Fatma Harby Mohamed Bayomi
Assistant Professor

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Career Objective

With over 20 years of experience in the field of Computer Science, I serve as an Assistant Professor specializing in curriculum development and academic research supervision. I excel at motivating students and fostering a supportive learning environment. I have published numerous papers in reputable scientific journals and have participated in international conferences. I am committed to applying best educational practices to promote academic excellence.

Education

Philosophy Doctorate in Mathematics (Computer Science) | Faculty of Science , Suez Canal University.   2017
- **Research Dissertation :** "Development of Intelligent Medical Image Restoration System"

Master in Mathematics (Computer Science) | Faculty of Science , Suez Canal University.   2011
- **Research Thesis :** "Human Face Detection Through Its Features"

Bachelor of Computers and Information | Faculty of Computers and Informatics , Suez Canal University.   2003
- **Grade:** Good with 73.83%
- **Senior project :** "Solving Multi Objective Problems With Artificial Neural Network"

Work experience

Assistant Professor | Future Academy - Higher Future Institute For Specialized Technological Studies .   2020 - Present
  Courses :
- Artificial Intelligence.
- Image Processing.
- Introduction to Computers.
- Networking.
- Visual Programming.
- Cloud Computing.
- Algorithms.
- Object-Oriented Programming.
- Technical Writing.
- Introduction to information systems.

Assistant Professor | Faculty of Science Al Zulfi, Al Majmaah University, Saudi Arabia.   2019 - 2020
  Courses :
- Computational Complexity
- Digital Image Processing
- Cryptography and Information Security
- Fundamentals of Information Systems
- Information Systems Management
- Geographic Information Systems

Assistant Professor | Technology Development Division, Workers University, Ismailia, Egypt.   Feb 2019 - Aug 2019

Assistant Lecturer | Technology Development Division, Workers University, Ismailia, Egypt.   2014 - Feb 2019
  Courses :
- Electronic Computers and Their Uses
- Introduction to Computer Science
- Computer Applications

Assistant Lecturer | Hospitality Division, Workers University, Cairo, Egypt.   2012 - 2014

  Courses :
- Introduction to the Use of Computers in the Hotel Sector
- IT Applications:
- IT
- Windows
- Word
- Excel
- PowerPoint
- Internet

Demonstrator | Industrial Relations Division, Workers University, Ismailia, Egypt.   2004-2011

  Courses :
- Database Fundamentals
- Introduction to Computer and Software Systems
- Structured Programming

Training courses

- Cyber security | Ministry of Defense Information and Systems Institute   2024
- HCIA-Routing and Switching| Huawei   2024
- Robotics and Automated System | Microsoft Training and education center- Future Academy.   2022
- NLP- Neuro Linguistic Programming for Your Everyday Life | Online course   2020
- Cisco Certified Network Associate Security (CCNA Security)   2019
- Unlock your Python Potential | Online course   2019
- Cisco Certified Network Associate Routing & Switching (CCNA)   2018
- Searching in Academic Databases | Online course   2018
- Python | Online course   2018

Skills

- Effective Communication
- Critical Thinking
- Patience and Understanding
- Leadership and Inspiration
- Organization and Time Management
- Continuous Learning
- Flexibility and Adaptability
- Exam Paper Specifications
- Preparing Questions for Remote Learning
- Program and Course Descriptions and Evaluating Learning Outcomes

Computer Skills

- Microsoft Windows, Word, Excel, PowerPoint, Access
- Professional Programming in C/C++, C++ Builder, and MathWorks (MATLAB)
- Data Structures and File Structures
- Pattern Recognition, Neural Networks, Fuzzy Logic, Genetic Algorithms, and Artificial Intelligence
- Digital Signal and Image Processing

Languages

- Arabic
- English

Activities

- Elsevier Engineering Solutions Workshop -Participation | Egyptian Knowledge Bank   2017
- 4th Young Researchers Conference (YRC) - Attendance | Suez Canal University, Ismailia, Egypt   2017
- 26th International Conference on Computer Theory and Application (ICCTA) - Participation | Alexandria, Egypt   2016
- Workshop on "Recent Advances in Medical Imaging Applications in Low Dose CT" -Participation   Mar 2016
- Workshop on "Frontiers in Imaging Science and Related Technologies" - Participation   Dec 2016
- 25th International Conference on Computer Theory and Application (ICCTA) - Participation | Alexandria, Egypt   2015
- 1st Young Researchers Conference (YRC) - Attendance | Suez Canal University, Ismailia, Egypt   2013

Publications

- El-Hag, N.A., El-Hoseny, H.M. & Harby, F. DNN-driven hybrid denoising: advancements in speckle noise reduction. J Opt (2024).
- F. Harby, M. Alohali, A. Thaljaoui and A. S. Talaat, " Exploring Sequential Feature Selection in Deep Bi-LSTM Models for Speech ⍰ Resume: Curriculum Vitae ⍰ Page 5 | Emotion Recognition," Computers, Materials & Continua, vol. 78, no.2, pp. 2689–2719, 2024
- F. Harby, A. Thaljaoui, D. Nayab, S. Aladhadh, S. E. Khediri et al., "Data augmentation and random multi-model deep learning for data classification," Computers, Materials & Continua, vol. 74, no.3, pp. 5191–5207, 2023.
- M. Hashem, E. A. Rashed and F. Harby, "An Improved Image Denoising Model by Incrementally Learning Gaussian Mixture Parameters," Egyptian Computer Science Journal, vol. 40, pp. 22-33, 2016.
- M. Hashem, E. A. Rashed and F. Harby, "Low Dose CT Image Restoration by Incremental Learning and Ant Colony Optimization," 26th International Conference on Computer Theory and Applications (ICCTA 2016), Paper ID 38, Alex, Egypt, Oct. 2016.
- M. Hashem, E. A. Rashed and F. Harby, "An Elliptical Basis Function Network for Non-blind Image Deconvolution", 25th International Conference on Computer Theory and Applications (ICCTA 2015), Paper ID. 54, Alex. Egypt, 2015.
- Mahmoud M. El-Arabawy, S. Zaki, and Fatma Harby, "Improved AdaBoost Algorithm for Face Detection", Proceedings of the 2010 International Conference on Image Processing, Computer Vision, & Pattern Recognition, IPCV 2010, July 12-15, 2010, Las Vegas, Nevada, USA

References

- Prof. Dr. Ibrahim Mahmoud Mohamed El Henawy, Professor of Scientific Computations, Faculty of Computers and Information, Zagazig University.
- Prof. Dr. Gamil Sayed Abdel azim, Professor of Scientific Computations, Faculty of Computers and Information, Suez Canal University.
- Prof. Dr. Mohamed Hashem Abdel Aziz, Professor of Scientific Computations, Faculty of Computers and Information, Ain Shams University.
- Prof. Dr. Essam Rashed, Professor (Computer Science), Department of Mathematics, Faculty of Science, Suez Canal University.