

# MAJZOOB KAMALALDIN OMER ABDALRAHMAN

## CONTACT

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## WEBSITES, PORTFOLIOS, PROFILES

- [linkedin.com/in/dr-majzoob-kamal-aldein-omer-561a1060](https://www.linkedin.com/in/dr-majzoob-kamal-aldein-omer-561a1060)
- <https://scholar.google.com/citations?user=KF-CfgoAAAAJ&hl=ar>

## SKILLS

- Python
- PHP
- HTML
- JAVASCRIPT
- CSS
- DBMS (MySQL)
- C / C++
- DBMS (Oracle)
- Linux OS
- Wide experience in teaching assigned courses to undergraduates and graduates
- Profound knowledge of student assessment process
- Deep knowledge of instructional methodologies
- Ability to develop online courses
- Ability to assist in Collage administration duties
- Ability to work effectively with students and faculty
- Online Teaching
- Interdisciplinary Collaboration
- Educational leadership
- Teaching Excellence
- Lesson Planning
- Research and analysis
- Faculty Mentoring
- Curriculum Design
- Faculty communication
- Academic advising
- Curriculum Creation
- Classroom Instruction

## PROFESSIONAL SUMMARY

Associate Professor, researcher, and academic leader with over 20 years of experience in higher education, research, and curriculum development. Specializes in cybersecurity, digital education, and cloud computing, with extensive experience in mentoring postgraduate students and leading interdisciplinary research. Published over 10 peer-reviewed articles, accumulating 145+ citations globally, and secured funded projects in AI, cloud computing, and digital learning. Held key leadership roles, including Head of Department, Dean, and Editorial Board Member in esteemed academic institutions. Passionate about advancing digital transformation in education and fostering innovation in computer science.

## KEY CONTRIBUTIONS

- **ENHANCED CYBERSECURITY:**
  - Supervised a thesis titled "Preventing Attacks on Cloud Using Homomorphic Encryption," introducing innovative encryption algorithms to safeguard sensitive data in cloud environments.
  - Supervised a thesis titled "Enhancing Intrusion Detection Systems Using Machine Learning Techniques in Cloud Computing Environments," focusing on AI-driven security systems.
- **ADVANCED DIGITAL EDUCATION:**
  - Converted courses including Web Technologies 1, Web Technologies 2, and Compiler Design Theory into interactive e-learning formats using Blackboard and Rafid platforms at Al-Baha University.
  - Enhanced student engagement by integrating cloud computing and AI tools into digital learning strategies.
- **RESEARCH CONTRIBUTIONS:**
  - Published more than 10 peer-reviewed articles, garnering over 146 citations. Topics include cloud computing, IoT, and AI applications.
  - Led funded projects to improve digital education and medical imaging technologies.

- Academic Publication
- Course design

## LANGUAGES

English:

Arabic:

### • FUNDED PROJECTS:

- Conducted a study titled "Performance Evaluation of Multi-Resolution Based Methods for Denoising Liver CT Images," achieving a 20% improvement in image clarity and noise reduction.
- Improved AI-based recommendation systems through a funded project titled "Improving the CF Algorithm Based on User Behavior to Complement the User-Item Rating Matrix," enhancing recommendation accuracy by 15%.

## WORK HISTORY

### ASSOCIATE PROFESSOR

**30/08/2018 – PRESENT**

#### ALNEELAIN UNIVERSITY - KHARTOUM, SUDAN

- Conduct teaching and research in the Faculty of Computer Science and Information Technology.
- Incorporate real-world examples into lessons to make course content engaging and relevant for students.
- Organize extracurricular activities to enrich students' educational experiences and foster community involvement.
- Develop critical thinking skills in students through interactive classroom activities and discussions.

### ASSISTANT PROFESSOR

**24/08/2013– PRESENT**

#### AL-BAHA UNIVERSITY - ALBAHA, SAUDI ARABIA

- Teach courses in Information Technology and Communications Management.
- Apply innovative teaching methodologies to inspire student learning and achieve academic goals.
- Build strong relationships with students through class discussions and academic advising.
- Revise course objectives, instructional materials, and assessment strategies to align with modern educational practices.

