

# Hala Mohamed Samir Elhadidy

(+20) 66-3668022 – (+20) 1117571408

halaelhadidy@hotmail.com, [h.elhadidy@eng.psu.edu.eg](mailto:h.elhadidy@eng.psu.edu.eg)

## Experience:

- **2015 – now:** Assistant Professor at the Electrical Engineering Department, Computer and Control Section in the Faculty of Engineering, Port Said University, Egypt.
  - Teach undergraduate courses: Logic Design – Automatic control.
  - Coordinate the undergraduate students' projects and training.
  - Teach Postgraduate courses: Parallel Processing – Control Systems.
  - Supervise PhD students: "Online Mobile Computation Offloading Based on Deep Reinforcement learning in Edge Computing", "information processing on remote sensing of utilities systems and visualization of emergency modes of operation, including geo-referencing in real time"
  - A member of the Institutional Excellence Team.
- **2023 –now:** Assistant Professor (part-time) at the Communication Department, High Institute of Engineering & Technology at New Damietta - Egypt.
  - Teach undergraduate students: Advanced Programming with Java, Computer Networks – Microprocessors.
  - Supervise the project of undergraduate students.
- **2023 – 2024:** Assistant Professor (part-time) at the Communication Department, High Institute of Engineering & Technology at Alaresh - Egypt.
  - Teach undergraduate students: Communication networks – Logic circuits – Microprocessors – Computer architectures –Data structures.
- **2019 – 2022:** Assistant Professor at the Computer Engineering and Networks Department, Computer and Information Sciences College, Jouf University, Kingdom of Saudi Arabia.
  - Taught and coordinated undergraduate students' Courses: Logic Design, Advanced Logic Design, Programming with Java, Automatic Control Systems, Microprocessors, and Signal Processing.

- Managed the Quality and Accreditation unit - Girl Section.
- Presented a workshop to students titled "Introduction to Microprocessor Systems and Assembly Language".
- Participated in a workshop to the faculty staff titled "Smart city".
- Judged research and participated in the 2020 International Conference on Computer and Information Science organized by the College of Computer and Information Science, Jouf University, on Oct. 13-15, 2020.
- **2016 –2019:** Manager of the portal of Port Said University, which is a project under Information and Communication Technology Projects (ICTP) of Port Said University.
  - Managed the university and its faculties' websites.
  - Developed the academic emails for the faculty staff, and students.
  - Posted news of the university in its website.
  - Supervised and instructed a workshop titled:" How to create an account on Google Scholar and Research Gate; and how to create and manage the academic website," which was presented to all the faculty members of the university
- **2016:** Assistant professor (part-time) in the Computer Science Department, Faculty of Science, Port Said University, Egypt.
- **2008- 2015:** Teaching assistant in the Faculty of Engineering – Port Said University.
- **2006:** Toronto Community Housing Corporation, Toronto, Ontario, Canada: Database and Web Developer as a volunteer in the community safety unit.

## **Education**

- **2012 - 2015:** The PhD degree in Computer Engineering from the Electrical Engineering Department, Computer Engineering and Control Section, Faculty of Engineering, Port Said University – Egypt, titled: "Joining Time-Driven and Event-Driven Control Systems".
- **2008 - 2011:** The MSc in Computer Engineering from the Electrical Engineering Department, Computer Engineering and Control Section, Faculty of

Engineering, Port Said University – Egypt, titled: "Routing Algorithms of the Wireless Sensor Networks".

- **1998:** BSc in Computer Engineering from Faculty of Engineering, Suez Canal University - Egypt (2<sup>nd</sup> rank of the faculty, excellent with honors).

### **Training :**

- **December 2024:** Attended a workshop “AI Boot Camp” from Ministry of higher education and Microsoft Company. How to apply AI technology and tools provided by Microsoft to the academic curriculums.
- **2020 - 2021:** Attended Courses (2 credit hours each) from Jouf university, KSA
  - "Formative assessment”, 6 – 1 -2021 on-line.
  - “Preparation of course file”, 5 -1-2021 on-line.
  - “Teaching and learning strategies” 16- 7- 2020 in the center.
  - “ Quality Management and Institutional Excellence” 15 – 7 -2020 in the center.
- **April 2017:** Took course "The University Management" from Port Said University.
- **April 2016, Nov. 2017:** Attended workshops about **the universities' ranking** which is organized by Ministry of High Education at Cairo university.
- **March 2013:** Took course: "Self-evaluation for the educational institution" from the General Authority for quality and accreditation - Egypt.
- **2012:** Took Course "Organizing scientific conferences" from Port Said University - Egypt.
- **2011:** Courses "Credit hours system", "Competitive research projects", "Morals and professional ethics" from Port Said University.
- **December 2009:** Course "Preparation of teacher" from Port Said University.
- **October – November 2009:** Course "TOEFL" from the language center of Faculty of Nursing – Suez Canal University in Port Said.
- **2005 - 2006:** Burnhamthorpe Adult Learning Centre, Toronto, Ontario, Canada: Co-operative education work experience + TOEFL.

