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**PERSONAL:**

Place and Date of Birth: Gamawa, Bauchi State/1982

Marital status: Married

**EDUCATION:**

**2012-2016** Nnamdi Azikiwe University Awka: PhD in Mechanical Engineering Design.

**2010-2012** Nnamdi Azikiwe University Awka: M.Engr in Mechanical Engineering Design.

**2001-2006**University of Nigeria, Nsukka: B.Engr in Mechanical Engineering.

**PROFESSIONAL SOCIETIES:**

* MNSE (Corporate Member with No 37420 )
* COREN (Registered with no R35,356)
* Member IAENG (No 121731).

**WORK EXPERIENCE:**

**2016-Present**: University of Nigeria, Nsukka- Lecturer I in Mechanical Engineering; Teaches undergraduates and postgraduates courses in scientific, computational, technological and experimental aspects of manufacturing. The courses taught are;

* MEC 212 (Workshop Technology, 2 units)
* MEC 313 (Workshop Practice, 2units)
* MEC 315 (Mechanical Engineering Laboratory, 4 units)
* MEC 316 (Manufacturing Technology, 2 units)
* ENG 401 (Computational Methods, 3 units)
* ME 662 (Analysis of Manufacturing processes and Machines, 3 units).

**2014-2015**: Madonna University- Lecturer II in Mechanical Engineering; Taught undergraduates mechanics of machines, Stress analysis and advanced thermodynamics.

**2011-2015**: Self-employment in Academic and Engineering Research Consulting; Supervised and provided guidance towards research innovation and novelty to post-graduate students of Mechanical Engineering and Applied mathematics.

**SERVICE TO GOVERNMENT AND OTHER PUBLIC BODIES:**

* Current Final Year Project Coordinator of the Department of Mechanical Engineering, UNN
* Member of the Committee on 2009 ETF (TETFUND) for the founding of Mechatronics Department at the Faculty of Engineering, UNN
* Chairman of **Mech. Eng. Labs. Academic and Commercial Utility Committee** of the Department of Mechanical Engineering, UNN
* Member of faculty course refresher committee of the Faculty of Engineering, UNN
* Member Research Grant and Collaboration Committee of the Department of Mechanical Engineering, UNN

