

Curriculum Vitae

Akinbode A. Adedeji Ph.D., MBA, CQE-ASQ

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CURRENT POSITION

Associate Professor (July 2020 – Date)

Biosystems and Agricultural Engineering Department, University of Kentucky.

CURRENT RESEARCH PROGRAMS

1. Sustainable food processing: alternative grains and food waste value-addition – protein and starch property characterization, process development for value-added products: plant-based proteins, extruded products, milk alternatives, bourbon waste to high-value streams, etc.
2. Non-destructive (hyperspectral and acoustic emission) method development for food quality assessment and safety assurance.
3. Appropriate technology development for developing countries: post-harvest technology and food processing technology development, energy-efficient drying systems.

Specific Research Focus - Food Engineering: Underutilized grain (proso millet and hemp seed) value-addition (protein and starch content characterization, baking quality, malting quality and extrusion process development), food (bourbon) waste conversion to value-added products (high fiber products; protein extraction), abiotic stress effect on functionality change in food macromolecules and bioactive compounds accumulation, non-invasive characterization of foods using hyperspectral imaging and acoustic emission – machine learning approach, and non-thermal processing (pulsed UV light, cold plasma, and ultrasonication) of foods.

EDUCATION

- 2019 - 2022 Masters of Business Administration (MBA). Member, Phi Sigma Pi
University of Kentucky, Lexington KY, U.S.A. CGPA: 3.92/4.0
- 2005 - 2010 Doctor of Philosophy in Bioresource (Food Process) Engineering
McGill University, Montreal, Canada. CGPA: 3.5/4.0
- 1998 - 1999 Master of Science (Ph.D. Grade*) in Food Technology
University of Ibadan, Oyo State, Nigeria.
- 1990 – 1995[#] Bachelor of Technology (*Hons and magna cum laude*) Food Engineering
Ladoke Akintola University of Technology, Ogbomoso, Nigeria.

Hons – degree completed within minimum years allotted. *Magna cum laude* – top 5% of my class. * - Implies Ph.D. could be completed in 2 years based on the overall performance average. [#] - Degree completed in seven years because faculty labor unrest prolonged a 5-year program.

PROFESSIONAL EXPERIENCE

- **Associate Professor of Food Engineering.** (July 1, 2020 – present). Biosystems and Agricultural Engineering Department, University of Kentucky.
- **Assistant Professor of Food Process Engineering.** (July 2014 – June 2020). Biosystems and Agricultural Engineering Department, University of Kentucky.

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- **Research Associate.** (July 2013 to June 2014). Department of Bioresource Engineering, McGill University, Canada.
- **Post-Doctoral Research Associate.** (Sept. 2011 to June 2013). Grain Science and Industry Department, Kansas State University, Manhattan, KS, USA.
- **Post-Doctoral Fellow.** (July 2011 to August 2011). Genie des Procédés Agroalimentaire Département, Ecole Nationale Vétérinaire, Agroalimentaire et l'Alimentation (ONIRIS), Nantes, France.
- **Assistant Professor/Senior Lecturer.** (June 2010 – Jan 2012). Department of Food Science and Engineering, Ladoké Akintola University of Technology (LAUTECH), Ogbomoso, Nigeria.
- **Graduate Research Assistant.** (Jan. 2005-May 2010). Bioresource Engineering Department, McGill University, Canada.
- **Sessional Instructor.** (Fall 2008). Bioresource Engineering Department, McGill University, Canada.
- **Faculty [Graduate Assistant to Lecturer I]** (Oct. 1998 – May 2010). Department of Food Science and Engineering, LAUTECH, Ogbomoso, Nigeria.
- **Assistant Plant Engineer** (Aug 1997 – June 1998), Nigerian Bottling Co. (Coke Nig), Ibadan, Nigeria.
- **Laboratory Technician** (May 1989 – September 1990). Mycology Lab, National Horticultural Research Institute (NIHORT), Ibadan, Nigeria.

LICENSURE, CERTIFICATION & PROFESSIONAL TRAINING CERTIFICATES

- **Global Engagement Academy (GEA) Certificate.** University of Kentucky. Spring 2023
- **Certificate in Multicultural Mentoring** Organized by the SEC & University of Florida, Fall 2022
- **Cultural Awareness Certificate** in Global Business Affairs. Gatton College of Business and Economics, University of Kentucky. March 2022.
- **LeanCor Lean Six Sigma Green Belt** Certification May 2021
- **LeanCor Fundamental of Project Management** Certification August 2019
- **Certified Quality Engineer (CQE).** American Society for Quality (ASQ). Certification #: 59722 (Dec 2012)
- **Registered Food Engineer.** Council for Regulation of Engineering in Nigeria (COREN). (2005 – Present). License #: R.11,709
- **Advanced Food Safety Training Certification (TrainCan) (95%)** 2013 - 2018
- **Certificate in Basic Business Skills (MiniMBA),** McGill Uni., CA Feb – June 2010

AWARDS, FELLOWSHIPS, AND RECOGNITIONS

Adedeji's Awards and Fellowship

1. **CAFE Prestigious Research Paper 2022 Award** September 2023
2. **Fellow, Bluegrass Higher Education Consortium in Academic Leadership Academy, 2023-2024**
3. **Fellow, James B. Beam Institute for Kentucky Spirits** 2020 – present
4. **John Clark Award.** A prestigious Food Engineering Award by Canadian Society for Bioengineering (CSBE). May 2021
5. **Associate Editor's Recognition - Transactions of ASABE Journal.** December 2020
6. **Wethington Award, University of Kentucky.** May 2020, 2021, 2022, 2023.
7. **"A Teacher Who Made a Difference".** Uni. of Kentucky College of Education teaching award 2020
8. **Phi Tau Sigma** induction. The Honor Society of Food Science and Technology. July 12, 2019

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9. Outstanding Reviewer, Transactions of ASABE Journal - 2018
10. Outstanding Associate Editor, Transactions of ASABE Journal - 2016
11. Winner, "International Society of Food Engineers (ISFE) book of the month" award. March 2016.
12. Carnegie Fellow, Carnegie African Diaspora Fellowship 2016
13. Evangelina Villegas Excellence in Research Award for a Post-Doctoral Research Associate, Grain Science & Industry Dept. Kansas State University April 2013
14. Hugh Baily Award, Best Graduating Student in my college McGill Uni. 2009/2010
15. Runner up, Food Engineering Division paper competition IFT 2009
16. Graduate Student Award, McGill University, CA Jan 2007 to May 2010
17. Alma Mater Travel Award, McGill University, CA Summer 2007 and 2009
18. Graduate student waiver award, McGill University, CA Fall 2006

Honors and Awards by my Students and Scholars

1. Lauren Doyle, Winner, 2021 Engineering Summer Undergraduate Research Fellowship (ESURF) Recipient (\$1,900), University of Kentucky.
2. Dr. Alfadhl Al Khaled (Post-Doc), 2nd place and People's Choice awards at the 2020 UK GradResearch 3MT competition.
3. Felix Akharume (Ph.D. candidate), winner, Student Oral Presentation Competition (Processing System Technical Community) at ASABE AIM 2019 in Boston, MA.
4. 2nd place by Jonathan Lott and Kristian Bolden (High School Students), students of Carter G. Woodson Academy, Fayette County, KY. At the Kentucky State and District Science Fairs 2019.
5. Best Oral Presentation by Francis Agbali (MSc student) at the 2nd International Conference on Food Safety and Security, Saint George Hotel and Conference Centre, Pretoria Republic of South Africa. October 17, 2018.
6. Outstanding MSc Student, Gamma Sigma Delta honor society of College of Agriculture at the University of Kentucky. Manjot Singh (MSc. student), Graduated December 2016.

Recognitions

1. I performed the ritual of call into the Order of the Engineers (Ring Ceremony) in the US at ASABE meeting 2015 in New Orleans.
2. On October 24, 2014, I performed the ritual of the calling of an Engineer in Canada with a presentation with an "Iron Ring" symbolic of commitment to the *Esprit de Corp* of engineering profession in Canada and everywhere I work.

RESEARCH GRANTS (Total: \$2,492,072; UK: \$1,662,518) to date

(*Principal Investigator; ¹Federal, ²State, ³External/Private, ⁴International, ⁵University of Kentucky, ⁶Non-competitive)

CURRENT GRANTS (Total: \$734,666; UK: \$633,447)

Nationally Competitive

1. ¹*Tyler Barzee, **Akinbode Adedeji**, and Rachel Schendel. Development of Novel and Sustainable Cell-Cultivated Foods through Additive Biomanufacturing. New investigator's grant proposal to USDA-NIFA Foundational and Applied Science Program, Novel Foods and Innovative Manufacturing Technologies-Priority Area (A1364). 06/01/2023 – 05/31/2025. **\$290,413**. (Type: Research). Role: co-PI. Effort in the Project: 15%

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2. Mazumdar, S.D., **Adedeji, A.A.**, Raman, A., Vetriventhan, Kumar, A., Durgalla, P., Govindaraj, M., Diressie, M.T. Prediction of Key Food Industry Functional Traits of Formulated Ingredients Using Underutilized Dryland Cereals and Pulses Based on Nutritional, Compositional and Functional Data Analysis/modelling. Sponsored by Foundation for Food and Agriculture Research. 03/01/2023 – 02/28/2024. Amount **\$74,996.91 (\$17,778 to UK)**. Effort: 1%.
3. ^{1*}Rachel Schendel, **Akinbode Adedeji**, and Tyler Barzee. Transforming Distillers' Spent Grains into Novel Food Ingredients with Prebiotic and Antioxidant Characteristics. USDA-NIFA Foundational and Applied Science Program, Novel Foods, and Innovative Manufacturing Technologies-Priority Area (A1364). 08/01/2022 – 07/31/2024. **\$274,500**. (Type: *Research*). Effort in the Project: 15%. As a Co-PI, I lead the extrusion aspect and ultrasonication aspect of the project. I also advise a M.S. student who helps with lab activities related to the project.

