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Mathematics Department,
Faculty of Natural Sciences
Ambrose Alli University, P.M.B. 14, Ekpoma.
Edo State. Nigeria.

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EDUCATIONAL BACKGROUND

INSTITUTIONS ATTENDED	DATES	QUALIFICATIONS OBTAINED
• University of Benin, Benin City Nigeroria	2006	Ph.D Mathematics
• Edo State University, Ekpoma, Nigeria.	1995	M.Sc. Mathematics
• University of Lagos, Akoka-Lagos, Nigeria	1989	B.Sc (Hons) Ed Mathematics
• College of Education, Abraka, Bendel State	1983	N.C.E Mathematics/Economics
• St. John Bosco's College Ubiaja	1978	W.A.S.C
• St. Xtopher Pry School, Uhomebho-Ewatto	1972	Pry Six Certificate

WORKING EXPERIENCE	POSITIONS	DATE
• Department of Mathematics, Ambrose Alli University, Ekpoma, Nigeria.	Reader	2011 -2015
• National Mathematical Center, Abuja	Senior Research Fellow (Sabbatical)	2010 –2011
• Department of Mathematics, Ambrose Alli University, Ekpoma, Nigeria.	Senior Lecturer	2008-2011
• Department of Mathematics, Ambrose Alli University, Ekpoma, Nigeria	Lecturer 1	2001 - 2008
• Department of Mathematics, Ambrose Alli University, Ekpoma, .	Lecturer 11	1998 - 2001
• Department of Mathematics, Edo State University, Ekpoma, Nigeria.	Assistant Lecturer	1995 - 1998
• Department of Mathematics, Edo State University, Ekpoma.	Graduate Assistant	September 1st 1995 –September13th 1995

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- Our lady of Lourdes' Grammar School ,Uromi **Graduate Teacher**
Uromi, Edo State

March 16th 1990-August, 1995

- Army Day Secondary School, Alamala, **N.Y.S.C** **1983 - 1984**
Abeokuta Ogun State.

DISSERTATION AND THESIS.

Abhulimen C.E (1989) ; Causes and Diagnosis; Case study of Junior Secondary schools (B.sc(Ed)) Project

- **Abhulimen C.E, (1995)** *On the Region of Absolute Stability of Two Consecutive Power Rational Integrators of Odd Order* (M.Sc) Thesis
- **Abhulimen C.E, (2006)** *On Exponentially Fitted Multiderivative Numerical Methods for Stiff Initial Value Problems in Ordinary Differential Equations* (Ph.D) Thesis, Department of Mathematics, University of Benin, Benin City. Nigeria.

MEMBERSHIP IN LEARNED ACADEMIC BODIES

- Nigeria Mathematical Society.
- Reviewer in international journal of Applied Mathematics and Computation, ELSEVIER.

AWARD/APPRECIATION

- Certificate of Honour as the 'Patron' of National Association of Mathematics Students (NAMS) in recognition towards the upliftment and advancement of the Department and Association. By the National Association of Mathematics Students (NAMS), Department of Mathematics, Faculty of Natural Sciences, Ambrose Alli University, Ekpoma, Edo State, in December 1999.
- Received a letter of appreciation from the Vice Chancellor Prof. Sam O. Uniamikogbo (FNIM) for selfless services as Acting Head of Mathematics Department, A.A.U, Ekpoma (2008-2010).
- Certificate of Honour in recognition of Highly Esteemed Personality as 'the Most Disciplined Lecturer' by the National Association of Mathematics and Statistics Students (NAMSS), Department of Mathematics, Faculty of Natural Sciences, Ambrose Alli University, Ekpoma, Edo State, in July 2015.
- Letter of appreciation from the Dean of Natural Sciences, Ambrose Alli University, Ekpoma for a work well done as the Chairman of Examination/ Examination Malpractices' Committee from 20012 till date

PRESENT AREA(S) OF RESEACH

- Numerical Methods of Solutions to Ordinary and Partial Differential Equations
- Numerical Methods of solutions to Partial Differential Equations.
- Functional Analysis and It's Applications to Differential Equations

AREA OF SPECIALISATION; Numerical Analysis.

