PERSONAL

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viii. Rank Professor

ix. Designation Dean of Engineering (COLENG)

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5. ResearchGate address

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Membership of Associations

(i) Corporate Member, Nigerian Society of Engineers

(ii) Corporate Member, Nigerian Institute of Agricultural Engineers.

(iii) Registered Member, Council for the Regulation of Engineering in Nigeria (COREN).

Prizes, Honours, Scholarship, National and International Recognition:

a. TETFUND NRF Grant 2019/2020

b. PLAN tomatoes study grant 2017

c. Development of a biomass gasifier IFSERAR Grant, FUNAAB 2017

d. Development of a biogas plant- phase 1 IFSERAR Grant 02, FUNAAB 2010

e. Staff Development Postgraduate Programme grant FUNAAB 2007 – 2010

f. Postgraduate Fellowship Award. University of Ife, ILE-IFE 1989 – 1991

SPECIAL ASSIGNMENTS

i. Dean, College of Engineering 2021 - 2024

ii. Deputy Dean, College of Engineering 2017 - 2020

iii. Postgraduate Coordinator, College of Engineering 2017 - 2023

iv. Ag Head, Department of Agricultural & Bio-Resources Engineering 2013 - 2017

v. Alternate Chairman, COLENG, Committee on Examination Results (COCER) 2010 - 2014

vi. Postgraduate Coordinator, Department of Agricultural Engineering 2010 - 2013

vii. Coordinator, Departmental Examination Committee. 2010 - 2013

viii. Chairman, COLENG Committee on Information Technology 2010 – 2011

a. Activity Profile

i. Member, Postgraduate Board . 2013 till Date

ii. Member, COLENG Committee on Examination Results(COCER) 2010 - 2021

iii. Member, Postgraduate School Business Committee. 2014 - 2021

b. Community Service

i. Undergraduate External Examiner : Olabisi Onabanjo University 2021 - 2023

Department of Agricultural & Environmental Engineering

ii. External Examiner : Lagos State Polytechnic,

Department of Agricultural & Environmental Engineering 2013 - 2015

iii. Resource Person on Agricultural Engineering courses for

Nigeria Society of Engineers, Abeokuta Branch. 2001/ 2002

iv. Reviewer for the following Journals but not limited to

a. CIGR Journal. Agricultural Engineering International

b. Intercontinental Journal of Agricultural Sciences

c. Nigerian Institute of Food Science & Technology Journal

RESEARCH INTEREST / COMMISSIONED PROJECT

The researcher's areas of interest include but not limited to

i. Processing and utilization of agricultural products with special interest in oil seeds.

ii. Determination of characteristics of agricultural crops into food with special interest in drying.

iii. Recent focus is on utilization of crops as alternative farm energy sources especially under-exploited seeds(Castor, jatropha and unexploited oil seeds of major interest)

iv. Production of biofuel from agricultural waste/byproducts

v. Physical and drying properties of seeds and food products.

a. Completed :

i. Development and utilization of ARTI Floating type biogas digester

ii. Development of a vertical plane wind turbine for rural power use

iii. Development of a biomass briquette machine

iv. Development of a biogas production equipment

v. Prototype Bio-diesel Processor design and construction

vi. Laboratory Biogas production from waste paper, cow dung and kitchen waste

vii. Investigation of drying methods on drying kinetics and nutritional properties of tomato varieties in Nigeria

viii. Development of a Biomass gasifier.

b. In progress

i. Drying kinetics and characteristics pawpaw seed and quality ncharacxteristics of pawpaw oil seed

ii. Production of Essential oil from Castor seed using Microwave extraction methods

iii. Drying characteristics of legumes for grazing

PUBLICATIONS

1. Usman D. D, O. U. Dairo, O. J. Adeosun, B. G. Jahun(2022): Physicochemical Properties Of Biodiesel Blends Derived From Mahogany (Khaya Senegalensis) Seed Oil For Use As Alternative Fuel. Journal Of Agricultural Engineering And Technology (Jaet). 27(1): 28 – 43.