### ASSISTANT PROFESSOR

**12/12/2011 – 23/08/2013**

#### ALNEELAIN UNIVERSITY - KHARTOUM, SUDAN

- Teach and conduct research within the Faculty of Computer Science and Information Technology.

### HEAD OF COMPUTER SCIENCE DEPARTMENT

**16/08/2014 – 25/07/2017**

#### AL-BAHA UNIVERSITY - ALBAHA, SAUDI ARABIA

- Led the department, overseeing curriculum development, faculty collaboration, and program enhancement.

**CHAIRMAN OF THE E-CONTENT COMMITTEE**

**01/01/2012 – 23/08/2013**

**MINISTRY OF EDUCATION - KHARTOUM, SUDAN**

- Directed the E-Content Committee, focusing on the digitization of educational materials.

**MEMBER OF THE E-LEARNING COMMITTEE**

**01/01/2012 – 23/08/2013**

**MINISTRY OF EDUCATION - KHARTOUM, SUDAN**

- Contributed to the development of national e-learning strategies and policies.

**DEAN OF INFORMATION TECHNOLOGY AND**

**COMMUNICATIONS MANAGEMENT**

**10/01/2012 – 23/08/2013**

**ALNEELAIN UNIVERSITY - KHARTOUM, SUDAN**

- Directed academic and administrative operations for the Information Technology and Communications Management programs.

**ASSISTANT PROFESSOR / HEAD OF COMPUTER SCIENCE**

**DEPARTMENT**

**01/07/2007 – 23/08/2013**

**FACULTY OF AVIATION (PRIVATE COLLEGE) - KHARTOUM, SUDAN**

- Taught courses in the Computer Science Department, focusing on technical and theoretical foundations.

**ACADEMIC REGISTRAR**

**01/08/2010 – 10/01/2012**

**ALNEELAIN UNIVERSITY - KHARTOUM, SUDAN**

- Managed academic records and ensured compliance with university policies and standards.

**LECTURER**

**30/11/2005 – 11/12/2011**

**ALNEELAIN UNIVERSITY - KHARTOUM, SUDAN**

- Delivered undergraduate courses in the Faculty of Computer Science and Information Technology.

**HEAD OF ACCOUNTING AND MANAGEMENT INFORMATION**

**SYSTEMS DEPARTMENT**

**30/11/2005 – 30/07/2008**

**ALNEELAIN UNIVERSITY - KHARTOUM, SUDAN**

- Managed departmental operations, including curriculum updates and faculty coordination.

**TEACHING ASSISTANT**

**01/03/2003 – 30/11/2005**

## ALNEELAIN UNIVERSITY - KHARTOUM, SUDAN

- Provided instructional support in the Faculty of CSIT

## EDUCATION

**Ph.D. in Information Technology:** Faculty of Computer Science and Information Technology

**Alneelain University** - Khartoum, Sudan

**MSc in Information technology:** Faculty of Computer Science and Information Technology

**Alneelain University** - Khartoum, Sudan

**BSc in Computer Science and Mathematics:** Faculty of Science, Computer Science Department

**Alneelain University - Faculty of Science, Computer Science Department** - Khartoum, Sudan

## CERTIFICATIONS

- ORACLE 9I, ORACLE UNIVERSITY - INDIA, 2007
- PC HARDWARE / NETWORK, HYDERABAD - INDIA, 2007
- MCSE WINDOWS 2003, HYDERABAD - INDIA, 2007
- E-learning course with Moodle Program, Sudan University of Science and Technologies, 2010
- System and Methods of University Teaching Course, Advanced Training and Performance Development Center - Khartoum University, 2011
- Participated in the e-learning conference, Kuwait, 2013
- E-learning course with Black Board, Al Baha University, 2015
- Advance E-learning course with Black Board, Al Baha University, 2016.

