Academic Resume

Gibrael Elamin Abosamra

Professor, Information Systems Department

Received the B.S., M.S., and Ph.D. degrees in electronics and communication engineering from Cairo University, Egypt.
He is currently working as a Professor at the Faculty of Computing and Information Technology, at King Abdul-Aziz University. He has published numerous journal articles. His research interests include machine learning, deep learning,
genetic algorithms, pattern recognition, and image processing.

Contact Information.

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Highest Degree.

1992, Ph.D. in Electronics and Communication Engineering, Pattern Recognition, Cairo University, Egypt.

Academic and Professional Experiences.

1. **2006 - 2023**
   Associate Professor, Saudi Arabia, King AbdulAziz University.
2. **1999 - 2004**
   Working with the consultation teem , computer science department , Alameia Institute.
3. **1996 - 1998**
   Working as a consultant in a team-Project for Arabic OCR, computer science department, King Abdul Aziz City for Science and Technology.

Research Interests.

Machine learning, Deep Learning, Data Hiding, Image Processing, Data Compression, Artificial Intelligence, Pattern Recognition.

Teaching Interests.

Genetic Algorithms, Operating Systems (under graduate), Artificial Intelligence, Machine Learning, Deep Learning, Database (under graduate), Cyper Security (under graduate), Data Structures (under graduate), Programming Languages (C++, C#, MATLAB, Assembly), Computer Architecture (under graduate).

Certifications and Trainings.

1. Bioinformatics: Introduction and methods (Online course at Peking University).
2. Machine Learning (an online course authorized by Stanford University).
3. Cyber Security Course (an online course authorized by FutureLearn).
4. Introduction to Enterprise Architecture (Online course by ENTERPRIZE ARCHITECTURE).
5. Engineering System Design: Modeling Techniques and Simulations.

Social, Scientific and Professional Affiliation.

1. 2006-2022, Associate Professor, King Abdulaziz University.
2. 2023-, Professor, King Abdelaziz University.

Excellence Awards and Patents.

1. 2012, Interior, Awarded the highest level (A) award for distinct study award in the funded project titled: 2012 - Localization of License Plate Number Using Dynamic Image Processing Techniques And Genetic Algorithms,, Deanship of Scientific Research (DSR), King Abdulaziz University, GRANT_NUMBER: 22-611-D1432.

Funded Projects.

1. 1997, Dealing with Arabic Documents, King Abdulaziz City for Science and Technology, GRANT_NUMBER: AT-21-69.
2. 2012, Localization of License Plate Number Using Dynamic Image Processing Techniques And Genetic Algorithms, Deanship of Scientific Research (DSR), King Abdulaziz University, GRANT_NUMBER: 22-611-D1432.

Publications.

