

ABRIDGED CURRICULUM VITAE

Engr. SAM NNA OMENYI, Ph.D.

Emeritus Professor of Mechanical Engineering &
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1. PERSONAL:

Date of Birth: April 1, 1945;

Place of Birth: Ogidi, Anambra State

Marital Status: Married with five children

2. EDUCATION

(i) Schools Attended:

- Government College, Umuahia (1960 – 1966)
- University of Nigeria, Nsukka (1966/67; 1970-1973)
- University of Toronto, Toronto, Canada (1974-1979)

(ii) Educational Qualifications

- Bachelor of Science (B.Sc.) First Class honors in Mechanical Engineering, Nsukka, 1973
- Master of Applied Science (M.A.Sc.) in Mechanical Engineering, Toronto, 1976
- Doctor of Philosophy (Ph.D.) in Mechanical Engineering, Toronto, 1979

3. Promotions.

- a. Appointed **Senior Lecturer** in Mechanical Engineering, ASUTECH, August 1984.
- b. Promoted **Reader** in Mechanical Engineering, ASUTECH, October 1, 1986
- c. Promoted **Professor** of Mechanical Engineering, ASUTECH, October 1, 1988
- d. Conferred with **Professor Emeritus** status, UNIZIK, 2019

4. Fellowships and Research Awards

- a. FELLOW of the Chartered Institute of Public Administrators of Nigeria, by the Institute's Governing Council, December 14, 2002.
- b. Universities Space Research Association's (USRA) Research Fellowship, NASA/Marshall Space Flight Center, Huntsville, Alabama. (1982-1984)
- c. Postdoctoral Research Fellowship, National Research Council, Ottawa, Canada (1980 – 1982)
- d. National Research Council/National Academy of Sciences Resident Research Fellowship, NASA/Marshall Space Flight Center, Huntsville, Alabama, USA (1979, 1980)

5. Research Areas:

- Fine Particle Technology
- Surface Thermodynamics/Thermal Engineering
- Biomechanics
- Machine Tools/Mechanical Vibrations/Composites

6. Professional Training

- A. Trained on **Capacity Building**, as a Part of Training and System Development Program on Networking and Radio-communications, at the International Center for Theoretical Physics, Trieste, Italy, 1996.
 - B. Earned a Certificate of Participation in the Training Program organized by NUC in collaboration with the World Bank at Trieste, Italy, Networking and Radio-communications, 1996
 - C. COREN Registered Professional Engineer, 1989
7. Supervision of Ph.D. Students in Mechanical Engineering, Nnamdi Azikiwe University
Completed supervision of twenty-one PhD students and four are yet to conclude.
8. External Theses/Dissertations Examiner. To several universities
9. Editorship of Scholarly Publications and Journals
- A. Editor, Journal of Engineering and Applied Science, 2011.to 2015, Board of Editors 2017/18
 - B. Review Editor, Journal of Engineering for Development (1996-1998)
 - C. Consulting/Associate Editor, Environmental Review, Journal for the Environmental Sciences (1997- 1999)
 - D. Member, Editorial Board, Journal of the Institution of Production Engineers (1994-1998)
10. Assessment of Prospective Professors/Readers of Engineering. From several universities
11. Inaugural Lecture
Sam Omenyi [2005], “The Concept of Negative Hamakar Coefficients”,
Nnamdi Azikiwe University Inaugural Lecture Series 8, November 7
12. Professional Affiliations
- A. Fellow, Institute of Public Administrators of Nigeria, 2002 to date
 - A. Member, American Chemical Society, USA, since 1979
 - B. Member, Division of Colloid and Surface Chemistry, USA, since 1979
 - C. Member, Electrophoresis Society, USA, since 1981
 - D. Treasurer, Nigerian Society of Engineers, Awka Branch, 1994-1998
 - E. Registered with COREN as a Professional Engineer, 1989
13. POSITIONS HELD AND OTHER RELEVANT INFORMATION
- i. Deputy Vice Chancellor (Academic) NAU from April 01, 2006 to April 2010.
 - ii. Deanship Positions
 - a. Dean, Faculty of Engineering and Technology, NAU, Awka.1997 – 1998
 - b. Dean, Faculty of Engineering, Enugu State University of Science and Technology (ESUST), 1991 – 1992
 - iii. Directorship Positions
 - A. Director Academic planning (Nov. 2015 to Nov. 2016): Hezekiah University, Umudi, Nkwere, Imo State.
 - B. Director, Joint Universities Preliminary Examination Board (JUPEB), Hezekiah University, Umudi.
 - D. Nigerian Director, Confucius Institute at Nnamdi Azikiwe University, Awka, 2006 to 2010
 - E. Director of Academic Planning (1993-1997) and (2003-2006), NAU, Awka:
 - iv. Headship Positions
 - A. Head of Department, Department of Mechanical/Production Engineering, NAU, Awka. 1992 – 1993:

- B.** Head, Department of Mechanical & Agricultural Engineering, Faculty of Engineering, Enugu State University of Science and Technology (ESUST), 1991
- C.** Head, Department of Mechanical & Agricultural Engineering, Anambra State University of Technology, Nigeria (ASUTECH), 1987 – 1991

v. Consulting Positions

- A.** Full Time Associate Consultant, WESTCON International Ltd, McLean, Virginia, USA, 1998 – 2002:
- B.** Consulting Engineer, ENTOPLAN Consultancy Services (Partner) 1990 – till date
- C.** Staff Consultant, ESUST Environmental Consult, 1991 – 1992
- D.** Coordinator, College of Engineering and Technology (CET) Consultancy Services, ESUST, 1991 – 1992:
- E.** Professional Mechanical Engineer, Machine Shop, Ministry of Works and Housing, Kaduna, 1973 – 1974

vi. Elected and Appointed Positions

Senate Representative in the Governing Council of Nnamdi Azikiwe University (NAU). 1993 – 1997

14. Some Notable Achievements

- A.** Preliminary Design of the Local Area Network (LAN) for connectivity to Internet, 1997. This was commenced after the training received at Trieste, Italy.
- B.** Produced the Academic Brief (a ten-year Academic Plan, in four volumes, 1993 to 2003) for Nnamdi Azikiwe University.
- C.** Produced the Revised Academic Brief of NAU, an over 3,000 page document in three volumes, for 2008 to 2013.
- D.** Prepared the Strategic Plan of the University, 2010
- E.** Revised the Revised Conditions of Service for NAU, 2015
- F.** The Initial Plan for the take-off of the University Primary School. 1995/96 to 1998.

15. PUBLICATIONS

A. TECHNICAL REPORT

1. Sam. Omenyi, Steve Dike (2001): Development of a Conceptual/Business Plan for an International School of Science and Technology Proposed for Nigeria: Submitted Westcon International Ltd., McLean, Virginia, USA
2. Steve Dike, Sam Omenyi, Larry L. Huang, Nicollete Davis, (2001): Evaluation of and Provision of Technical Assistance to Seven Independent Research Projects on the Economic Impact of HIV/AIDS on Various Sectors of South Africa's Economy: Prepared for Westcon International Ltd. for USAID and the Foreign Assistance Agency of Australia.
3. S. Dike, Larry L. Huang, Nicollete Davis, S. Omenyi (2001): Development and Implementation of an Evaluation Program for the District of Columbia HIV Prevention Community Planning Committees (HPCPC): Westcon International Ltd. for District of Columbia Department of Health and Human Resources, Washington DC.
4. Steve Dike, Larry L. Huang, Nicollete Davis, S. Omenyi (2001): Evaluation and Monitoring of the HIV/AIDS and Substance Abuse Service Integration Program for the City of Baltimore: Westcon International Ltd. for the City of Baltimore Department of Health, Maryland, USA
5. Steve Dike, Larry L. Huang, Nicollete Davis, Sam Omenyi (2001): Development and Implementation of an Evaluation Program for the Blue Waters Community Health Coalition (BWCHC) Project: Westcon International Ltd. for Baltimore City and State of Maryland Blue Waters Community Health Coalition (BWCHC), Maryland

6. Steve Dike, Larry L. Huang, Nicollete Davis, Sam Omenyi (2000/2001): Development and Implementation of Quality Assurance Assessment and Quality Improvement Programs for All HIV/AIDS Primary Medical, Case Management and Transportation Services in the District of Columbia, Maryland, Virginia and West Virginia: Westcon International Ltd. for Department of Health and Human Resources, Washington, DC
7. Steve Dike, Larry L. Huang, Nicollete Davis, Sam Omenyi (199, 2000, 2001); Outcome Evaluation of Primary Medical Care and Case Management Services Provided by Community Based Organizations in the District of Columbia, Maryland, Virginia and West Virginia: Westcon International Ltd. for District of Columbia Department of Health.
8. Steve Dike, Nicollete Davis, Sam Omenyi, Larry L. Huang (1999): District of Columbia Household Survey on Drug Abuse: Westcon International Ltd. for the District of Columbia Department of Health and Human Resources, Washington, DC.