CONTRIBUTION TO THE UNIVERSITY / SOCIETY

(A) ADMINISTRATIVE EXPERIENCE

- **1995-1996** Pre-degree co-coordinator (Mathematics Department).
- **1996-1997** Departmental representative; Disciplinary committee
- **1997-2000** Departmental Examination officer.
- **1998-2001** Chairman; Faculty time table Committee
- **2004-2005** Departmental representatives: Exam malpractice and disciplinary committee.
- **2004-2004** Chairman; Faculty Time Table Committee
- **2008-2009 Acting Head of Department; Mathematics** Department, Ambrose Alli University, Ekpoma
- **2009-2010 Acting Head of Mathematics,** Department. Ambrose Alli University, Ekpoma
- **2009-2015** Senate Representative in Students' Disciplinary Committee.
- **2012-2015** Chairman; Examination and Disciplinary committee, Faculty of Natural sciences, Ambrose Alli University, Ekpoma.

EXTERNAL APPOINTMENT

- Member of the first National Mathematics Competition for University Students, NAMCUS 2008; organized by the National Mathematical Centre, Abuja, **1st to 9th Nov. 2008.**
- Organized Mathematics Quiz competition for University secondary school students Ambrose Alli University, Ekpoma; **3rd December, 2008.**

- Resource person for the Capacity Building Workshop for Mathematics/Statistics Educators (Lecturers) in Tertiary Institutions; **20th-25th June 2011**; National Mathematical Centre, Abuja.
- Served as the secretary to the local organizing Committee of the first International Conference on Scientific Computing (ICSC) . National Mathematical Centre, Abuja.
- **August 14th - August 29th, 2011,**

CONFERENCES AND SEMINARS/WORKSHOPS ATTENDED WITH DATES

- Foundation Post Graduate course on Robust Control System Design. **May 23rd - June 19th, 1999**. National mathematical Centre, Abuja, Nigeria.
- Foundation Post Graduate course on Robust Control System Design. **October 10th – October 23rd, 1999**. National Mathematical Centre, Abuja, Nigeria.
- Research Oriented Course in Computational Mathematics and Application I (Numerical Analysis), (**2001**), NMC, Abuja.
- Research Oriented Course in Computational Mathematics and Application II (Numerical Analysis), (**2003**), NMC, Abuja. **July 22nd –August 10th 2001**.
- Tenth Edward Bouchet/Abdusalam Regional College on Functional Analysis and its Applications to Differential Equations, Accra-Ghana, **July 12th –July 24th , 2004**.
- Eleventh Edward Bouchet/Abdusalam Regional College on Functional Analysis and its Applications to Differential Equations, Accra-Ghana, **July 11th –July 23rd , 2005**.
- Twelfth Edward Bouchet/Abdusalam Regional College on Functional Analysis and its Applications to Differential Equations, Accra-Ghana, **July 9th –July 16th . 2006**.
- 26th Annual Conference, of Nigerian Mathematical Society (NMS), Federal University of Technology, Akure, Ondo State, Nigeria. **May 2007**.
- Thirteenth Edward Bouchet/Abdusalam Regional College on Functional Analysis and its Applications to Differential Equations, Accra-Ghana, July, **2007**.
- Sixth International Workshop and Conference on Contemporary Problems in Mathematical Physics and Applications. **October 31st –November 6th ,2007**; Cotonou, Republic of Benin.

