

PROFESSOR ZEPHYRINUS C. OKONKWO

EDUCATION

- 1994 Ph.D. in Mathematics
The University of Texas at Arlington
Arlington, TX 76019-0408, USA
- 1985 Master of Philosophy in Engineering Analysis
The University of Lagos, Nigeria
- 1982 Bachelor of Science, Mathematics/Education (First Class)
The University of Lagos, Nigeria
- 1978 Nigerian Certificate of Education
Mathematics/Chemistry/Education
The University of Lagos, Nigeria

AWARDS, PRIZES, GRANTS, AND FELLOWSHIPS

- Summer 2016 Procter and Gamble Pre-College STEM Program Award.
Total Amount: \$10,000.
- 2015-2016 Affordable Learning Georgia Textbook Transformation Grant
Round 4, MATH 2411-Basic Statistics Course. Total Amount \$10,800.
- 2008-2011 ***"Collaborative Research: Building Information Assurance Education Capacity***, NSF Grant with R. Owor, K. Dajani, Z. Okonkwo, and J. Hamilton (Auburn University). Total amount: \$298,612.
- 2006-2007 “Refocused College Algebra Course”. United States Military Academy, West Point, New York, Total Amount: \$5000.
- 2006-2007 ***“Strengthening Infrastructural Support for Mathematics and Computer Science programs at Albany State University”***, A Title III Grant: Total amount: \$124,399.00.

- 2005-2006 **“Strengthening Infrastructural Support for Mathematics and Computer Science programs at Albany State University”**, A Title III Grant: Total amount: \$102,357.
- 2004-2005 **Strengthening Infrastructural Support for Mathematics and Computer Science Programs at Albany State University**-A Title III Project
Director (Z. Okonkwo): Amount of Award: \$109,143.
- 2003-2004: **Strengthening Infrastructural Support for Mathematics and Computer Science Programs at Albany State University**-A Title III Project Project
Director (Z. Okonkwo): Amount of Award: \$182,653.00.
- 2001-2002: **Procter & Gamble-Albany State University Partnership for Mathematics, Science, Engineering and Technology Grant** (A pre-college grant With Professor C. Leggett). Awarded \$100,000 for 4 years.
- 2000-2001 Albany State University **Researcher of the Year Award**.
- 2000-2001 Reformed College Algebra Course, a PT3 Grant (\$6000)
- 1999-2000 ASU-PT3 mini-grant (\$1000)
- 1995-1996 Project NEXt Fellowship- New Experience in Teaching
(Grant from EXXON-Corporation through MAA)
- 1995 Mathematical Association of America SUMMA Grant (\$1000)
- 1990-1994 Graduate Teaching Assistantship
Department of Mathematics
University of Texas at Arlington
- 1982-1986 Graduate Teaching Assistantship
University of Lagos, Nigeria
- 1985-1986 Member of Students Welfare Board
- 1985 Deputy Leader, Nigerian Youth Delegation to the Vatican
- 1983-1984 Federal Scholarship
- 1983 National School Fund Prize
- 1982 First Class Honors Degree

APPOINTMENTS, INVITATIONS AND NOMINATIONS

- 2010** Appointed as a LEADS Scholar (Linkages with Experts and Academics in the Diaspora Scheme), by Nigeria's National Universities Commission, NUC
- 2011** Invited by University of Ilorin (as a LEADS Scholar) and offered an appointment in the Department of Mathematics, University of Ilorin

PROFESSIONAL CONSULTANCY EXPERIENCES

- 2008** Consultant to the Federal Ministry of Commerce and Industries (under the Honorable Minister Engineer (Chief) Charles C. Ugwuh).
In 2008, I was the leading consultant and a member of the Nigerian Delegation to The *German Bureau of Standardization (DIN)*. The goal of the visit was to develop a relationship/partnership with the German Institute with the view of securing their assistance in setting up the right framework for the proposed *Nigerian Standards Institute*, which would take over most of the functions of Standard Organization of Nigeria (SON). DIN was expected to offer complete mentoring through the actual process of establishing a new focused, yet unbundled Nigerian Standards Institute modeled after the German Bureau of Standardization, and which would have the capabilities to meet the 21st century challenges. Furthermore, DIN would guide us to establish the State-of-the-Art physical infrastructure and testing facilities. DIN has the reputation as one of the foremost and respected Standards Institutes in the world, hence, working with DIN would give Nigeria the leverage to learn and be mentored by the best in the business of standardization. I wrote the reports of the visit and continued to work with the Germans on the project for some time.

- 2002-2009** **Director, Procter and Gamble-Albany State University Partnership for Mathematics, Science, Engineering and Technology Grant**

- 2005-2011** **Consultant, Dougherty County School System. Duties include:**
- Project planning and development
 - Delineation of deliverables and project outcomes
 - Budget development and implementation
 - Personnel recruitment, orientation, and project and personnel supervision
 - Report writing
 - Teacher retraining on content and use of technology in instruction, assessment and learning
 - Conducting workshops on hand-held technology
 - Designing and teaching continuing education courses to enhance teachers' skills

- Conducting workshop for preservice teachers on Praxis I, Praxis II, and GACE II review in Mathematics
 - Facilitating workshops for AP (Advanced Placement) Teachers of the school system
- 2009-2011 Teacher Workshop Facilitator and Consultant, Math Science Partnership, Dougherty County School System
- 2006-Present: Georgia Department of Human Resources, Division of Public Health
Duties include:
- Project Leader, Hooked-On-Health Management Software Development Team. I led a team of computer scientists, mathematicians, and software engineers to develop management software for Georgia Department of Public Health. This web-based software enables the public health department to collect and analyze data related to the health and life-styles of Georgia citizens. Such data is used to develop programs to improve public health.
- 2006 Consultant for the Graduate Record Examination Workshop for the Mathematics, Engineering, Science Academy Program, Albany State University

PROGRAM EVALUATION AND DEVELOPMENT

- 2011-2012: Program Evaluator, *The Study Table*, Albany State University
- 2010-2011: Chairman, Albany State University's Master of Public Administration (MPA) Internal Program Review Committee
- 2010-2011 Chairman, Albany State University's BS in Accounting Program Internal Program Review Committee
- 2002-2003: ***BA Degree in Mathematics Program Evaluation and Review Team Leader-***
Duties included-Data collection related to the program, course mapping, assessment of student learning outcomes related of the program, analyses of both quantitative and qualitative data, and drawing inferences from data, recommending pathways for program improvement
- 20034-2004 Chair, BA Degree in English and BA Degree in Spanish Internal Program Review
- 2006-2007 ***Chair, BS in Chemistry Program Internal Evaluation Team:*** Responsibilities included-Examination of data related to the program, assessment of program goals and student learning outcomes, program curriculum, schema, course mapping, instructional resources, infrastructure, faculty quality and quantity, student enrollment, retention, progression, and graduation, viability and program productivity, and recommendations for program improvement and enhancement based on findings.

- 2006-Present ***Novena University Ogume , Nigeria-Consultant on Program Development for the new University***: Duties include-assessment of program viability, resources, and enhancement of faculty quality, establishment of innovative degree programs for the university, determination of resources optimization criteria, crafting of Memorandum of Understanding (MOUs) between Novena and Colleges and Universities in the United States.
- 2006-2007: ***BS Degree in Computer Science Evaluation and Review Team Leader***-Duties included-Data collection related to the program, course mapping, assessment of student learning outcomes related of the program, program viability and productivity, examination of infrastructure and resources supporting the program, analyses of both quantitative and qualitative data, and drawing inferences from data, recommending pathways for program improvement.
- April 2008: ***Stillman College Tuscaloosa (University) External Program Evaluator for BS Degree Program in Mathematics, BS Degree Program in Computer Science, BS Degree Program in Computer Information Systems***. Duties included- Examination of data related to the program, assessment of program goals and program learning outcomes, program curriculum, schema, course mapping, instructional resources, infrastructure, faculty quality and quantity, student enrollment, retention, progression, and graduation, viability and program productivity, and recommendations for program improvement and enhancement based on findings.

