

CURRICULUM VITAE

A. GENERAL INFORMATION:

1. Name: **BABALOLA Racheal Taiwo**
2. Date of Birth: 20th May, 1988, Osogbo, Osun State
3. Gender: Female
4. Nationality: Nigerian
5. State of Origin: Osun State
6. Local Government Area: Boluwaduro
7. Marital Status: Single
8. Names and Ages of Children: Nil
9. Name and Relationship of Next of Kin: Odediran Esther K./Sister. 08032513259
10. Permanent Contact Address: 5, Bisi Bankole, Oke-Onitea Area, Osogbo, Osun State.
11. E-Mail Address: racheal.babalola@uniosun.edu.ng;
taiwobabalola071@gmail.com
12. Registration with Research Gates: Yes
13. If Yes, Provide the Link: https://www.researchgate.net/profile/Racheal-Babalola?ev=hdr_xprf
14. If No, Why: Provided above
15. Registration with Google Scholar: Yes
16. If Yes, Provide the Link: https://scholar.google.com/citations?user=G01_hS4AAAAJ&hl=en
17. If No, Why: Provided above
18. Cell Phone Number: 08030767005
19. College/Faculty/Unit: Science, Engineering & Technology/Basic & Applied Sciences/Food Science & Technology
20. Department: Food Science & Technology
21. Position on First Appointment: Lecturer II
22. Present Position and Salary: Lecturer II, CONUASS 03 Step 05
23. Date of Present Position: Not Applicable
24. Is your Appointment Confirmed: Yes
25. If No, Why Not: Not Applicable
26. Date of Confirmation of Appointment: 2nd September, 2025.

B. EDUCATIONAL BACKGROUND:

1. Educational Institutions Attended with Dates:

- a) Obafemi Awolowo University (OAU) 2017-2020
- b) Obafemi Awolowo University (OAU) 2013-2016

- c) Ladoke Akintola University of Technology (LAUTECH) 2006-2011
- d) El-Shaddai Comprehensive High School 1998-2004
- e) Olorunlabake Nursery and Primary School 1989-1998

2. Academic and Professional Qualifications with Dates/Issuing Authority and Grade

- a) PhD Food Science and Technology, 2020, Obafemi Awolowo University, Ile-Ife, Nigeria.
- b) M.Sc. Food Science and Technology, 2026, Obafemi Awolowo University, Ile-Ife, Nigeria (B+)
- c) B. Tech. Food Engineering, 2011, Ladoke Akintola University of Technology, Ogbomosho, Oyo State, Nigeria (2nd Class Lower)
- d) Senior School Certificate Examination, 2004, West African Examination Council (WAEC)
- e) Primary School Leaving Certificate, 1998.

3. Other Relevant Qualifications: Nil

4. Honors, Awards and Qualifications: Nil

- i. Most Productive College Coordinator,
College of Science, Engineering & Technology (CSET)
Centre for Entrepreneurship Studies and Innovation, Osun State University, Osogbo.

5. Research Fellowship with Dates: Nil

C. WORK EXPERIENCE OUTSIDE THE UNIVERSITY SYSTEM

- i. **2020 – 2022** - Manager, Food Venture Business, Osogbo, Osun State, Nigeria
- ii. **2012 – 2013** - Science Teacher (National Youth Service Corps)
Government Day Senior Secondary School, Bantaje, Wukari, Taraba State.
- iii. **2010** - Laboratory Analyst (Industrial Training)
Crown Flour Mills, Tincan Island, Apapa, Lagos State.
- iv. **2009** - Laboratory Analyst (Student Industrial Work Experience Scheme)
Lade's Glory Sachet Water Factory, Service Area, Osogbo, Osun State.

D. WORK EXPERIENCE IN OTHER UNIVERSITIES:

- i. **2015 – 2019** - Researcher/Laboratory Analyst
Department of Food Science and Technology, Obafemi Awolowo University, Ile-Ife, Nigeria.

E. WORK EXPERIENCE IN OSUN STATE UNIVERSITY:

- i. Lecturer II (Department of Food Science and Technology) 15/11/2022 - Till Date
- ii. Member, Departmental Examination Board Committee

F. CO-CURRICULAR PROFESSIONAL EXPERIENCE:

- i. **State Secretary**, The Nigerian Institution of Agricultural Engineers (NIAE), Osun State Chapter.

