



Prof. Bakare Kareem Ayeni (BSc. MSc. PhD)

Address: Aviation Management School, Nigeria College of Aviation Technology, Zaria

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CURRICULUM VITAE

A. PERSONAL DATA:

NAME : **BAKARE KAREEM AYENI**
 DATE OF BIRTH : 31st October, 1970
 PLACE OF BIRTH : Ilesa
 LOCAL GOVT. AREA : Ilesa West Local Government
 STATE OF ORIGIN : Osun State
 SEX : Male
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 TELEPHONE : Mobile: 234-8053527494
 MARITAL STATUS : Married

B. EDUCATIONAL BACKGROUND:

I ACADEMIC QUALIFICATION

SCHOOL ATTENDED	DATE		QUALIFICATION OBTAINED
	FROM	TO	
Nigerian College of Aviation Technology, Zaria	2013	2014	Post Graduate Diploma in Aviation Management (PGDAM)
Ahmadu Bello University, Zaria	2008	2013	PhD Computer Science
Ahmadu Bello University, Zaria	2005	2008	M.Sc. Computer Science
Obafemi Awolowo University, Ile-Ife, Osun State	1992	1998	B.Sc. (HONS) Computer Science/Econs
Ijesa Muslim Grammar School, Ilesa	1983	1988	Secondary School Certificate
Nawair-Udeen Primary School, Odo –Iro, Ilesa	1977	1982	First School Leaving Certificate

II PROFESSIONAL QUALIFICATION

Nigerian College of Aviation Technology, Zaria	2022	Certificate in Human Factors in Aviation Refresher Course
ICAO Training	2020	Certificate in Post-Training Evaluation Course
ICAO Training	2020	Training Managers Course
Phillips Consulting Limited, Lagos	2020	eLearning Content Digitisation Training
Queen Noor Civil Aviation Technical College (Qcatc), Amman, Jordan	2018	Certificate in Communications, Navigation and Surveillance/ Air Traffic Management (CNS/ATM)
Ethiopian Training Academy	2018	Certificate in Safety Management for Practitioner (SMxP) course

Thales Deutschland GmbH in Ditzingen, Germany	2018		Certificate in 1LS/DME/CVOR/DVOR Navigation Equipment
Industrial Training Fund, Kaduna	2016		Certificate in Effective Technical Report Writing
IATA Training	2015		Certificate in Air Transport Fundamental
IATA Training	2015		Certificate in Airport Route Development and Commercial Management
Joint Aviation Authorities Training Organisation (JAA TO)	2015		Certificate in TRAINAIR PLUS Training Instructor Course (TPP/TIC1)
IATA Training	2013		Certificate in Training Needs Assessment
e-Sense Technology Solutions, Kaduna	2013		Certified Fiber Optic Course (CFOT# 7320061)
Creative HR, Abuja	2011		Train the Trainer Course, Human Factor in Aviation
Creative HR, Abuja	2011		Safety Management System
IATA Training & Development Institute, Abuja	2010		Certificate in Advanced Train the Trainer Course
Debis Computer, Lagos	2010		Certificate in Advanced Java Technology
Creative HR, Abuja	2010		Certificate in Fatigue Risk Management Training
Creative HR, Abuja	2010		Certificate in Air Traffic Services Quality assurance Training
Creative HR, Ibadan	2009		Certificate in Performance Management Training Programme
Debis Computer, Lagos	2009		Certificate in SPSS and PEACHTREE Accounting
Nigerian College of Aviation Technology, Zaria	2009		Certificate in Air Traffic Safety Electronics Personnel Licence Preparatory Course
Aptech Computer, Kaduna	2009		Comptia Network + Certification
ASCON Badagry	2008		Certificate in Learning Media Technology
Koenig Solutions, India	2008		Microsoft Certified Information Technology Professional (MCITP) Enterprise Administrator
NIIT Computers, Kaduna	2006	2007	Oracle Database 10g IT Certification(Oracle Certified Administrator (OCA) & Oracle Certified Professional (OCP))
Aviation Training Academy, South Africa	2006		Certificate in Advanced Networking
Debis Computer, Lagos	2005		Certificate in SQL Server and Linux Operating System

Nigerian College of Aviation Technology, Zaria	2005	Certificate in Instructional Technique Course
Nigerian College of Aviation Technology, Zaria	2001	Certificate in Digital Techniques (DGT)