**PUBLICATIONS AND RESEARCH:**

**Books**

**Journal Papers**

1. **Ozoegwu, C.G. (In press)** General-order full-discretization algorithm for chatter avoidance in milling. Advances in Mechanical Engineering.
2. [**Ozoegwu, C.G. (2018)** The solar energy assessment methods for Nigeria: The current status, the future directions and a neural time series method. Renewable and Sustainable Energy Reviews 92, 146–159.](https://www.sciencedirect.com/science/article/pii/S1364032118302867)
3. [**Ozoegwu, C.G. (2018)** New temperature-based models for reliable prediction of monthly mean daily global solar radiation. Journal of Renewable and Sustainable Energy 10(2), 023706.](https://aip.scitation.org/doi/abs/10.1063/1.5006805)
4. [**Ozoegwu, C.G.**, Mgbemene, C.A., Ozor, P.A. (2017) The status of solar energy integration and policy in Nigeria. Renewable and Sustainable Energy Reviews 70, 457–471.](https://www.sciencedirect.com/science/article/pii/S1364032116309947)
5. [**Ozoegwu, C.G.**, Eze, C., Onwosi, C.O., Mgbemene, C.A., Ozor, P.A. (2017): Biomass and bioenergy potential of cassava waste in Nigeria: estimations based partly on rural-level garri processing case studies. Renewable and Sustainable Energy Reviews 72, 625–638.](https://www.sciencedirect.com/science/article/pii/S1364032117300321)
6. [Ozor, P. A., Chigozirim, P.O., Odukwe,A.O., Ume, J.I., **Ozoegwu, C.G** (2017) Application of the assignment technique to optimisation of solid waste management in Enugu region, International Journal of Environment and Waste Management, vol 19 (1), pp 52-73.](https://www.inderscienceonline.com/doi/abs/10.1504/IJEWM.2017.083562)
7. [**Ozoegwu, C.G.** (2016) Estimating stability boundaries of distributed delay oscillators via two-stage numerical integration. Journal of Vibration and Control 24(9), 1728–1740 doi/abs/10.1177/1077546316668466.](http://journals.sagepub.com/doi/abs/10.1177/1077546316668466)
8. [**Ozoegwu, C.G.** (2016) High order vector numerical integration schemes applied in state space milling stability analysis. Applied Mathematics and Computation 273, 1025–1040.](https://www.sciencedirect.com/science/article/pii/S0096300315014204)
9. [**Ozoegwu, C.G.**, Ofochebe, S.M, Omenyi, S.N. (2016) A method of improving chatter-free conditions with combined-mode milling. Journal of Manufacturing Processes 21, 1-13.](https://www.sciencedirect.com/science/article/pii/S1526612515001188)
10. [**Ozoegwu, C.G.** (2016) Comment on “A novel approach for the prediction of the milling stability based on the Simpson method” by Z. Zhang, H. Li, G. Meng, C. Liu, [Int. J. Mach. Tools Manuf. 99 (2015) 43–47]. International Journal of Machine Tools and Manufacture 103, 53–56.](https://www.infona.pl/resource/bwmeta1.element.elsevier-8fec4b16-afd4-3d27-9f0d-8606521bbcde)
11. [**Ozoegwu, C.G.** (2016) Minimizing time of contour-parallel pocket end-milling by prescribing limit axial and radial depth pairs. Proc. IMechE Part B: Journal of Engineering Manufacture. doi/abs/10.1177/0954405416673099.](http://journals.sagepub.com/doi/abs/10.1177/0954405416673099)
12. [**Ozoegwu, C.G.**, Omenyi, S.N. (2016) Third order least squares modeling of milling state term for improved computation of stability boundaries. Production and Manufacturing Research 4(1), 46–64.](http://www.tandfonline.com/doi/abs/10.1080/21693277.2016.1194778)
13. [**Ozoegwu, C.G.**, Omenyi, S.N. (2016) Curvature effects on circular feed end-milling, part 2: stability analysis. International Journal of Engineering Systems Modelling and Simulation 8 (1).](https://www.inderscienceonline.com/doi/abs/10.1504/IJESMS.2016.073307)
14. [**Ozoegwu, C.G.**, Ofochebe, S.M, Ezugwu, C. (2016) Time minimization of pocketing by zigzag passes along stability limit. International Journal of Advanced Manufacturing Technology 86, 581–601.](https://link.springer.com/article/10.1007/s00170-015-8108-9)
15. [Ofochebe, S.M., Enibe, S.O., **Ozoegwu, C.G.** (2016) Absorbable energy monitoring scheme: new design protocol to test vehicle structural crashworthiness. Heliyon 2, e00107.](http://www.heliyon.com/article/e00107/)
16. [**Ozoegwu, C.G.**, Omenyi, S.N., Ofochebe, S.M. (2015): Hyper-third order full-discretization methods in milling stability prediction. International Journal of Machine Tools and Manufacture 92, 1–9.](https://www.sciencedirect.com/science/article/pii/S0890695515300122)
17. [**Ozoegwu, C.G.**, Ezugwu, C. (2015) Minimizing pocketing time by selecting most optimized chronology of tool passes. International Journal of Advanced Manufacturing Technology 81, 1667–1682.](https://link.springer.com/article/10.1007/s00170-015-6943-3)
18. [Ofochebe, S.M., **Ozoegwu, C.G.**, Enibe, S.O., (2015) Performance evaluation of vehicle front structure in crash energy management using lumped mass spring system, Advanced Modeling and Simulation in Engineering 2 (2), 2.](https://link.springer.com/article/10.1186/s40323-015-0020-1)
