



1. Name and Academic rank:

- Ziad Doughan, Full-time Assistant Professor, Electrical and Computer Engineering Department, Beirut Arab University.

2. Education: Degrees, discipline, institution, and date:

- Ph.D., Electrical and Computer Engineering, BAU, 2022
- M.Sc., Electrical and Computer Engineering, BAU, 2016
- B.Sc., Electrical and Computer Engineering, BAU, 2006

3. Academic experience

- Beirut Arab University, 2022 – present, full time, Assistant Professor
- Beirut Arab University, 2020 – 2021, part time, Lecturer
- Beirut Arab University, 2016 – 2019, part time, Instructor

4. Non-academic experience

- Khatib And Alami JV Arabian Construction Company, 2013 – 2022, full time, Cost Control Unit Team Leader
- LACECO Architects & Engineers, 2008 – 2012, full time, Information Systems Engineer
- Ministry of Finance Lebanon, 2006 – 2008, full time, Software Engineer
- Beirut Arab University Alumni, 2006 – 2008, part time, Web Administrator

5. Current membership in professional organizations

- Member in Order of Engineering Lebanon
- Member in the IEEE
- Member in the IEEE-CIS

6. Honors and Awards:

Honors:

- **Honoring Guest in:** Huawei ITC competition Finals, China 2024.
- **Keynote speaker in workshop:** Future of Academia in Light of Artificial Intelligence, presentation Topic: "Applications of AI in Engineering" 2024.
- **Coordinator of Huawei ICT Academy**, in accordance to the partnership agreement between Huawei and Beirut Arab University, 2022 – till present.
- **Program Committee Member** in the 20th International Conference on Artificial Intelligence Applications and Innovations (AIAI) 2024.
- **Program Committee Member** in the 25th International Conference on Engineering Applications of Neural Networks (EANN) 2024.
- **Plenary Session Chairs**, ICABME23 2023: 7th International Conference on Advances in Biomedical Engineering (ICABME23) 2023.
- **Program Committee Member** in the 19th International Conference on Artificial Intelligence Applications and Innovations (AIAI) 2023.



- **Program Committee Member** in the 24th International Conference on Engineering Applications of Neural Networks (EANN) 2023.
- **Session Chair**, ACTEA 2019: Session chair for the "Transportation" session at the 2019 Fourth International Conference on Advances in Computational Tools for Engineering Applications (ACTEA) 2019.
- **Program Committee Member** in the 27th International Conference on Artificial Neural Networks (ICANN) 2018.

Awards:

- **1st place in IBDA**A competition, AUB 2024
- **1st place in DARE** robotics competition, LAU 2024
- **3rd place in Huawei** ITC competition, Bahrein 2024.
- **United Nations Public Service Award**, United Nations Public Service: Taxpayer service system, Winner of: "United Nations Public Service Award on improving the delivery of services". 2007.

7. Service activities

- 2024-2025 Supervisor for IEEE-CIS: Computational Intelligence Society
- 2022-2024 Community service committee member-Beirut Arab University
- 2022-2024 Engineering consultancy committee member-Beirut Arab University
- 2021-2024 Huawei ICT Project Coordinator-Huawei JV. Beirut Arab University
- 2021-2024 ABET advisory board-Beirut Arab University
- 2021-2024 Advisor for A.R.C.: Artificial Intelligence and Robotics Student Club
- 2021-2022 Research committee member-Beirut Arab University
- 2021-2022 Engineering Day committee member-Beirut Arab University

8. Experience Courses (Graduate and Undergraduate)

- Artificial Intelligence
- Machine Learning.
- Deep Learning
- Computer Graphics.
- Algorithms and Data Structures
- Discrete Structures and Database.
- Programming (I & II).
- Object Oriented Programming
- Compiler
- Microprocessor & Microcontroller
- Neural Networks
- Advanced Database Systems
- Advance Computer Control and Robotics
- Data Mining
- Reinforcement Learning
- Cognitive Robotics



9. Research Interests

- Artificial Intelligence, Machine learning and Deep learning
- Discrete and Logic-based AI, and Biomimetic AI systems
- Artificial General Intelligence (AGI) and Artificial Super Intelligence (ASI)
- Graphics, Games and Robotics

10. References:

- Prof. Ali Haidar ari@bau.edu.lb (+9613676121)
- Prof. Ziad Osman z.osman@bau.edu.lb (+9613836089)

11. Rank Link: Assistant Professor

<https://www.bau.edu.lb/Staff/Engineering/Academic>

12. Publications

Journal Publications:

1. **Doughan Z**, Al Mubasher H, Sliman L, Haidar A. A Multiple Criteria Decision Making-Based Recommender System for Neural Network Learning Rate Initialization. Available at SSRN 4500557. 2023.
2. Haidar I, **Doughan Z**. "A Novel Specialized Search Engine for Ai-Models and Their Comparison". BAU Journal-Creative Sustainable Development. 2023;4(2):2.
3. **Z. Doughan**, H. Al Mubasher, M. Bizri, and A. M. Haidar "The Metaverse: A Virtual World in the Palm of Your Hand", BAU Journal - Science and Technology, 2022.
4. **Z. Doughan**, R. Kassem, A. M. El Hajj, A. M. Haidar "Artificial Neural Network Vision: Between Myth and Reality", Theme Issue: Science Fiction or Fact? IEEE Potentials, 2022.
5. **Z. Doughan**, R. Kassem, A. M. El Hajj, A. M. Haidar "Novel Preprocessors for Convolution Neural Networks", IEEE Access, April 2022, DOI: 10.1109/ACCESS.2022.3163405