## RESEARCH FUNDSGRANTS

- **Performance Evaluation of Multi-Resolution Based Methods for Denoising Liver CT Images (2015):**
- A funded project aimed at enhancing the quality of CT liver images using advanced multi-resolution techniques.
- **Key Results:** Achieved a 20% improvement in image clarity and noise reduction.
- **Applications:** Improved diagnostic accuracy in liver cancer detection through clearer CT images.
- **Improving the CF Algorithm Based on User Behavior to Complement the User-Item Rating Matrix (2017):**
- A funded project focused on developing AI-powered collaborative filtering algorithms.
- **Key Results:** Improved recommendation accuracy by 15% and reduced data gaps by 10%.
- **Applications:** Applied in educational systems to enhance course and student placement recommendations.

## PROFESSIONAL DEVELOPMENT

Attended All Package of MCSE and SQL Training, INDIA 2007

## SERVICE EXPERIENCE PROJECTS

- Chairman of the E-content - Ministry of Education - Khartoum Sudan 2013
- Member of E-Learning committee at The Ministry of Education - Khartoum Sudan 2013

- Software project Manager - Deanship of Scientific research - AL Baha University 2015

## TEACHING EXPERIENCE

- WEB Application
- Human Computer Interaction
- C/C++ Programming Language
- Data Structures and Algorithms
- Compiler Design
- Computer Networks
- Programming Language using PHP, JAVA
- Information Security
- E- Concepts
- Advanced Operation System (Master Course)
- Advanced Analysis and Design Algorithms (Master Course)
- Internet Technologies
- Introduction to Computer Science
- Object-Oriented Programming
- Software engineering / Fundamentals and advanced
- Database Management Systems
- Big Data
- Advanced Programming using Python Programing
- Simulation and Modelling
- Advanced web Technologies (Master Course)
- Advanced Cloud Computing (Master Course)

## PERSONAL INFORMATION

- Date of Birth: 17/07/1979
- Gender: Male
- Nationality: Sudanese
- Marital Status: Married

## COMMITTEES

- Computer Science Department accreditation and quality committee (AL-Baha University)
- Department timetable committee (AL-Baha University)
- Final Exam Committee. (AL-Baha University)
- Master Program Committee. (AL-Baha University)

## AWARDS

2012, Excellence Management Director Alneelain University, Sudan.

- **Bronze Reviewer Award 2025** – Awarded by the *Information Science Institute* in recognition of outstanding peer review contributions. (31 July 2025)

## EDITORIAL AND PEER REVIEW ACTIVITIES

- Reviewer for the International Journal of Electronic Governance (IJEG), Inderscience Publishers.
- Recently reviewed the article: "E-governance and AI Impact on the Improvement of E-government Services: Transformative Leadership as a Mediator."

- Responsible for evaluating the quality and suitability of submissions for publication.
- Reviewer for the Journal of Computer Science (JCS), Science Publications.
- Reviewed manuscripts such as "Sparse Partial Optimal Transport via Quadratic Regularization," contributing to the evaluation of advanced research in machine learning and optimal transport methodologies.
- Provided constructive feedback to ensure the quality and rigor of submissions in the areas of computational methods and real-world ML applications.
- Reviewer for the American Journal of Biochemistry and Biotechnology (AJBB) and the International Journal of Electronic Governance (IJEG).
- Participated in multiple evaluation rounds, ensuring compliance with publication standards and providing recommendations for manuscript improvement.
- Reviewer for the Journal of Computer Science (JCS), Science Publications.
- Reviewed manuscripts such as: "Sparse Partial Optimal Transport via Quadratic Regularization": Evaluated innovative approaches in machine learning and optimal transport methodologies."GenMicro: A Tool for Generating Microservice Architectures with In-Depth Microservice Design": Provided critical feedback on microservice architecture design tools to ensure quality and applicability.
- Contributed to maintaining the high publication standards of JCS by ensuring rigorous peer review.
- Reviewer for the Ijtimā'iyya: Journal of Muslim Society Research.
- Reviewed the manuscript titled "A Model of Mixed Strategic Orientations Based on Environment in Achieving a Tough Performance of MSMEs."
- Provided in-depth analysis and feedback on the integration of strategic orientations and environmental factors in achieving organizational performance.
- Ensured that the manuscript adhered to the journal's quality and academic standards.
- Reviewer for the International Journal of Advanced Computer Science and Applications (IJACSA), The Science and Information (SAI) Organization.
- Reviewed multiple manuscripts, providing qualitative evaluations, constructive comments, and recommendations for improvement.
- Contributed to maintaining the double-blind peer review process, ensuring high publication standards in areas of advanced computer science and applications.
- Member of the Scientific Committee for the International Conference on Computing, Engineering, and Design (ICCED), organized by Nusa Putra University.
- Contributed to evaluating submissions and ensuring high standards of research quality.
- Assisted in the peer review process for papers submitted to the conference. ( <https://icced.nusaputra.ac.id/#committees>)
- ISI Membership – Institute for Scientific Information (ISI) (Valid through Jan 31, 2026)
- Editorial Board Member – International Journal of Engineering & Science Research (IJESR) (Jan 9, 2025 – Jan 10, 2027)
- Editorial Board Member – International Journal of Multidisciplinary Engineering in Current Research (IJMEC) (Nov 19, 2024 – Nov 18, 2026).
- Associate Reviewer – InSITE 2025: Informing Science + IT Education

