

Curriculum Vitae

Dr. Faroug Ali Hassan Abdallah



Objectives

Ph.D. in Information Technology with expertise in Artificial Intelligence, Cloud Computing, and Machine Learning. Over a decade of extensive academic, research, and administrative experience. Dedicated to advancing institutional growth strategies, fostering international collaborations, and enhancing research and teaching excellence.

Personal Information

Email: Faroug.abdalla@nbu.edu.sa

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Nationality: Sudanese

Academic Qualifications

2024: Ph.D. in Information Technology – Al-Neelain University, Sudan

2012: Master of Computer Applications (MCA) – Osmania University, India

2008: Bachelor of Science in Computer Science – Osmania University, India

Academic & Administrative Experience

2025–Present: Head, Academic Programs Operational Plan Monitoring Committee, Department of Computer Science, College of Science, Northern Border University (NBU)

2024–Present: Head, Public Relations and Media Committee, Department of Computer Science, College of Science, (NBU)

2023–Present: Advisor, Technology & Digital Content to Vice Rector, NBU

2024–Present: Member, Institutional Development Unit, College of Science – NBU

2024–Present: Member, Quality & Academic Accreditation Committee, Computer Science Program – NBU

2020–2023: Supervisor, Department of Computer Science & Supporting Studies, Preparatory Year Deanship – NBU

2020–2023: Head, E-Learning Committee – PY-NBU

2020–2023: Supervisor, Computer Laboratories – PY-NBU

2017–2023: Website Supervisor – PY-NBU

2017–2018: Director, Cambridge IT International Exams – PY-NBU

2013–2017: Instructor of Computer Science, Gulf Training & Education Company, Saudi Arabia

Committees & Academic Service

2024–2025: Member, Statistics Committee – NBU

2024–2025: Member, Academic Advising Committee – NBU

2024–2025: Member, Exam Scheduling Committee – NBU

2020–2023: Member, Student Excuse Committee – NBU

2017–2023: Member, Student Disciplinary Committee – NBU

Professional Certifications

2025: Introduction to Artificial Intelligence (AI) – IBM

2025: Prompt Engineering for ChatGPT – Vanderbilt University

2024: Object-Oriented Data Structures in C++ – University of Illinois

2021: Project Management Professional (PMP) – PM-Tricks

2012: Oracle Certified Professional, Java SE 6 Programmer – Oracle

2012: Microsoft Certified IT Professional (MCITP 2008 Server) – Zoom, India

2011: Cisco Certified Network Associate (CCNA) – Cisco

Training Courses

2025: Essential Skills in Building E-Content in Blackboard Ultra – NBU

2025: Essential Skills for Designing Assignments and Online Exams in Blackboard Ultra – NBU

