

## CURRICULUM VITAE

- I. (a) Name: Babatunde Olayinka Oyefeso  
(b) Date of Birth: 18 January, 1982  
(c) Department: Agricultural and Environmental Engineering  
(d) Faculty: Technology
- II. (a) First Academic Appointment: Lecturer I, 25 May, 2018  
(b) Present Post (with date): Senior Lecturer, 1 October, 2021
- III. University Education (with dates):  
(a) University of Ibadan, Ibadan. 2002 - 2007  
(b) University of Ibadan, Ibadan. 2008 - 2010  
(c) University of Ibadan, Ibadan. 2011 – 2016
- IV. Academic Qualifications (with dates and granting bodies):  
(a) B.Sc. Agricultural and Environmental Engineering (First Class Hons.) University of Ibadan, Ibadan. 23 March, 2007  
(b) M.Sc. Agricultural and Environmental Engineering (Crop Processing and Storage) University of Ibadan, Ibadan. 5 October, 2010  
(c) Ph.D. Agricultural and Environmental Engineering University of Ibadan, Ibadan. 29 March, 2016
- V. Professional Qualifications and Diplomas (with dates)  
Registered Engineer with Council for the Regulation of Engineering in Nigeria (COREN) (R.35346) 2016
- VI. Scholarships, Fellowships and Prizes (with dates) in respect of Undergraduate and Postgraduate work only  
(a) Dean's Honours List, Faculty of Technology, University of Ibadan, Ibadan. 2003-2007  
(b) Best Graduating Student, Agricultural and Environmental Engineering, University of Ibadan, Ibadan, Nigeria. 2007  
(c) 1st Runner up, Graduate Engineer of the Year Competition, Nigerian Society of Engineers (NSE), Ibadan branch. 2007
- VII. Honours, Distinction and Membership of Learned Societies  
(a) Member, American Society of Agricultural and Biological Engineers (ASABE) (M 1028527) 2006  
(b) Corporate Member, Nigerian Institution of Agricultural Engineers (NIAE) (M 1924) 2015  
(c) Corporate Member, Nigerian Society of Engineers (NSE) (M 50885) 2019

VIII. Details of Teaching/Work Experience

(a) Animal Care Services Konsult Nig. Ltd., Ogere-Remo, Ogun State. 2011-2015

(b) Oyo State College of Agriculture and Technology, Igboora, Oyo State.  
Lecturer II, Department of Post-Harvest Technology 2015-2018

Courses Taught

Code	Course Description	Units	Session(s)	Remarks
ABE 105	Engineering Mathematics I	3	2016-2018	Jointly taught
ABE 106	Engineering Mathematics II	3	2016-2018	Jointly taught
ABE 108	Construction and Maintenance of Processing and Storage Facilities	2	2015-2017	Jointly taught
ABE 210	Post-Harvest Technologies and Storage	2	2015-2018	Jointly taught
PHT 304	Primary Processing Methods and Equipment	3	2015-2018	Singly taught
PHT 401	Crop Handling and Storage	3	2016-2018	Singly taught
PHT 405	Quality Control and Loss Assessment	3	2015- 2017	Singly taught
AET 410	Research Methods	3	2016-2017	Jointly taught
AEP 408	Crop Drying and Storage	3	2016-2017	Singly taught
AEP 403	Processing and Handling Machinery	3	2016-2017	Jointly taught

(c) University of Ibadan, Ibadan.

Lecturer I, Department of Agricultural and Environmental Engineering 2018 to date

Courses Taught

Code	Course Description	Units	Session(s)	Remarks
TAE 312	Agricultural Processing and Storage I	3	2018-date	Singly taught
TAE 314	Advanced Computer Programming for Agricultural Engineers	3	2018-date	Singly taught
TAE 412	Engineering Properties of Plant and Animal Materials	3	2018-date	Singly taught
TAE 522	Agricultural Materials Handling	3	2018-date	Singly taught
TAE 525	Computer Modelling of Agricultural Systems	3	2018-date	Singly taught
TAE 773	Analysis of Agricultural Systems	3	2019-date	Jointly taught

Supervision of Students

Completed

B.Sc. Project	13
M.Sc. Project	2
M.Phil. Dissertation	0
MPhil/PhD.	0
Ph.D. Thesis	0
<u>Ongoing</u>	
B.Sc. Project	6