2. Adebowale AA, Akinniyi G, Shittu TA, Adegoke AF, Omohimi CI, Sobukola OP, Onabanjo OO, Adegunwa MO, Kajihausa OE, Dairo OU, Abdulsalam-Saghir P, Sanni LO, Siwoku BO, Okoruwa AE(2022). Adsorption Isotherms and Thermodynamic Properties of Dried Tomato Slices. Advances in Nutrition & Food Science. 7(3): 249 - 262

3. Osanyinpeju, K.L., Aderinlewo, A.A., Dairo, O.U., Adetunji, O.R. and Ajisegiri, E.S.A.(2022). Performance Evaluation on the Utilization of an Established Variable Amplitude and Frequency of Vibrating Container for Potential Application in Slowing Down Sprouting in Yam. UNIOSUN Journal of Engineering and Environmental Sciences. 4(2): 120 – 130. DOI: 10.36108/ujees/2202.40.0231

4. Azodo Adinife Patrick, Ismaila Salami Olasunkanmi, Kuye Sidikat. Ibiyemi. and Dairo Olawale Usman (2022). Physiological Reactions of Push/Pull Exertion Mechanisms Demands on Workers for MMH Tasks in the Work Environment. NIPES Journal of Science and Technology Research 4(2): 120-126

5. OA Akogun, MA Waheed, SO Ismaila, OU Dairo (2020). Physical and Combustion Indices of Thermally Treated Cornhusk and Sawdust Briquettes for Heating Applications in Nigeria. Journal of Natural Fibers, 1-16, 2020

6. Olayide R. Adetunji, Ayodele M. Adedayo, Salami O. Ismailia, Olawale U. Dairo, Iliyas K. Okediran, Olanrewaju M. Adesusi(2022). Effect of silica on the mechanical properties of palm kernel shell based automotive brake pad. Mechanical Engineering for Society and Industry. Vol. 2( 1): 7-16 https://doi.org/10.31603/mesi.6178

7. Akodu R.M., Dairo O.U., Olayanju T.M.A., Ola I.A., Omotainse P.O. (2021) Some Nutritional and characteristics of Kerewa and UC-82B Tomato powder as Affected by concentration Levels of

Foaming Agents (Glycerol Monostrate (GSM) and Skimmed Milk and Microwave Power using Foam Mat drying Method. LAUTECH Journal of engineering and technology Ladoke Akintola University of Technology Nigeria 15 (2):129-138

8. OA Akogun, MA Waheed, SO Ismaila, OU Dairo (2020). Co-briquetting characteristics of cassava peel with sawdust at different torrefaction pretreatment conditions. Energy Sources, Part A: Recovery, Utilization, and Environmental Effects, 1-19, 2020

9. SO Ismaila, YA Salami, SI Kuye, OU Dairo, NO Adekunle (2020). Ergonomic Evaluation of Packaging Workers'posture in A Food Manufacturing Company. Journal of Engineering Studies and Research 26 (1), 2020

10. TMA Olayanju, OU Dairo, OP Sobukola, O Odebiyi, SO Dahunsi (2020). Performance evaluation of downdraft gasifiers under various conditions. Earth and Environmental Science 445,

11. TMA Olayanju, OU Dairo, OP Sobukola, O Odebiyi, SO Dahunsi (2020). Development of small-scale downdraft gasifiers for biomass gasification. Earth and Environmental Science 445,

12. OR Adetunji, DT Onawoga, OO Adegbesan, OU Dairo. (2019). Modification of Steel Roller Composition to Curb Excessive Wear. Journal of Failure Analysis and Prevention 19 (6), 1655-1665.

13. AA Aderinlewo, SA Ayokambi, OU Dairo, OJ Adeosun (2019). Evaluation of the Performance of a Rotary Screen Cowpea Cleaner-A Response Surface Approach. FUOYE Journal of Engineering and Technology 4 (1),

14. Dairo O.U., Aderinlewo A.A. Adeosun O. J., Ola O. A., Saludeen O.(2015). Solar Drying Kinetics of Cassava Slices in a Mixed Flow Dryer. Acta Technologica Agriculturae. The Scientific journal of

Agricultural Engineering, 4: 102 – 107. Published by Slovakia University of Agriculture in Nitra. doi: 10.1515/ata-2015-0020

15. Dairo, O. U, Adeosun O, J., Adeleke, E. A, Omotainse,P. O., Abimbola M., Yusuf B., Dada Omolara, and Dairo R. B (2017). Drying Characteristics of Kerewa Tomato Under Infrared Drying. LAUTECH Journal of Engineering and Technology (LAUJET), 11(2): 1 – 6.

16. Dairo, O. U, Bassey, E. J., Olayanju, T. M. A., Sobukola, O. P (2017). Microwave Drying and Energy

kinetics of Nigerian white onion (Allium cepa) variety slices as affected by microwave power. Journal of Technology, Mathematics and Education (JOSTMED). Published by Federal University of Technology, Minna. 13(2):125 – 145.