G. MEMBERSHIP OF PROFESSIONAL BODIES:

- (i) Member - Nigerian Institute of Food Science and Technology (NIFST), No: 23/18782/m
- (ii) Member - Nigerian Society of Engineers (NSE), No: 62271
- (iii) Member - Council for the Regulation of Engineering in Nigeria (COREN), No: R73536
- (iv) Member - Nigerian Institution of Agricultural Engineers (NIAE), No: M2719

H. SERVICES:

(1) Osun State University:

(i)	Entrepreneurship College Coordinator	2023/2024 Session Till Date
(ii)	Entrepreneurship Coordinator (Departmental)	2022/2023, 2023/2024, 2024/2025 Sessions
(iii)	Departmental Welfare Secretary	2023/2024, 2025/2026 Sessions

2(a) **Review and Assessment of Academic Journals and Candidates for Academic Positions:**

(b) **External Examiner for Higher Degree: Nil**

(3) **Community:**

i. Resource Person, Rural Dwellers Nutrition/Diet Sensitization Team, Osun State.

(4) **National:** Nil

(5) **International:** Nil

I. COURSES TAUGHT DURING THE CURRENT ACADEMIC SESSION

- i. FST 222 – Fundamentals of Food Processing, Preservation and Packaging
- ii. MME 202 – Engineering Materials: Structure and Properties
- iii. AGR 206 – Principles of Family and Consumer Sciences
- iv. FST 302 - Food Microbiology
- v. FST 305 – Food Processing
- vi. FST 306 – Food Rheology
- vii. FST 308 – Unit Operations in Food Processing
- viii. FST 312 - Food Engineering Applications
- ix. FST 409 – Food Plant Design & Pilot Demonstration
- x. FST 413 – Pilot Demonstration of Food Plant Design
- xi. FST 505 – Food Machinery
- xii. FST 514 – Elements of Food Processing and Preservation

J. UNDERGRADUATE SUPERVISION: Twenty-three (23)

K. RESEARCH AND PUBLICATIONS:

(a) Research Work for Degrees:

- (i) **Babalola R.T. (2020).** “Drying kinetics, Sorption isotherm and antioxidant properties of netlespurge (*Jatropha tanjorensis*) and black nightshade (*Solanum nigrium*) vegetables and their application in foods”, Ph.D Research thesis, Obafemi Awolowo University, Ile-Ife, Osun State, Nigeria.
- (ii) **Babalola R.T. (2016)** “The drying kinetics and properties of dried unripe dwarf banana (cardaba) flour”, M.Sc. Research thesis, Obafemi Awolowo University, Ile-Ife, Osun State, Nigeria.
- (iii) **Babalola R.T. (2011)** “Design, fabrication and performance evaluation of a laboratory-scale hot-air dryer”, B.Tech. Research Project, Ladoke Akintola University of Technology, Ogbomosho, Oyo State, Nigeria.

(b) Publications:

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| (i) Books (authored/co-authored): | Nil |
| (ii) Books (edited/co-edited): | Nil |
| (iii) Monographs: | Nil |
| (iv) Chapters in Books: | 03 |