Other (State, Industry, Private) (Nil)

1. Omale, P., and **Adedeji, A.A.** Physicochemical properties and quality analysis of tiger nut oil. Research Collaboration between University of Ibadan and Federal University of Agriculture Makurdi, Nigeria. Amount: **\$10,000**. October 14, 2022, to September 2024.

Internal UK Grants

1. ^{5*}**Adedeji, A.A.** Global Engagement Academy (GEA) Professional Development Grant. PI. Amount **\$250**. 12/05/2023 – 31/10/2023.
2. ^{5*}**Adedeji, A.A.**, Messer, T., Barzee, T., and Shi, J. Replacement of FTIR. PI. University of Kentucky Equipment Grant. Amount: **\$40,756** (UK-\$35,756: BAE-\$5,000). 02/24/2023 – 06/30/2024.

GRANTS PENDING

Nationally Competitive

1. **Adedeji, A.A.**, Tope, Avinash, Paul V. Priyesh, and Simone Silvestri. Bridging the Gap Between AI and AgriFood Sciences: Developing Future Leaders in Agriculture. USDA-NIFA National Needs Graduate and Postgraduate Fellowship (NNF). 08/01/2024 – 07/31/2027. **\$241,000**. (Type: Education). Role: PI. Effort in the Project: 55%.

Others (State, Industry, Private)

1. **Nil**

Internal UK Grants

1. **Nil**

GRANTS IN PREPARATION

Nationally Competitive

1. **Adedeji, A.A.**, Peng Wang, and Simone Silvestri. DSFAS: AI Infrastructures for Nondestructive Detection of Allergens within the Food System. USDA-NIFA Foundational and Applied Science Program, Data Science for Food and Agricultural Systems (DSFAS) Priority Area (A1541). 08/01/2023 – 7/31/2026. **\$649,998**. (Type: *Research*). Role: PI. Effort in the Project: 45%.
2. **Adedeji, A.A.**, Tyler Barzee, Rachel Schendel, and Robin Shoemaker. Optimizing photon-induced abiotic stress conditions to reduce processing time and improve nutritional quality of malted barley. USDA-NIFA Foundational and Applied Science Program, Novel Foods and Innovative Manufacturing Technologies-Priority Area (A1364). 06/01/2024 – 05/31/2027. **\$649,459**. (Type: *Research*). Role: PI. Effort in the Project: 45%.

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3. AI – Application of Hyperspectral imaging and Advanced Machine Learning to detect and quantify adulterants in processed meats. USDA-NIFA
4. **Adedeji, A.A.**, Joshua Jackson, Tyler Barzee, Roberts Pearce. Proximal Application of hyperspectral imaging coupled with machine learning for non-destructive hemp products quality evaluation. USDA-NIFA Foundational and Applied Science Program, Engineering for Agricultural Production and Processing-Priority Area (A1521). 06/01/2024 – 05/31/2026. **\$300,000**. (Type: Research). Role: PI. Effort in the Project: 45%.

COMPLETED GRANTS (\$1,640,864)

Nationally Competitive

1. ^{1*}**Adedeji, A.A.**, Villanueva, R., and Donohue, K. Machine learning and sensor data fusion approach for nondestructive multivariate classification of codling moth infested apples. USDA-NIFA Foundational and Applied Science Program, Agricultural Engineering Priority Area (A1521). 06/01/2019 – 5/31/2023. **\$473,989**. (Type: Research). Effort In the Project: 65%
2. ^{1*}Susan McKay (UMaine), Susan McKay (UMaine), Helen Joyner (Oregon State University), **Adedeji A.A.** (University of Kentucky), Buddhi Lamsal (Iowa State University), Girish Ganjyal (Washington State University), Haibo Huang (Virginia Tech), Amy Blackstone (UMaine), and Laura Millay (UMaine). Enhancing Learning Outcomes in Food Engineering and Processing Courses for Non-Engineers Using Student-Centered Approaches. USDA Higher Education Challenge (HEC) Grants. Role: co-PI. 06/01/2019 – 06/30/2022. Amount **\$747,328** (as co-PI: \$75,000). (Type: Research). Submitted: May 8, 2018. Effort In the Project: 10%
3. Yiannis Ampatzidis and Kati W. Migliaccio (UoFlorida), and **Adedeji, A.A.** and others; Alex Thomasson (Mississippi State University); Di Tian, Yin Bao, and Nedret Billor (Auburn University); Carlos Rodriguez Lopez (University of Kentucky), Susan Duncan (Virginia Tech University), Cranos Williams and Benjamin Reading (North Carolina State University), Thanos Gentim and Luciano Shiratsuchi (Louisiana State University), Tim Young and Becky Trout Fryxell (University of Tennessee), Gopal Kakani (Oklahoma State University), Gary Allen Thompson, Jeyamkondan Subbiah, and Neelendra Joshi (University of Arkansas), Joe Mari Maja (Clemson University), Juan A. Landivar and John C. Tracy (Texas A&M AgriLife Extension), Khaled M. Rasheed (University of Georgia)). Conference Grant from USDA NIFA - A1521 program area. “USDA NIFA AI in Agriculture: Innovation and Discovery to Equitably meet Producer Needs and Perceptions”. **\$50,000**. 10/01/2022 – 09/30/2023.
4. Brenda Ortiz (Auburn), **Adedeji, A.A.** and others (Kati W. Migliaccio and Yiannis Ampatzidis (University of Florida); Alex Thomasson (Mississippi State University); Di Tian, Yin Bao, and Nedret Billor (Auburn University); Carlos Rodriguez Lopez (University of Kentucky), Susan Duncan (Virginia Tech University), Cranos Williams and Benjamin Reading (North Carolina State University), Thanos Gentim and Luciano Shiratsuchi (Louisiana State University), Tim Young and Becky Trout Fryxell (University of Tennessee), Gopal Kakani (Oklahoma State University), Gary Allen Thompson, Jeyamkondan Subbiah, and Neelendra Joshi (University of Arkansas), Joe Mari Maja (Clemson University), Juan A. Landivar and John C. Tracy (Texas A&M AgriLife Extension), Khaled M. Rasheed (University of Georgia)). Conference Grant from USDA NIFA - A1521 program area. Envisioning 2050 in the Southeast: AI-driven innovations in Agriculture”. **\$50,000**. 10/01/2021 – 09/30/2022. As a Co-PI, I co-led the organization of the “AI in food processing and supply chain session” of the conference and also presented two abstracts.

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5. ^{1*}**Adedeji, A.A.** Harnessing wind energy to improve grain safety from aflatoxin. Amount: **\$14,956**. United States Environmental Protection Agency (EPA P3 Phase I). Role: PI. 11/01/2017 – 10/31/2018. (*Type: Research*). Effort in the Project: 100%
6. ^{1*}**Adedeji, A.A.** and Adedokun, S. T. Extrusion Processing for value-added production of food and feed. USDA-AFRI Foundational Program, FASE Equipment grant. Role: PI. Total Amount: **\$153,626** (**\$50,000** from USDA; ²**\$25,000** from College of Agricultural, Food and Environmental Sciences, University of Kentucky; ²\$78,626 from my start-up). 2015-2016. (*Type: Equipment*). Role: PI. Effort in the Project: 90%.

