

**DR. STEPHEN CHIJIOKE NWANYA**

Department of Mechanical Engineering

University of Nigeria, Nsukka

Tel.+234(0)8057250082

E-mail: [stephen.nwanya@unn.edu.ng](mailto:stephen.nwanya@unn.edu.ng), [snwanya@yahoo.com](mailto:snwanya@yahoo.com)

**PERSONAL:**

Date and Place of Birth: 66/12/26, Mbaise, Imo State.

State and Nationality: Imo State, Nigeria.

**Marital Status:** Married with 4 Children

**EDUCATION:**

Ph. D (Tecnologie Chimiche ed Energetiche)2008, Universita’ Degli Studi di Udine, Italy.

M.Eng. (Mechanical Engineering - Industrial Engineering and Management)1998, University of Nigeria Nsukka, Nigeria.

B.Eng. (Agricultural Engineering) 1991, Federal University of Technology Owerri, Nigeria.

**PROFESSIONAL SOCIETIES:**

Member, The Nigerian Society of Engineers,

Branch secretary, The Nigerian Society of Engineers- Nsukka Chapter 2015 - 2017

Branch Fin. secretary, The Nigerian Society of Engineers- Nsukka Chap. 2012 - 2014

Registered Engineer, Council for the Regulation of Engineering in Nigeria (COREN)

**OTHER SCHOLARLY ACHIEVEMENTS:**

The Young Scientist Research Collaboration Programme: May 4- August 1, 2001. Abdus Salam ICTP, Trieste, Italy.

**WORK EXPERIENCE:**

**Senior Lecturer**, University of Nigeria, Nsukka: 1999 to date.

Yaroson and Partners, Consulting Engineers, Kaduna: 1993 to 1995.

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

- Faculty of Engineering Senate Representative 2017 – To date

- **Head**, Department of Mechanical Engineering 2013 - 2015

- **Chairman**, Faculty of Engineering Time-Table Committee, UNN; 2009 to 2016.

- **Member**, Climate Change Adaptation Strategy, Senate Committee, UNN.

- **Member**, International Sustainable Development Research Society.

**PUBLICATIONS AND RESEARCH:**

1. [Mgbemene, C. A., I. O. Jacobs, C. O. Agbo , **S. C. Nwanya** & C. G. Ozoegwu (2017) Experimental Investigation On The Performance Of A Solar Air Heater With The Absorber Plate Made Of Aluminum Soda Cans. Conference: 35th National Solar Energy Forum 2017, Nigeria beyond Recession: Unlocking the Potentials of Solar Energy for Economic Recovery, Abuja, Nigeria, November 13th - 15th.](https://www.researchgate.net/.../321255346_)

2. [Nwanya, S. C., C. Achebe, O. O. Ajayi, C. A. Mgbemene (2017), Process variability analysis in make-to-order production systems. Cogent Engineering, Vol. 3 ( Issue 1),](https://www.cogentoa.com/article/10.1080/23311916.2016.1269382) **http://dx.doi.org/10.1080/23311916.2016.1269382**

3. [Ndudim H. Ononiwu and **Stephen Nwanya** (2016). Embodied Energy and Carbon footprints in Residential buildings. International Journal of Advanced Engineering Research and Science (IJAERS) Vol-3, Issue-8, Aug- 2016.](http://ijaers.com/uploads/issue_files/6%20IJAERS-JUL-2016-50-Embodied%20Energy%20and%20Carbon%20footprints%20in%20Residential%20buildings.pdf)

4. P. A. Ozor, **S. C. Nwanya**, T. O. Nwoguh, L. D. Meyoho, E. G. Anosike (2016). Vibration monitoring for predictive maintenance of timber processing machines. Proceedings of Nigeria Institute of Industrial Engineers conference, Eko 2016, October 21 – 22, 2016.

**5.** [Kadurumba C.H., **S.C. Nwanya** (2016) Modeling of a centrifuge for cassava mash (Manihot species) dewatering. Journal of the Chinese Advanced Materials Society, pp1-17. DOI:10.1080/22243682.2016.1215934.](http://www.tandfonline.com/doi/abs/10.1080/22243682.2016.1215934)

6. [S.C Nwanya, C. Sam-Amobi, O.V. Ekechukwu (2016). Energy performance indices for hospital buildings in Nigeria. International Journal of Technology vol 1: 15-25.](http://www.ijtech.eng.ui.ac.id/old/index.php/journal/article/download/2094/461)  Permalink/DOI:http://dx.doi.org/10.14716/ijtech.v7i1.2094.