19. [**Ozoegwu, C.G.**, Omenyi, S.N., Ofochebe, S.M (2015) Curvature Effects on Circular Feed End-Milling, Part 1: Modelling and Simulation.International Journal of Engineering Systems Modelling and Simulation 7(3).](https://www.inderscienceonline.com/doi/abs/10.1504/IJESMS.2015.070105)
20. [**Ozoegwu, C.G.** (2014) Least squares approximated stability boundaries of milling process. International Journal of Machine Tools and Manufacture*,* 79, 24–30.](https://www.sciencedirect.com/science/article/pii/S0890695514000121)
21. [**Ozoegwu C.G.** (2014) The stabilizing wave attenuation effects in turning process. Production and Manufacturing Research 2 (1), 2-10.](http://www.tandfonline.com/doi/abs/10.1080/21693277.2013.877360)
22. [**Ozoegwu, C.G.**, Omenyi, S.N. (2014) Reducing computational requirement of stability analysis of milling by partial averaging. Manufacturing Review 1(14).](https://mfr.edp-open.org/articles/mfreview/full_html/2014/01/mfreview140019/F3.html?mb=0)
23. [Ofochebe, S.M., **Ozoegwu, C.G.,** (2014) Optimization of the sorption capacity of sulphuric acid activated IBUSA clay in palm oil bleaching using response surface methodology. International Journal of Experimental Design and Process Optimisation 4(2).](https://www.inderscienceonline.com/doi/abs/10.1504/IJEDPO.2014.066469)
24. [**Ozoegwu, C.G.**, Omenyi, S.N. (2013)Wave attenuation effects on the chatter instability of end-milling Noise Control Engineering Journal, 61 (4) , 436-444.](http://www.ingentaconnect.com/content/ince/ncej/2013/00000061/00000004/art00007)
25. [**Ozoegwu, C.G.**, Omenyi, S.N. (2013) Chatter Stability Characterization of Full-Immersion End Milling Using a Generalized Modified Map of the Full-Discretization Method, Part 1: Validation of Results and Study of Stability Lobes by Numerical Simulation. International Journal of Mechanical, Industrial Science and Engineering 7 (3), 206-217.](http://www.waset.org/publications/9996994)
26. [**Ozoegwu, C.G.,** Omenyi, S.N., Ofochebe, S.M., Achebe C.H. (2013) Comparing up and down milling modes of end-milling using temporal finite element analysis. Applied Mathematics 3 (1), 1-11.](http://article.sapub.org/10.5923.j.am.20130301.01.html)
27. [**Ozoegwu, C.G.,** Omenyi, S.N. (2012) Time Domain Chatter Stability Comparison of Turning and Milling Processes. International Journal of Multidisciplinary Sciences and Engineering 3 (11), 25.](http://www.academia.edu/download/34602535/4_Time_Domain_Chatter_Stability_Comparison_Turning_and_Milling_Processes.pdf)
28. [**Ozoegwu, C.G.**, Omenyi, S.N. (2012) Stability characterization of a turning process. Journal of Engineering and Applied Sciences 8(1), 68-75.](http://facultyofengineeringnau.org/archive/1555457801326244546.pdf)
29. [**Ozoegwu, C.G.,** Omenyi, S.N., Achebe, C.H., Chukwuneke, J.L. (2012), Chatter Stability Characterization of a Plastic End-Milling CNC Machine. Innovative Systems Design and Engineering (ISDE) Vol 3 No 11, pp 17-28](http://www.academia.edu/download/30402840/Chatter_Stability_Characterization_of_a_Plastic_End-Milling_CNC_machine.pdf)
30. [Ihueze, C.C., Onyechi, P.C., Aginam, H., **Ozoegwu, C.G.** (2011) Finite Design against Buckling of Structures under Continuous Harmonic Excitation, International Journal of Applied Engineering Research vol 6 (12), pp 1445-1460.](http://www.academia.edu/download/30402855/Finite_Design_against_Buckling_of_Structures_under_Continuous_Harmonic_Excitation.pdf)
31. [Okafor, A.A., Achebe, C.H., Chukwuneke, J.L., **Ozoegwu**, **C.G.** (2014) Modeling and Optimization of Performance of Four Stroke Spark Ignition Injector Engine, International Journal of Scientific & Engineering Research vol 5 (9), 603-608](http://www.academia.edu/download/35807259/Spark_Ignition_Engine.pdf)
32. [Ihueze, C.C., Onyechi, P.C., Aginam, H., **Ozoegwu**, C.G. Design against Dynamic Failure of Structures with Beams and Columns under Excitation, International Journal of Theoretical and Applied Mechanics 6 (2), 153-164](https://www.researchgate.net/profile/Pius_Onyechi/publication/317643767_Design_Against_Dynamic_Failure_of_Structures_with_Beams_and_Columns_under_Excitation/links/596be852458515e9afb1cd7c/Design-Against-Dynamic-Failure-of-Structures-with-Beams-and-Columns-under-Excitation.pdf)
33. [**Ozoegwu, C.G**, Omenyi, S. N. (2014) Analysis of excited rod on the Laplace variable domain, Journal of Engineering and Applied Sciences 10, 6-18.](http://facultyofengineeringnau.org/archive/741062514106044060.pdf)
34. [**Ozoegwu, C.G.**, Omenyi, S.N., Achebe, C.H., Uzoh, C.F. (2013) Stability of Circular Feed End-Milling Compared with That of Linear Feed Equivalent, Science and Technology 3(1), 17-23.](http://article.sapub.org/10.5923.j.scit.20130301.02.html)
35. [**Ozoegwu, C.G**., Omenyi, S.N. Chatter Stability Boundary Frequencies of a Three Tooth End Milling Process.](http://www.ijmse.org/Volume4/Issue2/paper3.pdf)

