

# Curriculum Vitae: Professor Bamidele A. Oluwade (Olopade)



- I (a) **Name:** Bamidele (‘Dele) Ayodeji **OLUWADE**  
 (b) **Date of Birth:** 7 August, 1964  
 (c) **Department:** Mathematical Sciences/Computer Science  
 (d) **Faculty:** (Natural) Sciences/ICT  
 (e) **Present Contact Address:** Principal Consultant/CEO, Dewade Systems Consult, POB 20253, UIPO, Ibadan, OYO 20005, Nigeria.  
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- II (a) **First Academic Appointment in University:** 20 October, 1997 (Graduate Assistant)  
 (b) **Present Post (with date):** Full Professor, 1 October, 2010  
 (c) **Date of last Promotion:** 1 October, 2010  
 (d) **Date last Considered:** 1 October, 2010

### III **University Education (With dates)**

<b>Year</b>	<b>University</b>
2000-2004	University of Ibadan (U.I), Ibadan, Oyo State, Nigeria
1997-1999	Obafemi Awolowo University (O.A.U), Ile-Ife, Osun State, Nigeria
1991-1998	University of Lagos (UNILAG), Akoka-Yaba, Lagos, Nigeria
1981-1985; 1987-1990	University of Ife (O.A.U.), Ile-Ife, Osun State, Nigeria

### IV **Academic Qualifications (with dates and granting bodies)**

<b>Degree</b>	<b>Discipline</b>	<b>Institution</b>	<b>Year</b>
Doctor of Philosophy (Ph.D)	Computer Science ( <u>Specialization:</u> Algebraic Coding Theory)	University of Ibadan, Nigeria	2004
Master of Science (M.Sc.)	Mathematics ( <u>Specialization:</u>	Obafemi Awolowo University, Ile-Ife,	1999

	Qualitative Theory of Ordinary Differential Equations)	Nigeria	
Postgraduate Diploma in Computer Science (PGDCS)	Computer Science ( <u>Specialization</u> : Computer Hardware System/Computer Engineering Analysis)	University of Lagos, Akoka-Yaba, Lagos, Nigeria	1998
Bachelor of Science (B.Sc.)	Mathematics ( <u>Specialization</u> : Pure and Applied Mathematics)	Obafemi Awolowo University, Ile-Ife, Nigeria	1990
Lower Six of the Higher School Certificate (H.S.C.) Programme (Admission into University via the Joint Matriculation Examination at the end of the Lower Six)	Physics, Chemistry, Mathematics	Federal School of Arts and Science, Ondo, Ondo State	1981
West African School Certificate (WASC)	General Mathematics, Additional Mathematics, English Language, Physics, Chemistry, Biology, Economics, Agricultural Science	Comprehensive High School, Ayetoro, via Abeokuta, Nigeria	1980

## V University Administrative Experience

*University of Ilorin, Ilorin, Nigeria:* Member/Postgraduate Coordinator, Postgraduate Committee, Department of Computer Science (2013-2017), Chairman, University Ad-Hoc Technical Committee on the Implementation of Library Automation and Digitization System (2013), Member, University Senate (2013-2017), Head, Department of Computer Science (2015-2017), Member, University Committee on the Restructuring of General Studies (GNS) Programme (2016);

*Kogi State University, Anyigba, Nigeria:* Member, Postgraduate Committee, Department of Mathematical Sciences (2012 -), Member, University Interview Panel for Appointment into lectureship and professorial positions in the Department of Mathematical Sciences (2012-), Member, Standing Committee, Faculty of Natural Sciences (2012-);

*Lead City University, Ibadan, Nigeria (2013-2015):* Head, Department of Computer Science (2013-2015), Member, University Senate (2013-2015);

*Salem University, Lokoja, Nigeria:* Dean, College of Information & Communication Technology (2010-2012), Head, Department of Computer Science (2010-2012), Member, University Senate (2010-2012), Member, Committee of Deans (2010-2012), Interim Director, ICT Unit (2010-2012), Member, University Mock Accreditation Committee (2010-2012), Member, University Matriculation Committee (2010-2012), Chairman, College of ICT Board

(2010-2012), Project Leader/Chairman, University ICT Technical Committee (2010-2012), Member, University Interview Panel for Appointment into Academic, Technical and Administrative Positions (2010-2012);

*Federal University of Technology, Minna, Nigeria:* Ag. Head, FUTMINnet (2008), Head, Department of Library & Information Technology (2008-2009), Head, Department of Computer Science (2009-2010), Member, Publication Committee, Department of Library & Information Technology (2007), Member, Board of Examiners, School of Science & Science Education (2007-2010), Member, University Congregation (2007-2010), Member, Curriculum Committee, Department of Library & Information Technology (2008-2009), 2008 – 2009: Member, Research & Higher Degrees Committee, Department of Library & Information Technology (2008-2009), Member, Quality Assurance Committee, Department of Library & Information Technology (2008-2009), Chairman, Training Committee, Department of Library & Information Technology (2008-2009), Chairman, Computer Committee, Department of Library & Information Technology (2008-2009), Member, University Information & Communication Board (2008), Member, University Curriculum Drafting Committee for New Schools (2008), Chairman, Undergraduate Project Committee, Department of Library & Information Technology (2008), Member, Standing Committee, School of Science & Science Education (2008-2009), Member, University Senate (2008-2010);

*King Fahd University of Petroleum & Minerals, Dhahran, Saudi Arabia :* Member, Board of Examiners, Department of Mathematical Sciences (2001-2002), Member, Board of Examiners, Prep Year Math Program (2001-2002), Member, Algebra Research Group, Department of Mathematical Sciences (2001-2002), Member, Differential Equations Research Group, Department of Mathematical Sciences (2001-2002), Member, University Board of the College of Sciences (2001-2002);

*University of Ibadan, Ibadan, Nigeria:* Postgraduate Coordinator, Department of Computer Science (2005-2006), Coordinator, Professional Masters in Computer Systems (MCS) Programme (2006-2007), Member, Postgraduate Committee, Faculty of Science (2005-2006), Member, Board of Examiners, Faculty of Science (1999-2007), Staff Adviser (300 Level), Department of Computer Science (2000), Member, Examination Committee, Department of Computer Science, University of Ibadan (2002), Acting Departmental Representative on the Board of the Directorate of Students Industrial Training Unit (ITF)(2002), Seminar Coordinator, Department of Computer Science (2002-2007), Staff Adviser, Press Organization of the National Association of Computer Science Students (NACOSS), University of Ibadan branch (2004-2007), Member, University of Ibadan Alumni Association (2005-2007);

*Obafemi Awolowo University, Ile-Ife, Nigeria:* Member, Board of Examiners, Department of Mathematics (1997-1999)

## VI **Scholarships/Fellowships and Prizes (with date)**

- Fellow of the Nigeria Computer Society (FNCS) (2015) (Membership Number 03244)
- Grant for participation in a 5-day Annual Conference and Forum of Sigma Xi, The Scientific Research Society, Research Triangle Park, Raleigh, North Carolina, USA (2001). (I delivered an invited talk on ‘Science and Engineering Policy and Development in Developing Countries’ (with particular reference to Nigeria). I also made a poster presentation entitled, ‘A Metaphysical Model of the General Communication System’. The grant covered an all-expenses paid trip from Saudi Arabia (where I was based at the time) to USA, including return air tickets, feeding, conference registration and accommodation at Sheraton Capital Centre Hotel, Raleigh).
- Grant for participation (as a Resource Person on Bioinformatics) at a one semester Postgraduate programme of the African Institute for Mathematical Sciences (AIMS)/Stellenbosch University, South Africa (2008).

(The grant covered an all-expenses paid trip to South Africa from Nigeria, including return air tickets, feeding, accommodation and a modest honorarium of over US\$1,000).

- Invited Sponsored Participant, Workshop on ‘Mathematical Biology and Numerical Analysis’ sponsored by the National Science Foundation (NSF), USA at the University of Georgia, USA (2009) (could not be honored due to logistics problem).
- Annual Excellence in Research Award 2012, Nigeria Computer Society (NCS National) (2012).