7. [S.C Nwanya.(2015) Material Inventory Optimization in Bakery Supply Chain: Implications for Food Security in Nigeria. International Journal of Supply and Operations Management, Vol 2 (2), pp 683-699.](http://search.proquest.com/openview/2ae4ba590e65ca23356b1165589f36f8/1?pq-origsite=gscholar&cbl=2045302)

8.  [Nwanya, S.C., B.C. Okonkwo, I.E. Nwaoha (2014), Effect of Blend Ratio on Thermo-physical and Sensory Characteristics of Composite Wheat, Cassava and Soy Bread. Nigerian Journal of Technology, 33(2), 77 – 85, April 2014.](https://www.ajol.info/index.php/njt/article/view/107656) <http://dx.doi.org/10.4314/njt.v33i2.5>.

9.  [Nwanya, S. C. & I. Offili (2013). Global Warming Potential Implications and Methodological Challenges of Road Transport Emissions in Nigeria. Energy and Environment Research, Vol. 3 (1), 169 – 179.](http://www.ccsenet.org/journal/index.php/eer/article/view/24769) URL: <http://dx.doi.org/10.5539/eer.v3n1p169> .

10. [Nwanya, S. C., R. Taccani, M. Reini (2012). Utility-based exergetic cost algorithms for managing cogeneration powered systems. JP Journal of heat and mass transfer, vol 6 (2), 87 – 105.](http://scholar.google.com/scholar?cluster=336110347539263306&hl=en&oi=scholarr)

11. [Nwanya, S. C. , O. V. Ekechukwu, D. C. Onyejekwe (2012)Modelling of energy utilization pattern in the industrial sector in Nigeria. Springer Energy Systems journal (DOI: 10.1007/s12667-012-0058-9)](http://scholar.google.com/scholar?cluster=3193480472919533819&hl=en&oi=scholarr)

12. [Nwanya, S. C. (2005) Analysis of cogeneration powered absorption chiller systems: recipe for sustainability in remote tropical areas](http://dottoratotce.uniud.it/wp-content/uploads/2008/06/nwanja_phd.pdf) (available from [www.bod.de/index.php?id](http://www.bod.de/index.php?id) )

13 Nwanya, S. C. Prospects for magnetohydrodynamıc energy generatıon ın Nıgerıa proceedings of 10th International conference on Sustainable Energy Technologies, Istanbul, Turkey, September 4- 7th, 2011.

`14. Nwanya, S. C., D. C. Onyejekwe, C. C. Osuagwu, Role of Energy System in Human Capital Development for Nigeria. Nigerian Journal of Engineering Management, vol. 12 (1), pp 76- 86, 2011.

15. Nwanya, S. C., 2011, Work Study and Production Processes ( contributed chapter), In: Civil Engineering Practice and Entrepreneurship: Ugwu, O. O. and J. C. Agunwamba (eds.), DE-ADROIT Publishers, Enugu, Nigeria, ISBN 9788137-31-8.

16. Nwanya, S. C., 2011, “Utility-based exergetic cost algorithm for managing cogeneration powered systems”, In: Energy Solutions for a Sustainable World -Proceedings of 3rd Inter. Conf. Applied Energy, Perugia: Desideri, U. and Yan, J. (eds.), Tree, Milan, Italy 442, pp 2425- 2436.

17. [Nwanya, S. C., 2011, Climate Change and Energy Implications of Gas Flaring for Nigeria. International Journal of Low-Carbon Technologies, vol. 6 (3), pp193 – 199, 2011. (Formerly on doi: 10.1093/ijlct/ctr007).](https://academic.oup.com/ijlct/article-abstract/6/3/193/680774)

19. Nwanya, S. C., 2010,Cold Preservation for Sustainable Food Security in Remote areas of Nigeria. Nigerian Journal of Engineering Management, vol. 11 (1), pp35 – 43, 2010.

20. [Nwanya, S. C. OV Ekechukwu, AC Madu,JC Agunwamba, 2010,Optimization of Energy and Manpower Requirement in Nigerian Bakeries. Energy Conversion and Management vol. 52, pp 564- 568, 2010.](https://www.sciencedirect.com/science/article/pii/S0196890410003389)

21. [Nwanya, S. C., 2010 ,Use of Energy Method to Simulate the Performance of LIBR/ H20 Absorption Refrigeration System. Nigerian Journal of Technology, 29 (1), 77 – 85, 2010.](https://www.ajol.info/index.php/njt/article/view/123450)

22. Nwanya, S. C., Modelling Industrial Energy Utilization Pattern in Nigeria. In: Proceedings, Nigerian Institute of Industrial Engineers Conference: Industrialization and National Development, University of Ibadan, Nigeria, 2010.