C. POSITION HELD:

1. **HEAD OF SCHOOL (2018 – 2023)**
Aviation Management School
NCAT, P.M.B. 1031, Zaria, Kaduna State, Nigeria
2. **Ag. HEAD OF SCHOOL (2016 – 2017)**
Aeronautical Telecommunication Engineering School
NCAT, P.M.B. 1031, Zaria, Kaduna State, Nigeria
3. **HEAD OF DEPARTMENT (2014 – 2018)**
General Electronics and Computer Department
ATE School, NCAT, P.M.B. 1031, Zaria, Kaduna State, Nigeria
4. **CHAIRMAN,**
Local Organising Committee,
National Association of Computer Science Students,
Obafemi Awolowo University,
Ile-Ife Chapter. Osun State.
5. **SENIOR PREFECT,**
Ijesa Muslim Grammar School, Ilesa (1988 Session)
6. **SENIOR BOY,**
Nawair-Udeen Primary School, Odo –Iro, Ilesa (1982 Session)

D. I. AREAS OF SPECIALIZATION

- i. Air Transport Economics
- ii. Air Transport Marketing
- iii. Real-Time Embedded Systems
- iv. Modeling and Simulation
- v. Machine Learning and Big Data Analytics

Professional Bodies

- i. Computer Professionals Registration Council of Nigeria (CPN)
- ii. Nigeria Computer Society NCS
- iii. National Association of Air Traffic Engineers

E. RESEARCH WORK, SOFTWARE DEVELOPED & PUBLICATIONS

I RESEARCH WORK & SOFTWARE DEVELOPED

1. Computerization of Medical Records for Primary Health Care: A case study of Obafemi Awolowo University Teaching Hospital Complex, Ile-Ife, Osun State, in partial fulfillment for the award of Bachelor of Science Degree in Computer Science (1998), **(Published)**.
2. Computerization of University Student Examination Records for Physiology Dept., Ahmadu Bello University, Zaria, (2003).
3. Web page design for African University Games (ABU 2005).

II PUBLICATIONS

(a) Peer Reviewed Published

1. **Bakare K. A.** and Sahalu, J. (2012). Modeling and Analysis of GPS based Traffic Alert and Collision Avoidance System (TCAS) Using ‘UPPAAL’, *International Journal of Engineering Science and Technology* (IJEST) Vol. 3 No. 8 August 2011. pp 6751- 6765.
2. **Bakare K. A.** and Sahalu, J. (2012). Real-Time Embedded Systems Modeling Approaches. *International Journal of Artificial Intelligence and Mechatronics* (IJAIM) pp 12-19.
3. **Bakare K. A.** and Sahalu, J. (2012). UPPAAL, a Solution to Real-Time Embedded System Predesign Performance Analysis, *British Journal of Engineering and Technology* (BJET) PP 10-26.
4. **Bakare Ayeni K.** and Junaidu Sahalu B. (2013). Integration of Radar System with GPS-Based Traffic Alert and Collision Avoidance System (TCAS) for Approach Control Separation, *Journal of Aviation Technology and Engineering*: Vol. 2: Iss. 2, Article 6 pp 56-62.
5. **Bakare K. A.** and Sahalu, J. (2013). Review of Performance Analysis Methods for Real-Time Embedded Systems Design, *GESJ: Computer Science and Telecommunications Reviewed Electronic Scientific Journal* ISSN 1512-1232. No.3(39), pp. 11-29 (<http://gesj.internet-academy.org.ge/download.php?id=2059.pdf>)
6. **Bakare K. A.** and **Yisah S. O** (2015). Impact of Platform For Privacy Preference Developments on Ethical Issues. *Aims Research Journal*. Vol 1, No. 1 pp 55 -60.
7. **Bakare K. A.** and **Yisah S. O** (2015). Modelling and Analysis of Microchipped Equipped Number Plate for Car Tracking System Using ‘UPPAAL’. *British Journal of Mathematics & Computer Science* 12(6): 1-11, 2016, Article no.BJMCS.19957 ISSN: 2231-0851
8. **Bakare K. A.** and **Yisah S. O** (2015). Cloud Based Architecture Solution for Aircraft Flight Data Recorder. *British Journal of Applied Science & Technology* 13(2): 1-13, 2016, Article no.BJAST.19896 ISSN: 2231-0843, NLM ID: 101664541
9. **Bakare K. Ayeni, Obiniyi A. A.** and **Yusuf N.** (2017). [Improved Dynamic Time Slice Round Robin Scheduling Algorithm with Unknown Burst Time](#). *International Journal of Computer Applications* 167(7), pp. 21-28. doi:10.5120/ijca2017914305