PROFESSIONAL LEADERSHIP EXPERIENCES

- October 1, 2015- Director, Center for Undergraduate Research (CUR)
Albany State University
- 2009-Present: Coordinator, B.S. Mathematics Degree Program
Department of Mathematics and Computer Science
Albany State University
Albany, Georgia 31705, USA
- 2003-2008: Chairperson
Department of Mathematics and Computer Science
Albany State University
Albany, Georgia 31705, USA
- 2002-2003: Interim Chairperson
Department of Mathematics and Computer Science
Albany State University
Albany, Georgia 31705, USA
- 2006-2008: Chair, Southern Association of Colleges and Schools -Quality

Enhancement Program (SACS-QEP) Subcommittee on Plan Development and Implementation

2006: Chair, Search Committee for Vice President for Institutional Advancement

PROFESSIONAL TEACHING EXPERIENCES

2005- Present: Professor of Mathematics
Department of Mathematics and Computer Science
Albany State University
Albany, Georgia 31705, USA

1999-2005: Associate Professor of Mathematics
Department of Mathematics and Computer Science
Albany State University
Albany, Georgia 31705, USA

1999-1999 Associate Professor of Mathematics
Department of Mathematics and Computer Science
Alabama State University Montgomery, Alabama 36101-0271, USA

1994-1999 Assistant Professor of Mathematics
Department of Mathematics and Computer Science
Alabama State University
Montgomery, Alabama 36101-0271, USA

1990-1994 Graduate Teaching Assistant
Department of Mathematics
The University of Texas at Arlington
Arlington, TX 76019-0408, USA

1987-1989 Mathematics Tutor
DeHerb Mathematics Center
Dallas, Texas, USA

1982-1986 Graduate Teaching Assistant
Engineering Analysis Unit
Faculty of Engineering
University of Lagos, Nigeria

1979-1980 Instructor of Mathematics and Science
Teachers' College Ehime Imo, Nigeria

1978-1979 Instructor of Mathematics/Physics
Government Secondary School Bama Borno, Nigeria

2003 Mathematics Instructor, MESAP (SSEA) Project
Albany State University

Fall 2000-Present: Adjunct-Professor (for the Doctoral Program)
Valdosta State University Valdosta, Georgia

Fall 2000-2003 Supplemental Instructor, Center for Excellence in Teaching, Learning, and
Advisement Albany State University

2000-2002 Mathematics Instructor, HCOP/HBCU-UP Project
Albany State University

Fall 1995-1999 Alabama State University AMP Teacher Education
Mentor

Fall 1994-1999 Mathematics Instructor, NASA-Saturday Academy
Trenholm State Technical College Montgomery, Alabama

Summer 1995 Mathematics Instructor- MSIP Program
Trenholm State Technical College
Montgomery, Alabama

Summer 1994 Geometry Instructor
Upward Bound Math and Science Program
The University of Texas at Arlington

RESEARCH PUBLICATIONS

1. Z. C. Okonkwo, R.S. Owor, and K. Dajani. Remarks on Mathematical Problems Arising from Terrorism. *Proceedings of Dynamic Systems and Applications Conference (7) 2016*, 296-297.
2. K. Dajani, N. Dunn, R.S. Owor, and Z.C. Okonkwo. Quantum Computation for Network Communications and Space-based Devices. *Proceedings of Dynamic Systems and Applications Conference (7) 2016*, 251-257.
3. R.S.Owor, Z.C. Okonkwo, and K. Dajani. The Design and Development of a Standard Penetration Testing Index. *Proceedings of Dynamic Systems and Applications Conference (7) 2015*, 298-299.
4. Z. C. Okonkwo, and R. S. Owor. Nigeria, Big Data, Economic Sustainability, and Wealth Creation. To paper in the *Proceedings of the First International Conference on Computational Sciences and Information Technology for National Economic Sustainability (2015)*.
5. R.S. Owor, Z.C. Okonkwo, and K. Dajani. Design and Analysis of a Stochastic Cyber Security Matrix for Threat Prediction, Detection and Prevention. To paper in the

- Proceedings of the First International Conference on Computational Sciences and Information Technology for National Economic Sustainability (2015).*
6. Z. C. Okonkwo, R.S. Owor, Khalil Dajani, and S. McKay. Modeling the Informal Sector to Strengthen Productivity in Developing Countries. *International Journal of Research in the Academic Disciplines in Higher Education, Vol. 1, No. 2, (2013), pp 106-116.*
 7. Z. Okonkwo, and E. Berry. An Examination of the Study Table Project and Student Achievement at a Four-Year College: Ramifications for Retention, Progression, and Graduation. *International Journal of Research in the Academic Disciplines in Higher Education, Vol 1, No. 1, (2013), pp 13-37.*
 8. R. Owor, **Z. Okonkwo**, and K. Dajani. A Hybrid Discrete Fast Fourier Transform Elliptical Cryptographic Algorithm for Portable Wireless Devices and Distributed Network. *International Journal of Research in the Academic Disciplines in Higher Education, Vol. 1, No. 1, (2013), pp 74-83.*
 9. **Z. Okonkwo**, R. Owor, K. Dajani, Almost periodic solutions of Ito-Volterra functional differential equations of neutral type. *Proceedings of Dynamic Systems and Applications Conference (6) 2012, 288-292.*
 10. K. Dajani, R. Owor, and **Z. Okonkwo**. Quantum Fourier transforms algorithms in wireless and distributed communications networks. *Proceedings of Dynamic Systems and Applications Conference (6) 2012, 132-137.*
 11. R. Owor, K. Dajani, and **Z. Okonkwo**. A survey of 3G/4G wireless security challenges and opportunities. *Proceedings of Dynamic Systems and Applications Conference (6) 2012, 293-298.*
 12. K. Dajani, R. Owor, and **Z. Okonkwo**, *The Relevance of Quantum Cryptography in Modern Networking Systems. Journal of Neural, Parallel, and Scientific Computations 18 (2010), 391-400.*
 13. R. Owor, K. Dajani, and **Z. Okonkwo**. Simulating Convoluted Digital Watermarking Hidden Message Algorithms using Quantized Index Modulated Bezier and Hermite Splines. *Journal of Neural, Parallel, and Scientific Computations 18 (2010), 357-364.*
 14. Z. Okonkwo. Stability of Ito-Volterra Integrodifferential Equations of Neutral Type. *Proceedings of Dynamic Systems and Applications 5 (2008), 353-360.*
 15. R. Owor, K. Dajani, **Z. Okonkwo**, and J. Hamilton. *An Elliptic Cryptographic Algorithm for RF Wireless Devices*. Proceedings of the 2007 Winter Simulation Conference (S.G. Hamilton, B. Biller, M. H. Hsieh, J.D. Tew, and R.R. Button, eds.), IEEE, pp 1424-1429.
 16. Z. Okonkwo. *Using Innovative Action Steps to Enhance Tertiary Education Access in Imo State, Nigeria*. The African Symposium (online journal) Volume 7, No. 2, 2007, pp 131-140.
 17. Z. Okonkwo. Asymptotic Behavior in Stochastic Functional Differential Equations of Neutral Type. *Proceedings of the Conference of Differential & Difference Equations and Applications (2006) (Ravi Agarwal & Kaneshka Perera, Editors). , pp 895-904. Hindawi Publishers, ISBN 977-5945-380. (MR 2008b: 60131).*
 18. Z. Okonkwo, Adewale, V. O. S. Olunloyo. *A study of hydrogeological flows through leaky Aquifers using boundary layer theory. Proceedings of Dynamic Systems and Applications 4 (2004), 674-700. (MR 2005j: 86007).*
 19. Z. C. Okonkwo. On Global existence of a class of Ito-Volterra equations, *Dynamic Systems and Applications*, vol. 13, no. 1, (2004), pp 17-24. *(MR 2005d: 60099)*

Zbl 1060.60069).

20. **Z. C. Okonkwo**, B. Holmes. Supplemental instruction for enhancement of student success and retention: A case of Albany State University. *International Journal of Educational Studies (IJEST)*, vol. 2, no. 1, 2003, pp 193-206.
21. Z. C. Okonkwo. A contribution to the theory of neutral stochastic functional differential equations with causal operators. *A Monograph of Research Endeavors at Albany State University: A Centennial Edition* vol. 1, fall 2003, pp 120-129.
22. M. S. Korlie, **Z. C. Okonkwo**. Hand-held technology and innovative pedagogy in Mathematics: The changing practice of mathematics instruction and learning. *A Monograph of Research Endeavors at Albany State University: A Centennial Edition* vol. 1, fall 2003, pp 13-26.
23. Z. C. Okonkwo. Existence of neutral stochastic functional differential equations with abstract Volterra operators. *International Journal of Differential Equations and Applications* (IJDEA) Vol.7, No. 1 (2003), 101-107. (**MR: 2004e:34127**)
24. Z. C. Okonkwo. Singular Perturbation Problems for Stochastic Functional Differential Equations with Causal Operators. *Proceedings of the Dynamic Systems Conference and Applications Vol. III* (2001), 475-482. (**MR 2003a:34137; Zbl 0996.60068**).
25. A. O. Adewale, T. A. I. Akeju, **Z. C. Okonkwo**. Stability of clamped circular plate under radial compression using Liapunov Method. *Journal of Engineering Research* Vol. 8 No. 3/4, (2001), pp 1-12.
26. Z. C. Okonkwo. Curriculum and Administrative Innovations for the Nigerian Educational System in the Twenty-First Century. *In Problems and prospects of sustaining Democracy in Nigeria: Voices of a Generation* (Bamidele Ojo Ed.), (Chapter VI: pp 77-89). *Nova Science Publishers Inc.*, New York, 2001. See also *Politics and Economics of Africa, Volume IV*, Edited by Frank Columbus, (Chapter II pp 9-22), Baker & Taylor, 2003.
27. **Z. C. Okonkwo**, J. Turner, & E. Rowe. Stability of Stochastic Functional Differential Equations Involving Abstract Volterra Operators, *International Journal Of Differential Equations and Applications* (IJDEA) Vol. 3, No. 1 (2001) 59-78. (**MR 2002h: 34168; Zbl 1048.34125**).
28. G. Nneji, **Z.C. Okonkwo**. The role of science and technology in Nigeria's economic development in the first decade of the 21st century, *Akoka Journal of Vocational Education, Vol. 1. No. 1* (2001), 211-218.
29. Z. C. Okonkwo. Stochastic Functional Differential Equations with Abstract Volterra Operators 1: Existence of Solutions, *Volterra Equations and Applications*, (C. Corduneanu & I. W. Sandberg Eds.), Gordon & Breach Publishers, (2000) 373-384. (**MR 2001a: 60079; Zbl 0979.640047**).
30. Z. C. Okonkwo. Optimal Control for Ito-Type Systems with Partial Initial Conditions *Communications in Applied Analysis*, Vol. 4, no. 2 (2000) 257-266. (**MR 2001 a 49020**).
31. Z. C. Okonkwo. Admissibility and Optimal Control for Stochastic Difference Equations *Integral Methods in Science and Engineering*, (B. Bertram , C. Constanda, & A. Struthers, Ed.), Chapman & Hall/ CRC Research Notes in Mathematics (2000), (418) 263-267. **Zbl 0976.49020**.
32. **Z. C. Okonkwo**, E. Rowe. On Neutral Stochastic Functional Differential Equations With Causal Operators, *International Journal of Applied Mathematics*,