## **VII Honors/Distinctions/Membership of (Learned) Societies:**

- Second Best General Mathematics Student, Form 2, Comprehensive High School, Ayetoro, via Abeokuta, Ogun State (1977).
- Second Best History Student, Form 2, Comprehensive High School, Ayetoro, via Abeokuta, Ogun State (1977).
- Best Economics Student, Form 3, Comprehensive High School, Ayetoro, via Abeokuta, Ogun State (1978).
- Best /Second Best Additional Mathematics Student, Form 4, Comprehensive High School, Ayetoro, via Abeokuta, Ogun State (1979).
- Division One, West African School Certificate (1980).
- Associate Member, Sigma Xi, The Scientific Research Society, Research Triangle Park, Raleigh, USA (1991) (Membership No: 919996392).
- Full Member, Sigma Xi, The Scientific Research Society, Research Triangle Park, Raleigh, USA (1998/2000).
- Member, Institute of Electronics & Electrical Engineers Inc. (IEEE) & IEEE Computer Society, USA (2001 – 2007) (Membership Number: 41437783).
- Senior Member, IEEE Computer Society, USA (2007) & Senior Member, IEEE Communications Society, USA (2008) (Membership Number: 41437783).
- Chartered/Registered Information Technology Professional, Computer Professionals (Registration Council of Nigeria, CPN) (2002) (Registration No: 01125/2002).
- Foundation Editor (Mathematics & Computational Science) & Member of the Editorial Board, American Journal of Undergraduate Research (AJUR), University of Northern Iowa, Cedar Falls, Iowa, USA (2001).
- Biographee, 7<sup>th</sup> Edition of Marquis Who’s Who in Science and Engineering in the World, USA (2003).
- First PhD (Computer Science) degree graduate of the University of Ibadan (2004).
- Best Graduating Male Student, B.Sc. (Mathematics) Degree programme, Obafemi Awolowo University, Ile-Ife (1990).
- The Most Distinguished NCS Kogi State Chapter Member, Nigeria Computer Society (NCS), Kogi State Chapter (2012).
- Award of Excellence/Plaque (‘for immense contribution to the education of Nigeria’), South-South Student Forum (2013).
- IEEE Nigeria Section Leadership Award (2013).
- IEEE Nigeria Section Service Recognition Award (2013).
- Award/Plaque in recognition of attainment in the academia and as a pioneering PhD student in the Department of Computer Science, University of Ibadan, presented by the National Association of Computer Science Students (NACOSS), University of Ibadan branch (2014).
- Honorary award/Plaque, National Association of Computer Science Students (NACOSS), Lead City University Chapter, Nigeria (2015).
- Plaque/Award by Undergraduate Project Students for Excellent Mentoring, Department of Computer Science, University of Ilorin, Nigeria (2015/2016).
- Silver Medal, Senior Cricket (representing Ondo zone; I was one of the team’s three main bowlers), Ondo State Sports Festival, Akure (1981).
- Ondo State of Nigeria Students Merit Award (1989).
- Sir Ahmadu Bello Leadership Award (‘Icon of Societal Transformation’ Award), Association of Northern Nigerian Students (ANNS) (2019).

### Note

Professional interests and skills include: Web Development and Maintenance, Management Information System, Journal Management, Software Engineering Analysis, Computer Education, (Tutorial) Software Development, Project Management, Web Development, Statistical Computing Analysis, Engineering & Computational Analysis, Electronic Publishing.

I have, at one time or the other, been exposed to the following programming languages and operating systems, among others: FORTRAN, PASCAL, (VISUAL) BASIC, JAVA, C/C+/C++, DBASE, LATEX, HTML, SPSS, JAVA SCRIPT, MATLAB, MATHCAD, MATHEMATICA, COMPUTER-AIDED INSTRUCTION (CAI) SOFTWARE, PINE, ASSEMBLY LANGUAGE (MASM32, INTEL 8080...), FINITE MATH FOR WINDOWS, MACROMEDIA DREAMWEAVER, COBOL, LINUX, MS-DOS, WINDOWS XP, UNIX, OS/2, WINDOWS 8, ANDROID, MICROSOFT OFFICE (WORD, POWERPOINT, EXCEL...).

Professional accomplishments include:

- Word Processing analyses of advanced mathematical documents using LATEX software (1999 - ).
- Design of tutorial software (2002 - ).
- Project Team leader and initiator of the successful configuration of CISCO router of a University (2011).
- Project Team leader for the design and deployment of internet in a University (2011).
- Design and implementation of professional websites (2012 - ).
- Lead Project Consultant, Royal Word University (proposed), Okoro-Gbede, Kogi State, Nigeria (2012 - 2018).
- Preparation of feasibility report and project plan for the computerization of an agricultural (animal) farm in Ibadan, Oyo State, Nigeria (2013).
- Professional software analyses of statistics-based projects (2016).
- Professional training programmes on management information system for some leading Nigerian companies (2017).
- Usability evaluation and development of an integrated network for some Universities (2017).
- Implementation of optical character recognition for complicated documents (2018).
- Electronic journal management (2008 to date).

## VIII **Details of Teaching Experience at University Level**

I have engaged in teaching and research at both undergraduate (100–400 level) and postgraduate levels (PGD, Professional Masters, M.Sc., & PhD); and also in curriculum development; examination administration and related duties

Courses taught at undergraduate level (100 – 400 Level) are:

*Department of Mathematics, O.A.U, Ile – Ife  
(1989; 1997-1999):*

Introductory Physics, Physics for the Biological Sciences, Elementary Mathematics, Vectors, Mathematical Methods

*Department of Computer Science, U.I., Ibadan  
(1999 – 2007)*

Computer Simulation, Design and Analysis of Algorithms, Data Communication, Introduction to Computer Science, Scientific Programming (FORTRAN , PASCAL, C), Systems Analysis and Design, Discrete Structures, Compiling Techniques, Theory of Computation, Systems Programming, Computer Graphics, File Management, Research Project

*Department of Mathematical Sciences, Prep Year Math Program, King Fahd University of Petroleum & Minerals, Dhahran, Saudi Arabia (KFUPM)(2001 – 2002)*

Algebra, Trigonometry

*Department of Mathematics/Department of Computer Science, Ambrose Alli University (AAU), Ekpoma, Ibadan Outreach Centre (2003 – 2004) (Associate Lecturer)*

Trigonometry; Compiling Techniques

*Department of Computer & Information Technology, Bowen University, Iwo, Nigeria (2007) (Associate/Visiting Senior Lecturer)*

Discrete Mathematics

*Department of Computer Science, Adekunle Ajasin University, Akungba-Akoko, Ondo State, Nigeria (2007) (Visiting Senior Lecturer)*

Assembly Language Programming

*Department of Library and Information Technology, Federal University of Technology, Minna, Niger State (2007 – 2010)*

Operating Systems, Library Buildings, Information Technology and Society, Electronic Publishing, Information Retrieval System, Research Project

*Department of Computer Science, College of Information and Communication Technology, Salem University, Lokoja, Kogi State (2010 – 2012)*

Computational Science & Numerical Methods (using MATLAB), Operations Research (using JAVA, VISUAL BASIC & C), Quality Control in Telecommunication, Survey of Programming Languages (Procedural/Imperative, Object-oriented, Declarative & Logical Programming languages), Special Topics in ICT, Introduction to Computer Science, Research Project

*Department of Mathematical Sciences, Kogi State University (2012- )*

Systems Analysis & Design

*Department of Computer Science, Lead City University, Ibadan (2013 – 2015)*

Numerical Computation (using High Level Language), Numerical Computation (using MATLAB), Introduction to Computer Science, Object-Oriented Programming Concepts, Computer Project Management, Linux Administration, Research Project

*Department of Computer Science, University of Ilorin (2013 – 2017)*

Introduction to Artificial Intelligence; Theory of Computation; Systems Programming; Automata Theory, Computability and Formal Language; Parallel Computing, Seminar; Research Project

*Department of Telecommunication Science, University of Ilorin (2013-) (Adjunct Professor)*

Seminar

#### Postgraduate Diploma (PGD) Programme

*African Institute for Mathematical Sciences (AIMS)/Stellenbosch University, South Africa (2008) (Visiting Academic)*

Bioinformatics

*National Open University of Nigeria (NOUN), Minna Study Centre, Niger State, Nigeria (2009) (Course Instructor; half semester)*

Introduction to the Internet

*Department of Computer Science, University of Ilorin (2013-2017) (Contract Professor of Computer Science)*

Numerical Methods, Research Project

Professional Masters in Computer Systems (M.C.S) Degree Programme

*Department of Computer Science, University of Ibadan (1999-2007) (Assistant Lecturer – Lecturer)*

Analysis, Modelling & Design

Master of Science (M.Sc) Degree Programme

*Department of Computer Science, University of Ibadan (2000 - 2007)*

Design & Analysis of Algorithms, Theory of Computation, Artificial Intelligence, Research Project.