10. **Bakare K. Ayeni**, Junaidu B. Sahalu, and Kolawole R. Adeyanju (2018). Detecting Cross-Site Scripting in Web Applications Using Fuzzy Inference System. Hindawi Journal of Computer Networks and Communications Volume 2018, Article ID 8159548, 10 pages <https://doi.org/10.1155/2018/8159548>
11. Agballa U B., Obiniyi A A. and **Ayeni B. K.** (2019) Design of an Improved Energy Efficient Routing Protocol in VANET using a Modified Route-Optimal Path Algorithm. International Journal of Applied Information Systems 12(18):1-4
12. Abdulsalam A. Jamilu, **Bakare K. Ayeni**, Baroon I. Ahmad, Nura Sulaiman (2019) Classification of Coronary Artery Disease Using Hybrid Approach. FUDMA Journal of Sciences (FJS) Vol. 3 No. 4, December, 2019, pp 79 – 89
13. **Bakare K Ayeni**, Baroon I Ahmad and Abdulsalam A Jamilu (2020). An Improved Classification Method for Diagnosing Heart Disease using Particle Swarm Optimization. International Journal of Applied Information Systems 12(29):11-20.
14. **Bakare K.A.**, Junaidu S.B. and Ahmed M.Y. (2020). Improved Secure Biometric Authentication Protocol. International Journal of Applied Information Systems 12(31):49-56
15. Abubakar Salahudeen, Sahalu B. Junaidu, & **A.K. Ayeni.** (2021). An Improved Ant Colony Optimization Algorithm for Scheduling in Cloud Computing Environment. Recent Trends in Cloud Computing and Web Engineering, 3(2), 1–13. <http://doi.org/10.5281/zenodo.5113239>
16. **Bakare K. Ayeni**, Lawal Idris Bagiwa, Nafisah M.M. and Auwal J.(2021). A Review on 5G Wireless Network Implementation Strategies in Nigeria. FUDMA Journal of Sciences (FJS) Vol. 5 No.2, pp 419 – 427
17. Abubakar S. Sahalu B. J. **A. K. Ayeni** (2021) An Improved Ant Colony Optimization Algorithm for Scheduling in Cloud Computing Environment, Recent Trends in Cloud Computing and Web Engineering Volume 3 Issue 2 DOI: <http://doi.org/10.5281/zenodo.5113239>
18. **Bakare K. A.**, Abubakar S. I., Naveen A. Y., Abdullahi A. J., Gaku M. S., Abdulganiyu I., Asmau U. and Ahmad S. (2024): Streamlining the Path from Data to Deployment: Intelligent Methods for Hyperparameter Tuning in Machine Learning Bima Journal of Science and Technology, Vol. 8(1A) ISSN: 2536-6041

(b) **Conference Proceeding**

1. Obiniyi A. A., **Bakare K. A.** and Bamidele S. (2009). Fuzzy Logic Model for Air Traffic Control System. 9th International Conference and Annual General Meeting of Nigerian Computer Society (NCS): Conference Proceedings for Nigerian Computer Society, Volume 20, 2009, pp 47 – 58.

