID-19 diagnosis via CT slices." *Applied Soft Computing* 128 (2022): 109401.
- Omneya Attallah and Iman Morsi. "An electronic nose for identifying multiple combustible/harmful gases and their concentration levels via artificial intelligence." *Measurement* 199 (2022): 111458.
- Attallah, Omneya. "An Intelligent ECG-Based Tool for Diagnosing COVID-19 via Ensemble Deep Learning Techniques." *Biosensors* 12, no. 5 (2022): 299.
- Attallah, Omneya. "MonDiaL-CAD: Monkeypox diagnosis via selected hybrid CNNs unified with feature selection and ensemble learning." *Digital Health* 9 (2023): 20552076231180054.
- Omneya Attallah. " CerCan-Net: Cervical cancer classification model via multi-layer feature ensembles of lightweight CNNs and transfer learning." *Expert Systems with Applications* 229, Part B (2023): 120624.
- Omneya Attallah. "Multitask Deep Learning-Based Pipeline for Gas Leakage Detection via E-Nose and Thermal Imaging Multimodal Fusion." *Chemosensors* 11, no. 7 (2023): 364.
- Omneya Attallah. "RiPa-Net: Recognition of Rice Paddy Diseases with Duo-Layers of CNNs Fostered by Feature Transformation and Selection." *Biomimetics* 8, no. 5 (2023): 417.