Others (State, Industry, Private)

7. ⁵**Adedeji A.A.** Use of LED lights to optimize barley malt diastatic (fermentation) power and bioactive compounds for food production (bourbon, pastries, bread, ready-to-eat-expanded snack). Amount: **\$12,500** + \$12,500 cost-share by BAE department = **\$25,000**. Kentucky Small Grain Growers Association. Including matching grant from Biosystems Engineering Department. Submitted: October 2019/November 2020. (*Type: Research*). Role: PI. Effort In the Project: 100%
8. ^{3,6}**Adedeji, A.A.** Impact of extrusion process in natural color extracts from sweet sorghum. February, 2019. A project conducted for Redleaf Co. KY. Amount: **\$2,880**. (*Type: Fee-for-Service/Research*). Role: PI. Effort in the Project: 50%
9. ^{3,6}**Adedeji, A.A.** and Adetola O. Thermo-physical characterization of new cassava cultivar products. Amount: **\$300**. 01/15/18 – 06/15/18. (*Type: Research*). Role: PI. Effort in the Project: 50%
10. ^{3,6}**Adedeji, A.A.** and Mohammad, Y. Nonthermal methods to tenderize goat meat. Amount: **\$800**. January – September 2017. (*Type: Research*). Role: PI. Effort in the Project: 60%
11. ^{3,4*}**Adedeji, A.A.** and Falade, K. Carnegie African Diaspora Fellowship Program (CADFP). Institute of International Education (IIE), United States International University-Africa (USIU-Africa), and Carnegie Corporation of New York (CCNY). Role: PI. May- June 2016. Amount: **\$10,000**. (*Type: Extension/Outreach*). Role: PI. Effort in the Project: 80%
12. ^{3*}**Adedeji, A.A.** Application of hyperspectral imaging system for detection of adulterants in foods. Burroughs Wellcome Fund (BWF) Grant. Role: PI. Amount: **\$6,760**. June 2015 – February 2016. (*Type: Training*). Role: PI. Effort in the Project: 100%

Internal UK Grants

13. ^{5*}**Adedeji A.A.** Nondestructive-quantitative assessment of cross-contamination of proso millet cultivars one-in-other. Research Activity Award (RAA), College of Agriculture, Food and Environment (CAFÉ), University of Kentucky. PI. Amount: **\$3,000** (CAFÉ RAA, \$1.5k; BAE, \$1,500). 11/04/2021/ - 06/30/2023. (*Type: Research*). Effort contributed to the Project: 50%
14. ^{5*}**Adedeji A.A.** Development of machine learning models to predict proximate content of different cultivars proso millet nondestructively. Research Activity Award (RAA), College of Agriculture, Food and Environment (CAFÉ), University of Kentucky. Amount - One: **\$2,750** (CAFÉ RAA, \$2k; BAE, \$750). 10/01/2021/ - 09/30/2022. (*Type: Research*). Role: PI. Effort contributed to the Project: 50%. Amount – TWO: **\$1,237.94** Travel grant to attend the 1st SEC AI Conference held at Auburn University from March 9 – 11, 2022.
15. Shi, J., **Adedeji, A.A.** and Barzee, T. Particle Size Analyzer, V-ZSU0001, Malvern Panalytical. USDA Multistate Grant through CAFÉ. May 2022. Equipment Grant. **\$64,646.10**.
16. Barzee, T., **Adedeji, A.A.** and Shi, J. 3D Food Printer. USDA Multistate Grant through CAFÉ. September 2022. Equipment Grant. **\$39,900**.

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17. ***Adedeji A.A.** College of Engineering Research Incentive Grant. Two \$250 totaling **\$500** for research support of two BAE juniors (Julia Loeb and Lauren Doyle) taking 395 (special problems in biosystems engineering) with me in fall 2021. Role: Advisor
18. Lauren Doyle and **Adedeji, A.A.** Engineering Summer Undergraduate Research Fellowship (ESURF). Awarded summer of 2021. Amount: **\$1,900**. Nondestructive Testing Apple Project. Role: Advisor
19. ^{5*}**Adedeji A.A.** Barley malting power increase. Research Activity Award (RAA), College of Agriculture, Food and Environment (CAFÉ), University of Kentucky. Amount: **\$6,000** (CAFÉ RAA, \$3k; BAE, \$3k). 10/01/2019/ - 09/30/2020. (*Type: Research*). Role: PI. Effort contributed to the Project: 50%
20. ⁵Felix Akharume and **Adedeji A.A.** Application of ultra-sonication in combination with pulsed ultraviolet light treatments on the microbiological, physical and chemical quality of non-dairy milk from soybean-proso millet blend. Role: PI. Amount: **\$2,500**. Food Connection at UK Student Opportunity Grants. 07/01/2019/ - 06/30/2020. (*Type: Research*). Effort In the Project: 50%
21. ⁵**Adedeji A.A.** and Shi, J. Optimizing barley malt diastatic (fermentation) power and bioactive compounds for food (bourbon) production using LED lights. Role: PI. Amount: **\$2,500**. Food Connection at UK Student Opportunity Grants. 07/01/2019/ - 06/30/2020. (*Type: Research*). Role: PI. Effort in the Project: 70%.
22. Shi, J. and **Adedeji, A.A.** Multi-shot micro-pyrolyzer to enable new research capacities, Multistate Research Support Competition, CAFE Research Office, **\$37,575** (\$10,000 awarded from CAFE and \$5,000 match from BAE department). 2018. Role: co-PI.
23. ^{5*}**Adedeji, A.A.** Cost-share for service maintenance of Discovery Hybrid Rheometer in the Food Engineering Lab by Dr. Harmon's student from Animal Science department. Amount: **\$820**. October 29, 2018. Effort In the Project: 50%
24. ^{5*}**Adedeji, A.A.**, and Shi, J. Acquisition of a digital droplet PCR for food-feed-fiber-energy-water related research, teaching and extension. College of Agriculture, Food and Environment (CAFÉ) Multistate Research (Equipment) Support Competition. Submitted: May 7, 2018. Role: PI. Amount: **\$87,643.60** (CAFÉ: \$77,643.69; Cost-Share: \$10,000). 05/2018/-09/2018. (*Type: Equipment*). Role: PI. Effort In the Project: 50%
25. ^{5*}**Adedeji, A.A.**, and Woomer, J. Value-added use for wastes from bourbon and beer production in Kentucky using extrusion. Role: PI. Amount: **\$5,000**. University of Kentucky Food Connection Student Opportunity Grant. 07/01/2017/ - 06/30/2018. (*Type: Research*). Role: PI. Effort In the Project: 60%
26. ^{5*}**Adedeji, A.A.**, Mains, M., Welch, M., and Pekarchik, K. Extrusion process for making healthy snacks: A 4-H Workshop. Amount: **\$950**. Charles E. Barnhart Fund for Excellence, CAFE University of Kentucky. Role: PI. 2016. (*Type: Extension/Outreach*). Role: PI. Effort In the Project: 90%
27. ^{5*}**Adedeji, A.A.** and Giaretta, A. Optimizing deep-fat frying of sweet potato – effect of pretreatment and freezing rate. University of Kentucky Food Connection. Role: PI. Amount - **\$3,995**. May 2015 – June 2016. (*Type: Research*). Role: PI. Effort In the Project: 60%
28. ^{5*}**Adedeji, A.A.** eLearning Innovation + Design Lab. Amount: **\$4,000**. Center for Education, Learning and Teaching (CELT) University of Kentucky. May 2015 – April 2016. (*Type: Training*). Role: PI. Effort In the Project: 100%

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GRANTS NOT FUNDED: PI (28) or Co-PI (12) of 38 grant proposals submitted (since 2014) that were not funded for a total of 25.32 million dollars.

HATCH/MULTI-STATE GRANT

1. ⁶S1090. AI in Agroecosystems: Big Data and Smart Technology-Driven Sustainable Production. October 2021 – September 2026. **Adedeji, A.A.:** Principal Investigator.
2. ⁶NC 1023. Engineering for food safety and quality. KAES KY005042. October 2020 – September 2025. **Adedeji, A.A.:** Principal Investigator.
3. ⁶S1084: Industrial Hemp Production, Processing, and Marketing in the U.S. 2018-2023. **Adedeji, A.A.:** Participant, member of the proposal development team: Principal Investigator.
4. ⁶NC1023. Engineering for food safety and quality. KAES KY005042. October 2015 – September 2020. **Adedeji, A.A.:** Principal Investigator. Completed.

Disclosure of Invention, Patent and Contribution to Database

1. Photon-induced accelerated enzymes and bioactive compounds accumulation in barley during malting. Lead Inventor: Adedeji A.A.; co-inventor: Khaled Al Fadhl. Provisional Patent filed July 12, 2021. Application #: 63/220,724. **Full patent** filed on July 12, 2022. Application #: 17/863,024.
2. Vibro-Acoustic Sensing of Apple Infestation. Provisional Patent filed: July 12, 2021. Lead Inventor: Kevin Donohue; co-inventor: Adedeji, A.A. Application #: 63/220,871.
3. Protein structure contribution. 3D structure of proso millet protein fraction - glutelin type-B 5-like protein in [database](#). Identifier #: PM0083241. 2020
4. Wind turbine for forced air generation to enhance drying rate. Filing – May 20, 2018. Conclusion – Released to PI.
5. Detection and classification of codling moth infested apples using inherent acoustic emission signal. Filing August 2017. Conclusion – Released to PI.

PUBLICATIONS

Peer-Reviewed Journal, Extension Articles, and Book Chapters [77 in total]: pre-2014 (**22**), 2014 to 2019 (**22**), 2019 to date (**33**).