2023: Excellence in Research Citation – King Abdulaziz University

2023: Gamification in Teaching Using Blackboard – NBU

2022: Course Report & Program Description Training – NBU

2015: Statistical Analysis Using SPSS – NBU

2015: Strategic and Effective Teaching Program – NBU

Publications

1. Zermani, M. A., Ben Miled, A., Elhossiny, M. A., Elghazawy, M. A. I., Mahmoud, A. F. A., & Abdalla, F. A. (2025). Fractional order Jellyfish Optimizer on PID cascade controller for newborn incubator system. *Alexandria Engineering Journal*. <https://doi.org/10.1016/j.aej.2025.03.111>
2. Mohammed, Z. M. S., Satty, A., Salih, M., Mohammed, S. A., Osman, O. A. I., Abdalla, F. A., Mahmoud, A. F. A., & Elmorsy, E. (2025). Risk factors for childhood underweight: A cross-sectional design-based logistic regression analysis. *International Journal of Advanced and Applied Sciences*. <https://doi.org/10.21833/ijaas.2025.06.017>
3. Hassaballa, A. A., Gumma, E. E. A., Adam, A. M. A., Hamed, O., Satty, A., Salih, M., Abdalla, F. A., & Mohammed, Z. (2025). Application of the Tanh–Coth and HSI methods in deriving exact analytical solutions for the STFKS equation. *Frontiers in Applied Mathematics and Statistics*. <https://doi.org/10.3389/fams.2025.1568757>
4. Satty, A., Khamis, G. S. M., Mohammed, Z. M. S., Mahmoud, A. F. A., Abdalla, F. A., Salih, M., Hassaballa, A. A., & Gumma, E. A. (2025). Statistical insights into machine learning models for predicting under-five mortality: An analysis from multiple indicator cluster survey (MICS). *IEEE Access*. <https://doi.org/10.1109/access.2025.3549097>
5. Ahmed, S. A., Khalifa, E. H., Mahmoud, A. F. A., Abdalla, F. A., Nawaz, M., & Sulman, A. (2025). Real-time electrical load prediction and management through deep learning and reinforcement learning techniques. *Engineering, Technology & Applied Science Research*. <https://etasr.com/index.php/ETASR/article/view/9559>
6. Elhossiny, M. A., Elghazawy, M. A. I., Ben Miled, A., Mahmoud, A. F. A., Abdalla, F. A., & Nawaz, M. A. (2025). Intermediate significant bits embedding for telemedicine applications. *Journal of Integrated Science and Technology*. <https://doi.org/10.62110/sciencein.jist.2025.v13.1111>
7. Ahmed, S. A., Khalifa, E. H., Nawaz, M., Abdalla, F. A., & Mahmoud, A. F. (2025). Enhancing cloud data center security through deep learning: A comparative analysis of RNN, CNN, and LSTM models for anomaly and intrusion detection. *Engineering, Technology & Applied Science Research*. <https://doi.org/10.48084/etasr.9445>
8. Mahmoud, A. F., Mohammed, Z. M., Ammar, M. B., Satty, A., Abdalla, F. A., Khamis, G. S. M., & Mohamed, A. S. (2025). Enhancing semantic search precision through the CBOW algorithm in the Semantic Web. *Engineering, Technology & Applied Science Research*. <https://doi.org/10.48084/etasr.9450>
9. Abdalla, F. A., Satty, A., Mahmoud, A. F. A., Khamis, G. S. M., Mohammed, Z. M. S., Salih, M., Hassaballa, A. A., Adam, A. M. A. (2025). Assessing gradient-boosting techniques for customer churn prediction: A statistical perspective using SMOTE-ENN and SMOTE-Tomek. *Ingénierie des Systèmes d'Information, Vol. 30, No. 9, pp. 2331-2337*. <https://doi.org/10.18280/isi.300910>
10. Abdalla, F. A., Mohammed, Z. M., Satty, A., Mahmoud, A. F., Ammar, M. B., Mohamed, A. S., ... & Ahmed, S. A. (2025). Comparative Analysis of Data Augmentation Methods for Enhancing the Performance of Churn Prediction Models. *International Journal of Analysis and Applications*, 23, 296-296. <https://doi.org/10.28924/2291-8639-23-2025-296>
11. Khalifa, E. H., Ahmed, S. A., Nawaz, M., Abdalla, F. A., Mohamed, A., Yagoub, S. E. I., & Amin, L. G. (2025). Brief review of using machine learning for traffic engineering in software-defined networks. *Pakistan Journal of Life and Social Sciences*. <https://doi.org/10.57239/PJLSS-2025-23.1.00135>
12. Khamis, G. S. M., Mohammed, Z. M. S., Alanazi, S. M., Mahmoud, A. F. A., Abdalla, F. A., & Bkheet, S. A. (2024). Prediction of myocardial infarction complications using gradient boosting. *Engineering, Technology & Applied Science Research*. <https://doi.org/10.48084/etasr.9076>
13. Satty, A., Salih, M., Abdalla, F. A., Mahmoud, A. F. A., Gumma, E. A., & Khamis, G. S. M., & Mohammed, Z. M. S. (2024). Statistical analysis of factors associated with diarrhea in Yemeni children under five: Insights from the 2022–2023 multiple indicator cluster survey. *Journal of Epidemiology and Global Health*. <https://doi.org/10.1007/s44197-024-00253-1>