Conferences (Hiroshima, Japan).

- Reviewer – Journal of Computer Science (JCS), Science Publications (Reviewed article: "Unmasking Fake News: COVAX Reality Dataset Enrichment and BERT Mastery", Feb 4, 2025).

## COLLABORATIONS AND RESEARCH CONTRIBUTIONS

- **CONTRIBUTOR TO THE DIGITAL SOCIETY PROJECT (DSP):**
  - Provided expert analysis and completed surveys for Sudan, contributing to the creation of a comparative dataset on internet freedom, cybersecurity, misinformation, and social media polarization.
  - Invited to extend contributions by coding data for additional years (2023–2024), reflecting recognition of expertise and commitment to the project's success.
  - Supported the development of freely available datasets for global research on the intersection of politics, internet freedom, and democracy.
- **INVITED BY PROFESSOR XIN WANG FROM SICHUAN INSTITUTE OF INDUSTRIAL TECHNOLOGY, CHINA, TO** collaborate on high-impact research publications in areas such as biomedical and health informatics, machine learning, IoT, and social network analysis.
- Recognized for publishing credible and high-quality research papers.
- Engaged in discussions to provide insights on potential high-impact journals and special issues for collaborative research.

## PUBLICATIONS

- Extension of direct citation model using in-text citations, A. Shahid, M. T. Afzal, M. Q. Saleem, M. S. E. Idrees and M. K. Omer, Computers, Materials & Continua, 66, 3, 3121-3138, 2021
- Cmmi compliant workflow models to establish configuration management integrity in software smes, Ali, M. Khan, W. Mehmood, W. Nisar, W. Aslam et al., Intelligent Automation & Soft Computing, 27, 3, 605-623, 2021
- Cmmi compliant workflow models to track and control changes, Ali, S. M. Ali, W. Mehmood, W. Nisar, M. Q. Saleem et al., Intelligent Automation & Soft Computing, 31, 1, 387-405, 2022
- The Future of Internet of Things (IoT) and Its Empowering Technology, Y Perwej, MK Omer, OE Sheta, HAM Harb, MS Adrees, International Journal of Engineering Science, 2019
- Recommend stages model to implement e-Government application strategies, Omer, M.K., Adrees, M.S., Sheta, O.E., Journal of Engineering and Applied Sciences, 2018
- Deep neural network for heart disease medical prescription expert system, Omer, M.K., Sheta, O.E., Adrees, M.S., Riyadi, M.A., Budiarto, R., Indonesian Journal of Electrical Engineering and Informatics, 2018
- A Framework of Promoting Government Services using Social Media: Sudan E-Government Case Study, Adrees, M.S., Sheta, O.E., Omer, M.K., Stiawan, D., Budiarto, R., Journal of Physics: Conference Series, 1167, 1, 012062, 2019
- Cloud Computing Adoption in the Higher Education (Sudan as a model): A SWOT Analysis, Mohamed Sirelkhtem Adrees, Majzoob