(*Top cited article; *Corresponding author; underlined – publications from supervised undergraduate and graduate students, visiting scientists and postdoctoral researchers; JIF – Journal impact factor; JC-Journal citation counts as of February 21, 2023 [1,1819]). [Google Scholar Citations](#); [Researchgate Page](#)

Peer-Reviewed Book Chapters (Total = 5: [Post-Tenure Count = 3])

77. ***Adedeji, A.A.**, Ekramirad, N., Khaled, Y.A., and Parrish, C.A. (2022). Acoustic emission and near-infrared imaging for nondestructive apple quality detection and classification. *In* Nondestructive Quality Assessment Techniques for Fresh Fruits and vegetables (Eds. P.B. Pathare and M.S. Rahman). Springer Nature. ISBN-13: 9789811954214. Chapter 13. [DOI](#)
76. Oyeyinka, S.A., Kayitesi, E.K., Diarra, S.S., and **Adedeji, A.A.** (2021). Bambara groundnut starch. *In* Food and Industrial Applications of Bambara Groundnut (*Vigna subterranea*). Springer Nature. (Eds. S.A. Oyeyinka and B.I.O. Adeomowaye). ISBN 978-3-030-73920-1 [DOI](#). Published Aug 2021.
75. Kehinde, B.A., Panghal, A., Kumar, S., **Adedeji, A.A.**, Garg, M.K., and Chhikara, N. (2020). Nanocapsules as potential antimicrobial agents in food. *In* Nanotechnological Approaches in Food Microbiology. CRC Press – Taylor and Francis Group. (Eds. S. B. Dhull, P. Chawla, and R. Kaushik). Pg 1 - 22. eBook ISBN 9780429342776 [DOI](#). Published Dec 2020. **JC: 2**
74. **Adedeji, A.A.** and Ngadi, M.O. (2011). Physicochemical changes of foods during frying: *In* Novel evaluation techniques and effect of process parameters. *In* Physicochemical Aspects of Food

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Engineering and Processing. Published by Taylor & Francis group. (Eds. Devahastin). Chapter 2. Pp 41 – 67. Print ISBN: 978-1-4200-8241-8. eBook ISBN: 978-1-4200-8242-5 [DOI](#). **Citation: Chapter (4), Book (15)**

73. Ngadi, M.O., **Adedeji, A.A.** and Kassama, L. (2009). Microstructural changes during frying of foods. *In Advances in Deep Fat Frying of Foods* (Sahin, S Eds.) Published by Taylor & Francis Group. Chapter 8. Pp 169 – 200. Print ISBN-13: 978-1420055580; eBook ISBN 9780429138812 [DOI](#). **Citation: Chapter (22), Book (176)**

Peer-Reviewed Extension Publications (2)

72. [Akharume, E.](#), Vijayakumar, P., Montross M., and ***Adedeji, A.A.** (2018). *Dehydrating Fruits and Vegetables for Home Use*. CCD-PFS-3. Lexington, KY: Center for Crop Diversification, University of Kentucky College of Agriculture, Food and Environment. Available: [URL](#) **Role:** Idea modification and editing.
71. Vijayakumar, P. P. and **Adedeji, A.A.** (2017). *Measuring the pH of Food Products*. Published by University of Kentucky – College Agriculture, Food and Environment Cooperative Extension Service. *UK Extension Publication*. ID- 246. **Role:** Idea formulation, writing and editing. **JC: 9**

Peer-Reviewed Journals (ALL: [70]; Pre-tenure [40]; Post-tenure [30])

2023

70. Ayinde, F.A., Henshaw, F.O., Eromosele, C.O., Bolaji, T.O., Alavi, S. and **Adedeji, A.A.** (2023). Effect of extrusion variables on some chemical and functional properties of thermo-extrudates from selected varieties of sesame (*Sesamum indicum* L). *International Journal of Research and Scientific Innovation*. Accepted September 4, 2023.
69. Zhu, L., Snider, L., Vu, T. H., Reddy, D.G.P., Herald, T., [Al Khaled, Y.A.](#), **Adedeji, A.A.**, and Alavi, S. (2023). Effect of whey protein concentrate on rheology of gluten-free doughs and their performance in cookie applications. *Sustainability – Special Issue on Research Advances in Food Science: Towards Sustainable Product Development and Innovation*. [DOI](#) **JIF: 3.889, CiteScore: 5.8 – Q2; JC: nil**
68. [Omale, A.P.](#), [Aremu, A.K.](#), [Omobowale, O.O.](#), [Olanrewaju, T.](#), and ***Adedeji, A.A.** (2023). Tiger nut (*Cyperus esculentus* L.) oil quality evaluation as affected by variety and processing conditions. *Journal of Essential Oil and Plant Composition*. 1(3), 97-103. [DOI](#) **JIF: xx, CiteScore: X – Qx; JC: nil**
67. [Woomer, J.](#), Schendel, R., Lovely, J., Vijayakumar, P.P. and ***Adedeji, A.A.** (2023). Value-added applications of bourbon spent grain for high-fiber extruded product. *Journal of ASABE* 66(5). [DOI](#) **JIF: 1.5; CiteScore: xx; Q3; JC: nil**
66. ***Adedeji, A.A.**, [Okeke, A.](#), and [Rady, A.](#) (2023). Utilization of FTIR and Machine Learning for Evaluating Gluten-Free Bread Contaminated with Wheat Flour. *Sustainability – Food Processing Safety and Public Health* 15(11), 8742. [DOI](#) **JIF: 3.889, CiteScore: 5.8 – Q2; JC: nil**
65. [Khaled, Y.A.](#), [Ekramirad, N.](#), Donohue, K., Villanueva, R., and ***Adedeji, A.A.** (2023). Non-destructive hyperspectral imaging and machine learning-based predictive models for physicochemical quality attributes of apples during storage as affected by codling moth infestation. *Agriculture – Digital Agriculture* 13(5),1086. [DOI](#) **JIF: 3.408, CiteScore: 3.1; Q1; JC: nil**
64. [Ekramirad, N.](#), [Khaled, Y.A.](#), Donohue, K., Villanueva, R., and ***Adedeji, A.A.** (2023). Classification of codling moth infested apples using sensor data fusion of acoustic and hyperspectral features coupled with machine learning. *Agriculture - Agricultural Technology* 13(4), 839. [DOI](#) **JIF: 3.408; CiteScore: 3.1; Q1; JC: nil**
63. Sharma, N., Bansal, V., Esua, O.J., Rana, S.R., Bhardwaj, A., Punia, S., and **Adedeji, A.A.** (2023). Trends in millet and pseudomillet proteins - characterization, processing and food applications. *Food Research International* 164, 112310. [DOI](#). **JIF: 7.425; CiteScore: 12.0; Q1; JC: nil**

Curriculum Vitae

2022

62. Akharume, F, and *Adedeji, A.A. (2023). Molecular dynamic (*In silico*) modeling of structure-function of glutelin type-B 5-like from proso millet storage protein: Effects of temperature and pressure. *Journal of Food Sciences and Technology* 60(1), 114-122. [DOI](#). JIF: 2.701 – Q3; JC: nil
61. Akharume, F, and *Adedeji, A.A. (2023). Effects of high-power ultrasound on the *in vitro* digestibility, physicochemical and functional properties of proso millet prolamin and glutelin proteins. *Journal of Food Measurement and Characterization* 17(1), 178-186. [DOI](#). JIF: 3.009 – Q3; JC: 2
60. Khaled, Y.A., Ekramirad, N., Parrish, C.A., Eberhart, P.S., Doyle, L., Donohue, K.D., Villanueva, R., and *Adedeji, A.A. (2022). Nondestructive detection of codling moth infestation in apples using acoustic impulse response signals. *Biosystems Engineering* 224, 68-79. [DOI](#). JIF: 5.002 – Q1; JC: 1
59. *Adedeji, A.A. and Vijayakumar, P.P. (2022). The propensity of fomite spread of SARS-CoV-2 virus through produce supply chain. *Bulletin of the National Research Centre* 46(245), 1 - 10. [DOI](#). JIF: 2.90; JC: 1
58. Adedokun, T.O., Matem, Hoeglenger, O., Mlyuka, E., and Adedeji, A.A. (2022). Evaluation of functional attributes and storage stability of novel beverages from a blend of Baobab, Pineapple, and Black-plum fruits. *Heliyon* 8(5), e09340. [DOI](#). JIF: 3.776 – Q2; JC: 2
57. Adedeji, A.A. (2022). Agri-food waste reduction and utilization—A sustainability perspective. *Journal of ASABE – Special Issue on Circular Agriculture* 65(2). [DOI](#). JIF: 1.238 – Q3; JC: 2
56. Ekramirad, N., Khaled, Y.A., Doyle, L., Loeb, J., Donohue, K.D., Villanueva, R., and *Adedeji, A.A. (2022). Nondestructive detection of codling moth infestation in apples using pixel-based NIR hyperspectral imaging with machine learning and feature selection. *Foods* 11(8), 1 - 16. [DOI](#). JIF: 5.561 – Q1; JC: 5