### **Publications:**

- [1] Hala Elhadidy, Salma Sherif, Mirna Elbolaky, Mennatullah Azab, Amr Elsaid, Mohamed Said, Walaa Saber," Pressure-Guard: Smart Real-Time Blood Pressure Prediction and Monitoring System," Port-Said Engineering Research Journal, Vol 29, no. 4, Dec.2025. DOI: 10.216.8/PSERJ.2025.393653.1416
- [2] Elhadidy, Hala, Hassan Badran, Eslam Atef, Ahmed Essam, John Ramez, Mohammed Ayman, Mostafa Elgabrony, Mazen Hassan, Momen Khaled, Mohamed Masoud, Saleh Eltahan, Tarek Hamed, Youssef Abdelfattah, and Amira Elsonbaty. 2025. "Smart Real-Time Electricity Monitoring and Remote Control System in Smart Homes". Accepted for publications in Journal of Engineering Research and Reports, Volume 27, Issue 6, Page 183-192, 2025; Article no. JERR.137723 ISSN: 2582-2926
- [3] Elhadidy, Hala, Hassan Badran, Eslam Atef, Ahmed Essam, John Ramez, Mohammed Ayman, Mostafa Elgabrony, Mazen Hassan, Momen Khaled, Mohamed Masoud, Saleh Eltahan, Tarek Hamed, Youssef Abdelfattah, and Amira Elsonbaty. 2025. "A Systematic Literature Review of Smart Power Monitoring and Controlling Systems for Smart Homes". Journal of Engineering Research and Reports, volume 27 (4):438-45. <https://doi.org/10.9734/jerr/2025/v27i41486>.
- [4] Elhadidy, H., Deaf, A.A., Rizk, R.Y., Saber, W.E. "Autonomous Navigation Techniques for Mobile Robots in Complex Environments: A Review," In: Hassanien, A.E., Rizk, R.Y., Darwish, A., Alshurideh, M.T.R., Snášel, V., Tolba, M.F. (eds) Proceedings of the 11th International Conference on Advanced Intelligent Systems and Informatics (AIS I 2025). AIS I 2025. Lecture Notes on Data Engineering and Communications Technologies, vol 238. Springer, Cham. (2025). [https://doi.org/10.1007/978-3-031-81308-5\\_22](https://doi.org/10.1007/978-3-031-81308-5_22)
- [5] Osama Elbaksawi, Nabil A.S. Elminshawy, Sodfa Diab, Ali M. Eltamaly, Amara Mahmoud, Hala Elhadidy, "Innovative metaheuristic algorithm with comparative analysis of MPPT for 5.5 kW floating photovoltaic system," Process Safety and Environmental Protection 185 (2024) 1072–1088.
- [6] E. I. Elsedimy, Hala Elhadidy, Sara M. M. Abohashish," QSVM-IGWO: A Novel Intrusion Detection System Based on a Hybrid Quantum Support Vector Machine and Improved Grey Wolf Optimizer," Cluster Computing, Volume 27, pages 9917–993, May 2024, <https://link.springer.com/article/10.1007/s10586-024-04458-8>
- [7] I Hosni, H Elhadidy," A Prediction Model for studying the Impact of Separated Families on Students using Decision Tree," International Journal of Computer Science & Network Security 2023 (4), 79-84

- [8] H. Elhadidy, A. Abd-Alrahem, K. Elserafi, H. Dorrah "A Full Symbolic Feedback Control Design", Port-Said Engineering Research Journal, Vol 25, no. 2, pp. 88-94, 2021. [https://pserj.journals.ekb.eg/article\\_185480.html](https://pserj.journals.ekb.eg/article_185480.html)
- [9] Amara M. Abd-Alrahem, Hala M. Elhadidy, Kamel A. Elserafi, Hassen T. Dorrah, "Fully symbolic-based technique for solving complex state-space control systems," International Journal of Electrical and computer Engineering IJECE, Vol 11, no. 1, ISSN 2088-8708, e-ISSN 2722-2578, pp 272-283, 2021. <http://ijece.iaescore.com/index.php/IJECE/article/view/21788>
- [10] Mahmoud A, Elhadidy H, Elserafi K, Dorrah H. "Toward Symbolic Representation and Analysis of Parameter Varying Control Systems", in Twentieth International Middle East Power Systems Conference (MEPCON). Cairo, Egypt: IEEE Conference; 2018:894 - 899. <https://ieeexplore.ieee.org/document/8635271>
- [11] H. Elhadidy, R. Rizk, and H. T. Dorrah, "Wireless Sensor Network as an application on Generalized Data Stack Programming (GDSP) Model," International Journal of Advanced Computer Science and Applications (IJACSA), Vol. 5, No. 11, Nov. 2014. DOI:10.14569/IJACSA.2014.051113.
- [12] H. Elhadidy, R. Rizk, H. Dorrah, "A new generalized data stacking programming (GDSP) model," in Proc. of 9th ICENCO Egypt, pp. 78-84, Dec. 2013, DOI:10.1109/ICENCO.2013.6736480.
- [13] H. Elhadidy, R. Rizk, H. Nassar, "Non-linear optimization of mobile radio aware routing algorithm in wireless sensor networks", Online J. Comput. Sci. Inf. Technol. (OJCSIT), 2011, Vol. 1, Iss. 1, pp. 23–28.
- [14] R. Rizk, H. Elhadidy, H. Nassar, "Optimised mobile radio aware routing algorithm for wireless sensor networks," IET Wirel. Sens. Syst., 2011, Vol. 1, Iss. 4, pp. 206–217, doi: 10.1049/iet-wss.2011.0047.