K.Omer, Osama E. Sheta, American Journal of Information Systems, 4, 1, 7-10, 2016

- The Impact of the Islamic Digital Content on the Virtual Knowledge Society, Mohamed Adrees, Majzoob K. Omer, AL Hijaz International Refereed Journal for Islamic & Arabic Studies, 12, 325-354, 2015
  - Social Media Interactive Strategy Using Mobile Application Services, Majzoob K. Omer, Osama E. Sheta and Mohamed S. Adrees, American Journal of Engineering and Applied Sciences, 2015
  - Network Services Application to Controlling and Develop Institute Computer LABs, Majzoob K. Omer, International Journal of Innovative Technology and Exploring Engineering (IJITEE), 5, 1, 29-33, 2015
  - Recommend Stages Model to Implement E-Government Application Strategies, Mohamed Sirelkhtem Adrees, Majzoob K. Omer, Osama E. Sheta, International Journal Of Core Engineering & Management (IJCEM), 2, 3, 31-40, 2015
  - Measuring the Blood Sugar Level and Time (BSLT) using Mobile Strategy to Remote Monitoring of DIABETES Chronic Diseases for Children in North African Countries, Sheta, Osama E., Majzoob Kamal Aldein Omer, and Mohamed Sir Elkhtem, Journal of Biomedical Engineering and Medical Imaging, 2, 4, 1, 2015
  - Alternative Central Mobile Application Strategy to Deaf and Dumb Education in Third World Countries, Majzoob Kamal Aldein Omer, Mohamed Sirelkhtem Adrees, and Osama E. Sheta, International Journal of Soft Computing and Engineering (IJSCE), 5, 3, 45-50, 2015
  - CLOUD COMPUTING ARCHITECTURE FOR HIGHER EDUCATION IN THE THIRD WORLD COUNTRIES (REPUBLIC OF THE SUDAN AS MODEL), Adrees, Mohamed Sirelkhtem, Majzoob Kamal Aldein Omer, and Osama E. Sheta, International Journal of Database Management Systems (IJDBMS), 7, 3, 13-24, 2015
  - Management and Controlling Tourism Activity and Services (MCTAS) at ALBAHA City Using GIS., Adrees, Mohamed Sirelkhtem, Majzoob Kamal Aldein Omer, and Osama E. Sheta, International Journal of Computer Science and Network, 4, 3, 451-557, 2015
  - CLOUD COMPUTING ARCHITECTURE FOR HIGHER EDUCATION IN THE THIRD WORLD COUNTRIES (REPUBLIC OF THE SUDAN AS MODEL), MS Adrees, MKA Omer, OE Sheta, International Journal of Database Management System, 7, 6, 13-24, 2015
  - The Contribution of Health Management Information Systems to Enhancing Healthcare Operations, Majzoob K. Omer, International Journal of Advanced Computer Science and Applications(IJACSA), 14, 12, 2023.
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- Omer, Majzoob K. "A Novel Average Speed Monitoring System for Highways Using Travel Time Between Two Cameras." Interdisciplinary Journal of Information, Knowledge, and Management 20 (2025): 017.

## REFERENCES

- **Dr. Mohamed Yahya Alzahrani**, President of the Saudi Electronic University, Saudi Arabia, msawileh@bu.edu.sa.
- **Professor AWAD Haj Ali Ahmed**, Department of Computer Science, Faculty of Computer Science and Information Technology, Alneelain University, Khartoum, Sudan, profawad@profawad.info
- **Professor Rahmat Budiarto**, Department of Computer Science and Engineering Faculty of Computer Science and Information Technology, Albaha University, Albaha, Kingdom of Saudi Arabia, [Rahmatbudiarto1961@gmail.com](mailto:Rahmatbudiarto1961@gmail.com)