- (IJAM) Vol. 2, No. 1 (2000), 131-140. (**MR 2000m: 34190**).
33. **Z. C. Okonkwo**, E. Rowe, and A. Adewale. Stability of Neutral Stochastic Functional Differential Equations With Causal Operators- *International Journal of Differential Equations and Applications*, (IJDEA) Vol. 1, No. 4 (2000), 367-380.
 34. Z.C. Okonkwo. A Remark on Optimal Control for Difference Equations, *Journal of Engineering Research (JER)*, (1998), Vol. 6, No. 1, 45-58.
 35. **Z. C. Okonkwo**, W. Maryland, Jr., & B. Crawford. Curriculum Innovations and Emerging Careers In The Mathematical Sciences- *Technology Education Review*, Vol. 1 (2) (1998), 8-16.
 36. Z.C. Okonkwo. Approximation Procedures for an Abstract LQ-Optimal Control Problem. *Libertas Mathematica*, Vol. XVIII (1998), 159-172. **Zbl 0985.49019**.
 37. **Z.C. Okonkwo**, G.S. Ladde. Ito-Type Stochastic Differential Systems with Abstract Volterra Operators and Their Control, *Dynamic Systems and Applications* 6 (1997)461-468. (**MR 98i: 93078; Zbl 0888.3405**).
 38. Z.C. Okonkwo. Admissibility and Optimal Control for Difference Equations, *Dynamic Systems and Applications*, Vol. 5, No. 4, (1996) 627-634. (**MR Issue 98f: 49011; Zbl 0878.49004**).
 39. **Z. C. Okonkwo**, M.S. Korlie. Numbers and National Stability, *CONPO-Review, A Journal of Interdisciplinary Analysis of Nigerian Issues*, Vol.3, No. 1 March-September, 1994.
 40. Z. C. Okonkwo. Two examples in LQ-Optimal Control Theory. *Libertas Mathematica* Vol. XIII (1993), 177-182. (**Zbl 0789.49022**).

OTHER PUBLICATIONS

41. **Z. C. Okonkwo**, B. Holmes. A multi-faceted model for student success, performance, and preparation in teacher education. *Albany State University Research Review- Current Trends in Scholarship and Institutional Outreach*, vol. 1, Issue I, fall 2003, pp 10-11, 30-31.
42. **Z. C. Okonkwo**, L. Feng, & J. Myricks: *Using Real-life Examples and Hand-Held Technology to Enhance the Teaching and Learning of Statistical Concepts*. *Albany State University Research Review- Current Trends in Scholarship and Institutional Outreach*, vol. III Issue II, fall 2005, pp 40-41.

REVIEWS

1. Peng S. & Shi Y., Infinite horizon boundary- value problems and applications. J. Differential Equations 155 (1999) no. 2, 405-422. (Reviewed by Z. C. Okonkwo) **Mathematical Reviews September 2000 Issue (2000i: 34099)**.
2. Effati S. & Kamyad A. V., Solution of boundary value problems for second order ODE's by using measure theory. J. Anal. 6 (1998), 139-149 (Reviewed by Z. C. Okonkwo) **Mathematical Reviews January 2000 Issue (2000a: 49009)**.
3. Liu Xinzhi & A.S. Vasala, Variation of parameters in terms of Lyapunov-like functions and stability of perturbed systems, Nonlinear Stud. 5 (1998) no. 1, 47-58, (Reviewed by Z. C. Okonkwo) **Mathematical Reviews April 1999 Issue (99d: 34087)**.
4. W. Kratz & D. Liescher, A local characterization of observability,

- Linear Algebra Appl 269 (1998), 115-137, (Reviewed by Z. C. Okonkwo)
Mathematical Reviews September 1998 Issue (98i: 93012).
5. J.Y. Park, J.M. Jeong, & C.Y. Park: Time-optimal initial function problem of retarded systems with unbounded operators. *Kyungpook Math. J.* 40 (2000), NO. 1, 49—63. (Reviewer: Zephyrinus C. Okonkwo). ***Mathematical Reviews September 2001 Issue. (2001i: 49045).***
 6. P. Korman & J. Shi: Instability and exact multiplicity of solutions of semilinear equations: Proceedings of the Conference of Nonlinear Differential Equations (Coral Gable, FL, 1999) 311-322. Electron J. Differ. Equ. Conf. 5 Southwest Texas St. Univ. San Marcos TX, 2000. (Reviewer: Zephyrinus C. Okonkwo). ***Mathematical Reviews February 2002 Issue (2002b: 34034).***
 7. V.G. Kozyrev: Optimal controller for the almost exact guidance of a singularly perturbed system to zero. Dynamic Systems, No. 15, J. Math. Sci (New York) 103 (2001) No. 2 , 158-163. (Reviewer: Zephyrinus C. Okonkwo). ***Mathematical Reviews February 2002 Issue.(2002b: 49048).***
 8. Liu,Qi; Huang, Wenhua Mathematical Reviews (2002j: 34032). *On the solutions of two-point boundary value problems of Duffing-type equations.* Nanjig Daxue Xuebao Shuxue Bannian Kan 18 (2002) No. 1 62-68.- (Reviewer: Zephyrinus C. Okonkwo). ***Mathematical Reviews October 2002 (2002j: 34032).***
 9. Ponsoda, E; Navarro, E.; Company, R. Rosello, D. Mathematical Reviews (2002j: 34026). *A quantitative measure of well-conditioning for linear two-point boundary value problems.* Math. Comput. Modelling 34 (2001) no. 7-8, 711-723. (Reviewer: Zephyrinus C. Okonkwo). ***Mathematical Reviews (2002j: 34026).***
 10. Review of K. Chudinov’s paper (Reviewed by Zephyrinus C. Okonkwo): Partial Stability criterion for autonomous system of differential equations, Functional Differential Equations 9, (20202), 3-4, 315-323. ***(MR 2004i: 34127).***

PARTICIPATIONS AND PRESENTATIONS AT CONFERENCES AND COLLOQUIA

1. A. Devarapu, Z.C. Okonkwo, and Marrisa Merrell. *Unsteady Boundary-Layer Flow Over a Flat Plate.* Joint Mathematics Meetings, Seattle, Washington, January 6-9, 2016
2. Z.C. Okonkwo, and A. Devarapu. *Using Item Analysis of Assessment Instruments to Enhance Instruction, Learning, and Student Achievement: The Case of Numbers and Operations Course.* Joint Mathematics Meetings, Seattle, Washington, January 6-9, 2016.
3. Z.C. Okonkwo, R.S. Owor, and K. Dajani. Control Problems arising from Terrorism and Counterterrorism. Presented at the Seventh International Conference on Dynamic Systems and Applications & Fifth International Conference on Neural, Parallel, and Scientific Computations, Atlanta, Georgia, May 27-May 30, 2015.
4. R.S. Owor, Z.C. Okonkwo, and K. Dajani. The Design and Development of a Standard Penetration Testing Index. Presented at the Seventh International Conference on Dynamic Systems and Applications & Fifth International Conference on Neural, Parallel, and Scientific Computations, Atlanta, Georgia, May 27-May 30, 2015.
5. K. Dajani, N. Dunn, R. S. Owor, and Z.C. Okonkwo. Quantum Computation for Network