17. Dairo, O. U, Olayanju, T. M. A., Adeoye, A. A, Adeleke, E. A. Adeosun, O.J., Iyerimah , R. B (2017). Development of an Anaerobic Digester for Animal Waste. FUOYE Journal of Engineering and Technology (FUOYEJET). 2(2): 17 – 22. Published by Federal University Oye, Ekiti State. Nigeria.

18. Dairo, O. U, Olayanju, T.M.A., Ajisegiri, E.S.A., Awonorin, S.O., Alamu, O.J. (2011). Influence of Catalyst Amount and Alcohol-seed ratio on the production of bio-diesel from raw castor oil bean seed using in-situ technique. LAUTECH Journal of Engineering and Technology (LAUJET). 6 (2): 45-52. Published by Faculty of Engineering and Technology, Ladoke Akintola University. Nigeria.

19. Dairo, O. U, Olayanju, T.M.A., Ajisegiri, E.S.A., Awonorin, S.O., Alamu, O.J. (2011). Effect of Temperature and Percentage of Initial catalyst on the in-situ production of biodiesel from castor oil bean seed using response surface methodology. Journal of Natural Sciences, Engineering and Technology (JNSET). 10 (1): 163 – 177. Published by Federal University of Agriculture. Abeokuta. Nigeria.

20. Dairo, O. U, Olayanju, T.M.A., Ajisegiri, E.S.A., Awonorin, S.O., Alamu, O.J. (2011). Influence of catalyst quantity and reaction time on in-situ production of biodiesel from castor oil bean seed using response surface methodology. Journal of Natural Sciences, Engineering and Technology (JNSET). 10 (2): 146 – 157. Published by Federal University of Agriculture. Abeokuta. Nigeria.

21. Dairo, O. U, Oyenusi, O, Aderinlewo A. A., Adetunji, O. R. and Adeleke E. A. (2018). Modeling the Air Flow Resistance of Bulk Sponge Gourd (Luffa Cylindrica) Seeds LAUTECH Journal of Engineering and Technology (LAUJET). 12(2): 1 – 9.

22. Dairo, O. U., AE Adeleke, T Shittu, NA Ibrahim, OJ Adeosun, RB Iyerimah. (2018). Development and Performance Evaluation of A Low-Cost Hydraulic-Operated Biomass Briquetting Machine. FUOYE Journal of Engineering and Technology 3 (1),

23. Dairo, O. U., Ajibola, O.O. (1994). Resistance to airflow of bulk sesame seed. British Journal of Agricultural Engineering Research. 58: 99 -105. Published by Elsevier Science Limited. UK.

24. Dairo, O. U., Ajibola, O.O. (2001). Desorption Isotherm models of Sesame seed. ASSET: An

International Journal. 1(2): 45 – 56. Published by Federal University of Agriculture. Abeokuta. Nigeria.

25. Dairo, O. U., Iyerimah, R.B., Sobayo, A.O., Aderinlewo, A.A., Adeosun, O.J., Adeleke, E.A. (2014). Optimization of inclusion level of castor oil bean cake in broiler feed using response surface methodology. British Journal of Poultry Sciences. 3:(2):42 - 48 . Published by IDOSI Publications, United Arab Emirates. Available at doi:10.5829/idosi.bjps.2014.3.2.84249. Dairo, O. U, Adeosun O, J., Adeleke, E. A, Omotainse,P. O., Abimbola M., Yusuf B., Dada Omolara, and Dairo R. B (2017). Drying Characteristics of Kerewa Tomato Under Infrared Drying. LAUTECH Journal of Engineering and Technology (LAUJET), 11(2): 1 – 6.

26. Dairo, O. U., Ajibola, O.O. (1994). Resistance to airflow of bulk sesame seed. British Journal of Agricultural Engineering Research. 58: 99 -105.

27. Samuel, O.D. , Waheed, M.A., Bolaji, B.O., Dairo, O. U. (2014). Synthesis of Biodiesel from Nigerian Waste Restaurant Cooking Oil: Effect of KOH Concentration on Yield. Global Journal of Science, Engineering and Technology. 15:1 -8.