B. GUEST SPEAKER

1. Sam Omenyi (2019), Guest Speaker at a 2-Day Leadership/Capacity Training and Orientation Workshop on Enhancement of Service Delivery in Leadership for All New Appointees for 2019/2020 Academic Year. Paper Presented: "Capacity Building Training", Nnamdi Azikiwe University, Awka, December 4 & 5.
2. Sam Nna Omenyi (2019), Guest Speaker at the AGM & Conference of The Nigerian Society of Engineers, Enugu Branch. Paper Presented: "Positioning Engineering As A Core Strategy For The Resuscitation of Nigeria's Ailing Economy", held at Universal Hotels, Independence Layout, Enugu, August 29.
3. Sam Nna Omenyi, Understanding Design Processes In Research And Development
A Paper Presented at The Workshop on Importance of Research and Development to Humanity, The Institute Of Management And Technology, Enugu On July 04, 2018
4. Sam N. Omenyi (2006), Invited Resource Paper at the Nigerian Institute of Quantity Surveyors (NIQS) 2-Day National Seminar and Workshop Session on Oil and Gas Development and The Construction Industry in Nigeria, held at the Parktonia Hotel, Awka, on Tuesday and Wednesday, 10th and 11th October: Paper Presented "Conflict Resolution in Oil and Gas".
5. Sam N. Omenyi (2002), Invited Resource Paper at the NSE 2002 Engineering Workshop/Seminar held at Marble Arch Hotel, Awka, theme: Engineering Infrastructure for National Development; Paper Presented "Why did the World Trade Center Collapse?", Nigerian Society of Engineers, Awka Branch.
6. Sam N Omenyi (1991), Invitation as Guest Speaker on High Technology, by Committee on the Assessment of the Environmental Impact of the 1990/91 Gulf War, Nigerian Society of Engineers, Enugu, Anambra State, 1991
7. Sam Omenyi (1989), "Strategies for the Development of Raw Materials for the Automotive Industry: ASUTECH Experience", invited Paper, Workshop on Raw Materials for Motor Vehicles, The Raw Materials Research and Development Council, Lagos,
8. Sam Omenyi (1991), "Computer Applications in Security and Strategic Operations", invited Paper, Nigerian Society of Engineers Short Course on Computer Applications, Warri, September 1991