- Communications and Space-based Devices. Presented at the Seventh International Conference on Dynamic Systems and Applications & Fifth International Conference on Neural, Parallel, and Scientific Computations, Atlanta, Georgia, May 27-May 30, 2015.
6. R.S. Owor, Z.C. Okonkwo, K. Dajani, C. Ofodile. Investigating the Use of Euler's Knight Tour Algorithms to Predict Zero-Day Attacks. Presented at the Seventh International Conference on Dynamic Systems and Applications & Fifth International Conference on Neural, Parallel, and Scientific Computations, Atlanta, Georgia, May 27-May 30, 2015.
 7. Z. C. Okonkwo, and R. S. Owor. Nigeria, Big Data, Economic Sustainability, and Wealth Creation. Presented at the *First International Conference on Computational Sciences and Information Technology for National Economic Sustainability, Federal University of Technology Owerri (FUTO), Owerri, Nigeria, December 15-December 18, 2014.*
 8. R.S. Owor, Z.C. Okonkwo, and K. Dajani. Design and Analysis of a Stochastic Cyber Security Matrix for Threat Prediction, Detection and Prevention. Presented at the *First International Conference on Computational Sciences and Information Technology for National Economic Sustainability, Federal University of Technology Owerri (FUTO), Owerri, Nigeria, December 15-December 18, 2014.*
 9. Z. C. Okonkwo, Janis Carthon. Enhancing ASU-Community collaboration through academic support and interventions, Presented at the Building Community Engagement at Albany State University April 5, 2014.
 10. Z. Okonkwo. The role of data collection and analysis in strategic development planning. Presented at the Legislative Process and State Development workshop, Albany State University, November 29-30, 2012.
 11. Z. Okonkwo. Modeling the informal sector to strengthen the development of rural Nigeria. Presented at the City/County Government Administration for Local Government Service Commission, Darton State College Albany, GA November 26, 2012; also at The Legislative Process and State Development Workshop, Albany State University Albany, GA November 29-30, 2012.
 12. Z. Okonkwo. Assessment Instruments and Student Learning Outcomes. Faculty workshop presentation, Albany State University, Fall 2012.
 13. **Z. Okonkwo**, R. Owor, K. Dajani, Almost periodic solutions of Ito-Volterra functional differential equations of neutral type. Presented at the *sixth Dynamic Systems and Applications Conference*, Atlanta, Georgia, 2011.
 14. K. Dajani, R. Owor, and **Z. Okonkwo**, Quantum Fourier transforms algorithms in wireless and distributed communications networks. Presented at the *sixth Dynamic Systems and Applications Conference*, Atlanta, Georgia, 2011.
 15. R. Owor, K. Dajani, and **Z. Okonkwo**, A survey of 3G/4G wireless security challenges and opportunities. Presented at the *sixth Dynamic Systems and Applications Conference*, Atlanta, Georgia, 2011.
 16. Khalil Dajani, Robert Owor, Zephyrinus Okonkwo, "The Relevance of Quantum Cryptography in Modern Networking Systems", The Fourth International Conference on Neural, Parallel & Scientific Computations, Atlanta, GA, August 11-14, 2010.
 17. Robert Owor, Khalil Dajani, Zephyrinus Okonkwo, "Simulating Convoluted Digital Watermarking Hidden Message Algorithms using Quantized Index Modulated Bezier and Hermite Splines", The Fourth International Conference on Neural, Parallel & Scientific Computations, Atlanta, GA, August 11-14, 2010.

18. Robert Owor, Khalil Dajani, Zephyrinus Okonkwo, “3G/4G Wireless Communications Cryptography: Challenges and Opportunities”, The Fourth International Conference on Neural, Parallel & Scientific Computations, Atlanta, GA, August 11-14, 2010.
19. Owor, R., Dajani, K., **Okonkwo, Z.**, Hamilton, J., “A Hybrid Discrete Fast Fourier Transform Elliptical Cryptographic Algorithm for Portable Wireless Devices and Distributed Networks”. ACM Huntsville Simulation Conference 2008, October 21-23 2008.
20. Dajani, K., Owor, R., Okonkwo, Z., Hamilton, J., “Implementing Quantum Key Distribution Schemes in Wireless GSM/CDMA Based Networks: Opportunities and Challenges”, ACM Huntsville Simulation Conference 2008, Huntsville, Alabama, October 21-23 2008.
21. Refocusing College Algebra for Student Success. *Presented at the MAA Southeast Section meeting*, The Citadel, Charleston, SC March 28-29, 2008.
22. M. Talukder, **Z. Okonkwo**: Using the Limit Process and Numerical Sequences to Enhance Student Understanding of the Concept of the Derivative. *Presented at the MAA Southeast Section meeting*, The Citadel, Charleston, SC March 28-29, 2008.
23. Recent and emerging developments in stochastic functional differential equations involving causal operators. Presented at The University of Port- Harcourt, Nigeria, December 17, 2007.
24. R. Owor, K. Dajani, **Z. Okonkwo**, and J. Hamilton. *An Elliptic Cryptographic Algorithm for RF Wireless Devices*. Winter Simulation Conference in Washington DC, December 10-13, 2007.
25. Z. C. Okonkwo. Using Innovative Action Steps to Enhance Tertiary Education Access in Imo State. Presented at the Imo Forum Symposium, Washington, DC, July 14, 2007.
26. Z. C. Okonkwo. Creating a Successful Reformed College Algebra Course: The Role of Leadership and Faculty Engagement. Presented at the United States Military Academy, USMA West Point New York June 5-7, 2007.
27. Z. C. Okonkwo. Stability of Ito-Volterra Integrodifferential Equations of Neutral Type. Presented a paper at the International Conference on Dynamic Systems and Applications in Atlanta, Georgia May 30-June 2, 2007.
28. Z. C. Okonkwo. Enhancing faculty engagement through the sharing of instructional and assessment Materials, Paper presented at the Faculty Development Workshop, *The United States Military Academy*, West Point, New York, April 11-13, 2007.
29. Z. C. Okonkwo, J. Myricks. Learning by doing: Increasing student engagement through innovative pedagogy and technology in Basic Statistics course. *Presented at the MAA Southeast Section meeting, Georgia Southern University Statesboro, GA March 16-17, 2007.*
30. Z. C. Okonkwo. Enhancing instruction, learning, and assessment through item analysis of assessment instrument: The case of College Algebra. *Presented at the MAA Southeast Section meeting, Georgia Southern University Statesboro, GA March 16-17, 2007.*
31. (With Dajani & Owor). *Development of Innovative database management software for the public health system*, Presented at the Seminar Series, Department of Mathematics and Computer Science, Albany State University, March 23, 2007.
32. (With J. Myricks and C. Leggett). Focusing on the Refocused College Algebra Project: Issues, Problems, and next Steps-A Preliminary Report. Presented at a *Special NAM*

- Session, Joint Meetings of the American Mathematical Society, New Orleans, LA, January 5-8, 2007.*
33. HBCU Retreat and Follow-On Program: Refocused College Algebra Workshop, *The United States Military Academy*, West Point, New York, June 5-8, 2006.
 34. Stability of Ito-Volterra Integrodifferential Equations of Neutral Type-*A Preliminary Report*. Presented at NAM Faculty Conference on Research and Teaching, Albany State University, March 10-11, 2006.
 35. Z. C. Okonkwo. Ultimate Behavior of Solutions of Neutral Stochastic Functional Differential Equations of Ito-Volterra Type-Presented at *Morehouse College Mathematics Colloquium Series*, November 3, 2005.
 36. Z. C. Okonkwo. Asymptotic Behavior in Stochastic Functional Differential Equations of Neutral Type. Presented at the *Conference of Differential & Difference Equations and Applications*, Florida Institute of Technology Melbourne, Florida, August 1-5, 2005.
 37. Z. C. Okonkwo. Numbers Count-Using infrastructural support to generate a systemic change in the Department of Mathematics and Computer Science. *Albany State University Graduate School 4th Annual Symposium, March 23, 2005.*
 38. Z. C. Okonkwo. Almost Periodicity in Probability and neutral stochastic functional Differential Equations with Causal Operators. Presented at the Joint Meetings of the American Mathematical Society, Atlanta, GA Jan. 5-8, 2005.
 39. Z. C. Okonkwo. *Graduate Education and Preparation for Teaching at Four-Year Colleges: Expectations in Teaching, Research, Community Service, and Professional Development.* Presented at the Department of Mathematics Seminar Series, University of Texas at Arlington July 15, 2004.
 40. Z. C. Okonkwo, L. Feng, and J. Myricks. *Using Real-life Examples and Hand-Held Technology to Enhance the Teaching and Learning of Statistical Concepts.* Presented at the MAA Southeastern Section Meeting-Austin Peay State University, Clarksville, TN, March 26-27, 2004.
 41. Z. C. Okonkwo. *Stability of nonlinear neutral Ito-Volterra stochastic difference equations.* Presented at the 4th International Conference on Dynamic Systems and Applications, Atlanta, GA, 22-24 May, 2003.
 42. (With A. Adewale & V. O. S. Olunloyo). *A study of hydrogeological flows through leaky aquifers using boundary layer theory.* Presented at the 4th International Conference on Dynamic Systems and Applications- Atlanta, GA, 22-24 May, 2003.
 43. Z. C. Okonkwo. *Almost Periodic Neutral Stochastic Functional Differential Equations with abstract Volterra Operators.* Presented at the Joint Meetings of the American Mathematical Society, Baltimore, MD, January 15-18, 2003.
 44. Z. C. Okonkwo. *The impact of standard-based learning on learner outcomes: The case of American Colleges and Universities.* A special Presentation at the College of Education (Technical) Akoka-Yaba Lagos Nigeria, December 19, 2002.
 45. Z. C. Okonkwo. Department of Math & Comp. Sc. Seminar Series December 6, 2002. *Almost Periodic Neutral Stochastic Functional Differential Equations with abstract Volterra Operators- A preliminary report.*
 46. (With B. Holmes). *Supplemental Instruction for Student Success and Retention. An invited presentation at Morehouse College Atlanta, GA October 24, 2002.*