**Conference proceedings**

* Mgbemene, C.A., Jacobs, I.O., Agbo, C.O.A., Nwanya, S.C., Ozoegwu, C.G., Experimental investigation on the performance of a solar air heater with the absorber plate made of aluminum soda cans. 35th National Solar Energy Forum, November 13th-15th, 2017, Abuja, Nigeria.
* **Ozoegwu C.G.**, Omenyi S.N, Achebe C.H, Damping Design of Turning Tool for Global Chatter Stability (PaperG26), In *Proceedings of 2012 National Conference on Infrastructural Development and Maintenance in the Nigerian Environment*, August 27-28, 2012.
* **Ozoegwu C.G.**, Omenyi S.N., Wave Attenuation Theory as a Criterion for Chatter Suppression in Machining Process. (Paper F27), In *Proceedings of 2014 National Conference on Engineering for sustainable development*, May 19-20, 2014.
* **Ozoegwu C. G.**, Omenyi S.N., Chukwuneke J.L., Stabilizing Wave Attenuation Effects In High-Speed Milling Process,In *Proceedings of 2016 National Conference on Engineering development*, September 2016.

**Technical Reports**

**Other Reports**

**Workshop Papers**

* Ozoegwu, C. G., Manufacturing of Advanced Parts through Automation: The Way Forward for Nigeria's Industrialization. A technical Lecture presented to the Nigeria Society of Engineers, Awka Branch on Saturday 30th September, 2017.
* **Ozoegwu, C. G.**, Manufacturing Automation: Presented as; A Training Course on Engineering Laboratory Equipment with emphasis on Proper Procedures for Equipment Selection, Proper Use, Calibration and Maintenance. The conference was jointly hosted by The National Centre for Equipment Maintenance and Development and The Faculty of Engineering, University Of Nigeria, Nsukka, May 7-13, 2017.

**Conferences Presentations**

* **Ozoegwu C.G.**, Omenyi S.N, Achebe C.H, Damping Design of Turning Tool for Global Chatter Stability (PaperG26), In *Proceedings of 2012 National Conference on Infrastructural Development and Maintenance in the Nigerian Environment*, August 27-28, 2012.
* **Ozoegwu C.G.**, Omenyi S.N., Wave Attenuation Theory as a Criterion for Chatter Suppression in Machining Process. (Paper F27), In *Proceedings of 2014 National Conference on Engineering for sustainable development*, May 19-20, 2014.
* **Ozoegwu C. G.**, Omenyi S.N., Chukwuneke J.L., Stabilizing Wave Attenuation Effects In High-Speed Milling Process,In *Proceedings of 2016 National Conference on Engineering development*, September 2016.