*Department of Computer Science, Ambrose Alli University (AAU), Ekpoma, Ibadan Outreach Centre (2003-2004) (Associate Lecturer)*

Computer Graphics

*Department of Mathematical Sciences, Kogi State University (2012- ) (Professor of Computer Science - Contract)*

Data Structures, Interactive Computer Graphics, Programming Language, Database Design and Implementation, Entrepreneurship and Research Methodology in Computer Science, Research Project

*Department of Computer Science, University of Ilorin (2013-2017) (Contract Professor of Computer Science)*

Software Review, Theory of Computation, Computer Systems Architecture, Bioinformatics, Research Project

*Department of Telecommunication Science, University of Ilorin (2013-) (Adjunct Professor) Seminar*

*Department of Educational Technology, University of Ilorin (2016) (Adjunct Professor)*

Programming for Educators, Designing Web Tools for the Classroom

Doctor of Philosophy (PhD) Degree Programme

*Department of Information and Communication Technology, Asia e-University, India/Malaysia (2011- )*

Research Methodology, Research Project

*Department of Mathematical Sciences, Kogi State University (2012- ) (Professor of Computer Science - Contract)*

Systems Software Development, Database Design and Implementation, Advanced Computer Architecture, Artificial Intelligence, Entrepreneurship and Research Methodology in Computer Science, Advanced Data Structures, Research Project

*Department of Computer Science, University of Ilorin (2013-2017) (Contract Professor of Computer Science)*

Seminar, Research Project

### B.Sc/B.Tech Projects Supervised:

Over 65 B.Sc. projects supervised to date

### PGD Projects Supervised

#### *Department of Computer Science, University of Ilorin*

- 1 Development of a Student Mobile Assistant for Semester Courses, I. F. Azeez (2016).
- 2 Design and Implementation of Database System for Patient Management in Hospitals, G. O. Allen (2016).
- 3 A Comparative Analysis of Five Intrusion Detection Classification Algorithms using WEKA Application Software, S. K. Oyebamiji (2016).
- 4 Development of an Asset Management System for a University Community (A Case Study of the Faculty of Communication and Information Sciences, University of Ilorin), I. A. Musa (2015).
- 5 Design and Application of a Logic System, M. M. Akanji (2015).
- 6 Some Novel Applications of Data Structure, O. A. Abodunrin (2015).
- 7 HRM: Design and Implementation of a Web-based Software to Manage the Recruitment and Performance Review System of an Establishment, A. K. Okesina (2014).
- 8 Design and Implementation of Software for Optimizing the Profit Earned in University of Ilorin Water Factory, I. Raheem (2014).
- 9 Computerized Medical Diagnostic and Drug Prescription System, D. O. Olaomi (2014).

#### *National Open University of Nigeria (NOUN), Lokoja Study Centre*

- 1 The Effect of Computerization on the Growth of Banking Industry (A Case Study of First Bank Nigeria Plc, Kogi State), J.O. Omaku (2013).

### M.Sc Projects Supervised:

#### *Department of Computer Science, University of Ibadan*

- 1 The Impact of Information and Communication Technology (ICT) on the Radiation Arising from Visual Display Unit (VDU) Usage, O.O. Adeniji (2007).
- 2 Application of Neural Encoding to a Two-Dimensional Character Pattern Recognition System, B. Omolu (2007).
- 3 Usability Evaluation of Interactive Systems: A User-Centered Approach, D. E. Asuquo (2007).
- 4 Comparative Analysis of Some Web Development Technologies (A Case Study of Kaduna Metropolis), F. E. Ekpenyong (2007).
- 5 Monitoring and Control in 802.11b Networks Interference (A Case Study of Uyo Capital City, Akwa Ibom State, Nigeria), I. O. Akpan (2007).
- 6 Development of a Plaintext Algorithm for Data Compression and Decompression, A. O. Moronfolu (2006).
- 7 Analysis and Implementation of Encryption Algorithm in Global System of Mobile Communication (GSM), O. C. Abikoye (2006).
- 8 Performance Evaluation of GSM Network, O. Ajibose (2006).
- 9 Cryptographic Encryption using A System of Nonlinear Equations, R. G. Jimoh (2006).
- 10 Performance Evaluation of Handover Management in Mobile Internet Protocol, M. O. Oke (2006).
- 11 An Improved Architecture for Dynamic Macro Pipeline, O. O. Olakanmi (2006).
- 12 Performance Analysis of Email Storage and Retrieval Protocols, C. P. Anieke (2005).
- 13 Development and Simulation of a Novel Routing Model for Adhoc Wireless Network, I. E. Eyo (2005).



- 14 Development of a Solution Model for the Problem of IP Addressing in Wide Area Networks, F. O. Oderanti (2005).
- 15 Development of a Student Service Model for a Wireless Application Protocol, S. Odole (2005).
- 16 A Network Monitor and Fault Detector System, V. T. Odumuyiwa (2005).
- 17 A Descriptive Analysis of the Utilization and Attitude toward Networking Technology at the University of Ibadan, Nigeria, F. Ajayi (2005).

*Department of Computer Science, University of Ilorin*

- 1 The Effect of Population Datasets in Paternity Testing using a Modified Combined Paternity Index, S. Ikechi (2017).
- 2 Modelling and Simulation of Boundedness and Convergence of Genetic Codes, O. Ogundeji (2017).
- 3 Development of a Modified Huffman Data Compression Algorithm, K. A. Adebayo (2016).
- 4 Performance Evaluation of Some Communication Networks, S. Adekeye (2016).
- 5 Bandwidth Utilization and Management of the University of Ilorin Network (Case Study: Network Operating Centre, M. A. Lawal (2015).
- 6 A Decision Tree Approach to Solving Unemployment Challenges in Nigeria, O. Ekundayo (2015).
- 7 Development of a Web-based Data Mining Approach for Making Decisions on Students' Scholarship Application (Case Study: Kwara State Ministry of Education, Ilorin), B. F. Jimoh (2015).
- 8 Application of Biometric Authentication to Bank Vaults, O. B. Abraham (2015).
- 9 Development of a Hybrid K-Means and Discrete Wavelet Algorithm for Solving Identity Fraud in Automated Teller Machine (ATM), O. S. Salawu (2015).
- 10 A Biometric Approach to Preventing ATM Fraud using Fingerprinting Authentication, G. Y. Ibikunle (2015).
- 11 Development of a GSM-based Vehicle Inspection Management System, F. T, Adewunmi-Owolabi (2014).
- 12 Development of an Efficient Fingerprinting System for Immigration Control, O. W. Olawale (2014).
- 13 A Comparative Analysis of the Data Encryption Standard and Rijndael algorithm, J. R. Adebayo (2014).

*Department of Mathematical Sciences, Kogi State University, Anyigba*

- 1 Design and Implementation of a Database System for Electric Transmission Data, A. B. Opaluwa (2017).
- 2 Development of an Extranet for Higher Institutions in Kogi State, S. Abdul (2017).

PhD Research Supervision:

Completed PhD Research Supervised (5):

*Department of Mathematical Sciences, Kogi State University, Anyigba*

1. Development and Evaluation of Fingerprint, Auto-pin and Password-based Security Systems in Cloud Computing Environment, E. Ogala (2018).
2. Development of a Data Mining Model for Classification of African Medicinal Plants for Healthcare Use, V. I. Yemi-Peters (2018).
3. An Hybrid Sorting Algorithm for Energy Efficiency on Resource Constrained Devices, O. S. Ayodele (2019).
4. Machine Learning Algorithms for Information Extraction of Structured Academic Data from Unstructured Web Documents, J. Agbogun (2019).

*Department of Information and Communication Technology, Asia e-University, Malaysia*

1. Development of an Information System for Counterfeit Drug Control, M. Amusa (2017) (awaiting thesis defence).

## IX Research

### (a) Major Research Interests

- Algebraic Coding Theory/Systems Programming
- Design & Analysis of Algorithms
- Data Compression
- Modelling of Computer Systems
- Bioinformatics
- Design & Analysis of Library Buildings/Intelligent Building Design
- Management Information System

### (b) Completed

#### (1) *Data Compression*

Development of an efficient binary text compression algorithm. This algorithm has been shown to have a better compression ratio than a popular algorithm used in the design of storage-based built-in test pattern generation for scan circuits.