M.Sc. Project	2	
M.Phil. Dissertation	0	
MPhil/PhD.	2	
Ph.D. Thesis	1	
(d) Administrative Duties		
(i) Departmental Undergraduate Coordinator		2022 - date
(ii) Member, Faculty Grant Writing and Sourcing Committee		2019 - date
(iii) Member, Departmental Finance Committee		2019 - date
(iv) Member, Faculty Timetable Committee		2021 - date
(v) Member, Faculty NSE Induction Committee		2021 – date
(vi) Member, Faculty Consultancy Committee		2023 – date
(e) Community Services		
(i) General Secretary, NIAE - Oyo State Chapter		2017 to date
(ii) Member, NSE (Ibadan Branch) Exhibition Committee		2021
(iii) Reviewer, Croatian Journal of Food Science and Technology		2021
(iv) Reviewer, Arid Zone Journal of Engineering, Technology and Environment (AZOJETE)		2021
(v) Reviewer, Journal of Food Engineering		2022 to date

## IX. Research

### (a) Completed

- (i) Fruit type, shape and size characterisation using image processing techniques
- (ii) Development of sweet potato slicer
- (iii) Development of concentric drums cocoyam cormel peeling machine

### (b) In Progress

- (i) **Engineering properties of agricultural materials:** Data on the engineering properties of biological materials are essential for the development of processing and storage equipment for such materials. One of the studies includes the determination of the effect of selected variables on selected on the physical and mechanical properties of mango seeds. Another one that is related to this subject is size and shape characterization and development of predictive models for the mass and volume of African bush mango. The projects are presently at about 30% level of completion. Equipment acquisition and standard methods to be adopted for the studies have already been concluded. The projects are expected to be completed by May 2024.
- (ii) **Development of processing machines for processing of various agricultural materials:** Researches are being conducted on the development of new crop processing machines and improving on the existing designs of processing equipment for various categories of crops that are indigenous to Nigeria and Africa at large. The development of pilot scale flash dryer is an ongoing project under my supervision. The project's expected date of completion is June 2024.

- (iii) **Applications of Information and Communication Technology (ICT) in Agriculture:** Researches are currently being carried out to apply image processing techniques to predict the shelf life of selected fruits using image processing techniques. Also, image processing algorithms for predicting the maturity of selected pepper varieties are also being developed. Relevant programming languages such as MatLab and Python programming languages are being adopted for the development of the source codes of these projects. The projects commenced in September 2023 and the expected date of completion is May 2024.
- (c) Project, Dissertation and Thesis
- (i) **Oyefeso, B.O.** (2007). Features Extraction of Agricultural Products Using Computer Image Processing. Unpublished B.Sc. Project, Department of Agricultural and Environmental Engineering, University of Ibadan, Ibadan, Nigeria.
- (ii) **Oyefeso, B.O.** (2010). Mass and Volume Modelling of Some Nigerian Tuber Crops Using their Geometrical Attributes. Unpublished M.Sc. Project, Department of Agricultural and Environmental Engineering, University of Ibadan, Ibadan, Nigeria.
- (iii) **Oyefeso, B.O.** (2016). Selected Engineering Properties and Drying Kinetics of Cocoyam (*Xanthosoma sagittifolium* (L.) Schott) Cormels. Unpublished Ph.D. Thesis, Department of Agricultural and Environmental Engineering, University of Ibadan, Ibadan, Nigeria.

#### X. Publications

- (a) Books already published: Nil
- (b) Chapters in Books already published: Nil
- (c) Articles that have already appeared in Refereed Conference Proceedings
1. Raji, A.O. and **Oyefeso, B.O.** (2016). Features' Extraction of Agricultural Products Using Computer Image Processing. In Musa, J.J., Adeoye, P.A., Kuti, I.A. And Animashaun, P.A. (Eds.). *Proceeding of the 37th National Conference and Annual General Meeting of the Nigerian Institution of Agricultural Engineers (NIAE)*. 4-7 October. 656-664pp. (Nigeria) (Contribution: 50%).
  2. Ilori, A.O., **Oyefeso, B.O.**, Ilori, F.O. and Akintola A. (2017). Solar Energy as a Tool for Poverty Reduction and Economic Recovery in Nigeria - A review. In Ahaneku, I.E., Ndukwu, M.C., Onu, O.O. And Inekwe, G. (Eds.). *Proceeding of the 18th International Conference and 38th Annual General Meeting of the Nigerian Institution of Agricultural Engineers (NIAE)*. Umudike, Abia State, Nigeria. 3-6, October. 15-21pp. (Nigeria) (Contribution: 40%).
  3. Bello, R.O., Raji, A.O. and **Oyefeso, B.O.** (2017). Design and Construction of Lyophilizer System Using Locally Available Materials. In Ahaneku, I.E., Ndukwu, M.C., Onu, O.O. And Inekwe, G. (Eds.). *Proceeding of the 18th International Conference and 38th Annual*