1. Gibrael Abosamra, Hadi Oqaibi, "A Signature Recognition Technique With A Powerful Verification Mechanism Based On Cnn And Pca", Ieee Access, vol: 12, pp. 40634-40656, 2024.
   DOI: 10.1109/ACCESS.2024.3377455
2. Gibrael Abosamra, "Vehicle Plate Number Localization Using Memetic Algorithms And Convolutional Neural Networks", Computers, Materials & Continua, vol: 74, pp. 3539-3560, 2023.
   DOI: 10.32604/cmc.2023.032976
3. Hadi Oqaibi, Abdullah Basuhail, Gibrael Abosamra, "Handprinted Character And Online Signature Recognition Using Residual Convolutional Network: A Comparative Study", 2021 International Conference On Electrical, Computer, Communications And Mechatronics Engineering (Iceccme), pp. 1-7, 2021.
   DOI: 10.1109/ICECCME52200.2021.9591132
4. Gibrael Abosamra, Hadi Oqaibi, "An Optimized Deep Residual Network With A Depth Concatenated Block For Handwritten Characters Classification", Computers, Materials &Amp;Amp;Amp; Continua, vol: 68, pp. 1-28, 2021.
   DOI: 10.32604/cmc.2021.015318
5. Gibrael Abosamra, Hadi Oqaibi, "Using Residual Networks And Cosine Distance-Based K-Nn Algorithm To Recognize On-Line Signatures", Ieee Access, vol: 9, pp. 54962-54977, 2021.
   DOI: 10.1109/ACCESS.2021.3071479
6. Moayed A. Khodairy, Gibrael Abosamra, "Driving Behavior Classification Based On Oversampled Signals Of Smartphone Embedded Sensors Using An Optimized Stacked-Lstm Neural Networks", Ieee Access, vol: 9, pp. 4957-4972, 2021.
   DOI: 10.1109/ACCESS.2020.3048915
7. Gibrael Abosamra, Ahmad Faloudah, "Machine Learning Based Marks Prediction To Support Recommendation Of Optimum Specialization And Study Track", International Journal Of Computer Applications, vol: 181, pp. 15-25, 2019.
   DOI: 10.5120/ijca2019918672
8. Asma`a Al Ibrahim, Gibrael Abosamra, Mohamed Dahab, "Real-Time Anomalous Behavior Detection Of Students In Examination Rooms Using Neural Networks And Gaussian Distribution", International Journal Of Scientific &Amp;Amp;Amp;Amp;Amp;Amp; Engineering Research, vol: 9, pp. 1716-1724, 2018.
   DOI: 10.14299/ijser.2018.10.15
9. G. A. Abo Samra, "Application Independent Localization Of Vehicle Plate Number Using Multi Window-Size Binarization And Semi-Hybrid Genetic Algorithm", The Journal Of Engineering, 2018.
   DOI: 10.1049/joe.2017.0815
10. Bander Albarakati, Abdullah Basuhail, Gibrael Abo Samra, "A Fuzzy Controlled Image Watermarking Based On A Dual Transform Technique", Journal Of King Abdulaziz University Computing And Information Technology Sciences, Vol. 5, 2016.
11. G. Abo Samra, "Genetic Algorithms Based Orientation And Scale Invariant Localization Of Vehicle Plate Number", International Journal Of Scientific And Engineering Research, vol: 7, pp. 817-829, 2016.
   DOI: 10.14299/ijser.2016.04.001
12. G. Abo Smara, F. Khalefah, "Localization Of License Plate Number Using Dynamic Image Processing Techniques And Genetic Algorithms", Ieee Transactions On Evolutionary Computation, vol: 18, pp. 244-257, 2014.
   DOI: 10.1109/TEVC.2013.2255611
13. G. Abo Samra, O. AbdulKader, "A New Technique Based On Intensity Distribution Graphs For The Extraction Of Traffic Flow Rate And Vehicle Speed", Journal Of King Abdulaziz University Computing And Information Technology Sciences, Vol: 1, vol: 1, 2012.

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Publications.

14. Gibrael Abo-Samra, "Automatic Detection Of Road /Lanes Boundaries Using Geometric Constraints Imposed On The Hough Transform Detected Lines", Ain Shams Journal Of Electrical Engineering (Asjee), 2009.
15. Gibrael Elamin Abosamra, "A New Model For Data Hiding In Binary Documents", , 2004.
16. Gibrael Abo-Samra, "Lossy Sound Bar Code", Faculty Of Computers And Information, Cairo University., 2003.
17. Gibrael Elamin Abosamra, "Binary Matching Technique For Data Compression", , 2002.
18. Gibrael Elamin Abosamra, Kamal Jambi, "Using A Multy-Phases Algorithm For Segmenting Complex Handwritten Arabic Scripts", , 2001.
19. Gibrael Elamin Abosamra, "Using Contour-Based Features For Recognizing Handwritten Arabic Words In Off-Line Systems", , 1999.
20. Kamal Jambi, Gibrael Elamin Abosamra, "Using Contour-Based Features For Segmenting And Recognizing Handwritten Arabic Words", , 1999.
21. Gibrael Abo-Samra, Samir Shaeen, Ahmad Abdel-Magid, "A New Model For Writer Dependent Handwritten Arabic Scripts Generation", Scientific Bulletin, 1998.
22. Gibrael Abo-Samra, "A Novel Approach For Arabic Ocr Using Neural Networks", Scientific Bulletin,Faculty Of Engineering, Ain Shams University., 1997.
23. Gibrael Elamin Abosamra, "On Line Cursive Script Recognition", , 1992.
24. Gibrael Elamin Abosamra, "Analysis Of The Pen Displacement Signal In Arabic And Latin Handwriting", , 1989.