#### (2) *Mathematical Foundation of Computer Science*

Development of a novel geometrical method for ordering an arbitrary subset of the set of complex numbers. Even though the set of complex numbers is said to be an unordered field (i.e. one cannot say that an element of the set is greater or less than another element of the set, on the real line), the new method relied on the famous well-ordering principle (which states that every set can be well-ordered) to present a natural order for an arbitrary subset of the set. The method has important application in practical computational problems which require the comparison of two complex numbers, or the comparison of a complex number and a real number. The algorithm helps in getting an affirmative answer to, for instance, the following intractable computational problem: Is  $2i > 2$ , where  $i = \sqrt{-1}$  ?

#### (3) *Mathematical Foundation of Computer Science/Modelling of Computer Systems*

Construction of fractals (unique computer images) using the method in (2) above. By associating every generated image with a unique face/name, the method has (potential) application in face image (or pattern) recognition system, finger printing technology and digital forensics.

#### (4) *Design and Analysis of Algorithms for Data Communication Code/Algebraic Coding Theory*

Design and analysis of an algorithm for constructing the Slepian Standard Array of an n-bit uniform digital code. This array is useful in finding the error pattern of a uniform digital code.

#### (5) *Mathematical Foundation of Computer Science*

Development of a method for studying the qualitative equivalence of the ordinary differential equation (ODE)  $x' = f(x)$ , where  $f$  is a transcendental function. The method is a novel blend of mathematical methods, specifically the power series representation of a function, with the qualitative theory of autonomous first order ODE.

#### (6) *Design of Algorithms for Computer Communication Network/Mathematical Foundation of Computer Science/Modelling*

Development of an algorithm for constructing point-to-point network topologies. This algorithm has application in telecommunication over telephone lines, which is necessarily between one transmitter and one receiver

#### (7) *Algebraic Coding Theory/Systems Programming*

Development of a novel 8-bit coded character set which is a subset of the Unicode Standard, and presentation of a framework for its extension. The set combines some of the advantages of the famous ASCII (American Standard Code for Information Interchange) and the EBCDIC (Extended Binary Coded Decimal Interchange Code). The paper is an initiative towards the design of African Computer Character Codes and the development of technologies for processing indigenous African languages on a digital computer system.

(8) *Usability Evaluation of Websites of Academic Institutions*

In this research, websites of academic institutions are evaluated to determine the degree of compliance with relevant technical standards.

(9) *Discrete Structure/Modelling*

Development of a discrete structure model for constructing components of buildings.

(10) *Algebraic Coding Theory*

Development of a novel set theoretic nomenclature for studying the characteristics of uniform binary digital codes, with particular reference to Gray codes.

(11) *Bioinformatics*

Adaptation of a set theoretic nomenclature to the study of disease datasets.

(c) **In Progress**

(1) *Design and Analysis of Intelligent Library Buildings*

This research is an interplay between the field of building technology and library/information science. It involves the application of the basic principles of construction technology to the design and analysis of intelligent and comfortable library buildings.

(2) *Design of Algorithms for Compressing Text Files/ Development of Algorithms for Image Compression/ Development of Software for Data Compression Algorithms*

Several algorithms have been reported in the literature. For instance, the one(s) developed by this researcher was shown to have a better compression ratio than a popular algorithm used in the design of storage-based built-in test pattern generation for scan circuits. The current research is an extension of the previous work, and is aimed at developing better algorithms, not just for texts but for also other data types such as images and audios.

(3) *Computational Analysis of Popular Algorithms*

In this research, the goal is to calculate both the time and space complexities of algorithms that are of high importance in several application areas, including medicine/biological sciences, engineering etc.

(4) *Hybridization Properties of DNA Codes/Development of Algorithms for Digital Forensics*

One of the important areas of research in Bioinformatics is DNA Computing which relates to the understanding of the inherent characteristics of the DNA, built up from the four nucleotides or bases, namely adenine (A), guanine (G), cytosine (C), and thymine (T) (or uracil (U)), which are otherwise referred to as nucleotides. DNA Computing includes the abstracting of computing ideas and models from the structure and functioning of living cells, and also from the way the cells are organized in tissues or higher order structures.

This present research is based on the fact that genetic information is encoded digitally as a linear code over the four-letter alphabet/set {A, G, C, T}, and thus focuses on the analysis of DNA structure from the perspective of set theory. This is with the aim of bringing to the fore similarities among DNA sequences, which is important for applied research. Significant

application areas include digital/computer forensics and treatment of diseases such as cancer, malaria/yellow fever, sickle cell, rheumatism etc.

(5) *Boundedness and Convergence Properties of Coded Character Sets*

This research is concerned with the investigation of the boundedness and convergence properties of codes from the perspective of real analysis.

(6) *Passive Solar Energy Technology/ (Solar) Energy Conservation in Buildings*

Solar Energy, as an alternative source of energy is more relevant in present times as an important research area than in the past due to insufficiency in power generation, transmission and distribution particularly in Nigeria. This research focuses on passive solar energy development, including energy conservation and efficiency in buildings and the associated technologies. These incorporate solar heater, solar dryer, solar cooker, solar oven etc.

(7) *Management Information System*

This research seek to explore ways by which information technology can be used in a non-trivial manner in solving the endemic and persistent challenges of management, leadership and governance which confront many African nations, with particular focus on Nigeria.

(d) **Dissertation and Thesis**

- (i) Design and Analysis of Computer-Coded Character Sets (PhD Computer Science Thesis, November 2004).
- (ii) Design, Analysis and Uses of Classical and Quantum Computer Codes (M.Phil/PhD to PhD Conversion Project Report, August 2002).
- (iii) Qualitative Equivalence of Autonomous Ordinary Differential Equations (M.Sc Mathematics Thesis, December 1999).
- (iv) Basic Design Structure of a Digital Computer (Postgraduate Diploma (PGD) in Computer Science Project Report, February 1998).

X **Publications:**

- (a) **Books/Edited Books:** 4
- (b) **Chapters in Books:** 4
- (c) **Articles that have already appeared in Refereed Conference Proceedings:**