1. **Babalola R.T.**, Ogunlade C. A., Olaniyan A.R., Famuwagun A.A., Akindele O.O. and Adejuwon W.O. (2025). Sustainable food and feed production techniques in the Global South. In: Ogwu, M. C., Izah, S. C., Vazquez-Arenas, J. G., Feleke, S. T., and, Xun Wei (eds) Sustainable Bioeconomy Development in the Global South, Volume II Bioeconomy Techniques. Springer, Singapore. https://doi.org/10.1007/978-981-96-0305-3_12 (Offshore)
 2. Olaniyan A.R., Ogunlade C. A., **Babalola R.T.**, and Akingbade T.O. (2025). Bio-based industries and their products in the Global South. In: Ogwu, M. C., Izah, S. C., Vazquez-Arenas, J. G., Feleke, S. T., and, Xun Wei (eds) Sustainable Bioeconomy Development in the Global South, Volume II Bioeconomy Techniques. Springer, Singapore. https://doi.org/10.1007/978-981-96-0305-3_6 (Offshore)
 3. Ogunlade, C.A., Olaniyan, A.R., **Babalola, R.T.** (2024). Nutrient Retention Techniques for Food System Transformation in the Global South. In: Ogwu, M.C., Izah, S.C., Ntuli, N.R. (eds) Food Safety and Quality in the Global South. Springer, Singapore. https://doi.org/10.1007/978-981-97-2428-4_20 (Offshore)
- (i) **Articles in learned journals: (10)**
4. **Babalola, R.T.**, Adejuwon, W.O., Adebayo, R.A., Akindele, O.O., Oyedokun, J., Ogunsade, O., Abiona, O.O., and Ponnle, O. (2026). Studies on the functional and pasting properties of composite flour from sprouted wheat and carbada banana. *Asia Pacific Journal of Sustainable Agriculture Food and Energy (APJSAFE)*, 14(1), 9–16. <https://doi.org/10.36782/apjsafe.v14i1.649> (Offshore)
 5. **Babalola, R.T.**, Famuwagun, A., Adejuwon, W., Adebayo, R., Akindele, O., Akanbi, T., and Adeboye, A. (2026). The Phyto and physico-chemical properties of pre-treated *Cucurbita pepo* flour. *FUOYE Journal of Agriculture and Human Ecology*. Accepted for publication (Onshore)
 6. Famuwagun, A. A., Oloyede, T., Akinjokun, A. I., **Babalola, R. T.**, Idowu, O. A., Adeboye, A., Abiona, O.O., Gbadamosi, S. O. (2026). Phenolic profiles, antioxidant properties and predicted glycaemic index of bread sweetened with date syrup in comparison with granulated sugar. *Food Chemistry International*; 00:1-10. <https://doi.org/10.1002/fci2.70054>. (Offshore)
 7. **Babalola, R.T.**, Fabiyi, I.O., Oyafajo L.A., O., Adeyeye, D.O., Oyebiyi, T.O., Oyekanmi, F.R., Oloyede, A.T., Akindele, O.O., and Adejuwon, W.O. (2025). Extrusion Barrel Temperature Effect on Textural and Physical Properties of Ready-To-Eat Food from Cardaba Banana, African Yam Bean, and Dates. *COAST Journal of the school of science* 7 (2): 1582 – 1593. <https://dx.doi.org/10.4314/coast.v7i2.2> (Onshore)
 8. **Babalola, R.T.**, Famuwagun, A., Adejuwon, W., Abdulkareem, Z., Fadipe, A., Lawal, E., Ayansina, F., Ijadunola, T., Akindele, O., and Akanbi, T. (2025). Studies on the thermal properties, lycopene and β -carotene contents of pumpkin fruits. *Suranaree Journal of Science and Technology*. 32(6):020042(1-10). <https://doi.org/10.55766/sujst8959> (Offshore)

9. **Babalola, R.T.**, Akanbi, C.T., and Omobuwajo, T.O. (2025). Determination of the moisture sorption isotherm properties of *Jatropha tajorensis* and *Solanum nigrium* vegetable slices using hurdle technology. *Adeleke University Journal of engineering and technology*. 8(2): 196 – 206. **(Onshore)**
10. **Babalola R.T.**, Lawal M.A., Adesina A.B., Olowookere R., Adebayo, A., and Ganiyu S.A. (2025). The acceptability, antioxidative, linoleic inhibition and FTIR characterization of *chinchin* and peanut burger snacks enriched with cardaba banana flour. *Ife Journal of Science and Technology*. 8(1): 1-15. **(Onshore)**
11. Omobuwajo T.O., **Babalola, R.T.**, and Akanbi C.T. (2021). Influence of drying on the antioxidant properties and sensory evaluation of two underutilized vegetables. *Annals Food Science and Technology*, 20(3): 499-505. **(Offshore)**
12. **Babalola, R.T.**, Omobuwajo T.O., and Akanbi C.T. (2021). Effect of processing methods on the antioxidant potentials of netlespurge (*Jatropha tanjorensis*) and black nightshade (*Solanum nigrium*) vegetables in peanut burger. *Croatian Journal of Food Science and Technology*, 13: 1-7. **(Offshore)**
13. Olawoye, B.T., Kadiri, O., and **Babalola, R.T.** (2017). Modelling of thin-layer drying characteristic of unripe Cardaba banana (*Musa ABB*) slices. *Cogent Food and Agriculture*, 3: 1290013. **(Offshore)**

(vi) Review Articles: Nil

(vii) Refereed Conference Proceedings: 03

- i. 7th Annual Circularity Africa Conference 2026, held at Osun State University, between 12th – 15th May, 2026. Microbial safety and antimicrobial resistance-risks in street vended pineapple within African circular Food systems. Authors: L. A. Oyafajo, Adeyemi, F. M., Yussuf-Omoloye, M. A., Ajigbewu, O. H., and **Babalola, R. T.**, Awoyale, W.
- ii. 12th Regional Food Science and Technology Summit: ReFoST, SELERU, 2026, OGBOMOSO, NIGERIA. Influence of blanching and drying temperature on the antinutrient contents of netlespurge vegetable. **Babalola, R. T.**, and Ponnle O. O.
- iii. 10th Regional Food Science and Technology Summit: ReFoST, AJILETE, 2024, OGBOMOSO, NIGERIA. Effects of spontaneous ripening and drying techniques on the proximate and functional properties of plantain (*Musa paradisiaca*). Famuwagun, A. A., **Babalola, R. T.**, and Adeboye, A. O.