G. REFERRED JOURNAL ARTICLES

1. Okpe Bernard Okechukwu, Chukwuneke Jeremiah Lekwuwa, Omenyi Sam Nna (2021). Implications of Interfacial Energetics on the Tack/Debonding of Single and Hybrid Pressure Sensitive Adhesives. *International Journal of Scientific Research and Management* 9 (1), 546-555. <https://doi.org/10.18535/ijstrm/v9i1.ec01>
2. Austin Ikechukwu Gbasouzor and Sam Nna Omenyi (2021). Statistical Determination of the Drying Characteristics of Thin Layer Ginger Rhizomes, *Transactions on Engineering Technologies* pp 189-208
3. Sinebe J. E., Chukwuneke J. L., Omenyi S. N (2020). Understanding Fiber-Matrix Integrity in Fiber-Reinforced Polymer Composites from Strain Rate Sensitivity Concept, *Universal Journal of Mechanical Engineering* 8(5): 243-250, DOI: 10.13189/ujme.2020.080501, Corpus ID: 222304927
4. Sinebe J. E, Chukwuneke J. L., Omenyi S. N. (2020) Strain-Rate Sensitivity of Fiber-Reinforced Polymer Matrix, *Journal of Engineering and Applied Science*, Vol. 17 Number 1, pp117-122
5. K.C. Nduaguba, J.L. Chukwuneke, S.N. Omenyi (2020) “Hydrodynamic drag force on a sphere approaching a liquid-liquid interface”, *Heliyon* 6, e04089
6. Nwabanne J. O., Chukwuneke J. L., Omenyi S. N. (2019) “Non-Linear Finite Element Approach to Aerodynamic Effects on Horizontal Taut Cable”, *Journal of Physics: Conference Series* 1378 042017
7. Jeremiah Lekwuwa Chukwuneke, Chinedu Okpalaibekwe Izuka, and Sam Nna Omenyi (2019), Effects of process damping on S-domain stability analysis of a turning tool, *AIP Conference Proceedings* 2138, 030012 (2019); <https://doi.org/10.1063/1.5121049> Published Online: 21 August 2019
8. Sinebe, J.E. J. L. Chukwuneke, S.N. Omenyi (2019) Surface Energetics Effects on Mechanical Strength of Fibre Reinforced Polymer Matrix *J. Phys.: Conf. Ser.* **1378** 042016
9. Sinebe J.E., Chukwuneke J. L., Omenyi S. N. (2019) Implications of Interfacial Energetics on Mechanical Strength of Fiber Reinforced Polymer Matrix
10. J.L. Chukwuneke *, C.O. Izuka, S.N. Omenyi (2019), S-domain stability analysis of a turning tool with process damping, *Heliyon* 5 e01906
11. J. U. Ikekwem , J. L. Chukwuneke and S. N. Omenyi (2018) Thermal Behaviour of Bone Cement in Hip Replacement, *Physical Science International Journal (PSIJ)*, 17(4): 1-14
12. Sam N. Omenyi, Ndukwe Okoro Agha, Jeremiah L. Chukwuneke (2018) “Determination of entropy and specific heat of hydrogen from partition functions of elementary particles”, *Covenant Journal of Engineering Technology (CJET)*, Vol. 1, No. 1, 86 – 104
13. Gbasouzor Austin I and Sam Nna Omenyi (2017): Convective Drying of Ginger Rhizomes, *Proc. World Congress on Engineering and Computer Science 2017 Vol. II WCECS 2017*, October 25 – 27, San Francisco, USA
14. Modo, U.P., Chukwuneke, J.I and Omenyi Sam (2017): Analyses of diamond-shaped and circular arc airfoils in supersonic wind tunnel airflows, *International Journal of Engineering and Applied Sciences*, Vol. 12 No. 01, 12 – 26.
15. Gabriel Oladeji Bolarinwa, Sam Nna Omenyi, Chinonso Hubert Achebe (2016): Derivation of Mathematical Model for Micromotion and Micro-Displacement at the Bone-Implant Interface Using Spring Analysis, *Sch. J. Eng. Tech.*, 4(10):507-511
16. Nwajude Chukwudi, Omenyi Sam, Achebe Chinonso (2016): Effect of Temperature and Composition on Thermal Properties of Catfish (*Siluriforms Clarias*), *International Journal of Engineering and Technical Research (IJETR)*, Vol. 6 (2), 46 – 48.
17. Gabriel Oladeji Bolarinwa, Sam Omenyi, Ugochukwu Okonkwo (2016): Verification of the primary stability of bone-implant non manifold assembly (prosthetic joint) using