- Fourteen Edward Bouchet/Abdusalam Regional College on Functional Analysis and its Applications to Differential Equations, Accra-Ghana, **July 21st –July 24th , 2008.**
- 28th Annual Conference, of Nigerian Mathematical Society (NMS), University of Ilorin, Ilorin, Kwara State, Nigeria. June 28, **2009.**
- 2010 Banach Algebras Workshop, National Mathematical centre (NMC) Abuja **4th – 18th April 2010**
- 30th Annual Conference, of Nigerian Mathematical Society (NMS), Federal University of Technology, Mina Nigeria. **July 19th –July 22nd , 2011.**
- Third Buea International Conference on Mathematical Sciences / Summer School on Financial Mathematics and Actuarial Sciences. University of Buea, Cameroon. April **22nd –May 3rd , 2013.**
- The 8th Pan – African Congress of Mathematicians (PACOM), Abuja, Nigeria. **June 30th –July 8th .2013**
- Second Annual International Conference/ Workshop on Mathematical Analysis and Optimization: Theory and Applications (**ICAPTA 2015**). **March 16th-21st March 2015.**
- International Symposium on Current Research Trends in Mathematical Sciences and Applications organized by the African Academy Of Sciences (**AAS**)/African Mathematical Union (**AMU**) **17th-20th ,May,2016**

BOOKS OF ABSTRACT

- Abhulimen C.E** (2016)“A New Class of Second Derivative Methods for Numerical Integration of Stiff Initial value Problems.
Paper presented at the International Symposium on current Research Trends in **Mathematical Sciences and Applications** organized by the African Academy Of Sciences (**AAS**)/African Mathematical Union (**AMU**) **17th-20th ,May,2016**
- **Abhulimen C.E** (2013) “*Exponentially Fitted Third Derivative Methods for Numerical integration of Stiff Initial Value Problems*”. In the *Third Buea International Conference on the Mathematical Sciences in conjunction with International Summer School on Financial Mathematics and Actuarial Sciences. University of Beau Cameroon. Paper presented in this conference*
 - **Abhulimen C.E** (2011) “*A Two-Step Exponentially Fitted Third Derivative Method for the Numerical Solution of Stiff Problems*”. In the First International Conference on Scientific Computing (**ICSC**); National Mathematical Centre, Abuja.

Paper Presented in this conference

- **Abhulimen C.E** (2007) “*Exponentially Fitted Second Derivative Multistep Methods for Stiff Initial Value Problems in Ordinary Differential equations*”. In the *Fifth International Workshop and Conference on Contemporary Problems in Mathematical physics and Applications*. October 2007; Contonou, Republic of Benin.

Paper Presented in this conference

(12) PUBLIC LECTURES

- Resource person to the Nigeria Mathematical Society, to deliver a lecture titled; “*The value of Mathematics Contests among University Students in Strengthening the Quality of Mathematics Degree*” at the 30th annual conference, of Nigerian Mathematical Society, Federal University of Technology, Mina Nigeria. **20th July 2011**.
- Resource person in Mathematics to National Teachers’ Institute, Kaduna, in a “training workshop for Primary school teachers under the Millennium Development Goal (MDG) project”. A workshop organized at Irrua Girls Secondary School, Irrua, Edo State Nigeria (**14th-19th September, 2006**).
- Resource Person in Mathematics to Edo SUBEB/UBEC 3RD QUARTER 2007-4TH QUARTER 2008 *Teacher Professional Development Programme*. “*Re-Training of Teachers (Mathematics) in Edo state*”.
- Resource person in Mathematics to National Teachers’ Institute, Kaduna, in a “Training Workshop for Primary School Teachers under the Millennium Development Goal (MDG) project”. A workshop organized at Irrua Girls Secondary School, Irrua, Edo State Nigeria (**24th-29th September, 2008**).
- Resource Person to the First National Mathematics Competition for University Students (NAMCUS) 2008. Organized by the National Mathematical Centre, Abuja.
- Resource Person to 2010 Special Intervention Project On Mathematics in Secondary Schools. “The Re- Training of Senior Secondary School Mathematics Teachers from selected Secondary schools in Nigeria. Organized by the National Mathematical Centre, Abuja In Collaboration with Education Trust Fund (ETF).
- Resource person in capacity building on mathematical analysis (11th-17th September, 2011). A workshop organized by National Mathematical Centre, Abuja, for lecturers in Tertiary Institution in Nigeria.
- Resource person in mathematics to National Teachers’ Institute, Kaduna, in a “Training Workshop for Primary/Secondary School Teachers under the Millennium Development Goal (MDG) project”. A workshop organized at former Auchi Teachers’ College, Auchi, Edo State, Nigeria (August, 2010).
- Resource person to the Millennium Development Goals (MDGs) Project (2011) “*The Re-Training Of Junior Secondary School Teachers (Mathematics)*. Organized by the *National Teachers’ Institute (NTI), Kaduna Nigeria*