2021

55. Rady, A., Watson, N., and *Adedeji, A.A. (2021). Feasibility of utilizing color imaging and machine learning for adulteration detection in minced meat. *Journal of Agriculture and Food Research* 6(100251), 1-11. [DOI](#). CiteScore: 1.8; JIF: 1.59 – Q2; JC: 2
54. Watson, N.J., Bowler, A.L., Rady, A., Fisher, O.J., Simeone, A., Escrig, J., Woolley, E., and Adedeji, A.A. (2021). Intelligent sensors for sustainable food and drink manufacturing. *Frontiers in Sustainable Food Systems* 5, 642786. [DOI](#). CiteScore: 2.4. JIF: 5.005 – Q2; JC: 6
53. Ekramirad, N., Al Khaled, Y.A., Donohue, K., Villanueva, R., Parrish, C.A., and *Adedeji, A.A. (2021). Development of pattern recognition and classification models for the detection of vibro-acoustic emissions from codling moth infested apples. *Postharvest Biology and Technology* 181, 111633 [DOI](#). JIF: 6.751– Q1; CiteScore: 7.9; JC: 3
52. Khaled, Y.A., Parrish, C. and *Adedeji, A.A. (2021). Emerging nondestructive approaches for meat quality and safety evaluation. *Comprehensive Reviews in Food Science and Food Safety* 20(4): 3438-3463 [DOI](#). JIF: 15.786 - Q1; JC: 23
51. Pure, A.E., Yarmand, M.S., Farhoodi, M., and Adedeji, A.A. (2021). Microwave treatment to modify textural properties of high protein gel, applicable for as dysphagia food. *Journal of Texture Studies* 52(5-6): 638-646. [DOI](#). JIF: 3.942 – Q2; JC: 7
50. #Akharume, F, Aluko, R., and *Adedeji, A.A. (2021). Modification of plant proteins for improved functionality: A Review. *Comprehensive Reviews in Food Science and Food Safety* 20, 198-224. [DOI](#). JIF: 15.786 - Q1; JC: 196
49. Woomer, J and *Adedeji, A.A. (2021). Current applications of gluten-free grains - A review. *Critical Reviews in Food Science and Nutrition* 61(1), 14 – 24. [DOI](#). JIF: 11.208 - Q1; JC: 47

Curriculum Vitae

2020

48. Adeyanju, J.A., Olajide, J.O., Oke, E.O., and **Adedeji, A.A.** (2020). Mathematical modelling and numerical simulation of mass transfer during deep-fat frying of plantain (*Musa paradisiacal aab*) chips (*ipekere*). *Acta Universitatis Cibiniensis. Series E: Food Technology* 24(2), 247 - 256. [DOI](#). JIF: **2.00**; JC: **1**
47. Rahman, M.F. Iqbal, A. Hashem, M.A. and **Adedeji, A.A.** (2020). Quality assessment of beef using computer vision technology. *Food Science of Animal Resources* 40(6), 896-907. [DOI](#). JIF: **2.622** – **Q3**; JC: **28**
46. Ai, B., Li, W., Woomer, J., Li, M., Pu, Y., Sheng, Z., Zheng, L., **Adedeji, A.A.**, Ragauskas, A.J., Shi, J. (2020). Natural deep eutectic solvents mediated extrusion for continuous high-solid pretreatment of lignocellulosic biomass. *Green Chemistry* 22, 6372-6383. [DOI](#). JIF: **10.182** – **Q1**; JC: **39**
45. ***Adedeji, A.A.**, Ekramirad, N., Rady, A., Hamidisepehr, A., Donohue, K., Villanueva, R., Parrish, C.A., and Li, M. (2020). Non-destructive technologies for detecting insect infestation in fruits and vegetables under postharvest conditions: A critical review. *Foods* 9(7), 927. [DOI](#). JIF: **4.350** – **Q1**; JC: **26**
44. Rady, A., and ***Adedeji, A.A.** (2020). Application of hyperspectral imaging and machine learning methods to detect and quantify adulterants in minced meats. *Food Analytical Methods* 13(4), 970–981. [DOI](#). JIF: **3.366** – **Q2**; JC: **26**
43. **Adedeji, A.A.** (2020). Challenges and discovery of best practices for teaching engineering to food science majors – my experience over my first five years at the University of Kentucky. *Journal of Food Science Education – Letter to the Editor* 19(1), 7-9. [DOI](#). JIF: **0.51** – **Q4**; JC: **3**.
42. Akharume, E., Santra, D and ***Adedeji, A.A.** (2020). Physicochemical and functional properties of proso millet storage protein fractions. *Food Hydrocolloids* 108, 105497. [DOI](#). JIF: **9.147** – **Q1**; JC: **20**

2019

41. Woomer, J., Singh, M., Vijayakumar, P.P., and ***Adedeji, A.A.** (2019). Physical properties and organoleptic evaluation to determine consumer acceptance of millet-based gluten-free bread from proso millet. *British Food Journal* 122(2), 547-560. [DOI](#). JIF: **2.102** – **Q3**; JC: **3**.

Pre-tenure Peer-Reviewed Journal Publications (40)

40. Rahimi, J., **Adedeji, A.A.**, and Ngadi, M.O. (2019). The influence of batter formulation and pre-drying time on inter-particle space fractions of a coated meat analog. *Journal of Texture Studies* 50(6), 474–481. [DOI](#). JIF: **1.902** – **Q2**; JC: **3**.
39. Rady, A., Giaretta, A., Ruwaya, M., Dev, S., and ***Adedeji A.A.** (2019). Pretreatments and freezing rates effect on physical, nutritional and microstructural properties of fried sweet potato. *Transactions of ASABE* 62(1), 1-15. [DOI](#). JIF: **1.118** – **Q3**; JC: **5**.
38. Chambers, E., Maughan C., Padmanabhan, N., Alavi, S. and **Adedeji, A.** (2019). Sensory Analysis of 20% solids fortified blended porridge. *British Food Journal* 121(2), 633 - 641. [DOI](#). JIF: **2.102** – **Q3**; JC: **4**.

2018

37. Adeyanju, J.A., Olajide, J.O., Oke, E. O., and **Adedeji, A. A.** (2018). Modelling of moisture loss and oil uptake during deep-fat frying of plantain (Dodo). *Arid Zone Journal of Engineering, Technology and Environment* 14(SPi4), 51-61. e-ISSN 2545-5818. [URL](#). JIF: **1**.

Curriculum Vitae

36. Rady, A., Sugiharto, S., and ***Adedeji, A.A.** (2018). Evaluation of carrot quality using visible-near infrared spectroscopy and multivariate analysis. *Journal of Food Research* 7(4), 80-93. [DOI](#). JIF: **0.77 – Q4**; JC: **7**.
35. Singh, M., ***Adedeji, A.A.**, and Santra, D. (2018). Physico-chemical and functional properties of nine proso millet cultivars. *Transaction of ASABE* 61(3), 1165-1174. [DOI](#). JIF: **1.118 – Q3**; JC: **6**.
34. Li, M., Ekrmirad, N., Rady, A., and ***Adedeji, A.A.** (2018). Application of acoustic emission and machine learning to detect codling moth infested apples. *Transaction of ASABE*, 61(3), 1157-1164. [DOI](#). JIF: **1.118 – Q3**; JC: **21**.
33. **Adedeji, A.A.**, and Ngadi, M. (2018). Impact of freezing method, frying and storage on fat absorption kinetics and structural changes of parfried potato. *Journal of Food Engineering* 218, 24 – 32. [DOI](#). JIF: **3.625 – Q1**; JC: **29**.
32. #Rady, A., and ***Adedeji, A.A.** (2018). Assessing different processed meat adulterants using visible/near-infrared spectroscopy. *Meat Science* 136, 59 - 67. [DOI](#). JIF: **3.483 –Q1**; JC: **84**.

2017

31. Zhu, L., **Adedeji, A.A.**, and Alavi, S. (2017). Effect of germination and extrusion on physicochemical properties and nutritional qualities of extrudates and tortilla from wheat. *Journal of Food Science* 82(8), 1867-1875. [DOI](#). JIF: **2.018 – Q2**; JC: **16**.
30. Ekrmirad, N., Rady, A., ***Adedeji, A.A.**, and Alimardani, R. (2017). Application of hyperspectral imaging and acoustic emission techniques for apple quality prediction. *Transactions of ASABE* 60(4), 1391-1401. [DOI](#). JIF: **0.975 – Q3**; JC: **14**
29. Rady, A., Ekrmirad, N., ***Adedeji, A.A.**, Li, M., and Alimardani, R. (2017). Hyperspectral imaging for detection of codling moth infestation in GoldRush apples. *Postharvest Biology and Technology* 129, 37 - 44. [DOI](#). JIF: **3.112 – Q1**; JC: **59**
28. Singh, M., and ***Adedeji, A.A.** (2017). Characterization of hydrothermal and acid modified proso millet starch. *LWT – Food Science and Technology* 79, 21 – 26. [DOI](#). JIF: **3.129 – Q1**; JC: **48**
27. **Adedeji, A.A.**, Joseph, M.V., Plattner, B and Alavi, S. (2017). Physicochemical and functional properties of extruded sorghum-based bean analog. *Journal of Food Process Engineering* 40(2). [DOI](#). JIF: **1.955 – Q3**; JC: **1**
26. **Adedeji, A.A.**, Suhr, E., Bhadriraju, S. and Alavi, S. (2017). Drying characteristics of bean analog - a sorghum based extruded product. *Journal of Food Processing and Preservation* 41(2). [DOI](#). JIF: **1.51 – Q3**; JC: **7**
25. **Adedeji, A.A.**, Zhou, Y., Fang, Y., Davis, A., Fahrenholz, A. and Alavi, S. (2017). Utilization of sorghum ingredients and its co-product in aquatic animal feed production. *Aquaculture Research* 48(3), 883–898. [DOI](#). JIF: **1.475**; JC: **21**

2016

24. Adeyanju, J.A., Olajide, J.O., and **Adedeji, A.A.** (2016). Development of optimum operating conditions for quality attributes in deep-fat frying of dodo produced from plantain using response surface methodology. *Food and Nutrition Sciences* 7(14), 1423 – 1433. [DOI](#). JIF: **1.40 – Q3**; JC: **6**
23. Adeyanju, J.A., Olajide, J.O., and **Adedeji, A.A.** (2016). Optimisation of deep-fat frying of plantain chips (*Ipekere*) using response surface methodology. *Journal of Food Processing & Technology* 7(5), 584 – 589. [DOI](#). JIF: **2.30**; JC: **15**
22. Ekrmirad, N., ***Adedeji, A.A.** and Alimardani, R. (2016). A review of non-destructive methods for detection of insect infestation in fruits and vegetables. *Innovation in Food Research* 2(1), 6 – 12. [URL](#). JIF: Not Available; JC: **17**

Curriculum Vitae

2014 - 2015

21. **Adedeji, A.A.**, Alakali, J., & Ngadi, M.O. (2014). Characterization of thermophysical properties of *Azelia (Afzelia africana)* seed. *American Journal of Nutrition and Food Science* 1(3), 57-63. [DOI](#). JIF: 1.22; JC: nil.