- Hertzian contact mechanics method, *Scholars Journal of Engineering and Technology (SJET)*, 4(8), 370 – 374.
18. Justin Nwabanne, Sam Omenyi, Jeremaih Chukwunke (2016): Effects of aerodynamics on suspended cables using non-linear finite element approach, *World Academy of Science, Engineering and Technology International Journal of Aerospace and Mechanical Engineering*, Vol. 10, No.11
 19. Nwigbo, S.C., Mbam, S.O., Nwoye, F.C., Omenyi, S.N. (2016), “Statistical evaluation of joint performance and the study of corresponding heat affected zone (HAZ) status as the composition of Zn50 brazing alloy varies in a mild steel application”, *International Journal of Engineering and Technical Research (IJETR)*, Vol. 6, Issue 4.
 20. Paul Okpala and Sam Omenyi (2016): General model of the innate immune response from a mechanical engineering point of view, *International Journal of Scientific Research in Information Systems and Engineering*, Volume 2, issue 2, 14 - 26.
 21. O.I. Ani, S.N. Omenyi and S.C. Nwigbo (2015) “Surface free energies of some antiretroviral drugs from spectrophotometric data and possible application to HIV-infected lymphocytes”, *Int. Journal of Scientific & Technology Research*, 4(12), 20-27.
 22. Pedro I. Ezeanyagu and Sam N. Omenyi (2015) “Effects of cutting parameters on feed cutting force and estimation of feed cutting force in dry orthogonal turning”. *Int. J. Multidisciplinary Sciences and Engineering*, vol. 6, no.9, 18 – 20.
 23. Ezenwa Obiora Nnaemeka, S.N. Omenyi and Onoroh Francis (2015) “Flank wear behavior of ISOP30 tungsten carbide tool on ASTM304 steel work piece”. *Int. Journal of Applied Engineering Research*, vol. 10 (number 21) 41984 – 41994.
 24. Chigbogwu Godwin Ozoegwu, Sunday M. Ofochebe and Sam N. Omenyi (2016) “A method of improving chatter-free conditions with combined-mode milling”, *Journal of Manufacturing Processes*, 21, 1 - 13
 25. Chukwunke, J.I, Achebe, C.H. and Omenyi, S.N. (2015) “Surface thermodynamics approach to mycobacterium tuberculosis (M-TB) – human sputum interactions”, *Journal of Bioengineering & Biomedical Science*, 5 issue 3 , 1 - 6.
 26. Ani, O. I., Omenyi, S. N. and Achebe, C. H. (2015) “Human immunodeficiency virus (HIV) – blood interactions in antiretroviral drugs environment – surface thermodynamics approach”. *Journal of Biosciences and Medicines*, 3, 1-15.
 27. Chukwunke, J.I, Achebe, C.H. and Omenyi, S.N. (2015) “Mycobacterium tuberculosis (M-TB) – Human sputum interaction mechanisms energetics”. *International Journal of Biological Engineering*, 5(2) 23-30.
 28. Ozoegwu C. G., Omenyi S. N. (2016) “Curvature effects on circular feed end-milling, part 2: stability analysis”. *Int. J. Engineering Systems Modeling and Simulation*, Vol. 8 no. 1, 20-27.
 29. Gabriel Oladeji Bolarinwa and Sam Omenyi (2015) “Virtual evaluation of static structural analysis of non-manifold assembly of femur and implant”. *International Journal for Research in Applied Science & Engineering Technology*, vol.3 issue ix, 423-435.
 30. Paul Okpala, Sam Omenyi, Godwin Ozoegwu and Chinonso Achebe (2015) “Effects of the dynamic energy flow associated with phagocytosis of bacteria”. *Heliyon*, No-e00021, 1-14 (Elsevier)
 31. Ani, O. I., Omenyi, S. N. and Achebe, C. H. (2015) “The effects of antiretroviral drugs on the absorbance characteristics of HIV-infected blood”. *Journal of Biomedical Science and Engineering*, 8, 571-581.
 32. Ani, O. I., Omenyi, S. N. and Achebe, C. H. (2015) “The effects of antiretroviral drugs on the absorbance characteristics of blood components”. *International Journal of Scientific and Technology Research*, 4(9) 154-160.
 33. Ani, O. I., Omenyi, S. N. and Achebe, C. H. (2015) “Negative Hamaker Coefficients: Application to the Human Immunodeficiency Virus (HIV) – Blood Interactions in Antiretroviral Drug Media.” *Journal of Engineering and Applied Sciences*, 11, 1 - 10.
 34. Ndukwe Okoro Agha and Sam Nna Omenyi (2014) “The effects of intermolecular interactions on the overall partition functions of elementary particles”, *Journal of Engineering and Applied Sciences* 10, 88 - 98.