47. **AACTE-NCATE Continuing Accreditation and Beyond Workshop, Washington DC.** September 23-26, 2002: Paper presented (With B. Holmes). *A multi-faceted model for student success, performance, and retention in teacher education.*
48. **Faculty Conference August 5-8 2002: Invited Paper:** *Innovative Pedagogy for student cognitive development and success in college:- A new direction in teaching and learning.*
49. Board of Regent's "Follow the Data" Conference Atlanta, Georgia April 18-19, 2002 (With B. Holmes), A Student Success Model for Praxis I Preparation and Performance in Teacher Education.
50. AMS-MAA Southeast Sectional Meeting- Georgia Tech- March 8-10, 2002: Papers presented: (i) On Global existence of a class of Ito-Volterra equations. (ii) (with B. Holmes): Supplemental instruction for enhancement of student's capacity and retention.
51. MAA South East Sectional Meeting- Montgomery, Alabama, March 30-31, 2001.
52. Z. C. Okonkwo, J. Turner. Existence of neutral stochastic functional differential equations with abstract Volterra operators- Presented at the Joint Meetings of the American Mathematical Society, New Orleans, LA Jan. 10-13, 2001.
53. Z. C. Okonkwo. Computer Technology and the Nigerian Educational System: Issues and Problems. Presented at *The First International Conference on Science, Technology and Sustained Development in Nigeria*, 27-29 December 1999- University of Uyo, Nigeria.
54. Z. C. Okonkwo. A Contribution to the Theory of Neutral Stochastic Functional Differential Equations with Causal Operators. Presented at the *First International Conference on Science, Technology, and Sustained Development in Nigeria*, 27-29 December 1999. University of Uyo, Nigeria.
55. Z. C. Okonkwo. Singular Perturbation Problems for Stochastic Functional Differential Equations with Causal Operators. Presented at the 3rd Conference on Dynamic Systems and Applications- Atlanta, GA 25-29 May, 1999.
56. (With J. Turner). On Neutral Stochastic Functional Differential Equations with Causal Operators. Presented at the Joint Meetings of the American Mathematical Society San Antonio, Texas Jan. 13-16, 1999.
57. Minorities in Applied Mathematics-Connections with Industries Conference: Lawrence-Berkeley National Laboratories-September 17-19, 1998. *Poster Presentation.*
58. Z. C. Okonkwo. Admissibility and Optimal Control for Stochastic Difference Equations. Presented at IMSE'98 Conference Houghton, MI August 10-13, 1998.
59. Z. C. Okonkwo. Linear-Quadratic Optimal Control and Function Spaces. Presented at the NAM Summer Research Institute -Elizabeth City State University, May 17- May 24, 1998.
60. Z. C. Okonkwo. Approximation Procedures for an Abstract LQ-Optimal Control Problem. Presented at The Joint Meetings of the American Mathematical Society, Baltimore, Maryland, Jan. 7-10, 1998.
61. Z. C. Okonkwo. Approximation Procedures for an Abstract LQ-Optimal Control Problem-A preliminary report. Presented at Montgomery Area Mathematics Seminar- Auburn University at Montgomery, Aug. 8, 1997.
62. Z. C. Okonkwo. Recent Developments in the Teaching of Mathematics Using Hand-Held Technology Presented at the University of Lagos Faculty of Engineering Lecture Series, Lagos-Nigeria, May 15, 1997.
63. MAA South Eastern Sectional Meeting Atlanta, GA, March 13-15, 1997. Chaired a session on Teaching of Mathematics.

64. Z. C. Okonkwo. Joint Meeting of the American Mathematical Society, San Diego, CA, January 8-12, 1997. Paper Presented: Stability of Stochastic Functional Differential Equations Involving Abstract Volterra Operators.
65. Z. C. Okonkwo. Volterra Centennial Symposium. Paper presented: Stochastic Functional Differential Equations With Abstract Volterra Operators 1: Existence of Solutions, Arlington, TX May 22-25, 1996. Auburn University- Mathematics Colloquium, May 17, 1996.
66. Z. C. Okonkwo. Paper Presented: Admissibility and Optimal Control of Differential Equations. Joint Meeting of the AMS, MAA Orlando Fl, January 10-January 14, 1996.
67. Joint Meeting of the AMS, MAA, and MATHFEST, University of Vermont Burlington, Vermont August 5-8, 1995.
68. Z. C. Okonkwo International Conference on Dynamic Systems and Applications, Morehouse College Atlanta, Georgia May 24-27, 1995 Papers Presented :(i)"On Linear Quadratic Control for Discrete Dynamical Systems" (ii) Ito-Type Stochastic Differential Systems with Abstract Volterra Operators and Their Control" (With Prof. G.S. Ladde).
69. Z. C. Okonkwo Joint Mathematics Meeting of the A.M.S., Cincinnati, Ohio, January 12-15, 1994. Paper Presented: *Optimal Control for Differential Equations with Partial Initial Conditions.*
70. Texas Systems Day, University of Texas at Dallas, 1992.
71. Z. C. Okonkwo. Science Association of Nigeria Conference, University of Science and Technology Port Harcourt, July 21-26, 1985. Paper Presented: *A Boundary Layer Model for Flows Through Leaky Aquifers.*
72. International Conference on Water Resources Management, University of Ilorin, Nigeria, 1984.

ORGANIZING OR HOSTING OF CONFERENCES

1. Spring 2016 Undergraduate Research Colloquium, *Albany State University*, April 22, 2016.
2. 4th Fall Regional Undergraduate Research Symposium, *Albany State University*, October 29, 2015.
3. First International Conference on Computational Sciences and Information Technology for National Economic Sustainability, Federal University of Technology Owerri (FUTO), Owerri, Nigeria, December 15-December 18, 2014.
4. *The First International Conference on Science, Technology and Sustainable Development in Nigeria*, 27-29 December 1999- University of Uyo, Nigeria. Dr. Okonkwo was the main international organizer of this three-day conference at University of Uyo, Akwa-Ibom State, Nigeria. The conference attracted national and international scholars.
5. ***National Association of Mathematicians (NAM) Regional Conference on Research and Teaching March 10-11, 2006:*** at Albany State University: Dr. Okonkwo led the department of Mathematics and Computer Science, Albany State University to host the 2006 NAM's Conference (NAM) on Research and Teaching, March 10-11, 2006. This two-day conference, which was attended by Mathematics faculty from all over United States, focused on Mathematics Education, Professional/Career Development, Scholarly Productivity, Student Development, and Databases. Several scholarly papers

and workshops were presented at this conference.

6. ***Board of Regents Academic Advisory Conference for the Mathematical Subjects February 21-22, 2008.*** I led the Department of Mathematics and Computer Science to host the Board of Regents Academic Advisory Committee Conference for the Mathematical Subjects (ACMS) February 21-22, 2008. This two-day conference which focused on the mathematics curriculum improvement, enhancement, teaching and learning, process development, and policy crafting and advisory, was attended by 26 of the 35 chairs of mathematics departments of the University System of Georgia colleges. Dr. Dorothy Zinsmeister, Assistant Vice Chancellor for Academic Affairs, USG, was also in attendance. Through the royalty paid due to my contributions to the Aufman's College Algebra book, I raised the money to host this conference.
7. Special Invitation and Support for First International Conference on Computational Sciences and Information Technology for National Economic Sustainability-Organized with professional colleagues in the United States and Nigeria. I was the Chair of the International Organizing Committee.