- General Meeting of the Nigerian Institution of Agricultural Engineers (NIAE)*. 3-6, October. 166-171pp. (Nigeria) (Contribution: 30%).
4. Aremu, A.K., **Oyefeso, B.O.**, Ajao, T.O., Ojo, K. and Egbunu, J.O. (2018). Design, Construction and Performance Evaluation of a Rice Destoner. In Akinoso, R., Alonge, A.F. And Omobowale, M. (Eds.). *Proceedings of the 12th CIGR Section VI International Symposium (Postharvest Technology & Bioprocess Engineering)*. 22-25 October, 2018. 431-440pp. (Nigeria) (Contribution: 20%).
  5. Fadele, O.K., Aremu, A.K., **Oyefeso, B.O.** and Akintola, A. (2018). Effects of Moisture Content, Operation and Design Parameters on Separation Efficiency of Moringa Seed Shelling Machine: Optimization Approach. In Akinoso, R., Alonge, A.F. And Omobowale, M. (Eds.). *Proceedings of the 12th CIGR Section VI International Symposium (Postharvest Technology & Bioprocess Engineering)*. 22–25 October, 2018. 213-223pp. (Nigeria) (Contribution: 30%).
  6. **Oyefeso, B.O.** and Udu, G.O. (2022). Effect of Heat Treatments on Proximate Composition of Sweet Potato Tubers. In Başaran, B. And Baltacı, A. (Eds.). *Proceedings of the International Congress on Innovation Technologies and Engineering of Ege University, Izmir, Türkiye*. 02-04, September, 2022. 106-111pp. (Republic of Türkiye) (Contribution: 80%).
  7. Akintola, A., Aremu, A.K. and **Oyefeso, B.O.** (2022). Effect of Temperature and Hysteresis on Monolayer Moisture Content of Moringa Seed Grit during Storage. In Chinenye, N.M. (Ed.). *Proceedings of 22nd International Conference and 42nd Annual General Meetings of the Nigerian Institution of Agricultural Engineers*. 20-24 September, 2022. 444-525pp. (Nigeria) (Contribution: 30%).
  8. **Oyefeso, B.O.** and Udoka, J. T. (2023). Development of an image processing algorithm for recognition of selected indigenous fruits. In Aviara, A. N. (Ed.). *Proceedings of 23rd International Conference and 43rd Annual General Meetings of the Nigerian Institution of Agricultural Engineers*. 30 October - 3 November, 2023. 220-227pp. (Nigeria) (Contribution: 80%).
- (d) Patents and Copyrights: Nil
- (e) Articles that have already appeared in learned journals
9. Raji, A.O., and **Oyefeso, B.O.** (2017). Effect of Moisture Content and Loading Orientation on Elasticity of Cocoyam Cormel during Transit and Storage. *Agricultural Engineering International: CIGR Journal* Vol. 19. No. 4: 193-199. (United States of America) (Contribution: 70%).
  10. **Oyefeso, B.O.** and Raji, A.O. (2018). Estimating Mass and Volume of Nigerian Grown Sweet and Irish Potato Tubers Using their Geometrical Attributes. *Adeleke University*