- Resource Person to the First International Conference on Scientific Computing (ICSC) organized by National Mathematical Centre, Abuja in August, 2011. In this conference, I did not only serve as Secretary to the Local Organizing Committee, but also as the Coordinator of the conference papers, that attracted (1) Resource Person each from South Africa and United States of America (USA) respectively.
- Resource person in mathematics to Teacher's Professional Development Training Programme (2014) using Cluster School Model in Edo state. "Re-Training Of Teachers from selected Primary Schools in Edo State. Organized by Ambrose Alli University Consult Limited.

(13) SELECTED PROJECTS SUPERVISED BY ME

(A) Undergraduate

- ONOSEMUODE, Sunday (1996) "The Solution of Partial Differential Equation Using Fourier Series"
- ANNE, Akhue (1997) "Determinant Of Order Five Matrix"
- EROMOSELE, Micheal (1999) "Region Of Absolute Stability (RAS) Of The ASHIKPELOKHAI Integrator Of Order 7"
- AKLIUE, Utomi (2005) "Numerical Integrator Using Trapezoidal Rule And Simpson's Rule"
- ALUKAH, Joshua (2006) "Numerical Differential Equations Of First Order Using Euler Explicit Method."
- THGBARHA, Efemena (2007) "Eigen Value Problem."
- EGUAGIE, Emmanuel (2008) "Regression And Correlation Analysis Of Population Census Income Selected State's In Nigeria"
- OTALOR, Evans (2005) "Comparing Of LU Factorization and Jacobi Iteration Of Solving Linear System of Equations"
- IKHINE, Monday (2007) "Review Of Some Numerical Methods To System Of Linear Equation."
- AKHIGBE, Jackson (2010) "Numerical Equation To Second Order Initial Value Problem In Ordinary Differential Equation Using Collocation Method."
- ADEDOYIN, Fumilola (2010) "Solving System Of Linear Equation Using Cramer's Rule And Inverse Method."
- AHANOR, Jennifer (2008) "Solving Ordinary Differential Equations Using Matrix."
- OBAZEE, Elvis (2008) "Numerical Integration Comparison Of Newton Cote Rule, Trapezoidal Rule And Simpson's Rule."

- AFEIGBE James (2014) A regula Falsi and Newton Rapson Methods for finding Simple Roots of Non-linear Equations
- OMOREGIE Adesuwa (2014) Interpolation Scheme on Lagrange Interpolation and Newton's Divided Difference Methods

(B) Post Graduate Supervision (M.Sc THESIS)

- Omeike G.E. (Mrs) (GS/FNS/MTH/2005/M.Sc/1391). "On Three-step Second Senior Oct 2010 –Oct;2011.Derivative Integrators for Initial Value Problems in Ordinary Differential Equations".
- Uloko A. Jonathan (GS/FNS/MTH/2005/M.Sc/31449.) "Family of two-stage Rational Runge-Kutta, Method for initial value problems in Ordinary Differential Equations".
- Omokhagbor Godwin Roland .(AAU/SPS/MTH/12/04127.) "A New Second Derivative Exponential Fittings Integrators for solving IVPs in ODEs