OTHER PRESENTATIONS

1. ***Send Me. An Invited Keynote Address Presented at the Amuzi Development Union National Convention, Dallas, Texas June 20-21, 2008***
2. ***Amuzi Development is Everybody's Business. An Invited Keynote Address Presented to Amuzi Community on Amuzi Day Celebration Amuzi Ikenanzizi Obowo, Imo State Nigeria, December 30, 2008.***

OTHER PARTICIPATIONS IN PROFESSIONAL CONFERENCES, WORKSHOPS, AND MANAGEMENT TRAINING

1. HBCU-UP Faculty Development Workshop, May 11-13, 2015, Albany State University.
2. Workshop on High Impact Practices, Albany State University, October 29, 2015.
3. Computer Security Colloquium, June 2010, Baltimore Maryland.
4. Quality Education for Minorities (QEM) Network Conference August 28-29, 2009. Jackson, MS.
5. *Faculty Development Workshop*, Department of Mathematics and Computer Science, Albany State University/United States Military Academy Workshop, ASU, August 2-3, 2007.
6. 2007 SACS-COC Institute on Quality Enhancement and Accreditation, July 22-25, 2007, Louisville, KY.
7. *Faculty Development Workshop*, Department of Mathematics and Computer Science, Albany State University, August 26, 2006.
8. 3rd Annual Fall Institute for Academic Deans & Chairs, Columbia, SC , October 12-14, 2003.

9. Board of Regents Academic Administrators Conference, University of Georgia, Athens, GA. March 4-5, 2004.
10. 5th Annual Fall Institute for Academic Deans and Chairs Savannah, Georgia, October 23-25, 2005.
11. NSF Major Research Instrumentation (MRI) Program workshop, Albany State University October 20, 2004.
12. *Title III workshop on Critical Indicators for Programs, Merry Acres Conference Center December 14, 2004.*
13. *Developing Professional Master's Degree Programs in Mathematics at HBCU's*, by Dr. Vanere Goodwin, Chairman, Department of Mathematics & Computer Science, Fayetteville State University, Friday March 18, 2005 Simmons 344, ASU.
14. *Interactive Virtual Expert System for Advising(InVestA)* by Dragoljub Pokrajac, Ph.D, Department of Computer and Information Science & Applied Mathematics Research Center, Delaware State University, Monday, April 11, 2005, 1:00pm at Simmons 210, ASU.
15. *Nonlocal Boundary Problems for One-dimensional Pseudoparabolic Equations* by Yu Huang, Ph.D., Mathematics Department, Texas A&M University, May 5, 2005, ASU.
16. *Brief Survey of Tiling with an Emphasis on Topological Property* by Jun Luo, Ph.D, Graduate Center, City University of New York, Friday, May 5, 2005, Simmons 344, ASU.
17. Board of Regent P-16 meeting (Atlanta, GA), October 12-15, 2002.
18. Kaplan training for PRAXIS (Macon, GA) December 14, 2002.

IN PREPARATION

1. Z. C. Okonkwo (with R. Owor). A Multifaceted Plan for Enhancing the Progression and Graduation in the STEM fields in Minority Institutions.

COURSES TAUGHT

College- Graduate:

Mathematics: Operations Research, Applied Mathematics, Real Analysis, Combinatorics, Geometry for Teachers, Computer-Oriented Mathematics, Linear Algebra, History of Mathematics, Modern Geometry.

MBA: Decision Science

Education: Educational Statistics, Advanced Educational Research, Educational Research

College-Undergraduate :

Engineering Pure Mathematics, II & II, Statistics, Discrete Mathematics Numerical Methods in Engineering, Calculus, Business Algebra, Business Mathematics, Precalculus, College Algebra, Linear Algebra, Advanced Calculus, Probability and Statistics Undergraduate Mathematics Research and Independent Study, History of Mathematics, Operations Research, Real Analysis Operations Management and Management Science, Numerical Analysis, Partial Differential Equations, Number Theory

High School

Mathematics, Chemistry, Physics

UNIVERSITY AND COMMUNITY SERVICE

- 2013-2017: Member, Faculty Senate, Albany State University.
- 2015-Present: President, American Association of University Professors- Albany State University Chapter.
- 2015-2017: Member, Tenure and Promotion Committee, College of Science and Health Professions.
- 2015-2016: Chair, Tenure and Promotion Committee, College of Sciences and Health Professions.
- 2012-2013: Chair, Tenure and Promotion Committee, College of Sciences and Health Professions.
- 2010-2013: Member, Tenure and Promotion Committee, College of Science and Health Professions.
- 2009-2010: Member, Post Tenure Review Committee.
- 2009-Present: Chair, Mathematics Committee, Department of Mathematics and Computer Science.
- 2006-2008: Member, SACS Quality Enhancement Program Committee
- 2003-Present: Editor, *Monograph of Research Endeavors at Albany State University*.
- 2002-2008: Member, Regents Advisory Committee for the Mathematical Disciplines.
- 2002-2008: Member, Regents Advisory Committee for the Computing Disciplines
- 2002-2006: Member, Regents Committee on BAS Online
- 2002-2008: Member, Curriculum and New Programs Committee
- 2002-2006: Member, GSTEP Steering Committee
- 2000-2010: Member, Lyceum Committee
- 2001-2003: Member, College of Arts and Sciences Library Committee
- 2001-2003: Member, Faculty Senate
- 2001-2007: Member, Graduate School Committee on Research
- 2000-Present: Graduate Faculty
- 2000-2002: President, African Caribbean Association Albany, Georgia, a community Socio-cultural association.

- 2000-2002: Chair, Mathematics tournament committee
- 1999-present: Member, Mathematics Committee on new courses and programs
- 1999-present: Member and secretary to the board of Faith Community Outreach Project- a home for battered Women in Albany, Georgia
- 1997- Present: Consulting Editor, *Technology Education Review* (A referred Journal)
- 1998-1999: Member, College of Arts and Sciences Academic Excellence Committee.
- Aug. 6-7 1998 NSF- MGE Panel Member, Arlington, VA.
- 1994-1999: Member, Departmental Committee on New Courses and Programs.
- 1995-1998 Member, College of Arts and Sciences' Committee on Research and Creative Activity.
- 1995-1998: Member, University Sub-Committee on "Governance and Commitment to Rules" for NCAA Institutional Self-Study
- 1994-1995: Volunteer, Math tutor, Talent Search Program, Trenholm State Technical College Montgomery, Alabama.

WORKSHOPS PRESENTED/FACILITATED

- September 29, 2016: ASU Faculty Development Workshop: Using Item Analysis of Assessment Instruments to Improve Pedagogy, Learning, and Student Achievement in Courses and Programs.
- Summer 2016: Faculty Development Workshop-*Integrating Some High-Impact Practices and Activities in Pedagogy and Learning.*
- Summer 2016: Procter and Gamble-ASU Summer Institute for Middle and High Students.
- March 11, 2016: Student and Faculty Workshop: Quantitative Research.
- January 29, 2016: Faculty Workshop: Student Mentoring, Student Learning Outcomes, and High Impact Practices.
- Fall 2009-Summer 2011: Math Science Partnership Workshops for Dougherty County School System (DCSS) Teachers.
- June 14-25, 2010: Summer Institute for Secondary School Teachers at Isabella Academy.
- Fall 2010 Infusion of Hand-Held Technology in Teaching and Learning of High School Mathematics (DCSS).

- December 13, 2007: Sacred Heart Secondary Technical School Amuzi-Ikenanzizi Obowo, Imo State, Nigeria. Workshop Presented: Connecting Mathematics, Physics, and Technology”, at Sacred Heart Secondary Technical School Amuzi-Ikenanzizi Obowo, Imo State, Nigeria.
- December 13, 2007: Conducted Keystrokes workshop on the TI-84 Plus Graphing Calculator at the University of Port-Harcourt December 17, 2007.
- Spring 2006 : FGLSAMP-Expo Albany State University, January 26-28, 2006. Workshop presented: *Teaching and learning of mathematics-the role of hand-held Technology.*
- Spring 2005: Using Graphing Calculator Technology to Enhance the teaching and Learning of Calculus
- Fall 2002: Infusion of graphing calculator technology in the teaching and learning of Mathematics and Science (a GSTEP initiative)
- Spring 2002: FGLSAMP-Expo Tallahassee, Florida January 31-Feb. 3, 2002: *Integration of graphing calculator technology in the teaching and learning of undergraduate core courses.*
- Spring 2001: FGLSAMP-Expo Daytona Beach, Florida January 28-30, 2001. Workshop presented: *Teaching and learning of mathematics-the role of hand-held technology.*
- Spring 2001: *Graphing calculator workshop for faculty and students- Albany State University.*
- December 2, 2000: Technology enhanced learning conference 2000. Paper presented- *Hand-held technology for teaching and learning of mathematics.*
- Spring 2000: FGLSAMP-Expo Jacksonville, Florida January 28-30, 2000. Workshop presented: *Teaching and learning of mathematics using hand-held technology.*
- Summer 1997: *Introduction to keystrokes of the TI-83 graphing calculator- a workshop for middle school and high schools teachers of mathematics and science- Central Alabama regional inservice center, Alabama State University, Montgomery, Alabama.*
- FALL 1996: *Technology enhancement workshop for middle school and high school teachers Alabama State University, Montgomery, Alabama.*

UNDERGRADUATE RESEARCH SUPERVISED

1. *Jonathan Moody and Emilola Abayomi*

Title of Research: *Crime Calculus*- Presented at *The Fifth Annual Harriett J. Walton Symposium on Undergraduate Mathematics Research*, Morehouse College, Atlanta, March 31, 2007.