- Journal of Engineering and Technology (AUJET)* Vol. 1. No. 1: 123-130. (Nigeria) (Contribution: 70%).
11. **Oyefeso, B.O.** and Raji, A.O. (2019). Moisture-dependent Thermal Properties of Cocoyam Cormels. *Arid Zone Journal of Engineering, Technology and Environment (AZOJETE)* Vol. 15. No. 1: 17-24. (Nigeria) (Contribution: 70%).
  12. **Oyefeso, B.O.** and Raji, A.O. (2020). Suitable Model for Thin Layer Drying Kinetics of White and Pink-fleshed Tannia (*Xanthosoma sagittifolium*) Cormels. *LAUTECH Journal of Engineering and Technology (LAUJET)* Vol. 14. No. 1: 1-7. (Nigeria) (Contribution: 70%).
  13. **Oyefeso, B.O.** and Raji, A.O. (2020). Effect of Thickness and Pre-treatment on Drying Kinetics of Cocoyam. *Agricultural Engineering International: CIGR Journal* Vol. 22. No. 2: 160–166. (United States of America) (Contribution: 70%).
  14. **Oyefeso, B.O.** and Raji, A.O. (2020). Effect of Moisture Content and Loading Orientation on Selected Mechanical Properties of Cocoyam Cormels. *Journal of Agricultural Engineering and Technology (JAET)* Vol. 25. No. 2: 89-102. (Nigeria) (Contribution: 80%).
  15. **Oyefeso, B.O.** (2021). Size and Shape Characterisation of *Tacca involucreta* Tubers. *LAUTECH Journal of Engineering and Technology (LAUJET)* Vol. 15. No. 1: 34-38. (Nigeria) (Contribution: 100%).
  16. **Oyefeso, B.O.**, Akintola, A., Afolabi, M.G., Ogunlade, C.A., Fadele, O.K. and Odeniyi, O.M. (2021). Influence of Moisture Content and Speed on Cutting Force and Energy of Tannia Cormels: a Response Surface Approach. *Research in Agricultural Engineering (RAE)* Vol. 67. No. 3: 123-130. (Czech Republic) (Contribution: 50%).
  17. Raji, A.O. and **Oyefeso, B.O.** (2021). Prediction of Mass and Volume of *Tacca involucreta* Tubers Using Physical Characteristics. *Arid Zone Journal of Engineering, Technology and Environment (AZOJETE)* Vol. 17. No. 3: 415-428. (Nigeria) (Contribution: 70%).
  18. **Oyefeso, B.O.** and Raji, A.O. (2021). Effective Moisture Diffusivity and Activation Energy of Tannia Cormels: Influence of Temperature, Pre-Treatment and Slice Thickness. *Nigerian Journal of Technology (NIJOTECH)* Vol. 40. No. 1: 1-12. (Nigeria) (Contribution: 70%).
  19. **Oyefeso, B.O.**, Ayorinde, M.O., Ogunlade, C.A., Fadele, O.K. and Akintola, A. (2021). Effect of Blanching Period and Drying Temperature on Selected Physicochemical Properties of Cocoyam (*Xanthosoma sagittifolium*) Flour. *Agricultural and Food Science Journal of Ghana (AFSJG)* Vol. 14. No. 1: 1457-1467. <https://dx.doi.org/10.4314/afsjg.v14i1.10> (Ghana) (Contribution: 50%).
  20. **Oyefeso, B.O.** and Adeyemi, T.S. (2021). Design, Construction and Performance Evaluation of a Portable Sweet Potato Slicer. *Journal of Agricultural Engineering and Technology (JAET)* Vol. 26. No. 2: 12-26. (Nigeria) (Contribution: 80%).