- **Oluwade, Bamidele** (1998): Applications of 2-Code Error Detection Techniques, Proceedings of the 14<sup>th</sup> National Conference of COAN (Nigeria Computer Society), Vol. 9, 245-251.
- **Oluwade, Bamidele** (2000): On the Qualitative Classes of  $x' = ax^3+bx^2+cx+d$  in Tejumola, H.O; Ezeilo, J.O.C and Afuwape, A.U (Ed), Proceedings of the National Mathematical Centre, Abuja Vol. 1 (Ordinary Differential Equations), 75-82.
- **Oluwade, Bamidele** (2001): Digital Signature in E-commerce , Proceedings of the 17<sup>th</sup> National Conference of COAN (Nigeria Computer Society) , Vol. II, No.1, 181-185.
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- **Oluwade, Bamidele** (2006): Presentation Theorems for Coded Character Sets; [http://arxiv.org/ps\\_cache/cs/pdf/0610/0610168.pdf](http://arxiv.org/ps_cache/cs/pdf/0610/0610168.pdf), hosted at Cornell University, Ithaca, New York, USA
- **Oluwade, Bamidele** (2006): ‘Relevance of Coding Theory to Indigenous Engineering Development’, presented at a seminar of the IEEE Nigeria Section held at the headquarters of the Nigerian Society of Engineers (NSE), Port-Harcourt Branch.
- **Oluwade, Bamidele** (2007): ‘Fundamentals of Computer Networking’, Invited Lecture delivered at a Workshop organized by the National Association of Library & Information Technology Students (NALITS), Federal University of Technology, Minna.
- **Oluwade, Bamidele** (2008): Series of invited lectures on Bioinformatics delivered to the Postgraduate students in Mathematical Sciences, African Institute for Mathematical Sciences (AIMS) / Stellenbosch University, South Africa (<http://users.aims.ac.za/~bamidele> ; <http://www.aims.ac.za/resources/courses>).
- **Oluwade, Bamidele** (2008): ‘Discrete Modelling and Analysis of Some DNA Codes’, International Conference on ‘Mathematical Modelling of Some Global Challenging Problems in the 21<sup>st</sup> Century’, organized by the National Mathematical Centre (NMC), Abuja, Nigeria & Commission for Science and Technology for Sustainable Development in the South (COMSATS), Pakistan, and held at the National Mathematical Centre, Abuja.
- **Oluwade, Bamidele** (2009): ‘Relevance of Information Technology to the (Nigerian) Society’, Invited paper submitted for publication in the magazine of the National Association of Niger State Students (NANISS).
- **Oluwade, Bamidele** (2011): ‘The Philosophy of Nigerian Undergraduate Information Technology Curriculum and its Relationship to Graduate Employment Prospects’, Invited paper presented at the 14<sup>th</sup> Annual National Convention & 20<sup>th</sup> Anniversary of Nigerian Association of Computer Science Students (NACOSS) (with theme: Development of our National Economy Through Information Technology, DONEIT 2011), held at the Federal University of Technology, Minna, Niger State, Nigeria, 22<sup>nd</sup>-27<sup>th</sup> August, 2011(NOTE: The same paper was re-presented, on request, at the 2011 Annual Conference of NACOSS, University of Abuja Chapter).
- **Oluwade, Bamidele** (2011): ‘An Introduction to Easychair Conference Management System’, invited e-presentation at the Executive Council Retreat of the IEEE Nigeria Section, held in Port-Harcourt, March 2011.
- **Oluwade, Bamidele** (2011): ‘ICT As A Platform for Modeling, Design and Analysis of Building Structures’, presented at the 1<sup>st</sup> Annual Convention of the Kogi State Chapter of the Nigeria Computer Society (NCS) held at Salem University, Lokoja, May 26, 2011.
- **Oluwade, Bamidele** (2011): Guidelines to Assist in the Engagement of Visiting/Adjunct Lecturers and Professors, an invited Working Document submitted to a private university in Kampala, Uganda, January 2011.
- **Oluwade, Bamidele** (2012): ‘The Role of ICT in Curbing Contemporary Security Challenges in Nigeria’, Guest Speaker, IEEE-AUN Seminar, American University of Nigeria, Yola, Adamawa State, Nigeria, 21<sup>st</sup> April, 2012.
- O. O. Igbinosa and **Oluwade, Bamidele** (2013): ‘Global ICT Strategies for Preventing the Occurrence of Tsunami’, Abstract appeared in the Proceedings of the 2<sup>nd</sup> International Conference on Emerging and Sustainable Technologies for Power and ICT in a Developing Society, held at Links Hotels, Owerri, Nigeria, November 14 – 16, 2013, pg. 359.

(h) **Reviewer/Editor for the following Learned Journals and Conference Proceedings:**

- American Journal of Undergraduate Research, formerly published at the University of Northern Iowa, and now at the State University of New York, Oswego (*Reviewer/Subject Editor for Mathematics and Computer Science*).
- Mathematical Reviews, published by the American Mathematical Society

(<http://www.ams.org/>) (2002 to date) (*Reviewer*).

- ASSETS, a journal published by the University of Agriculture, Abeokuta (2003) (*Reviewer*).
- 2<sup>nd</sup> International Conference on Cybernetics and Information Technologies, Systems and Applications (CITSA '05), Florida, USA (2005) (*Track Moderator/Editor*).
- IEEE AFRICON 2007, held in Namibia 26-28 September 2007 (<http://www.africon2007.co.za/>) (2005-2007) (*Track Moderator/Editor*).
- African Journal of Computing & ICT (2006 to date) (*Reviewer/Editor-in-Chief*); <https://afrcjict.net>.
- African Journal of Management Information System (2019) (*Reviewer/Chief Editor*); <https://afrmis.net> (alternative – <https://afrcjict.net/afrmis-2>).
- IEEE AFRICON 2009, IEEE Region 8, held in Kenya September 2009 (2008) (*Reviewer*).
- Proceedings of the Conference of the College of Natural Sciences (COLNAS), University of Agriculture, Abeokuta (2009) (*Reviewer*).
- Journal of Technology, Science and Mathematics Education, Department of Science Education, School of Science & Science Education, Federal University of Technology, Minna (2009-2010) (*Reviewer*).
- African Journal of Mathematics and Computer Science Research (<http://www.academicjournals.org/AJMCSR>) (2009) (*Reviewer*).
- Book of Proceedings of the 1<sup>st</sup> Annual Convention of the Kogi State Chapter of the Nigeria Computer Society (2011) (*Reviewer/Editor*).
- Journal of Computer Science & Its Application (Journal of the Nigeria Computer Society) (2011) (*Reviewer*).
- Book of Proceedings of the 2<sup>nd</sup> Annual Convention of the Kogi State Chapter of the Nigeria Computer Society (2012) (*Reviewer/Editor*).
- Proceedings of the 2012 Annual Conference of the Nigeria Computer Society (2012) (*Reviewer*).
- Educational Research & Review (ERR) publication (2013) (*Reviewer*).
- Online Journal of Architecture and Building Technology (2013) (*Reviewer*).
- Journal of Testing and Evaluation, USA (2014) (*Reviewer*).
- IEEE-ICAST Conference, Covenant University, Ota (2014) (*Reviewer*).
- ABACUS, Journal of the Mathematical Association of Nigeria (2015-) (*Reviewer/Associate Editor*).
- Journal of the Nigerian Mathematical Society (JNMS) (2015 to date) (*Reviewer*).
- Ilorin Journal of Science, published by the Faculty of Physical Sciences, University of Ilorin, Nigeria (2015) (*Reviewer*).
- Ilorin Journal of Computer Science and Information Technology, published by Department of Computer Science, University of Ilorin, Nigeria (2016-2017) (*Editor-in-Chief*).
- 1<sup>st</sup> International Conference of the IEEE Nigeria Computer Chapter (2016) (*Reviewer/General Editor*).
- IEEE NIGERCON2017, IEEE Nigeria Section (2017) (*Reviewer*).

## XI Conferences and Workshops Attended, and Industrial Supervision Experience

- 1987: Annual Conference of the Solar Energy Society of Nigeria (SESN) held at the University of Lagos, Akoka-Yaba, Lagos (My specific interests with respect to the conference included: passive solar building design, and solar thermal processes (design, construction & performance evaluation of low-cost solar cooker and solar pond)).
- 1987: Seminar on Numerical Methods in ODE, Department of Mathematics, Obafemi Awolowo University, Ile-Ife.
- 1988: Seminar on History of Mathematics, Department of Mathematics, Obafemi Awolowo University, Ile-Ife.