23. Nwanya, S. C., Reliable Energy System in Human Capital Development for Nigeria. In: Proceedings, 15th Annual International sustainable Development Research Conference: Taking up the Global Challenge, ISDRS, Utrecht University, The Netherlands, 2009.

24 Nwanya, S. C., .Absorption Refrigeration for Sustainable Food Security in Remote Areas of Nigeria. [Online] available from http://www.rmrdctechnoexpo.org/.../Absorption%20Refrigeration%20sust

25. [S.C Nwanya, R Taccani, Mauro Reini, Cogeneration and sustainable energy development in Nigeria. 1st National Engineering Conference on Sustainable Energy Development in Nigeria: challenges and prospects 7 -9th Oct., 2008.(](http://scholar.google.com/scholar?cluster=12725089938524485011&hl=en&oi=scholarr)www.scribd.com proceedings-5th-engineering-forum).

26. Nwanya, S. C.,Strategic use of modelling for industrial energy demand management in Nigeria. International Journal of Science & Technological Research vol. 6 (1 & 2), pp 51- 59, 2009.

27. Nwanya, S. C., Simulated Performance of a LiBr/H20 Absorption Refrigeration System. Journal of Engineering Sci. &Technology vol. 2(3), pp58- 63, 2007.

28. Nwanya, S. C., Prospects of Cogeneration Absorption Refrigeration System in Nigeria. Global Journal of Mechanical Engineering, 7 (1): 13- 71, 2006.

29. Nwanya, S. C., Status of Cogeneration Absorption refrigeration system in Nigeria, Proc. :Eyo et al (eds.), Ann. Conference of Int. research and Development Institute, Nigeria, 2 (8)2006, 10-15.

30. Nwanya, S. C., Techno-Economic Evaluation of Solar Energy Systems: 23-24 November, 2001. A seminar paper presented at National Solar Energy Forum, 2001.

31.[SC Nwanya, OV Ekechukwu, DC Onyejekwe, (2012) Modeling of energy utilization pattern in the industrial sector in Nigeria, Energy Systems Vol 3 No. 3, 291-301](https://link.springer.com/article/10.1007/s12667-012-0058-9).

32. [SC Nwanya, PO Onah, IE Onyia, ( 2013) Process optimization of resources for packaged water factories in Nigeria. G. Seliger, Proceedings of the 11th Global Conference on Sustainable Manufacturing-Innovative Solutions. ISBN, Pp. 978-3.](http://scholar.google.com/scholar?cluster=12834896901282534291&hl=en&oi=scholarr)

33. [SC Nwanya, JI Udofia, OO Ajayi, (2017) Optimization of machine downtime in the plastic manufacturing, Cogent Engineering vol 4 No. 1, 1335444.](https://cogentoa.com/article/10.1080/23311916.2017.1335444)

34. [S Nwanya, OO Ajayi, C Achebe, Process Variability Analysis of License Vehicle Number Plate Production in Nigeria, Operations Management, Kuala Lumpur, Malaysia, March 8-10, 2016.](http://eprints.covenantuniversity.edu.ng/9304/)

35. [SC Nwanya, (2014) Energy Crisis in Nigerian University System: Implications of Self Auto-generation for Human Capital Development, Editorial Board Members, pp. 2017.](https://www.researchgate.net/profile/Fabio_Romero3/publication/302511497_Journal_of_Energy_and_Power_Engineering-201412_Edicao_com_Publicacao/links/5730d1bf08ae100ae55746fe.pdf#page=40)

36. [SC Nwanya,(2013) Study on Perspectives of Energy Production Systems and Climate Change Risks in Nigeria, Climate Change-Realities, Impacts Over Ice Cap, Sea Level and Risks](https://www.intechopen.com/books/climate-change-realities-impacts-over-ice-cap-sea-level-and-risks/study-on-perspectives-of-energy-production-systems-and-climate-change-risks-in-nigeria).

37. [RapidX, SC Nwanya (2012) Rapid it:-9696103](https://www.researchgate.net/profile/Val_Ekechukwu/publication/283091027_Modeling_of_Energy_Utilization_Pattern_in_the_Industrial_Sector_in_Nigeria_Energy_Systems/links/563cf3b108aec6f17dd7e4c0.pdf)