Peer-Reviewed Publications, Pre-2014 (20)

2012 - 2013

20. Abioye, A.O., Abioye, V.F., Ade-Omowaye, B.I.O. and **Adedeji, A.A.** (2013). Kinetic modeling of ascorbic acid loss in baobab drink at pasteurization and storage temperatures. *Journal of Environmental Science, Toxicology and Food Technology* 7(2), 17-23. e-ISSN: 2319-2402. JC: 14
19. Rahimi, J., Singh, A., Adewale, P.O., **Adedeji, A.A.**, Ngadi, M.O., and Raghavan, V. (2013). Effect of carboxymethyl cellulose coating and osmotic dehydration on freeze drying kinetics of apple slices. *Foods* 2(2), 170-182. [DOI](#). JC: 18
18. **Adedeji, A.A.**, Alakali, J., Adewale, P.O., and Ngadi, M.O. (2012). Thermophysical properties of *Deterium microcapum* seed flour. *LWT- Food Science and Technology* 47(2), 233 - 237. [DOI](#). JC: 5

2011

17. [Akanmu, O.A.](#) and **Adedeji, A.A.** (2011). Physicochemical properties and drying characteristics of pre-treated okra slices. *Nigerian Food Journal* 29(1), 46 – 51. eISSN: 0189-7241. [DOI](#). JC: nil
16. **Adedeji, A.A.**, and Ngadi, M.O. (2011) Porosity determination for coatings of deep-fat fried chicken nuggets using pycnometer. *International Journal of Food Science and Technology* 46(6), 1266–1275. [DOI](#). JC: 27
15. **Adedeji, A.A.**, Lui, L., and Ngadi, M. O. (2011). Microstructural evaluation of deep-fat fried chicken nugget batter coating using confocal laser scanning microscopy. *Journal of Food Engineering* 102(1), 49 - 57. [DOI](#). JC: 50
14. **Adedeji, A.A.**, and Ngadi, M.O. (2011). Microstructural properties of deep-fat fried chicken nuggets coated with different batter formulation. *International Journal of Food Properties* 14(1), 68 - 83. [DOI](#). JC: 43
13. **Adedeji, A.A.**, and Ngadi, M.O. (2011). Microstructural characterization of deep-fat fried breaded chicken nuggets using X-ray micro-computed tomography. *Journal of Food Process Engineering*, 34(6), 2205 - 2219. [DOI](#). JC: 27

2010

12. **Adedeji A.A.**, and Ngadi, M.O. (2010). Characterization of pore properties of deep-fat fried chicken nuggets breading coating using mercury intrusion porosimetry technique. *International Journal of Food Science and Technology* 45(11), 2219 - 2226. [DOI](#). JC: 12
11. Wang, Y., Ngadi, M.O., and **Adedeji, A.A.** (2010). Shrinkage of chicken nuggets during deep-fat frying. *International Journal of Food Properties* 13(2), 404 – 410. [DOI](#). JC: 21

2009

10. [#]Ngadi, M.O., Wang, Y., **Adedeji, A.A.**, and Raghavan, G.S.V. (2009). Effect of microwave pretreatment on mass transfer during deep-fat frying of chicken nugget. *LWT*. 42, 438-440. [DOI](#). JC: 75
9. **Adedeji, A.A.**, and Ngadi, M.O. (2009). 3-D Imaging of deep-fat fried chicken nuggets breading coating using X-ray micro-CT. *International Journal of Food Engineering* 5(4), Art. 11. [DOI](#). JC: 27

Curriculum Vitae

8. **Adedeji, A.A.**, Ngadi, M.O., and Raghavan, G. S. V. (2009). Kinetics of mass transfer in microwave precooked and deep-fat fried chicken nuggets. *Journal of Food Engineering* 91(1), 146-153. [DOI](#). **JC: 132**
7. Gachovska, T. K., ***Adedeji, A.A.**, and Ngadi, M.O. (2009). Influence of pulsed electric field energy on the damage degree in alfalfa tissue. *Journal of Food Engineering* 95(4), 558 – 563. [DOI](#). **JC: 31**

2008

6. ***Adedeji, A.A.**, Gachovska, T.K., Ngadi M.O., and Raghavan, G.S.V. (2008). Effect of pretreatments on drying characteristics of okra. *Drying Technology* 26(10), 1251 – 1256. [DOI](#). **JC: 124**
5. Gachovska, T.K., **Adedeji, A.A.**, Ngadi, M., and Raghavan, G.V.S. (2008). Drying characteristics of pulsed electric field treated carrot. *Drying technology* 26(10), 1244 – 1250. [DOI](#). **JC: 50**
4. Dev, R.S.S., Padmini, T., **Adedeji, A.A.**, Raghavan, G.S.V., and Garipey. Y. (2008). A comparative study on the effect of chemical, microwave, and pulsed electric pretreatments on convective drying and quality of raisins. *Drying Technology* 26(10), 1238 – 1243. [DOI](#). **JC: 67**

2003 - 2007

3. Olajide, J.O., **Adedeji, A.A.**, Ade-Omowaye., B.I.O. Otunola, E.T. and Adejuyitan, J.A. (2006). Potentials of high intensity electric field pulses (HELP) to food processors in developing countries. *Nutrition and Food Science* 36(4), 248 – 258. [DOI](#). **JC: 4**
2. Oyelade, O.J., **Adedeji, A.A.**, Owonikoko, A., and Akande, E.A. (2003). Design and construction of a manually operated double face meat mincer. *Journal of Science, Engineering and Technology* 11(3), 5792-5804. **JC: 1**
1. Falade, K.O., **Adedeji, A.A.** and Akingbala, J.O. (2003). Effect of soybean substitution for cowpea on physical, compositional, sensory and sorption properties of Akara Ogbomoso. *European Food Research and Technology* 217(6), 492-497. [DOI](#). **JC: 23**

Papers Submitted for Peer Review Publication

1. ***Adedeji, A.A.**, Ampofo, J., [Singh, M.](#), [Woomer, J.](#), and Khamis, M. Rheological, microstructural, and baking properties of proso millet gluten-free bread formulations. *Food Hydrocolloids*. October 2023.
2. ***Adedeji, A.A.**, [Ekramirad, N.](#), [Al Khaled, Y.A.](#), and Villanueva, R. Impact of storage on nondestructive detectability of codling moth infestation in apples. *Journal of ASABE*. Submitted on March 4, 2023.
3. [Akharume, F.](#), Ashutosh Singh, Konstantin Korotkov, and ***Adedeji, A.A.** *In silico* modeling of structure-function of glutelin type-B 5-like from proso millet seed storage protein: effects of temperature and pulsed electric field. *JFST* Submitted September 2023
4. **Adedeji, A.A.** Strengths, weaknesses, opportunities, and threats (SWOT) to new food products success in the Nigerian marketplace. A book chapter *In* (Akinwande, B., Oyeyinka, S., and Adeboye, Eds) *Food Product Development & Emerging Issues in Food Science and Technology in Nigeria*. Submitted April 2023.

Papers under Internal Review for Peer Review Publication

1. ***Adedeji, A.A.** and Okeke, A. Evaluation of Fourier Transform Infrared (FTIR) Spectroscopy Method Coupled with Machine Learning Approaches for Detection and Quantification of Cross-Contact of Gluten-Rich and Gluten-Free Flours. *Journal of Food Engineering*.
2. ***Adedeji, A.A.**, Ampofo, J., Khamis, M., [Singh, M.](#), and [Woomer, J.](#) Rheological, microstructural, and baking properties of proso millet gluten free formulations. *Journal of Food Engineering*. Fall 2022.

Curriculum Vitae

3. Ekramirad, Lauren, Loeb, Adedeji, Santra. Proso Millet Cultivar Identification and Classification. Spring 2024
4. Johnson, Tyler, Ekramirad, N., and *Adedeji, A.A. Predictive machine learning model for proso millet cultivars cross-contamination quantification.