- 1989: Seminar on Hopf Algebra, presented by Professor Michel Hazewinkel (Director, Netherland Mathematical Centre), at the Department of Mathematics, Obafemi Awolowo University, Ile-Ife, Nigeria.
- 1990: Seminar on Fluid Mechanics, Department of Mathematics, Obafemi Awolowo University, Ile-Ife.
- 1990: Annual Conference of the Nigerian Institute of Physics (NIP), hosted by the Department of Physics, Obafemi Awolowo University, Ile-Ife (Theme: Physics in the Development of Raw Materials and Maintenance Culture) (My interest at the time was on Quantum Field Theory & Solar Thermal Process) .
- 1992: Seminar on Cordic Algorithm, Department of Electrical/Electronics Engineering, Faculty of Engineering, University of Lagos, Akoka-Yaba, Lagos.
- 1993: Seminar on Numerical Computation, Department of Computer Science, University of Lagos, Akoka-Yaba, Lagos.
- 1995: Seminar on Loop Theory, Department of Mathematics, Obafemi Awolowo University, Ile-Ife.
- 1996: Seminar on Library Management, Isa Kaita College of Education, Dutsinma, Katsina State.
- 1997: International Conference on ‘Directions in Mathematics’, organized by the Department of Mathematics, University of Ibadan, Nigeria in honor of Professor H.O. Tejumola on his retirement.
- 1997: Seminar on Functional Analysis presented by Professor Charles Chidume of the Mathematics Section, Abdulsalam International Centre for Theoretical Physics (AS-ICTP), Trieste, Italy, at the Department of Mathematics, University of Ibadan, Nigeria.
- 1998: Annual Conference of the Computer Association of Nigeria (now, Nigeria Computer Society) in Calabar, Cross River State.
- 1998: Conference in honor of Professor R. F. A. Abiodun (‘Publish or Perish’) at the Department of Mathematical Sciences, University of Agriculture, Abeokuta, Nigeria.
- 1999: Annual Conference of the Nigerian Mathematical Society (NCS) at the University of Agriculture, Abeokuta, Nigeria.
- 2000: Conference on Ordinary Differential Equations, organized by the National Mathematical Centre, Abuja, Nigeria.
- 2001: Annual Conference of the Nigeria Computer Society (NCS) in Benin-City.
- 2001: Annual Conference of Sigma Xi, The Scientific Research Society, Raleigh, USA.
- 2002: Workshop on the Applications of Information and Communication Technology to Economic Intelligence, organized jointly by Universite Nancy 2 France and the Department of Computer Science, University of Ibadan in Ibadan.
- 2003: International Summer School on ‘Concepts and Development of Tools for Information Systems on Internet’, organized jointly by Universite Nancy 2 France and the Department of Computer Science, University of Ibadan in Ibadan.
- 2003: Conference organized by the African Mathematical Union at the Department of Mathematical Sciences, University of Agriculture, Abeokuta, Nigeria in Abeokuta.
- 2003: Series of Seminars of the Nigerian Society of Engineers (NSE), Lagos Branch held at the University of Lagos, Akoka-Yaba, Lagos.
- 2003: Annual Conference of the Nigerian Society of Engineers (NSE) (‘Lagelu 2003’), held at the Cultural Centre, Mokola, Ibadan.
- 2003: Workshop on Guidelines for Writing Doctoral Thesis, organized by the Postgraduate School, University of Ibadan.
- 2004: 5<sup>th</sup> Annual Engineering Conference of the School of Engineering and Engineering Technology, Federal University of Technology, Minna, Niger State, Nigeria.
- 2004: Seminar of the IEEE Nigeria Section held at the Nigerian Society of Engineers National Headquarters, Victoria Island, Lagos.
- 2004: Series of Seminars of the Nigerian Society of Engineers (NSE), Lagos Branch held at the University of Lagos, Akoka-Yaba, Lagos.

- 2004: Workshop on the Review of Computer Science Curriculum of Universities, sponsored by the United Nations University, Macao, China, at the Department of Computer Science, University of Ibadan.
- 2004: Conference on ‘Appreciating Mathematics in Contemporary World’ (in honor of Prof E.O. Oshobi and Dr. J.O. Amao, two retiring academics) organized by the Department of Mathematics, Obafemi Awolowo University, Ile-Ife.
- 2005: Annual Conference of the Nigerian Mathematical Society (NMS) at Olabisi Onabanjo University, Ago-Iwoye, Ogun State.
- 2005: Series of Seminars of the Nigerian Society of Engineers (NSE), Ibadan Branch held at the Nigerian Television Authority (NTA) Ibadan.
- 2005: Seminar of the IEEE Nigeria Section held at the headquarters of the Nigerian Society of Engineers (NSE) Port-Harcourt Branch.
- 2006: Seminar of the IEEE Nigeria Section held at the Institute of African Studies, University of Ibadan, Ibadan.
- 2005: Institution Supervisor (SIWES programme) at some computer/ICT-based companies in Lagos where students of the Department of Computer Science, University of Ibadan undertook their mandatory industrial training (The companies included: Connect Technologies etc).
- 2006: Series of Seminars of the Nigerian Society of Engineers (NSE), Ibadan Branch held at the Nigerian Television Authority (NTA) Ibadan.
- 2006: Stakeholders’ Consultative Forum / Workshop on Distance Learning organized by the Distance Learning Centre (sponsored by the MacArthur Foundation), University of Ibadan.
- 2006: Annual Software Developers Summit organized by the Nigeria Computer Society (NCS) in partnership with the Institute of Software Practitioners of Nigeria (ISPON) in Lagos.
- 2006: Seminar of the IEEE Nigeria Section held at the headquarters of the Nigerian Society of Engineers (NSE) Port-Harcourt Branch.
- 2006: Institution Supervisor (SIWES programme) at some computer/ICT-based companies in Lagos where students of the Department of Computer Science, University of Ibadan undertook their mandatory industrial training (The companies included: Texaco Nigeria headquarters; Systems Specs etc).
- 2007: Workshop/Retreat on Curriculum Review for Heads of Departments, Deans of Colleges, and Director of Academic Planning, organized by the Federal University of Technology, Minna at National Teachers’ Institute (NTI), Kaduna.
- 2007: Seminar of the IEEE Nigeria Section held at the Federal University of Technology, Minna, Niger State.
- 2007: Professional Assembly of the Computer Professionals Registration Council of Nigeria (CPN) in Abuja.
- 2007: Institution Supervisor (SIWES programme) at some organizations in Niger State (Mokwa, Kainji, New Bussa areas) where students of the Federal University of Technology, Minna undertook their mandatory industrial training (The organizations included Kainji Hydroelectric Plc, National Institute for Fisheries & Freshwater Resources (NIFFR); General Hospital, Mokwa etc).
- 2008: Seminar of the IEEE Nigeria Section held at the Federal University of Technology, Minna, Niger State.
- 2008: Annual Conference of the South African Symposium for Numerical and Applied Mathematics (SANUM) held at the University of Stellenbosch, South Africa.
- 2008: Annual Conference of the Nigeria Computer Society (NCS) in Abeokuta, Ogun State.
- 2008: Seminar of the IEEE Nigeria Computer Chapter held in Minna.
- 2008: International Conference on ‘Mathematical Modelling of Some Global Challenging Problems in the 21<sup>st</sup> Century’, organized by the National Mathematical Centre (NMC), Abuja, Nigeria & Commission for Science and Technology for Sustainable Development in the South (COMSATS), Pakistan, and held at the National Mathematical Centre, Abuja.
- 2008: Institution Supervisor (SIWES programme) at some organizations in Niger State (Mokwa, Kainji, New Bussa areas) where students of the Federal University of Technology,

Minna undertook their mandatory industrial training (The organizations included Kainji Hydroelectric Plc, National Institute for Fisheries & Freshwater Resources (NIFFR) etc).

- 2009: Seminar of the IEEE Nigeria Section held in Abuja.
- 2009: Seminar of the IEEE Nigeria Computer Chapter held in Minna.
- 2009: Institution Supervisor (SIWES programme) at some organizations in Niger State (Mokwa, Kainji, New Bussa areas) where students of the Federal University of Technology, Minna undertook their mandatory industrial training (The organizations included Kainji Hydroelectric Plc, National Institute for Fisheries & Freshwater Resources (NIFFR) etc).
- 2010: Professional Membership Fair organized by the IEEE Nigeria Section and held in Abuja, FCT.
- 2010: First International Conference of the IEEE Nigeria Section held in Abuja.
- 2010: Information Technology Professionals' Assembly/AGM, Computer Professionals (Registration Council of Nigeria) held in Abuja.
- 2010: Seminar of the IEEE Nigeria Computer Chapter held at the Federal University of Technology, Minna.
- 2010: Seminar of the IEEE Nigeria Section held at the University of Lagos, Akoka-Yaba, Lagos.
- 2010: Inaugural Ceremony/Seminar of the Nigeria Computer Society (NCS), Kogi State Chapter.
- 2011: E-meeting, IEEE Nigeria Computer Chapter.
- 2011: Teleconferencing, Executive Council Meeting of IEEE Nigeria Section.
- 2011: 1<sup>st</sup> Annual Convention of the Kogi State Chapter of the Nigeria Computer Society.
- 2011: Second International Conference of the IEEE Nigeria Section held in Abuja.
- \* 2011 – 2012: Monthly meeting/seminar of the Nigeria Computer Society, Kogi State Chapter.
- \* 2011: Institution Supervisor (SIWES programme) at some organizations in Lokoja, Kogi State where students of (College of Information and Communication Technology) Salem University, Lokoja undertook their mandatory industrial training (The organizations included Confluence Cable Network and Government House).
- 2012: 2<sup>nd</sup> Annual Conference/Convention of the Kogi State Chapter of the Nigeria Computer Society.
- 2012: The Second Meeting of Heads of Departments of Mathematics and Professors of Mathematics in Nigerian Universities, organized by the National Mathematical Centre, Abuja, 2<sup>nd</sup>-3<sup>rd</sup> September, 2012.
- 2012: (Opening Ceremony) of the 49<sup>th</sup> Annual National Conference of Mathematical Association of Nigeria (MAN), held at the Shehu Musa Yar'Adua Centre, Abuja, 4<sup>th</sup> September, 2012.
- \* 2013: Pan African Congress of Mathematicians (PACOM), organized by the African Mathematical Union (AMU), and hosted by the National Mathematical Centre (NMC), Abuja.
- \* 2013: Annual Conference of the Nigeria Computer Society (NCS), held at Royal Park Hotel, Iloko-Ijesa, Osun State.
- 2013: 3<sup>rd</sup> International Conference of IEEE Nigeria Section (NIGERCON 2013), Owerri.
- 2014: Seminar of the IEEE Nigeria Section held at Federal University of Technology, Akure.
- 2014: Seminar of the IEEE Nigeria Section held at Covenant University, Ota.
- 2014: Postgraduate Workshop on Research Methodology and Academic Writing, organized by the Department of Computer Science, Faculty of Communication and Information Sciences, University of Ilorin, Kwara State, Nigeria.
- 2015: Teleconferencing, Executive Council Meeting of IEEE Nigeria Section.
- 2016: Annual International Conference of the Nigeria Computer Society, Abuja.
- 2016: 1<sup>st</sup> International Conference of the IEEE Nigeria Computer Chapter
- 2016: Retreat of the College of Fellows, Nigeria Computer Society, Ijebu-Ode, Ogun State.
- 2017: Teleconferencing, Executive Council Meeting of IEEE Nigeria Section.
- 2017: Information Technology Professionals' Assembly/AGM, Computer Professionals (Registration Council of Nigeria) held in Abuja.