35. Ndukwe Okoro Agha and Sam Nna Omenyi (2014) "The application of closed Bragg-Williams equation to elementary particles", *Journal of Engineering and Applied Sciences*, 10, 81-87
36. 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
37. C.G. Ozoegwu, S.N. Omenyi, and S.M. Ofochebe (2015) "Curvature effects on circular feed end-milling, part 1: modeling and simulation", *Int. J. Engineering Systems Modeling and Simulation*, Vol. 7 No. 3, 147 – 157.
38. C.G. Ozoegwu, S.N. Omenyi, and S.M. Ofochebe (2015) "Hyper-third order full-discretization methods in milling stability prediction", *International Journal of Machine Tools and Manufacture*, 92 (1-9). ELSEVIER
39. Ozoegwu Chigbogu Godwin and Omenyi Sam (2014) "Reducing computational requirement of stability analysis of milling by partial averaging", *Manufacturing Review*, 1 14 (1-13).
40. C.H. Achebe, S.N. Omenyi (2014) "The application of negative Hamaker concept to the human immunodeficiency virus (HIV) – blood interactions", G.C. Yang, et. al. (Eds), Springer.
41. Chigbogu G. Ozoegwu and Sam N. Omenyi,(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) 149 – 160.
42. Chigbogu G. Ozoegwu, Sam Omenyi, Sunday M. Ofochebe and Chinonso H Achebe (2013) "Comparing up and down milling modes of end-milling using temporal finite element analysis", *Applied Mathematics* 3(1) 1 – 11.
43. Ozoegwu C.G. and Omenyi S.N. (2013) "Chatter stability boundary frequencies of a three-tooth end-milling process", *International Journal of Multi Disciplinary Sciences and Engineering* 4(2) 16 - 23
44. Chigbogu G. Ozoegwu, Sam N. Omenyi (2013) "Stability of circular feed end-milling compared with that of linear feed equivalent", *Science and Technology* 3(1) 17 – 23.
45. Chigbogu G. Ozoegwu, Sam N. Omenyi (2012) "Time domain chatter stability comparison of turning and milling processes", *International Journal of Multi Disciplinary Sciences and Engineering* 3(11) 25 - 30
46. Chigbogu G. Ozoegwu, Sam Omenyi and Sunday M. Ofochebe (2013) "Time finite element chatter stability characterization of a three-tooth plastic end-milling CNC machine", *American Journal of Computational and Applied Mathematics* 3(1) 1 – 7
47. C.G. Ozoegwu and S.N. Omenyi. (2013) "Wave attenuation effects on the chatter instability of end-milling", *Noise Control Engineering*, 61 (4) 436 – 444.
48. Ugochukwu C. Okonkwo and Sam Nna Omenyi. (2010) "Development of stochastic simulator of continuous review (R,Q) inventory policy with demand lead time and rationing" *Journal of Sciences and Multidisciplinary Research*, 2, 32-46.
49. C.H. Achebe and S.N. Omenyi (2013) "Hamaker Coefficient Concept Approach as a Surface Thermodynamic Tool for Interpreting the Interaction Mechanisms of Human Immunodeficiency Virus and the Lymphocytes" *IAENG Transactions on Electrical Engineering*, Vol. 1 (301 – 314), Sio-long Ao et. al. Eds, World Scientific Co. Pte Ltd, New Jersey.
50. Achebe C.H. and Omenyi S.N. (2013) "The Effects of Human Immunodeficiency Virus (HIV) Infection on the Absorbance Characteristics of Different Blood Components", *International Journal Engineering Science Innovation (IJESI)*, 2(5) 53-61.
51. Chigbogu C. Ozoegwu, Sam N. Omenyi, Chinonso H. Achebe and Chigozie F. Uzoh (2012) "Effect of Modal Parameters on Both Delay-Independent and Global Stability of Turning Process", *Journal of Mechanical Engineering and Automation*, 2(6), 159-168.
52. C.G. Ozoegwu, S.N. Omenyi, S.M. Ofochebe, E. Obaseki, C.F. Uzoh and C.C. Nwangwu, (2012) "Comparison of Up-Milling and Down-Milling Modes of End-Milling Process", *Research Journal in Engineering and Applied Science*, 1(5), 314-322