Papers Being Prepared

1. Omale, P., and *Adedeji, A.A. Emerging non-destructive methods for food quality and safety evaluation. Current Food Science and Technology Reports (Volume 2). Due October 2nd, 2023.
2. Omale, P. and *Adedeji, A.A. Review Paper.....
3. Ampofo, J., *Adedeji, A.A. and Singh, M. Flow behavior and baking qualities of GF bread, the effect of millet cultivar. *LWT*. Summer/Fall 2023.
4. Rady, A., and *Adedeji, A.A. Sensor data fusion for minced meat authentication. *Journal of Food engineering*. Fall 2023.
5. Woomer, J. and *Adedeji, A.A. Impact of spent grain type, particle size and inclusion levels on physico-chemical properties of high fiber expanded extruded proso millet. Spring 2024.
6. Felix Akharume, Youling L. Xiong, and *Akinbode Adedeji. Effects of transglutaminase in product formulation on physico-textural properties of protein rich extruded snacks. Summer 2024.
7. Alimardani, R, and *Adedeji, A.A. Internet of Things Application in the Food Industry – A Review. Summer 2024.
8. Akharume, F., Woomer, J. and *Adedeji, A.A. Physico-functional and microstructural properties of extruded proso millet (X-ray micro-CT) – Spring 2024
9. *Adedeji, A.A. Food Analog – A novel nutrient delivery mechanism (Review Paper). *Food Engineering Review*. Spring 2024.

CONFERENCE PAPERS AND PRESENTATIONS (95)

Non-Peer Reviewed Papers in Conference Proceedings (34 in total; 2014 - Date (19))

1. Omale, A.P., Aremu, A.K., Omobowale, O.O., Olanrewaju, T., and *Adedeji, A.A. (2023). Quality evaluation of tiger nut (*Cyperus esculentus* L.) oil – effect of processing pretreatments. A paper presented (oral) during the Annual International Meeting of American Society of Agricultural and Biological (ASABE) held at Chi Health Center/Hilton, Omaha, NE from July 9 – 13, 2023. Paper #:2300098
2. Doyle, L.E., Loeb, J.R., Ekramirad, N., Santra, D., Adedeji, A.A. (2022). Non-destructive classification and quality evaluation of proso millet cultivars using NIR hyperspectral imaging with machine learning. A paper presented (oral) during the Annual International Meeting of the American Society of Agricultural and Biological (ASABE) held in Marriott Marquis Houston Texas from July 17 – 20, 2022. Paper #: 2200944
3. Al Khaled, Y.A., Ekramirad, N., Parrish, C.A., Donohue, K., Villanueva, R., and Adedeji, A.A. (2022). Acoustic application for codling moth detection in apples: high versus low frequency sensing. Poster presented at the SEC conference, Envisioning 2050 in the Southeast: AI-driven Innovations in Agriculture. Held at Auburn University from March 9 – 11, 2022.
4. Ekramirad, N., Al Khaled, Y.A., Donohue, K., Villanueva, R., and Adedeji, A.A. (2022). Quality prediction of codling moth infested apples under long-term storage using hyperspectral imaging and machine learning. Poster presented at the SEC conference, Envisioning 2050 in the Southeast: AI-driven Innovations in Agriculture. Held at Auburn University from March 9 – 11, 2022.
5. Ekramirad, N., Al Khaled, Y.A., Donohue, K., Villanueva, R., Parrish, C.A., and Adedeji, A.A. (2021). NIR Hyperspectral Imaging with machine learning to detect and classify codling moth infestation in apples. A paper in the proceeding and presented (poster) during On-Demand Simulated Live

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- Session at 2021 Annual International Virtual Meeting of American Society of Agricultural and Biological (ASABE) held online from July 12 – 15, 2021. Paper #: 2100066. **JC -2**
6. Al Khaled, Y.A., Ekramirad, N., Donohue, K., Doyle, L., Villanueva, R., Parrish, C.A., and Adedeji, A.A. (2021). Effects of low-intensity heat stimulation on ultrasonic acoustic emission detection of codling moth larvae activities in apples (On paper: [Vibro-acoustic emission and heat stimulation effect on the detection of codling moth larvae in apples](#)). A paper in the proceeding and presented (poster) during On-Demand Simulated Live Session at 2021 Annual International Virtual Meeting of American Society of Agricultural and Biological (ASABE) held online from July 12 – 15, 2021. Paper #: 2100070
 7. Olatunde, S.O., Olaniyi, R.N., Adedeji A.A., and Akande, I.A. (2020). Effect of different drying methods on proximate and vitamin C composition of okra. Presented at the 44th Annual conference of the Nigerian Institute of Food Science and Technology (NIFST) held at the D'Podium International Event Centre, Ikeja, Lagos State, between 14th and 15th October 2020. Reference #: AB-059. Oral
 8. Akharume, F., Korotkov, K., and Adedeji A.A. (2020). Characterization of recombinant glutelin Type-B 5-like protein from proso millet. A paper in the proceeding and presented during the PRS Community Showcase Live Session at 2020 Annual International Virtual Meeting of American Society of Agricultural and Biological (ASABE) held online from July 13 – 15, 2020. Paper #: 2000272. Oral. **JC - 1**
 9. Ekramirad, N., Donohue, K., Villanueva, R., Parrish, C.A., and Adedeji, A. A. Low frequency signal patterns for codling moth larvae activity in apples. A paper in the proceeding and presented (poster) during On-Demand Q&A oral session at 2020 Annual International Virtual Meeting of American Society of Agricultural and Biological (ASABE) held online from July 13 – 15, 2020. Paper #: 2001028. Oral. **Citation: 5.**
 10. Adetola, O.A., Olukunle, O.J., and Adedeji, A.A. (2020). Effect of extrusion conditions on pasta quality from wheat flour and cassava starch. A paper in the proceeding and presented (poster) during On-Demand Q&A oral session at 2020 Annual International Virtual Meeting of American Society of Agricultural and Biological (ASABE) held online from July 13 – 15, 2020. Paper #: 2000202. e-Poster
 11. Adetola, O.A., Olalusi, A.P, and Adedeji, A.A. (2020). Physicochemical, pasting and thermal properties of different types of starch. A paper in the proceeding and presented (poster) during On-Demand Q&A oral session at 2020 Annual International Virtual Meeting of American Society of Agricultural and Biological (ASABE) held online from July 13 – 15, 2020. Paper #: 2000201. e-Poster
 12. Okeke, A.G., and Adedeji, A.A. (2020). Design of light-emitting diodes (LEDs) powered chamber for study of optimization of barley malt diastatic (fermentation) power and bioactive compounds for food production. A paper in the proceeding and presented (poster) during On-Demand Q&A poster session at 2020 Annual International Virtual Meeting of American Society of Agricultural and Biological (ASABE) held online from July 13 – 15, 2020. Paper #: 2000206. e-Poster
 13. Okeke, A.G., and Adedeji, A.A. (2020). Fourier-Transform Infrared (FTIR) spectroscopy and machine learning methods to detect and quantify cross-contact of gluten-rich and gluten-free flours. A paper in the proceeding and presented (oral) at 2020 Annual International Virtual Meeting of American Society of Agricultural and Biological (ASABE) held online from July 13 – 15, 2020. Paper #: 2000207. Oral
 14. Akharume, F., Xiong, Y.L., and Adedeji, A.A. (2019). Effects of Transglutaminase in product formulation on physico-textural properties of protein rich extruded snacks. A paper presented (oral) at 2019 Annual International Meeting of American Society of Agricultural and Biological (ASABE) held in Boston, MA from July 7 – 10, 2019. Paper #: 1900306. Oral. **Citation: 1**