COURSES TAUGHT AT UNIVERSITY, 1995 till date

(A) Undergraduate level

- MTH101 Algebra and Trigonometry
- STA101 Introductory Statistics for Physical Sciences and Engineering
- MTH111 Vector and Coordinate Geometry
- MTH112 Calculus
- MTH113 Introduction Mechanics
- MTH203 Sets ,Logic and Algebra
- MTH204 Real Analysis
- MTH205 Elementary Differential Equation 1
- MTH211 Introduction to Numerical Analysis
- MTH214 Mechanics11
- MTH215 Real Analysis 11
- STA203 Statistical Inference
- MTH301 Abstract Algebra
- MTH303 Complex Analysis
- MTH304 Elementary Differential Equation 11
- MTH307 Differential Geometry
- MTH401 Ordinary Differential Equation
- MTH402 Modules
- MTH404 General Topology
- MTH405 Functional Analysis
- MTH412 Lebenque Measure and Integration

(B) POST-GRADUATE LEVEL

Advance Numerical Methods of Ordinary Differential and Algebraic Equations.

- Numerical Methods of Partial Differential Equations

PUBLICATIONS;

(A) BOOKS PUBLISHED (REFERRED CHAPTERS)

- **Abhulimen C.E**, Aashikpelokhai, U.S.U, and Erimafah J.T; *Basic Mathematics for Pre-university Students (2009)*; **Chapters 4 ,5 ,6 and 7 pp51-75**. Pon publishers ltf ISBN78-2928-38-0. 8A Edobor Street, Agbor, 3A Ikhirolo Road, P.O Box 902, Ekpoma, Edo State, Nigeria.
- **Abhulimen C.E**, Aashikpelokhai U.S.U and Agbeboh G.U (June,2009) “*An Introductory Course in Higher Mathematics*” **Volume 2 (Calculus, Vector and Mechanics)**. **Chapters 1, 13, 14, 15, 16, 17, 18, and 19**. Pon PublishersLtd ISB978-2928-38-0. 8A Edobor street, Agbor, 3A Ikhirolo Road, P.O Box 902, Ekpoma,Edo State, Nigeria.
- Aashikpelokhai U.S.U, **Abhulimen C.E**, Agbeboh G.U ,Ukpebor L.A and Elakhe A (2010). “*A First Course in Higher Mathematics*” **Volume 1 (Algebra, Trigonometry, and Analytic Geometry)**. **Chapters14 and 15**. Pon Publishers Ltd ISB978-2928-38-0. 8A Edobor street, Agbor, 3A Ikhirolo Road, P.O Box 902, Ekpoma, Edo State, Nigeria.
- U.S.U Aashikpelokhai, **C.E Abhulimen and G.U Agbeboh** ,(2011) “*A First Course in Differential Equations*”. **Chapters 6 and 7** Pon Publishers Limited, ISBN972928-15-Agbor, Delta State, Nigeria

(B) CONFERENCE PAPER IN PROCEEDING

- **Abhulimen C.E (2011)** “*Concepts of functions and limits(Numerical approach) in Elementary (first year) Calculus*” A Capacity Building Workshop/Conference for Mathematics Lecturers In Tertiary Institution in Nigeria, at the National Mathematical Centre, Abuja..