53. C.H Achebe, S.N. Omenyi, O.P. Manafa and D. Okoli, (2012) "Human Immunodeficiency (HIV)-Blood Interactions: Surface Thermodynamics Approach", Proceedings of the International Multi Conference of Engineers and Computer Scientists, Vol. 1, IMECS 2012, Hong Kong.
54. Ozoegwu C.G. and Omenyi S.N (2012) "Stability characterization of turning process", Journal of Engineering and Applied Science 8(1) 1-8
55. Ugochukwu C. Okonkwo and Sam Nna Omenyi. (2011) "Mathematical Modeling of Spare Parts Inventory Control for Breakdown and Preventive Demands of Different Criticality". J. Economics & Engineering, 2(1) 59 – 65
56. C.U. Atuanya, S.N. Omenyi and S.I. Okeke (2006) "The Wettability of Enugu Coals Using Continuous Flow Technique", J. Engineering and Appl. Sci., Vol. 2 (2), 146 – 155
57. S.N. Omenyi (2003) Determination of contact angles for various particle sizes of Enugu coals powder, International Journal of Economic and Development Issues, Volume 3, Issue 1, Pages 190 Publisher, Development Universal Consortia
58. S.N. Omenyi and B.O. Okeke(1998) "Physicochemical parameters determining the strength of moist agglomerates", Journal of Engineering Research, Vol. 6, No. 2, 1 – 18
59. J.C. Onyilagha, S.N. Omenyi and R.S. Snyder (1989) "Application of some droplet sedimentation theories to layered erythrocyte suspensions", Cell Biophysics 14, 217-239.
60. P.E. Ugwu, R.I.M. Odoeme and S.N. Omenyi (1989) "Analysis of past production data of Enugu Coal Mines", The Nigerian Engineer, 24(2), 18-27
61. Samuel N. Omenyi, Blair J. Herren, Robert S. Snyder and Geoffrey Seaman (1986) "Isothermic ion adsorption for minerals", J. Colloid Interface Science 110, 130-136.
62. S.N. Omenyi, R.S. Snyder, R.Tipps, D.R. Absolom and C.J. VAN Oss(1986) "Effects of DMSO on the properties of red blood cells II. Electrokinetics and sedimentation", J. Dispersion Science and Technology, 7(1), 1-19.
63. S.N. Omenyi, R.S. Snyder and C.J. VAN Oss(1985) "Effects of DMSO on the properties of red blood cells I. Interaction with lanthanum ions and flocculation", J. Dispersion Science and Technology 6(4), 391-411.
64. A.W. Neumann, J. Visser, R.P. Smith, S.N. Omenyi, D.W. Francis, J.K. Spelt, E.B. Varghar-Butler, W. Zingg, C.J. VAN Oss and D.R. Absolom(1984) "The concept of negative Hamaker Coefficients IIb. Determination of surface tensions of small particles", Powder Technology, 37, 229-244.
65. A.W. NEUMANN, D.R ABSOLOM, D.W. FRANCIS, S.N. OMENYI, J.K. SPELT, POLOCOVA, C. THOMSON, W. ZIGG and C.J. VAN OSS(1983) "Measurement of surface tensions of blood cells and proteins", Annals of the New York Academy of Sciences, 416, 276-298.
66. S.N. OMENYI and R.S. SNYDER(1983) "Vertical ascending electrophoresis of cells in minimal stabilizing medium", Preparative Biochemistry, 13(5), 437-459.
67. C.J. VAN OSS, J. VISSER, D.R. ABSOLOM, S.N. OMENYI and A.W. NEUMANN (1983) "The concept of negative Hamaker Coefficients II. Thermodynamics Experimental Evidence and Applications", Advances in Colloid and Interface Science, 18, 133-148.
68. S.N. OMENYI, A.E. FOU DA and C.E. CAPES(1983) "Some surface energy effects in the strength of moist polymer powder agglomerates", Chemical Engineering Science, 38, 85-90.
69. S.N. OMENYI and C.E. CAPES(1982) "Correlation of moist strength with contact angles for polymer powder agglomerates", Powder Technology 33, 167-174.
70. KANJI MATSUMOTO, S. OMENYI and C.E. CAPES(1983) "Measurement of the wettability of particles by Continuous Flow Method", J. Powder Technology(Japan) 20(1), 15-21.
71. S.N. OMENYI and R.S. SNYDER(1983) "Settling of fixed erythrocyte suspension droplets", Biorheology 20, 109-118.
72. S.N.OMENYI, R.S.SNYDER, D.R.ABSOLOM, C.J.VAN OSS and A.W.NEUMANN (1982) "Enhanced erythrocyte suspension layer stability achieved by surface tension lowering additives", J. Dispersion Science and Technology 3(3), 307-333.