14. Ben Miled, A., Elhossiny, M. A., Elghazawy, M. A. I., Mahmoud, A. F. A., & Abdalla, F. A. (2024). Enhanced chaos game optimization for multilevel image thresholding through fitness distance balance mechanism. *Engineering, Technology & Applied Science Research*. <https://doi.org/10.48084/etasr.7713>
15. Mohammed, Z. M. S., Abdalla, F. A., Salih, M., Mahmoud, A. F. A., & Satty, A. (2024). A comprehensive bibliometric analysis of churn prediction research: An essay on trends, key contributors and global participation in the field. *Science International Journal*. <https://sci-int.com/pdf/638921660251963228.edited.pdf>
16. Mohammed, Z. M., Ammar, M. B., Mahmoud, A. F. A., Salih, M., Abdalla, F. A., Elzein, E. E., & Yousif, O. M. (2024). Research output on strategy formulation and implementation: Global picture, development and key bibliometric indicators. *International Journal on Recent and Innovation Trends in Computing and Communication*. <https://ijritcc.org/index.php/ijritcc/article/view/10462>
17. Eid, A. I. A., Ben Miled, A., Fatnassi, A., Nawaz, M. A., Abdalla, F. A., & Mahmoud, A. F. A., & Ibrahim, B. (2024). Sports prediction model through cloud computing and big data based on artificial intelligence method. *Journal of Intelligent Learning Systems and Applications*. <https://doi.org/10.4236/jilsa.2024.162005>
18. Eid, A. A., Mansouri, W. A., Ben Miled, A., Nawaz, M. A., Mahmoud, A. F. A., Abdalla, F. A., & Elghazawy, M. A. (2024). Artificial intelligence in education: Predicting college plans of high school students. *Journal of Intelligent Systems and Applied Data Science*. <https://jisads.com/index.php/1/article/view/18/27>
19. Eid, A. A., Ben Miled, A., Mahmoud, A. F. A., Abdalla, F. A., Jabnoun, C., Dhibi, A., & Belhaj, S. (2024). Leveraging Arabic text embedded in images: Challenges and opportunities in NLP analysis. *Journal of Intelligent Systems and Applied Data Science*. <https://jisads.com/index.php/1/article/view/20/26>
20. Gumma, E. A. E., Hassaballa, A. A., Adam, A. M. A., Abdalla, F. A., Mahmoud, A. F. A., Khamis, G. S. M., Hamed, O. M. A., & Mohammed, Z. M. S. (2025). Analytical solutions of fractional coupled Konopelchenko–Dubrovsky equation via modified (w/g)-expansion method. *International Journal of Advanced and Applied Sciences*. **(Accepted)**.
21. Ashraf F. A. Mahmoud, Farouq A. Abdalla, Gamal Saad Mohamed Khamis, Zakariya M. S. Mohammed, Elzain A. E. Gumma, Ahmed M. A. Adam, Abaker A. Hassaballa, and Omer M. A. Hamed. (2025). A Comparative Evaluation of LDA, NMF, and BERTopic: Analyzing Perplexity and Coherence Metrics. *Ingénierie des Systèmes d'Information*. **(Accepted)**.
22. Sultan Ahmad, Gadu Srinivasa Rao, Hikmat A. M. Abdeljaber, Eali Stephen Neal Joshua, Faroug A. Abdalla, Himaja Gadi.(2025). RouteNet-TGNN- A Temporal Graph Neural Network for Delay and Loss Forecasting in Dynamic Communication Networks. *Journal of Communications*. **(Accepted)**.