2. Yisah S. O. **Bakare K. A.** and Obiniyi A. A. (2009). The 3G Communication System and Air Traffic Control System, Conference Proceedings for International Conference on Mobile Computing, Wireless Communication, e- health and Telemedicine. Ladoke Akintola University of Technology, Ogbomoso, Nigeria.
3. **Bakare K. A.,** Obiniyi A. A. and Bamidele S. (2010). Spatial Database Management Systems in Nigerian Population Census for Enhancement of Electoral Processes. 10th International Conference and Annual General Meeting of Nigeria Computer Society (NCS): Conference Proceedings for Nigerian Computer Society, Volume 21, 2010, pp 209 – 220.
4. **Bakare K. A.,** Junaidu B. Sahalu and Yisah S. O (2014). Quantitative Timing Analysis in Real-Time Embedded Systems International Conference on Science, Technology, Education, Arts, Management and Social Sciences iSTEAMS Research Nexus Conference, Afe Babalola University, Ado-Ekiti, Nigeria, Proceeding Series 6, pp. 867 – 874.
5. **Bakare K. A** and Yisah S. O (2014). Effects of Social Network on Academic Performance of Students and Social Implication on the Society International Conference on Science, Technology, Education, Arts, Management and Social Sciences iSTEAMS Honours Conference, Auchi, Polytechnics, Auchi, Nigeria. Proceeding Series 6, pp. 257-260.
6. **Bakare K. A** and Hamza S. O. (2018): Design of Real Time Situation Awareness and Crisis Management System using Social Network platform. Proceedings of the 10th SMART iSTEAMS Multidisciplinary Conference, February, 2018, Ogbuashi-uku, Delta State, Nigeria. pp 65-74
7. **Bakare K. A** and Paul F. O. (2018): Inheritance Approach to Semantic Enrichment of XML Schema to Transform Association Relationships in ODL Schema. Proceedings of the 10th SMART- iSTEAMS Multidisciplinary Conference, February, 2018, Ogbuashi-uku, Delta State, Nigeria. pp 57-64
8. **Bakare K. A.** and Abdullahi H. I. (2018): Ontology for Risk Management in Software Project Proceedings of 2018 International Conference on Information Technology in Education and Development (ITED) pp. 75-80
9. **Bakare K. A** and Hamza S. O. (2018): Big Data Mining activities from Multiple Smart Houses in a Near Real-Time Manner for Healthcare Applications. Proceedings of 2018 International Conference on Information Technology in Education and Development (ITED) pp. 194-203
10. **Bakare K. A.** and Abdulwasiiu A. A (2023): Enhancing Resource Optimization in Cloud Computing through Artificial Intelligence Driven Fault Prediction Techniques. Proceeding of International Physical Science Conference doi: 10.33003/fudma-ipsc-confproc-2023

11. **Bakare, K. A.**, Olanrewaju, O. M., Abubakar, S. and Abdulwasiu, A. A. (2023) Network Topology Analysis and Structures. Proceeding of International Physical Science Conference doi: 10.33003/fudma-ipsc-confproc-2023
12. **Bakare, K. A.**, Abubakar A. and Abdulwasiu, A. A. (2023): Self-Aware Power Management for Multi-Core Microprocessors Using Multi2sim Simulator Software. Proceeding of International Physical Science Conference doi: 10.33003/fudma-ipsc-confproc-2023
13. **Bakare K. A.**, Ahmad N. S. and Abdulwasiu A. A. (2023). Network Caching Strategies and Performance Analysis. Proceeding of International Physical Science Conference doi: 10.33003/fudma-ipsc-confproc-2023

c. Thesis and Project

1. **Bakare K. A.** Design and Implementation of a Fuzzy Logic Model for Air Traffic Control System, in partial fulfillment for the award of MSc in Computer Science (2008), **(Published)**.
2. **Bakare K. A.** Modular Performance Analysis for Real - Time Embedded Systems, in partial fulfillment for the award of PhD in Computer Science (2013), **(Published)**.

F. BOOK PUBLICATION

Chapter in Book

1. **Bakare K. A.**, Junaidu B.S. & Kolawole R.A. (2022). Cross Site Scripting Detection in Web Applications Using Fuzzy Inference Systems SMART-IEEE-ACity-ICTU-CRACC-ICTU-Foundations Series Book Chapter on Web of Deceit - African Multistakeholders' Perspective on Online Safety and Associated Correlates Using Multi-Throng Theoretical, Review, Empirical and Design Approaches. Pp 263 -276. www.isteams.net/bookchapter 2022. DOI [https://doi.org/ 10.22624/AIMS/BK2022-P43](https://doi.org/10.22624/AIMS/BK2022-P43)
2. **Bakare K. A.**, Olanrewaju O. M., Abubakar S., Abdulwasiu A.A. (2023) Network Topology Analysis and Structures. . International Physical Science Conference. https://ipsc.fudutsinma.edu.ng/proceedings/IPSCFUDMA_2023_BOOK_OF_ABSTRACT.pdf