28. Oladipo I. O., Adewumi, J. K., Dairo, O. U., Adejuyigbe, S. B., Ajayi, E. A. (2013). Performance Evaluation of Dry season Okra under Sawdust and Trash Mulch Cover Treatments in South western Nigeria. Open Journal of Soil Science. 3: 337 – 341. http://dx.doi.org/10.4236/ojss.2013.38038

29. Samuel, O.D., Waheed, M.A., Bolaji, B.O., Dairo, O. U (2013). Production of Biodiesel from Nigerian Restaurant Waste Cooking oil using Blender. Internatıonal Journal of Renewable Energy Research. 3(4): 976 – 979.

30. Adeleke, A. E., Aiyedun, P. O., Alamu, O.J., Dairo, O. U., Olawale , S. O. A. (2013). Development of software for the design of distillation column of a bioethanol-water system using McCabe-Thiele method. Annals of Science, Engineering and Technology. 3(1):23-32

31. Sobayo R.A., Oso A. O., Adeyemi O. A, Fafiolu A.O., Jegede A. V., Idowu O. M. O., Dairo, O. U., Iyerimah R. B.,Ayoola O. A., Awosanya, R. A (2012). Changes in growth, digestibility and gut anatomy by broilers fed diets containing ethanol-treated castor oil seed (Ricinus communis, L.) meal. Revista Científica UDO Agrícola . 12 (3).660 - 667. Available at www.udoagricola.150m.com

32. Samuel, O.D., Dairo, O. U. (2012). A Critical Review of In-situ Trans-esterification Process for

Biodiesel. Pacific Journal of Science and Technology. 13(2):72-79.
33. Sobukola O.P, Dairo, O. U. , Odunewu, A.V. (2008). Convective Hot Air Drying of Blanched Yam Slices. International Journal of Food Science and Technology. 43: 1233 – 1238.
34. Sobukola O.P., Dairo, O. U, Afe, T.T., Coker, O.J. (2007). Water sorption Isotherm and crispiness of Fried Yam chips in the temperature range of 293K to 313K. International Journal of Food properties, 10(3): 561 – 575.
35. Sobukola O.P., Dairo, O. U. (2007). Modeling drying kinetics of fever leaves (ocimen viride) in a convective hot air drier. Nigerian Food Journal, 25(1): 145 – 153.
36. Sobukola O.P., Dairo, O. U., Sanni, L.O., Odunewu, A.V., Fafiolu, B.O. (2007). Thinlayer drying process of some leafy vegetables under open sun drying. Food Science and Technology International, 13(1): 35 – 40.

37. Aviara, N.I., Ajibola, O.O. , Dairo, O. U. (2002). Thermodynamics of Moisture sorption in sesame seed. Bio-System Engineering. 83(1): 423 – 431.
38. Ajibola O.O., Dairo, O. U. (1998). The relationship between equilibrium relative humidity and moisture content of sesame seed using vapour manometric method. Ife Journal of Technology. 8(1): 61 – 67.
39. Dairo, O. U., Olayanju, T. M. A., Ajisegiri, E. S. A., Alamu, O. J., Adeleke A.E (2013). Optimization of in-situ Biodiesel Production from Raw Castor Oil-Bean Seed. Journal of Energy Technologies and Policy. 3(13): 14 – 19. Published by International Institute for Science, Technology & Education, New York, USA.
40. Dairo, O.U, T. M. A Olayanju. (2012). Convective Thin-layer drying and rewetting characteristics of sesame seed. Journal of Natural Sciences, Engineering and Technology (JNSET). 10(2): 121 – 132. Published by the Federal University of Agriculture. Abeokuta. Nigeria.
41. Dairo, O.U., Amusan, O., Adeleke, A.E. (2013). Production of Bio-Diesel from Jatropha Curcas Seed Using In-Situ Technique: Effect of Catalyst Amount and Alcohol-Seed Ratio. International Journal of Engineering Research & Technology. 2(8): 2784-2792. . Published by ESRSA Engineering and Science Research Support Academy, Gujarat. India.
42. Dairo, O.U., Olayanju, T. M. A. (2012). Convective Thin-layer drying characteristics of sesame

seed. International Journal of Engineering Research in Africa. 7: 55-62. Published by Trans Tech Publications, Zurich Switzerland . doi:10.4028/www.scientific.net/JERA.7.55.

43. Dairo, O.U., Olayanju, T. M. A., Amusan, O. (2012). Effect of initial catalyst amount on production of bio-diesel from jatropha curcas seed using in-situ technique. Transnational Journal of Science and Technology. 2(6): 23-34. Published by Transnational Journal of Science and Technology (TJST), Republic of Macedonia. Available online at http://tjournal.org

Prof O. U. Dairo