(viii) Un-refereed Conference Proceedings: Nil

(ix) Book Reviews: Nil

(x) Technical Reports: Nil

(xi) Patents and Inventions: Nil

(xii) Online Journal Articles: Nil

(xiii) Papers Under Review: Nil

(xiv) Papers Under Preparations: Nil

L. CURRENT RESEARCH ACTIVITIES:

(i) Funded Research: Nil

(ii) Non-funded/Self-sponsored Research:

1. Production of Ready-To-Eat (RTE) food from underutilized crops like African yam bean seed, cardaba banana fruit, and date fruit.

M. CONFERENCES AND WORKSHOPS ATTENDED WITH DATES:

- (i) 4th Annual Regional Conference of the Nigerian Institutions of Agricultural Engineers held at Osun State University, Osogbo, Osun State, Nigeria, 29th – 30th June, 2026.
- (ii) 12th Annual Regional Conference of the Nigerian Institution of Food Science and Technologists held at Osun State University, Osogbo, Osun State, Nigeria, 8th – 10th June, 2026.
- (iii) 7th Annual Circularity Africa Conference held at Osun State University, Osogbo, Osun State, Nigeria, 12th – 14th May, 2026.
- (iv) Pan-Atlantic University Embedded Enterprise Education (Train the Trainer) workshop held at Enterprise Development Centre, Ede, Osun State, Nigeria, 19th – 22nd August, 2025.
- (v) Amakuru Meza Abantu Agency, Train the Trainer Entrepreneurship Capacity Building Program held at Osun State University, Osogbo, Osun State, Nigeria, 22nd August, 2025.
- (vi) 10th Annual Regional Conference of the Nigerian Institution of Food Science and Technologists held at Ladoke Akintola University of Technology (LAUTECH), Ogbomosho, Oyo State, Nigeria, 10th – 13th June, 2024.
- (vii) 47th Annual National Conference and General Meeting of Nigerian Institute of Food Science and Technology (NIFST) held at the International Conference Centre Umuahia and Michael Okpara University of Agriculture, Umudike, Abia State, Nigeria, between 17th – 20th October, 2023.
- (viii) One Day capacity Building workshop organized for all teaching staff of Osun State University, held on Monday, 20th November, 2023.
- (ix) The Annual National Conference and General Meeting of Nigerian Institute of Food Science and Technology (NIFST) held at Ladoke Akintola University of Technology (LAUTECH), Ogbomosho, Oyo State, Nigeria, 13th – 17th October, 2008.

N. EXTRA-CURRICULAR ACTIVITIES:

Internet Surfing, Singing, Travelling

O. ANY OTHER RELEVANT INFORMATION:

Academic Collaborations and Linkages: Nil

P. SUMMARY OF CONTRIBUTION TO KNOWLEDGE

My research has fundamentally advanced the fields of food processing and product development by harnessing lesser-known and underutilized nutritionally dense biomaterials through innovative techniques and technologies. This work encompasses key areas such as the cleaning, grading, and sorting of crops; pre-treatment methods; drying and dehydration processes; baking; frying; extrusion of biomaterials; as well as optimization and modeling of food processing operations. The significance of these contributions is evident in numerous published papers in prestigious journals and conference proceedings, showcasing their value in both academic and industrial contexts.

In the field of drying and dehydration technologies, I have conducted thorough investigations into the drying characteristics, rates, and behaviors of crops under varying temperature and time conditions. My research focuses on understanding moisture loss dynamics and their effects on biomaterials, resulting in the development of highly effective drying methods that optimize preservation and extend shelf life. By establishing optimal drying conditions and equipment parameters, my studies pave the way for cost-effective and energy-efficient drying solutions, as highlighted in papers 11 and 13. This crucial work plays a vital role in reducing post-harvest losses in perishable agricultural commodities, as discussed in papers 2 and 9.

Furthermore, my research directly addresses the second goal of the Sustainable Development Goals (SDGs), specifically zero hunger, as articulated in paper 1. I have successfully developed Ready-To-Eat (RTE) foods from underutilized biomaterials (paper 7), thereby tackling hidden hunger through significant improvements in food products utilizing composite flours (papers 4, 6, and 10). Additionally, I have rigorously examined various pre-processing techniques, such as blanching and brining, to identify the most effective method for ensuring nutrient retention. These investigations clearly demonstrate how processing parameters—particularly temperature and time—impact the biomaterials' ability to retain their inherent nutrient composition, as detailed in papers 3, 5, 8, and 12.

Dr BABALOLA Racheal Taiwo
STAFF NAME

SIGNATURE