2. *Antonio Buddington*

Title of Research: *Mathematical modeling for multiple debts with different monthly due dates*- Presented at *The Fifth Annual Harriett J. Walton Symposium on Undergraduate Mathematics Research*, Morehouse College, Atlanta, March 31, 2007.

3. **Jason Whatley**

Title of Research: *An examination of class attendance trend: An empirical study*

Presented at *The Fifth Annual Harriett J. Walton Symposium on Undergraduate Mathematics Research*, Morehouse College, Atlanta, March 31, 2007.

4. **On Systems of Difference Equations with Fading Memory**

By Tiffany Clark- Presented at *The 3rd Annual Harriett J. Walton Symposium on Undergraduate Research*- Morehouse College Atlanta, GA, April 2nd, 2005

5. **A Study of Difference Equations with Fading Memory**

By Research Assistant: Darien Lee

6. On approximations to the solutions of singularly perturbed ordinary differential equations and their applications by Eddy W. Stringer III- Presented at *The Second Annual Harriett J. Walton Symposium on Undergraduate Research*- Morehouse College Atlanta, GA, April 3rd, 2004.

7. **Renata Walker, Lessons from the Past: Five Exciting Examples from History of Mathematics** Presented at *The 1st Annual Harriett J. Walton Symposium on Undergraduate Research*- Morehouse College Atlanta, GA, April 3rd, 2004

8. **Gregory Strawder**, Albany State University

Title of paper: Some Applications of Functions of a Complex Variable in Physics and Engineering. Presented at *The 4th Annual Harriett J. Walton Symposium on Undergraduate Research*- Morehouse College Atlanta, GA, April 1st, 2006.

9. **Antonio Buddington**, Albany State University

Title of paper: Solutions to a Class of Nonlinear Initial Value Problems Using Euler's Method. Presented at *The 4th Annual Harriett J. Walton Symposium on Undergraduate Research*- Morehouse College Atlanta, GA, April 1st, 2006

LANGUAGE SKILLS

Reading, Writing, Speaking: Igbo

COMPUTER PROFICIENCY

LANGUAGES: FORTRAN

HARDWARE: Personal Computer

Hand-Held Technology: TI-84+, TI-85, TI-86, TI-89, HP38, HP48G/GX

DISSERTATION

Ph.D. Dissertation: *Control Problems in the Class of Linear Quadratic Systems*

Advisor: Professor Constantin Corduneanu

M.Phil. Dissertation: "*A Boundary Layer Model for Hydrogeological Flows Through Leaky Aquifers*"

Advisor: Professor V. O.S. Olunloyo

RESEARCH INTERESTS

Differential Equations and Applications

Integral Equations and Applications

Control Theory

Fluid Mechanics

Mathematics and Science Education

Information Assurance and Technology Applications

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS

1. Mathematical Association of America, MAA.
2. Member, AAUP 2012-Present.
3. President, AAUP Albany State University Chapter.

References

1. Dr. Robert S. Owor
Professor of Computer Science, Department of Mathematics and Computer Science
Albany State University
504 College Drive, Albany, GA 31705
Telephone: 229-288-1478
Email: Robert.owor@asurams.edu
2. Dr. Louise Wrensford
Professor of Chemistry and Associate Vice President of Research and Sponsored Programs
Albany State University
504 College Drive, Albany, GA 31705
Telephone: 229-430-4824
Email: louise.wrensford@asurams.edu
3. Dr. Li Feng
Professor of Mathematics, Department of Mathematics and Computer Science
Albany State University
504 College Drive, Albany, GA 31705
Telephone: 229-430-4894
Email: li.feng@asurams.edu
4. Mr. Vinson Davis
Principal, Monroe High School
Albany, GA 31701
Telephone: 229-296-2034
Email: Vinson.Davis@docoschools.org
5. Dr. Anilkumar Devarapu
Associate Professor of Mathematics, Department of Mathematics and Computer Science
Albany State University
504 College Drive, Albany, GA 31705
Telephone: 229-430-4888
Email: Anilkumar.devarapu@asurams.edu
6. Dr. Felicia Griffin
Mathematical Statistician
Office of Biostatistics, Office of Translational Sciences
Center for Drug Evaluation and Research, Food and Drug Administration
10903 New Hampshire Avenue, Bldg. 21/Rm 3606
Silver Spring, MD 20993
Telephone: 229-869-5598
Email: Felicia.Griffin@fda.hhs.gov

7. Dr. Peter Ngwafu
Associate Professor and Chair
Master of Public Administration Program
Albany State University
504 College Drive, Albany, GA 31705
Telephone: 229-886-2072
Email: zephyrinus.okonkwo@asurams.edu

THE UNIVERSITY OF TEXAS AT ARLINGTON

Name **Okonkwo, Zephyrinus C**
 Last Known Address **3537 Oak Shadow Lane
 Montgomery, AL 36116**

Degree **DOCTOR OF PHILOSOPHY (MATHEMATICAL SCIENCES/MATHEMATICS)** - May 14, 1994
 Awarded
 Student ID **467-77-4968**
 Birthdate **08/26/1956**

Acad Dept	Subj	Course Description	Grade	Contact Hrs Lec Lab	Cr	Grade Pts	Note	Acad Dept	Subj	Course Description	Grade	Contact Hrs Lec Lab	Cr	Grade Pts	Note	Acad Dept	Subj	Course Description	Grade	Contact Hrs Lec Lab	Cr	Grade Pts	Note
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TASP TEST
 Exempt

Transferred from University of Lagos with Bachelor of Science in Mathematics Educ.-1982 and Master of Philosophy in Engr Analytics-1985

Admitted to Graduate School
SPRING 1990

CSE 5300 INTRO TO PROGR B 3 3 3 9
 MATH 5331 ABSTRACT ALG I B 3 3 3 9
 Semester Totals GPA 3.000 6 18

SUMMER 11 WK 1990

MATH 5320 APPL DIFF EQUAT A 4 3 3 12
 Semester Totals GPA 4.000 3 12

FALL 1990

MATH 5307 MATH ANAL I B 3 3 3 9
 MATH 5332 ABSTRACT ALG II B 3 3 3 9
 MATH 5333 LINEAR ALG&MAT C 3 3 3 6
 MATH 5364 INTR MATH CNTR A 3 3 3 12
 Semester Totals GPA 3.000 12 36

SPRING 1991

MATH 5308 MATH ANAL II A 3 3 3 12
 MATH 5328 FUNC ANAL II A 3 3 3 12
 MATH 5392 APP FOURIER ANA A 3 3 3 12
 Semester Totals GPA 4.000 9 36

SUMMER 11 WK 1991

A E 5331 INTGR EQ IN ENG A 4 3 3 12
 MATH 5392 DIF EQU/APP/ENG A 4 3 3 12
 MATH 6391 SPECIAL READING P 3 3 3 9
 Semester Totals GPA 4.000 9 24

FALL 1991

MATH 5317 REAL ANAL MSCI C 3 3 3 6
 MATH 5322 COMPLEX VARI I A 3 3 3 12
 MATH 6391 SPECIAL READING P 3 3 3 9
 Semester Totals GPA 3.000 9 18

SPRING 1992
 A E 5301 FOUNDATION TURB A 3 3 3 12
 MATH 5318 FUND STOCH ANAL A 3 3 3 12
 MATH 5392 APP FOURIER ANA A 3 3 3 12
 Semester Totals GPA 4.000 9 36

SUMMER II 1992

MATH 5392 INTGR EQUA/APP A 8 3 3 12
 Semester Totals GPA 4.000 3 12

SUMMER 11 WK 1992

MSCI 6699 DISSERTATION R 3 3 3 9

FALL 1992

MATH 5392 ESTIM STOCH CON A 3 3 3 12
 MSCI 6699 DISSERTATION R 3 3 3 12
 Semester Totals GPA 4.000 3 12

SPRING 1993

MATH 5392 STOCH DIF EQUA A 3 3 3 12
 MSCI 6699 DISSERTATION R 3 3 3 12
 Semester Totals GPA 4.000 3 12

SUMMER II 1993

MATH 5392 NONLINR ANALYSIS A 4 3 3 12
 Semester Totals GPA 4.000 3 12

SUMMER 11 WK 1993

MSCI 6699 DISSERTATION R 3 3 3 9

FALL 1993

A E 5302 ADV FLIGHT MECH B 3 3 3 9
 MSCI 6699 DISSERTATION R 3 3 3 9
 Semester Totals GPA 3.000 3 9

SPRING 1994
 MSCI 6999 DISSERTATION P 9
 Semester Totals 9
 DOCTOR OF PHILOSOPHY (MATHEMATICAL SCIENCES/MATHEMATICS)
 conferred May 14, 1994

Dissertation title

Control Problems in the Class of Linear Quadratic Systems

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Address inquiries to:
 Office of the Registrar
 P.O. Box 19088
 Arlington, Texas 76019