21. Aremu, A.K., Ojo-Ariyo, A.M. and **Oyefeso, B.O.** (2022). Selected Mechanical Properties of Bambara Groundnut Seeds under Compressive Loading. *LAUTECH Journal of Engineering and Technology (LAUJET)* Vol. 16. No. 1: 70-77. (Nigeria) (Contribution: 40%).
  22. Aremu, A.K., Ojo-Ariyo, A.M. and **Oyefeso, B.O.** (2022). Physical Properties of Two Varieties of Bambara Groundnut Seeds as Affected by Moisture Content. *Adeleke University Journal of Engineering and Technology (AUJET)* Vol. 5. No. 1: 31-38. (Nigeria) (Contribution: 40%).
  23. Aremu, A.K., **Oyefeso, B.O.** and Gbolagade, A.T. (2022). Development of a Concentric Drums Peeling Machine for Cocoyam (*Xanthosoma sagittifolium*) Cormel. *FUTA Journal of Engineering and Engineering Technology (FUTAJEET)* Vol. 16. No. 1: 58-67. <https://doi.org/10.51459/futajeet.2022.16.1.375> (Nigeria) (Contribution: 50%).
  24. Aremu, A.K., **Oyefeso, B.O.** and Molehin, K. (2022). Quality of Cocoyam (*Xanthosoma sagittifolium*) Flour in Different Packaging Materials. *Croatian Journal of Food Science and Technology (CJFST)* Vol. 14. No. 2: 1-8. <https://doi.org/10.17508/CJFST.2022.14.2.10> (Croatia) (Contribution: 50%).
  25. **Oyefeso, B.O.**, Akintola, A., Akintunde, M.M., Ayandokun, O.C., Fadele, O.K. and Ogunlade, C.A. (2023). Proximate composition of tannia (*Xanthosoma sagittifolium*) flour as influenced by pretreatment and drying temperature. *LAUTECH Journal of Engineering and Technology* Vol. 17. No. 2: 58-66. (Nigeria) (Contribution: 50%).
- (f) Books, Chapters in Books and Articles already accepted for publication: Nil
- (g) Technical Reports and Monographs:
26. Raji, A.O. (2023). Biodegradable Polymer: Pathway to a Greener Pasture. Invited Paper being the Keynote Address presented by **Dr B.O. Oyefeso**, on behalf of Prof. A. O. Raji, at the Stakeholders' Meeting on Research and Development of Bio-degradable Polymer for the Production of Nose masks from locally sourced Agricultural materials, organized by the Project Development and Design Department of the Federal Institute of Industrial Research, Oshodi (FIIRO), Lagos State. 22nd June, 2023. (Nigeria)
- XI. Major Conferences/Workshops Attended in the Last Five Years (with Papers Read)
- (i) The 40th International Conference of the Nigerian Institution of Agricultural Engineers on 16-20 September, 2019, Omu-Aran, Kwara State, Nigeria.  
Paper Read: Aremu, A.K., **Oyefeso, B.O.** and Molehin, K. (2019). Quality of Cocoyam (*Xanthosoma sagittifolium*) Flour in Different Packaging Materials.
  - (ii) Pan-African Society of Agricultural Engineering & the Nigerian Institution of Agricultural Engineers (PASAE-NIAE) 2021 Virtual International Conference on 19-22 April, 2021. (Online).

- Paper Read: Aremu, A.K., **Oyefeso, B.O.** and Gbolagade, A.T. (2021). Development of a Concentric Drums Peeling Machine for Cocoyam (*Xanthosoma sagittifolium*) Cormel.
- (iii) International Congress on Innovation Technologies and Engineering of Ege University, Izmir, Türkiye. 2-4 September, 2022. (Online).  
Paper Read: **Oyefeso, B.O.** and Udu, G.O. (2022). Effect of Heat Treatments on Proximate Composition of Sweet Potato Tubers.
- (iv) The 43rd International Conference of the Nigerian Institution of Agricultural Engineers on 30 October-3 November, 2023, Maiduguri, Borno State, Nigeria.  
Paper Read: **Oyefeso, B.O.** and Udoka, J. T. (2023). Development of an image processing algorithm for recognition of selected indigenous fruits.

### List of Referees

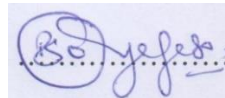
Name: Prof. A. O. Raji  
Telephone: 08035850005  
E-mail: [abdulganiyr@yahoo.com](mailto:abdulganiyr@yahoo.com)  
Position: Professor, Department of Agricultural and Environmental Engineering, University of Ibadan, Ibadan, Nigeria.

Name: Prof. T. A. Ewemoje  
Telephone: 08055475571  
E-mail: [tayo\\_ewemoje@yahoo.co.uk](mailto:tayo_ewemoje@yahoo.co.uk)  
Position: Professor, Department of Agricultural and Environmental Engineering, University of Ibadan, Ibadan, Nigeria.

Name: Dr M. O. Omobowale  
Telephone: 08057315925  
E-mail: [yimikaomo@yahoo.co.uk](mailto:yimikaomo@yahoo.co.uk)  
Position: Senior Lecturer and Acting Head, Department of Agricultural and Environmental Engineering, University of Ibadan, Ibadan, Nigeria.

Babatunde Olayinka OYEFESO

Name



Signature

24th July, 2024

Date