- 2018: Annual General Meeting of the College of Fellows, Nigeria Computer Society.
- 2018: Annual General Meeting of the Nigeria Computer Society.
- 2018: Annual Meeting of Professors and Heads of Department of Mathematical Sciences in Nigerian Universities, organized by the National Mathematical Centre, Abuja.
- 2019: Teleconferencing, Meeting of the Central Planning Committee, 2<sup>nd</sup> International Conference of the IEEE Nigeria Computer Chapter (in collaboration with the Department of Computer Engineering, Ahmadu Bello University, Zaria, Nigeria).

## **XII Service as External Examiner**

- 2007: External Examiner for B.Sc. programme, Department of Computer Science, Niger Delta University, Wilberforce, Bayelsa State, Nigeria (could not be honored due to short notice).
  - 2011-2013: External Examiner for B.Sc. (Computer and Information Science), B.Sc (Computer with Economics) and B.Sc. (Computer with Electronics) degree programmes, Department of Computer and Information Science, Lead City University, Ibadan, Oyo State, Nigeria.
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- 2012: External Examiner for Two M.Sc. (Computer and Information Science) Theses, Postgraduate School, Lead City University, Ibadan, Oyo State, Nigeria.
  - 2012 - 2015: External Examiner for B.Sc. (Computer Science) programme, Department of Mathematical Sciences, Kaduna State University, Kaduna, Kaduna State, Nigeria.
  - 2012 - 2014: External Examiner, Computer Science programme, Department of Mathematics, Statistics & Computer Science, Kogi State Polytechnic, Lokoja, Nigeria.
  - 2013- : External Examiner, Ph.D in Management Information Systems, Kampala International University, Uganda (assignment pending).
  - 2014: External Examiner for Ph.D candidate, Department of Computer Science and Engineering, Faculty of Engineering, Ladoko Akintola University of Technology (LAUTECH), Ogbomoso, Oyo State, Nigeria.
  - 2015 to date: External Examiner for Master of Computer Systems (MCS) programme, Department of Computer Science, University of Ibadan, Oyo State, Nigeria.
  - 2015: External Examiner for M.Tech degree programme, Department of Cyber Security Science, Federal University of Technology, Minna, Niger State, Nigeria.
  - 2016- : External Examiner for B.Sc. (Computer Science) degree programme, Federal University, Ndufu-Alike Ikwo (FUNAI), Ebonyi State.
  - 2016: External Examiner for Ph.D candidate, Department of Computer Science/Department of Cyber Security Science, Federal University of Technology, Minna, Niger State, Nigeria.
  - 2016: External Examiner for M.Sc. degree programme, Department of Computer Science, Kwara State University, Malete, Kwara State, Nigeria.
  - 2017: External Examiner for Master of Computer Science (MSc) degree programme, Department of Computer Science, University of Ibadan, Oyo State, Nigeria.
  - 2019: External Examiner for Master in Business Computing (MBC) degree programme, Department of Computer Science, University of Ibadan, Oyo State, Nigeria.
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## **XIII Service as External Assessor for Senior Academic Position**

- 2012: External Assessor for promotion to the rank of Principal Lecturer (Computer Science), Federal College of Education, Okene, Kogi State, Nigeria.
- 2013: External Assessor for promotion to the rank of Reader/Associate Professor (Information System/Computer Science), Federal University of Agriculture, Abeokuta (FUNAAB), Ogun State, Nigeria.
- 2014: External Assessor for promotion to the rank of Full Professor of Computer Science, Adeleke University, Ede, Osun State, Nigeria.
- 2015: External Assessor for promotion to the rank of Associate Professor of Computer Science, Fountain University, Osogbo, Osun State, Nigeria.



- 2015: External Assessor for promotion to the rank of Chief Lecturer (Computer Science), Federal College of Education, Okene, Kogi State, Nigeria.
- 2016: External Assessor for promotion to the rank of Associate Professor of Computer Science, Osun State University, Osogbo, Osun State, Nigeria.
- 2017: External Assessor for promotion to the rank of Associate Professor of Computer Science, University of Benin, Benin City, Nigeria.
- 2019: External Assessor for promotion to the rank of Associate Professor of Computer Science, Federal University of Petroleum Resources, Effurun, Delta State, Nigeria.

XIV **Service as a Member/Chairman of NUC Accreditation Panels** (Computer Science, Mathematics, Physics, Computer Science Education, Agricultural Science Education, Biology Education and Chemistry Education)

- 2014: Member, National Universities' Commission (NUC) Undergraduate Accreditation Panel to Federal University of Petroleum Resources, Effurun, Delta State.
- 2015: Member, National Universities' Commission (NUC) Undergraduate Accreditation Panel to Federal University, Dutsinma, Katsina State.
- 2015: Member, National Universities' Commission (NUC) Undergraduate Accreditation Panel to Kebbi State University, Aliero.
- 2015: Member, National Universities' Commission (NUC) Undergraduate Accreditation Panel to Southwestern University, Okun-Owa, via Ijebu-Ode, Ogun State.
- 2015: Member, National Universities' Commission (NUC) Undergraduate Accreditation Panel to Federal University, Lafia, Nasarawa State.
- 2017: Member, National Universities' Commission (NUC) Undergraduate Resource Verification Panel to Ahmadu Bello University, Zaria, Kaduna State.
- 2017: Member, National Universities' Commission (NUC) Undergraduate Accreditation Panel to Madonna University, Okija, Anambra State.
- 2017: Member, National Universities' Commission (NUC) Undergraduate Accreditation Panel to Southwestern University, Okun-Owa, via Ijebu-Ode, Ogun State.
- 2017: Member, National Universities' Commission (NUC) Undergraduate Accreditation Panel to Osun State University, Osogbo, Ogun State.
- 2018: Chairman, National Universities' Commission (NUC) Undergraduate Accreditation Panel to Edo University, Iyamho, via Auchu, Edo State.
- 2018: Member, National Universities' Commission (NUC) Undergraduate Accreditation Panel to Plateau State University, Bokkos, via Jos, Plateau State.
- 2018: Member, National Universities' Commission (NUC) Undergraduate Accreditation Panel to Federal University, Wukari, Taraba State.
- 2019: Chairman, National Universities' Commission (NUC) Undergraduate Accreditation Panel to Federal University of Agriculture, Abeokuta, Ogun State.
- 2019: Chairman, National Universities' Commission (NUC) Undergraduate Accreditation Panel to Federal University of Technology, Akure, Ondo State.
- 2019: Chairman, National Universities' Commission (NUC) Undergraduate Accreditation Panel to Obafemi Awolowo University, Ile-Ife, Osun State.
- 2019: Chairman, National Universities' Commission (NUC) Undergraduate Accreditation Panel to University of Ilorin, Ilorin, Kwara State.
- 2019: Chairman, National Universities' Commission (NUC) Undergraduate Accreditation Panel to Emmanuel Alayande College of Education/Ekiti State University (affiliate programme).