Sent to:
 Zephyrinus C Okonkwo
 3537 Oak Shadow Lane
 Montgomery, AL 36116

DEPARTMENT
OF
CURRICULUM
STUDIES



OCT 06 1989

REG. STA
GRAD SCHOOL

Faculty of Education
University of Lagos,
Lagos
Nigeria.
Cables/Telegram: UNIEDUC

FE/CS/768

20th June, 1988

Syllabus

TO WHOM IT MAY CONCERN

Mr. Zephyrinus O. C. Okonkwo of Faculty of Education, University of Lagos offered and passed the requisite examinations in the following Education courses for the award of his National Certificate in Education (N.C.E.) and Bachelor of Science Honours in Education (B.Sc. Ed.):

N.C.E. III/B.Sc. I

CODE	COURSE	UNITS
EDA 201	History of Development of Education in West Africa between 1942-1960	2
EDA 202	The Development of Education in West Africa Since 1960	2
CUS 201	Principles of Teaching	2
EDF 211	Philosophy of Education - Introduction	2
EDF 220	Human Learning	2
EDF 222	Measurement and Evaluation in Education	2
EDF 224	Guidance and Counselling - Introduction	2
CUS 206	Teaching of Mathematics in Secondary School	2
CUS 203	Teaching of Chemistry in Secondary School	2
EDF 258	Sociology of Education	2
	Comparative Education	2
EDF 221	Growth and Development	2

B.Sc. II

CODE	COURSE	UNITS
CUS 300	Audio Visual Education	2
CUS 311	Teaching of Mathematics in Secondary School	2
CUS 317	Teaching Practice	2

THE UNIVERSITY OF TEXAS AT ARLINGTON
Arlington, Texas

This is a copy of an OFFICIAL transcript on file

with the Registrar *Perhaps*
Signature, Transcript Clerk

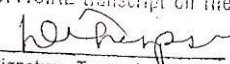
21

B.Sc. III

CODE	COURSE	UNITS
CUS 401	Introduction to Curriculum Development	3
CUS 416	B.Sc. Curriculum Project	2
CUS 417	Teaching Practice	2
EDA 401	The Organization of Primary and Secondary Education in Nigeria	2
EDA 402	Emerging Problems in Nigerian Education	2
EDF 415	Guidance and Counselling I	2
EDF 416	Guidance and Counselling II	2

** Note: One-Unit course is one hour per week per semester.
Two-Unit course is two hours per week per semester.


Prof. A. O. Kalejaiye
HEAD OF DEPARTMENT

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Arlington, Texas
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UNIVERSITY OF LAGOS
FACULTY OF SCIENCE



DEPARTMENT OF MATHEMATICS

JCT 06 1989

UNIVERSITY OF TEXAS AT ARLING-
GRAD SCHOOL

Our Ref:

Your Ref:

54/11abuo

Tel. 820311 Ext. 315

28th June, 1988

TO WHOM IT MAY CONCERN

Mr. Zephyrinus O. C. Okonkwo of Faculty of Education, University of Lagos offered and passed the requisite examinations in the following Mathematics Courses for the award of his National Certificate in Education (N.C.E) and Bachelor of Science Honours in Education (B.Sc. Ed.)

<u>NCE III/B.Sc.I</u>	<u>Units</u>	<u>Semester Hours</u>
MAT 101 Analysis I	2	4
MAT 102 Analysis II	1	2
MAT 103 Algebra I	2	4
MAT 104 Algebra II	1	2
MAT 105 Geometry I	1	2
MAT 106/MFS 101 Probability theory I	1	2
MAT 108 Differential Equation I	1	2
<u>B.Sc. II</u>		
MAT 201 Analysis III	2	4
MAT 202 Analysis IV	1	2
MAT 203 Algebra III	1	2
MAT 204 Algebra IV	1	2
MAT 205 Differential Equation II	2	4
MAT 207 Classical Mechanics II	1	2
MAT 208 Fluid Mechanics I	2	4
MAT 211 Theory of Estimation	1	2
MAT 214 Testing of Hypothesis	1	2
<u>B.Sc. III</u>		
MAT 301 Functional Analysis	2	4
MAT 304 General Topology	2	4
MAT 307 Number Theory	1	2
MAT 308 Differential Equation III	2	4
MAT 310 Fluid Mechanics II	2	4
MAT 318 Design of Experiment	2	4
	<u>32</u>	<u>64</u>

** Note:

One Unit course is Two hours per week per semester
Two Unit course is Four hours per week per semester

M. A. Kenku

Professor M. A. Kenku
Head,
Department of Mathematics.

HEAD
DEPARTMENT OF MATHEMATICS
UNIVERSITY OF LAGOS

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UNIVERSITY OF LAGOS
LAGOS, NIGERIA

307 C 8 1989

RECORDS OFFICE

Date:

TELEPHONE: 820311 - 9
TELEGRAMS: UNIVERSITY

Ref. No. 75/10169



N A M E: OKONKWO, Zephyrinus C. O.
DATE OF BIRTH: 26th August, 1956
NATIONALITY: Nigerian
FACULTY: Faculty of Education
YEARS OF ATTENDANCE: October 1975 to June 1978, 1980 to 1982
and 1982 to January 1985
DEGREE AWARDED: Nigeria Certificate in Education/B.Sc. Hons.
(Mathematics/Education) in the First Class
& Master of Philosophy in Engineering
Analysis.
YEAR OF AWARD: June 1978, 1982 & 1985

EXAMINATION RESULTS:

Session 1975/76

N.C.E. Part I

	<u>MARKS(%) / GRADES:</u>	<u>REMARKS:</u>
General English	59	PASSED.
Education	57	
Chemistry	65	
Mathematics	72	

Session 1976/77

N.C.E. Part II

General English	54	PASSED.
Education	55	
Chemistry	68	
Mathematics	66	

Session 1977/78

N.C.E. Part III

Education	60	PASSED.
Chemistry	A	
Mathematics	75	
Practical Teaching	51	

Session 1980/81

B.Sc. Hons. (Education/Mathematics) Part II

CUS 201/202	Methods of Teaching of Audio-Visual and Separate Discipline	46	PASSED.
MAT 201	Analysis III	91	
" 202	Analysis IV	65	
" 203	Algebra III	80	
" 204	Algebra IV	62	
" 205	Differential Equations II	89	
" 207	Classical Mechanics II	80	
" 208	Fluid Mechanics I	81	
" 211	Theory of Estimation	82	
" 214	Testing of Hypothesis	62	
GMS 101	General African Studies	62	
" 102	General African Studies	73	



Session 1981/82

B.Sc. Hons. (Education/Mathematics) Part III

Education	65	PASSED.
Teaching Practics	60	
Mathematics	87	

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LAGOS, NIGERIA



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TELEGRAMS: UNIVERSITY
Ref. No. 75/10169

RECORDS OFFICE

Date:

OKONKWO, Zephyrinus C. O.

NAMES:

Session 1984/85
Master of Philosophy in Engineering

- Numerical Methods in Engineering
- Mechanics of Continua
- Finite Element Analysis
- Methods of Applied Mathematics I
- Function Space Methods
- Advanced Fluid Mechanics
- Boundary Layer Theory

77
77
68
52
77
72
67

PASSED.

DISSERTATION: "A Boundary Layer Model for Hydrogeological
Flow Through Leaky Aquifers".

H. A. Adenuga
H. A. Adenuga (Mrs.)

for: PRINCIPAL ASSISTANT REGISTRAR (RECORDS)

HAD/Ean.



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LAGOS, NIGERIA



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TELEPHONE : 820311 - 9
TELEGRAMS: UNIVERSITY
Ref. No. 75/10169

Date:

OCT 06 1969

Texas Women University,
Denton Texas,
U. S. A.

Dear Sir/Madam,

Mr. Z. C. O. Okonkwo,
Box 411042,
Dallas TX 75241,
U. S. A.

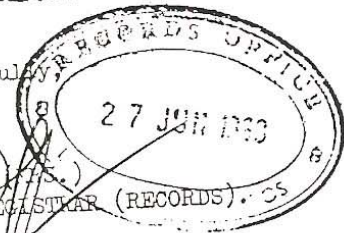
The above-named Student/Ex-student of this University has requested me to forward to you the attached transcript of his/her academic records.

I am to add that this transcript is sent to you in absolute confidence and it should therefore be treated confidentially,

Yours faithfully,

U. OLUPIN (S.)

for: PRINCIPAL ASSISTANT REGISTRAR (RECORDS), OS



Key to Grades
(Subject Courses)

70 and above	-	A
60	- 69	B+
50	- 59	B
40	- 49	C
33	- 39	D
Below 33	-	E - Failure

Key to Grades
(Unit Course System)

80 and above	-	A+
75	- 79	A
70	- 74	A-
65	- 69	B+
60	- 64	B
55	- 59	B-
50	- 54	C+
45	- 49	C
40	- 44	C-
Below 40	-	D

Grade Point

5.0
4.5
4.0
3.5
3.0
2.5
2.0
2.5
2.0
1.5
1.0
0.0-Failure

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Arlington, Texas

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