Conference Proceedings:

1. **Doughan, Z.**, Itani, S. (2024). Machine Unlearning, A Comparative Analysis. In: Iliadis, L., Maglogiannis, I., Papaleonidas, A., Pimenidis, E., Jayne, C. (eds) Engineering Applications of Neural Networks. EANN 2024. Communications in Computer and Information Science, vol 2141. Springer, Cham. https://doi.org/10.1007/978-3-031-62495-7_42
2. H. S. Bazzi, A. H. Nassar, I. M. Haidar, A. M. Haidar and **Z. Doughan**, "ResNet-Based Detection of SYN Flood DDoS Attacks," 2024 IEEE International Conference on Computing, Power and Communication Technologies (IC2PCT), Greater Noida, India, 2024, pp. 1142-1147, doi: 10.1109/IC2PCT60090.2024.10486707.
3. Al Mubasher H, **Doughan Z**, Sliman L, Haidar A. "A Novel Neural Network-Based Recommender System for Drug Recommendation". In International Conference on Engineering Applications of Neural Networks 2023 Jun 7 (pp. 573-584). Cham: Springer Nature Switzerland.



4. **Z. Doughan**, R. Kassem, A. M. El Hajj, A. M. Haidar "Logic-Based Neural Network for Pattern Correction", IEEE International Conference on Smart Systems and Power Management (IC2SPM), Beirut, Lebanon, November 2022.
5. **Z. Doughan**, R. Kassem, A. M. El Hajj, A. M. Haidar "Logic-Based Neural Network for Image Compression Applications", 3rd IEEE Middle East & North Africa COMMUNICATIONS Conference (MENACOMM), Agadir, Morocco, December 2021, DOI: 10.1109/MENACOMM50742.2021.9678278
6. **Z. Doughan**, W. Itani, A. M. Haidar "Advanced Biomimetic Cells Architecture for Parallel Operations in Artificial Intelligence", 4th International Conference on Advances in Computational Tools for Engineering Applications (ACTEA), Zouk Mosbeh, Lebanon, July 2019, DOI: 10.1109/ACTEA.2019.8851116
7. H. Koleilat, **Z. Doughan**, Y. Attallah "Automatic Radial Routing Protocol for Public Transport System", 4th International Conference on Advances in Computational Tools for Engineering Applications (ACTEA), Zouk Mosbeh, Lebanon, July 2019, DOI: 10.1109/ACTEA.2019.8851091
8. **Z. Doughan**, W. Itani, A. M. Haidar "Biomimetic Cells: A New Frontier in Brain Informatics", IEEE International Multidisciplinary Conference on Engineering Technology (IMCET), Le Commodore Hotel, Hamra, Beirut, Lebanon, November 2018, DOI: 10.1109/IMCET.2018.8603044
9. **Z. Doughan**, W. Itani, A. M. Haidar "Bio-mimetic Approach in Digital Artificial Neuroscience", 3rd International Conference on Advances in Computational Tools for Engineering Applications (ACTEA), Zouk Mosbeh, Lebanon, July 2016, DOI: 10.1109/ACTEA.2016.7560120

13. Professional development activities in the last years

Certificates:

- Team-Based Learning: An Effective Tool for Student Engagement, BAU, 2024
- Huawei HCIA-AI Artificial Intelligence V3.5, Huawei, 2023.
- Deep Learning: a Hands-on Introduction, MaLGa, Università di Genova, 2022
- Computer Vision Crash Course, MaLGa, Università di Genova, 2022
- Fundamentals of Deep Learning, NVIDIA DLI, 2022
- R Programming, Course, The Johns Hopkins University, 2022.
- Python for Data Science, Specialization, Datacamp, 2021 (4 Courses):
 - Python Data Science Toolbox Part 2.
 - Python Data Science Toolbox Part 1.
 - Intermediate Python.
 - Introduction to Python.
- Deep Learning, Specialization, DeepLearning.ai, 2020 (5 Courses):
 - Sequence Models.
 - Structuring Machine Learning Projects.
 - Convolutional Neural Networks.
 - Improving Deep Neural Networks.
 - Neural Networks and Deep Learning.
- Machine Learning, Course, Stanford Online, 2020.



- Cisco CCNA 4.1, Cisco, 2008 (4 Courses).

14. Peer-reviewer:

- Engineering Applications of Artificial Intelligence, ELSEVIER Journal.
- 20th International Conference on Artificial Intelligence Applications and Innovations (AIAI) 2024.
- 25th International Conference on Engineering Applications of Neural Networks (EANN) 2024.
- 19th International Conference on Artificial Intelligence Applications and Innovations (AIAI) 2023.
- 24th International Conference on Engineering Applications of Neural Networks (EANN) 2023.
- International Conference on Smart Systems and Power Management (IC2SPM) 2022.
- International Conference on Artificial Neural Networks (ICANN) 2018.

15. Soft skills:

- Skills: Project Management, Leadership, Interpersonal Communication, Artificial Intelligence, Data Analysis
- Concepts: OOP, UML, PMP, Agile, SCRUM
- Programming: VS.Net, JAVA, C++, HTML, Python
- Databases: SQL Server, MS Access, Java DB
- Systems: Windows, DOS, Cisco
- Software: MS Office, MS Visio, MS Project, Primavera, SAP