Book at the Press

1. Hands-On Simulation Book for Computer Science: **Bakare K. A.**

G. COURSES TAUGHT

Higher National Diploma in Aviation Management (HNDAM) Courses

1. Introductory Aviation Management
2. Airline Marketing
3. Research Methodology

4. Airline Business Operations

Postgraduate Diploma in Aviation Management (PGDAM) Courses

1. Airline Marketing
2. Air Transport Economics
3. Safety Management System
4. Human Factors in Aviation
5. Air Transport Standardization and Management

Undergraduate Courses (BSc Computer Science)

- | | |
|---|---------------|
| 1. Compiler Construction | 400 level |
| 2. Java Programming Language | 400 level |
| 3. Simulation Methodologies | 400 level |
| 4. Introduction to Artificial Intelligence | 400 level |
| 5. Computer Graphics and Visualization | 400 level |
| 6. Net Centric Computing | 400 level |
| 7. Computer Performance Analysis & Evaluation | 400 level |
| 8. Human Computer Interaction | 300/400 Level |
| 9. Professional and Social Aspects of Computing | 400 level |
| 10. Organisation of Programming Languages | 400 level |
| 11. Special Topics in ICT | 400 level |

Graduate Courses (MSc Computer Science)

1. Modeling and Simulation of Computers
2. Distributed Artificial Intelligence & Parallel System
3. Software Engineering
4. Advanced Computer Architecture
5. Programming Languages
6. Data Communication and Networking

Ph.D Courses (PhD Computer Science)

1. Contemporary Issues in Computing:
 - Nanotechnology
 - Introduction to Bioinformatics
2. Network and Cyber Security
3. Advanced Computer Architecture
4. Intelligent System
5. Internet Technologies

H. WORKING EXPERIENCE

S/ No	NAME OF THE WORKING PLACE	DATE	DESIGNATION	RESPONSIBILITY
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1	Nigerian College of Aviation Technology, Zaria, Kaduna - State	Nov. 2000 – Date	Chief Instructor/ Lecturer	- Lecturing in Aviation Management Courses and Computer Science Courses
2	Federal University Dustin Ma	2023 - 2024	Professor of Computer Science on Sabbatical	- Lecturing in Computer Science Courses
3	Federal University of Transportation, Daura		Visiting Professor	Lecturing in Faculty of Transportation and Logistics
4	Ahmadu Bello University, Zaria	Jan. 2014 – 2019	Visiting Associate Professor	- Lecturing in Computer Science Courses
5	Federal University Dustin Ma	2019 - 2020	Visiting Associate Professor	- Lecturing in Computer Science Courses
6	C.T.I. Computer. Zaria	March 2002- 2003	Training Manager (Part-Time)	- Monitoring and Administration of Training activities
7	Compute – Rite Consult, F1 Kaduna Road, Opp. U.B.A Zaria	Feb. 2000 – Nov. 2000	I.T. Consultant/ Programmer	- Providing Internet connectivity and Servicing - Designing Web Page for Clients - Maintenance and servicing of Computer Network System - Software Development
8	Soft Designs Computer, Samaru Zaria, Kaduna - State	2000	Part-time Lecturer	- Lecturing in Computer Science courses
9	Iya Abubakar Computer Centre, Ahmadu Bello University, Zaria, Kaduna - State	1999 - Feb. 2000	Graduate Assistant	- Lecturing in Computer Courses - Assisting in monitoring and troubleshooting Local Area Networking - Maintenance and service of Computer System - Designed software for Student Examination Records
10	Unitech Computer Technology, No. 12 Orona Street, Modakeke, Osun State	1997	Programmer	- Writing Programs - Teaching Computer Appreciation and Application
11	Unitech Computer Technology, No. 12 Orona Street, Modakeke, Osun State	1996	System Analyst	- Assisting in collation of data and project analysis

I. HOBBIES:

Long Tennis, In-Door Game (Computer Games) and making friends

J. REFEREES:

1. Prof. Junaidu B. Sahalu
Director, Iya Abubakar Computer Centre,
Ahmadu Bello University, Zaria
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abuyusra@gmail.com, sahalu@abu.edu.org

2. Engr. Ishaya I. Akaaba
Head, Aviation Management School,
Nigerian College of Aviation Technology, Zaria
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Zaria. Kaduna State
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Tel Mobile: 2348051041130

3. Mr. Ayoola Onifade
Managing Director
Compute - Rite Conzult
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Zaria, Kaduna State, Nigeria
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