(C.) ARTICLES IN JOURNAL

- **Abhulimen C.E (2015)** “A Fifth order Exponential Fitting Integrator”
International Journal of Advance Materials Science. ISSN 2231-1211 Vol 6, No2
Pp 99-107. Research India Publication. <http://www.republication.co>
 - **Abhulimen C.E (2014)** “*Exponentially fitted third Derivative three-step methods for Numerical Integration of stiff Initial value problems*”.
Journal of Applied Mathematics and Computation, **Elsevier**. Pp 446-453
 - **Abhulimen C.E and Uloko J.A. (2012)** “*A Class of an Implicit Stage-two Rational Runge-Kutta Method for Solution of Ordinary Differential Equations*”. Journal of Applied Mathematics and Bioinformatics, Vol 2, no. 3, pp 17-31, ISSN: 1792-6602 (print), 1792-6939 (online). Scientific Press, 2012.
 - **Abhulimen C.E and Omoike G.E (2011)** “*A Sixth-Order Exponentially Fitted Scheme for the Numerical Solution of Systems of Ordinary Differential Equations.*”
Journal of Applied Mathematics & Bioinformatics, Vol. 1, Number1, pp 175-186,
ISSN 1792-6602(print), 1792-6939 © International Scientific Press ,2011
- Abhulimen C.E (2011)** *Three-Step Second Derivative Methods for IVPs in Ordinary Differential Equations.* International Journal of Numerical Mathematics (IJNM).Vol 6.No.2; pp192.
- **Abhulimen C.E and Otunta F.O (2009)** “*A New Class of Exponential fitting Numerical Integrators for Initial Value Problems in Ordinary Differential Equations*”.
Journal of the Nigerian Mathematical Society. Vol 28 pp 13-28, 2009
 - **Abhulimen C.E (2009)** “*An Exponential Fitting Predictor-Corrector formula for Stiff Systems of Ordinary Differential Equations*”. International Journal of Computational and Applied Mathematics (IJCM) .Vol 4 Number 2 pp115-126. © Research India Publications. <http://www.ripiblication.com/ijcam.htm>.
 - **Abhulimen C.E and Okunuga S.A (2008)** “*Exponentially-Fitted Second Derivative Multistep Methods for Stiff Initial Value problems in Ordinary Differential Equations*”. Journal of Engineering Science And Applications (JESA) Vol 5 Num. 1&2, pp36-49
 - **Abhulimen C.E (2008)** “*A Class of Eight Order Exponentially- fitted Multistep Methods for Solving Stiff Differential Equations*”. Journal of Institute of Mathematics and Computer Sciences (Mathematics series) Vol. 21, No1 pp1-9. A-31.C.I.T, Buildings Singhee-Bangan, Kolkata -700007, India

- **Abhulimen C.E (2008)** “*A Class of Exponentially-Fitted Third Derivative Method for Solving Stiff Differential Equations*”. International Journal of Physical Sciences (IJPS) Vol 3 (8) pp 188-193. SSN
- **Abhulimen C.E and Otunta F.O. (2007)**; “*A Family of Two- Step Exponentially Fitted Multiderivative Methods for the Numerical Integration of Stiff Initial Value Problems in Ordinary Differential Equations*” International Journal of Numerical Mathematics (IJNM). Vol 2, No.1 pp1-21.
- **Abhulimen C.E and Otunta F.O. (2006)**. “*A Sixth Order Multiderivative Multistep Methods for Stiff Systems of Differential Equations*”. International; Journal of Numerical Mathematics. (IJNM) Vol 1. No 2. pp 248-268.
- **Abhulimen C.E and Ukpebor I.A. (2006)** “*An Analysis of the Region of Absolute Stability of Two Regional Integrators*”. Journal of Engineering Science and Application JESA, Vol 4. No 2. pp 108-119. (June 2006)
- Otunta F.O. and **Abhulimen C.E (2005)**: “*A Fourth Order Exponentially-fitted Multiderivative Method for Stiff Initial Value Problems*” Journal of the Nigeria Association of Mathematical Physics, Vol 9, pp 295-306.

PERSONAL INFORMATIONS

Place and Date of Birth:	Ozoguor-Ewatto, 4 th January 1958
Local Government Area	Esan South-East
State of origin:	Edo State
Nationality:	Nigerian
Sex:	Male
Marital status:	Married
Contact Address.	Blessed Quarter, Emuado, off Ihumudumu Road, Ekpoma

REFEREES

Prof. F. M Okoro
Department of Mathematics,
 Ambrose Alli University, Ekpoma, Nigeria

Prof. S .E Omosigho.
Department Of Mathematics,
 University Of Benin, Benin City, Nigeria.

Prof. A.R.T Solarin
Director/Chief Executive
 National Mathematical Centre, Abuja
 Nigeria..

Prof. Cletus. E, Abhulimen Signature and Date