## XV Some Other Public Responsibilities & Membership

- 1973 - 1975: Member, Boys Scout of Nigeria, 4<sup>th</sup> Ibadan West Troop.
- 1980 – 1981: Public Relations Officer, Science Club, Federal School of Arts and Science, Ondo (FSASON), Ondo State.
- 1980 – 1981: Member, Press Club, Federal School of Arts and Science, Ondo (FSASON), Ondo State [Pen Name: PADESTIK/CONNOISSEUR GROUP].
- 1981 - 1982: Member, Kegites Klub, ‘World Headquarters’, University of Ife, Ile-Ife.
- 1982: Member, Electoral Commission, Students Union, University of Ife, Ile-Ife.
- 1981 – 1984: Freelance Campus Journalist, University of Ife, Ile-Ife.
- 1990 - 1991: Education Officer (Youth Corper), Education Department, Ingawa Local Government Secretariat, Ingawa, Katsina State.
- 1996 - 1997: Head, Mathematics Department, Government Science Secondary School, Dutsinma, Katsina State.
- 1996 – 1997: Mathematics teacher for Senior Secondary 2 & 3, Government Science Secondary School, Dutsinma, Katsina State.
- 1996 – 1997: Part-Time Mathematics Teacher, Gidauniyar Jihar Katsina (GJK) Continuing Education programme, Dutsinma Centre.
- 1996 – 1997: Form Master (Junior Secondary Class), Government Science Secondary School, Dutsinma, Katsina State.
- 1996 – 1997: Staff on general call duty i.e. scheduled supervisor of the hostel, cafeteria etc for specified days.
- 1997: Examiner for the General Mathematics Theory Paper, West African Examinations Council (WAEC), Katsina.
- 1997: Member, Science Teachers Association of Nigeria (STAN).
- 1997: Resource Person (Mathematics), Workshop for Science, Mathematics and English Teachers, organized by the Katsina State Ministry of Education (Kankia Zone) in preparation for the May/June Senior Secondary Certificate Examination.
- 2001: Initiator / Coordinator, Nigeria Working Group of Sigma Xi, USA.
- 2001: Examiner for the Foundation Paper (CFE 02: Quantitative Methods) of the Joint Professional Examination of the Nigeria Computer Society and the Computer Professionals Registration Council of Nigeria.
- c. 2003: Member of the draft curriculum committee for the development of a B.Sc (Mathematics with Computer Science) curriculum for a pastoral institution in Ibadan.
- 2005: Invited co-chair, Technical Session on Computing/Information Systems and Technologies, 3<sup>rd</sup> International Conference on Computing, Communication and Control Technologies (CCCT’05), USA (could not be honored due to logistics problem).
- 2005 - 2007: Member, Technical Program Committee, IEEE AFRICON 2007 , held in Namibia , 26-28 September 2007 (<http://www.africon2007.co.za/>).
- 2006: Member, International Organizing Committee, 5<sup>th</sup> International Conference on Differential Equations & Dynamical Systems, Texas, USA.
- 2006 to Date: Member, Standing Committee on Healthcare Informatics & Space Simulation, International Standards Organization /American Society for Testing and Materials (ASTM)/Standards Organization of Nigeria (Member No. 1024658).
- 2006 to date: Public Relations Officer (PRO), IEEE Nigeria Section (<http://www.ieee.org/nigeria>).
- 2006 to date: Chair, IEEE Nigeria Computer Chapter (<http://www.computer.org/portal/site/ieeecsc/menuitem>).
- 2006: Representative of the Chair, IEEE Nigeria Computer Chapter, at the formal inauguration of the IEEE Student Branch, University of Ado-Ekiti.
- 2007: Invited co-Chair, Technical Session on Computer & Information System, IEEE AFRICON 2007, Namibia.

- 2008: Member, Technical Program Committee, IEEE AFRICON 2009 , held in Kenya September 2009.
- 2008: Member, International Program Committee, IST-Africa '09, held in Uganda May 2009.
- 2008: Chairman, Committee for the Establishment of B.Sc. (Information System) programme, Nigerian Defence Academy (NDA), Kaduna.
- 2009 - 2011: Chairman, Publication Committee, Newsletter of the IEEE Nigeria Computer Chapter.
- 2009: Member, Organizing Committee, NIGERCON 2010 - 1<sup>st</sup> International Conference of the IEEE Nigeria Section.
- 2008 - 2010: Patron, National Association of Computer Science Students (NACOSS), Federal University of Technology, Minna Branch.
- 2008 - 2010: Pioneer Branch Counsellor, IEEE Student Branch, Federal University of Technology, Minna.
- 2009: Coach, ACM International Collegiate Programming Contest, Nigeria (West Africa), sponsored by IBM Corporation at the National Mathematical Centre, Abuja, Nigeria.
- 2009 - 2010: Protom Chairman, Nigeria Computer Society (NCS), Niger State Chapter.

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- 2011 to date: Chairman, Education & Manpower Development Committee, Nigeria Computer Society, Kogi State Chapter.
- 2011: Member, Organizing Committee, NCS Whiz Kid Competition for Secondary Schools, North Central Zone (comprising Kogi State, Niger State, Nasarawa State, Kwara State, FCT)

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- 2011: Chairman, Technical Session, 3<sup>rd</sup> IEEE International Conference on Adaptive Science & Technology (ICAST 2011), 24<sup>th</sup> – 26<sup>th</sup> November, 2011, Abuja.
- 2012: Chairman, Planning & Implementation Committee, Royal Word University (proposed), Okoro-Gbede, Ijumu Local Government Area, Kogi State, Nigeria.
- 2012: Quizmaster, Information Technology Quiz Competition for Kogi State Secondary Schools, organized by the Kogi State Chapter of the Nigeria Computer Society.
- 2012: Quizmaster, Information Technology Quiz Competition for Kogi State Tertiary Institutions, organized by the Kogi State Chapter of the Nigeria Computer Society.
- 2012: Chief Judge, Software Development Exhibition/Competition for Kogi State Tertiary Institutions, organized by the Kogi State Chapter of the Nigeria Computer Society.
- 2012: Resource Person & Judge, 6<sup>th</sup> Nigerian Universities Computer Programming Contest (Nigerian National Contest of the 14<sup>th</sup> South African Regional ACM International Collegiate Programming Contest), sponsored by IBM Corporation at the National Mathematical Centre, Abuja, Nigeria.
- 2013-: Member, Geographic Activities Board (MGAB) (Students' Affairs Committee (SAC)), IEEE International, USA.
- 2013 to date: Judge, IEEE International Merwin Scholarship Award, USA.
- 2013: Judge, Sigma Xi USA Student Research Showcase.
- 2013: Resource Person (Informatics), Olympiads Training Workshop for Teachers and Students, organized by the National Mathematical Centre, Abuja.
- 2013: Member, Technical Programme Committee, Conference of the IEEE Nigeria Section (IEEE NIGERCON'13).
- 2013: Chairman, Communique Drafting Committee, Conference of the IEEE Nigeria Section (IEEE NIGERCON'13).
- 2014: Mentor, IEEE International Merwin Scholarship Awardees (Undergraduate and Ph.D students from different parts of the world).
- 2014: Guest Speaker, 7<sup>th</sup> Speech/Prize Giving Day, Harmony Secondary School, Lokoja, Kogi State.
- 2016: Chairman, Central Planning Committee/Technical Programme Committee, 1<sup>st</sup> International Conference of the IEEE Nigeria Computer Chapter.
- 2017 - : Chairman, RoyalSeed Academy, Lokoja, Kogi State, Nigeria.

- 2018: Chairman, Publication Sub-Committee, 2018 Conference of Academia in Information Technology Profession (AITP) (an Interest Group of the Nigeria Computer Society)
  - 2018 - 2019: Chairman, Central Planning Committee/Technical Programme Committee, 2<sup>nd</sup> International Conference of the IEEE Nigeria Computer Chapter, to hold from 14<sup>th</sup>-17<sup>th</sup> October, 2019.
  - 2019 to date: Member, National Strategic Committee, Nigeria Computer Society.
  - 2019: Resource Person and Judge, Nigeria Universities Computer Programming Contest (NUCPC 2019).
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