73. A.W. NEUMANN, S.N. OMENYI and C.J. VAN OSS (1982) "Attraction and repulsion of solid particles by solidification fronts III. van der Waals interactions", *Physical Chemistry* 86, 1266-1270.
74. S.N. OMENYI, P. RHODES and R.S. SNYDER(1982) "Stability of fixed erythrocyte suspensions layered on stationary and flowing liquids", *Separation Science and Technology* 17(6), 849-857.
75. S.N. OMENYI, J. CHAPPIUS and A.W. NEUMANN(1981) "Adhesion of small spherical particles to substrates immersed in liquids", *J. Adhesion* 13, 31-39.
76. S.N. OMENYI, R.S. SNYDER, C.J.VAN OSS, D.R. ABSOLOM and A.W. NEUMANN(1981) "Effects of zero van der Waals and zero electrostatic forces on droplet sedimentation", *J. Colloid Interface Science* 81, 402-409.
77. S.N. OMENYI, A.W. NEUMANN, W.W. MARTIN, G.M. LESPINARD and R.P. SMITH(1981) "Attraction and repulsion of solid particles by solidification fronts II. Dimensional analysis", *J. Applied Physics* 52, 796-802.
78. S.N. OMENYI, A.W. NEUMANN and C.J. VAN OSS (1981) "Attraction and repulsion of solid particles at solidification fronts I. Thermodynamic effects", *J. Applied Physics* 52, 789-795.
79. S.N. OMENYI, R.P. SMITH and A.W. NEUMANN(1980) "Determination of solid/melt interfacial tensions and of contact angles of small particles from the critical velocity of engulfing", *J. Colloid Interface Science* 75, 117-125.
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D. CONTRIBUTIONS TO BOOKS

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2. A.W. NEUMANN, J. VISSER, R.P. SMITH, S.N. OMENYI, D.W. FRANCIS, J.K. SPELT, E.B. BUTLER, W. ZINGG, C.J. VAN OSS and D.R. ABSOLOM (1983), "The Concept of Negative Hamaker Coefficients III. Determination of the Surface Tensions of Small particles", in: THE ROLE OF PARTICLE INTERACTIONS IN POWDER MECHANICS, T.M.G. Sende and A.H.M. Verkooijen (eds.), Wibrodruk, Helmond, The Netherlands, ETCE Publication Series, #28, pp216-231.
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E. RECENT CONFERENCE PRESENTATIONS

1. Jeremiah Lekwuwa Chukwunke, Chinedu Izuka and Sam Omenyi, S-Domain Stability Analysis of a Turning Tool with a Process Damping, 4th Innovation and Analytics Conference and Exhibition (IACE) 2019, Universiti Utara Malaysia, Kedah on 25 – 28 March 2019.
2. Justin Nwabanne, Sam Omenyi, Jeremiah Chukwunke, “Effects of Aerodynamic on Suspended Cables Using Non-Linear Finite Element Approach”, ICEDP 2016 : 18th International Conference on Educational and Developmental Psychology, London, United Kingdom, November 24 - 25, 2016
3. Jeremiah L. Chukwunke, Chinonso H. Achebe, Sam N. Omenyi, Jude E. Sinebe, ”Mechanism of Surface Energetics of Mycobacterium tuberculosis-Macrophage”, ICEP 2016 : 18th International Conference on Ethnopharmacology and Phytochemistry, November 16 - 17, 2016, Crowne Plaza Dubai – Deira Salahuddin Road, Deira, P.O. Box 8668, Dubai, UAE.
4. Ozoegwu C.G., Omenyi S. N “Wave attenuation theory as a criterion for chatter suppression in machining process”. Professor Gordian Ezekwe Memorial Lecture and 2014 National Conference On Engineering For Sustainable Development, May 19 & 20, 2014, Venue: Auditorium, Nnamdi Azikiwe University, Awka
5. E.M. Ozoihu, Sam Nna Omenyi, C.H Achebe, “Human immunodeficiency virus (HIV) – blood interaction: contact angle approach”. Professor Gordian Ezekwe Memorial Lecture and 2014 National Conference On Engineering For Sustainable Development, May 19 & 20, 2014, Venue: Auditorium, Nnamdi Azikiwe University, Awka
6. Ozoegwu C.G., Omenyi S. N. and Achebe C. H. “Damping design of turning tool for global chatter stability”, 2012 National Conference on Infrastructural Development And Maintenance In The Nigerian Environment, August 27 – 28, 2012, Venue: Auditorium, Nnamdi Azikiwe University, Awka.
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