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15. Adetola, O.A., Olukunle, O.J., and **Adedeji, A.A.** (2019). Acid and hydrothermal modification of different types of cassava (*Manihot esculenta*) starch. A paper presented (oral) at 2019 Annual International Meeting of American Society of Agricultural and Biological (ASABE) held in Boston, MA from July 7 – 10, 2019. Paper #: 1900660. Poster
16. Adeyanju, J.A., Olajide, J.O., Oke, O.E., and **Adedeji, A.A.** (2018). Modelling of moisture loss and oil uptake during deep-fat frying of plantain (dodo). A paper presented (oral) at and published in the proceeding of the 12th CIGR Section VI International Symposium, held at the International Institute of Tropical Agriculture (IITA), Ibadan, Oyo State, Nigeria from 22–25 October 2018. Paper #: 198-212. Oral.
17. **Adedeji, A.A.**, Singh, M., Woomer, J., and Akharume, F. (2018). Proso millet application in the development of gluten free products. A paper presented at and published in the proceeding of the 3rd International Symposium on Broomcorn Millet held in Fort Collins Colorado from August 8 – 12, 2018. Session #:5. Page 81. Oral
18. Rady, A., Sugiharto, S., and **Adedeji, A.A.** (2017). A nondestructive method to evaluate carrot quality using visible-near infrared spectroscopy. A paper published in the proceeding of American Society of Agricultural and Biological Engineers (ASABE) annual conference. Held in Spokane Washington, July 16-19, 2017. Poster presentation. Paper #: 1700412.
19. Singh, M. and **Adedeji, A.A.** (2016). Physico-chemical and functional properties of Proso millet starch. A paper published in the proceeding of American Society of Agricultural and Biological Engineers (ASABE) annual conference. Held in Orlando, Florida, July 17-20, 2016. Oral presentation. Paper #: 162460194.
20. Thiam, M., Le-Bail, A., Abadie, J., **Adedeji, A.A.** and Havet, M. (2011). Congélation sous champs électrique applique a de la viande (Freezing Under Electric Field Applied to meat). *Revue Générale du Froid et du conditionnement d'air*. Pp. 40 – 42.
21. Le-bail, A., Orłowska, M., Havet, M., **Adedeji, A.**, Abadie, J., Beaufort, A., Bourdin, G and Cardinal, M. (2011). Refrigeration applied to seafood: recent developments and applications. A paper presented at FAO's Fisheries and Aquaculture Dept. Expert meeting of Fish Technology, Utilization and Quality Assurance in Africa, Mahé held at Seychelles, 21st - 25th Nov. 2011. Oral Presentation.
22. Le-Bail, A., Havet, M., Orłowska, M., and **Adedeji, A.A.** (2011). Recent advances in food freezing. A paper presented at European Federation of Food Science and Technologists (EFFoST) Annual Meeting held at Technische Universität, Berlin Germany. November 9 – 11, 2011.
23. **Adedeji A.A.**, Lui, L, and Ngadi M. O. (2010). Confocal laser scanning microscopy imaging of deep-fat fried batter coating. 17th World Congress of CIGR, Quebec City, Canada, June 13-17, 2010. Paper No. 1207.
24. Abdel-Nour, N., Ngadi M. O., and **Adedeji A.A.** (2010). Effect of thermal pre-treatment and batter composition on fat absorption in deep-fat fried batter. 17th World Congress of CIGR, Quebec City, Canada, June 13-17, 2010. Paper No. 1218.
25. **Adedeji, A.A.** and Ngadi, M. O. (2008). The use x-ray micro-CT for characterization of microstructural properties of deep-fat fried breaded chicken nuggets. A paper (084618) presented at American Society of Agricultural and Biological Engineers (ASABE) annual conference Held at Providence, Rhode Island, USA from June 29th – July 2nd, 2008. Oral presentation. Paper No.: 084610.
26. **Adedeji, A.A.** and Ngadi, M. (2007). 3-D Imaging of breaded deep-fat fried foods using x-ray micro-CT. A paper presented at 3rd CIGR conference held at Naples, Italy from September 24-26, 2007.
27. Ngadi, M. O., T. K. Gachovska, **Adedeji, A. A.** and Raghavan, G.S.V. (2007). Drying kinetics of pulsed electric field treated carrot pieces. Paper # 076009, presented at the Annual International meeting of American Society of Agricultural and Biological Engineers at Minneapolis, USA from 17-20 June 2007.

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28. Dev, R.S., Thumula, P., **Adedeji, A.A.**, Raghavan, G.S.V. Garipey, Y. (2007). Effects of chemical, microwave and pulsed electric pre-treatments on convective drying of grapes. Paper # 072323 at the Annual International meeting of American Society of Agricultural and Biological Engineers at Minneapolis, USA from 17-20 June 2007.
29. Gachvoska, T., **Adedeji, A.A.**, Ngadi, M. and. Raghavan, G.S.V. (2006). Drying Characteristics of Pulsed Electric Field Treated Carrot. A paper presented at NABEC conference held at Montreal, QC, Canada. July 30th - August 2nd, 2006. Paper number 06-049.
30. **Adedeji, A.A.**, Adelegan, H. A., Odugbenro, P. O., Oyelade, O. J., Olajide, J. O. and Abioye, A. O. (2004). Effect of particle size distribution on physical and sensory properties of soy-substituted *Akara* Ogbomoso. A Paper in the Proceedings of the 28th Annual Conference / Annual General Meeting of the Nigerian Institute of Food Science and Technology, Held at Conference Centre, University of Ibadan, Ibadan, Oyo State Nigeria, from 12th – 14th October 2004. Pp. 178 – 179.
31. Abioye, A.O., **Adedeji, A.A.**, Odugbenro, P.O. and Adedibu, A.O. (2004). Application of Peleg's equation to water absorption during soaking of Jack bean in "kaun" solutions. A Paper in the Proceedings of the 28th Annual Conference / Annual General Meeting of the Nigerian Institute of Food Science and Technology, Held at Conference Centre, University of Ibadan, Ibadan, Oyo State Nigeria, from 12th – 14th October, 2004. Pp. 186 – 187.
32. Oyelade, O. J., **Adedeji, A.A.** and Adigun, O. J. (2003). Computer-Aided Model Design of Storage Microclimate for Agricultural Produce. A Paper presented at the 22nd annual conference of Nigerian Mathematical Society (NMS), held at Ladoke Akintola University of Technology, Ogbomoso, Oyo State, Nigeria, from 10th-13th June 2003.
33. Ade-Omowaye, B.I.O, Olajide, J.O., Abioye, A.O. and **Adedeji, A.A.** (2003). Potential Applications of osmotic dehydration in Nigerian food processing. A Paper Presented at the First National Drying Symposium, held at Crab Park Hall, University of Port-Harcourt, Port-Harcourt, Rivers State, Nigeria. 21st- 23rd October 2003.
34. Olajide, J.O., Oyelade, O. J., Tunde-Akintunde T. Y. and **Adedeji, A.A.** (2003). Design and construction of a cabinet tray dryer. Nigerian Drying Symposium. Held at Port Harcourt from 21st to 23rd October 2003.

Conference Abstracts and Presentations (62 in total; 2014 – Present (39))

35. **Adedeji A.A.**, Bruce, A., Chen, D., Davis, K., Fronczak, J., Ganjyal, G., Holt, G., Huang, H., Jin, Q., Joyner, H., Lamsal, B., McKay, S., Nayak, B., Siddons, C., Skonberg, D., and Smith, S. (2023). A talk presented at the annual international meeting of Institute of Food Technology (IFT) held in Chicago IL from July 16 – 19, 2023.
36. Designing Active Learning Experiences for Food Processing and Food Engineering Courses: A Cross-Institutional Collaboration
37. **Adedeji A.A.** (2023). Agrifood waste reduction and upcycling – challenges and opportunities. An invited talk during the special session on circular bioeconomy systems organized by the Processing and Energy Systems (PRS & ES) communities of ASABE during their annual international meeting held at the Chi Health Center/Hilton in Omaha NE on July 13, 2023
38. Olanrewaju, T., Schendel, R. and **Adedeji, A.A.** (2023). Rheological and physical characterization of batter and bread made from bourbon distillers' spent grain and corn meal. A paper presented (poster) during the Annual International Meeting of American Society of Agricultural and Biological (ASABE) held in Chi Health Center, Omaha, NE from July 9 – 13, 2023. Paper #:2300153
39. **Adedeji, A.A.**, Loeb, J.R., Doyle, L.E., Ekramirad, N., and Khaled, Y. Al Fadhl. (2023). Photon-induced reduction in barley malt processing time and quality improvement. A paper presented (oral) at the 14th International Congress on Engineering and Food (ICEF14) held in the city of Nantes France from June 20 – 23, 2023.

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40. **Adedeji, A.A.**, Ekramirad, N., Al Khaled, Y.A., Donohue, K., and Villanueva, R. (2023). Sensor Data Fusion and Machine Learning Approach for Pest Infestation Detection in Apples. A poster presented at the SEC Conference with the theme: "USDA-NIFA AI in Agriculture: Innovation and Discovery to Equitably Meet Producers' Needs and Perceptions" held in Orlando Florida on April 17 – 19, 2023.
35. Rady, A., and **Adedeji, A.A.** (2022). Hyperspectral Imaging and Deep Learning for Evaluating Adulteration in Meats. A poster presented at the 36th European Federation of Food Science and Technology (EFFoST) conference held at the University College Dublin, Ireland from November 7 – 9, 2022.
36. **Adedeji, A.A.**, Ekramirad, N., Al Khaled, Y.A., Parrish, C.A., Donohue, K., and Villanueva, R. (2022). Acoustic and hyperspectral imaging sensing for nondestructive insect infestation detection in apples. A paper presented (oral) during the Annual International Meeting of the Canadian Society of Bioengineering (CSBE) held at Delta Hotel - PEI Convention Center, Charlottetown, Prince Edward Island, Canada from July 24 – 27, 2022.
37. Ekramirad, N., Al Khaled, Y.A., Villanueva, R., Parrish, C.A., Donohue, K., and **Adedeji, A.A.** (2022). Development of a sensor fusion model based on acoustic and hyperspectral imaging features with machine learning to classify codling moth-infested apples. A paper presented (oral) during the Annual International Meeting of American Society of Agricultural and Biological (ASABE) held in Marriott Marquis Houston Texas from July 17 – 20, 2022. Paper #: 2200941
38. Akharume, F. and **Adedeji, A.A.** (2021). Determination and *In-silico* Characterization of the Three-dimensional Structure of glutelin Type-B 5-like protein from proso millet using molecular dynamic modeling. A paper presented (oral) during the 2021 Annual International Virtual Meeting of American Society of Agricultural and Biological (ASABE) held online from July 12 – 15, 2021. Paper #: 2100144
39. Akharume, F., Ashutosh, S., Korotkov, K and **Adedeji, A.A.** (2021). An investigation of temperature and static electric field effects on the glutelin Type-B 5-like protein from proso millet using molecular dynamic modeling. A paper presented (poster) during the 2021 Annual International Virtual Meeting of American Society of Agricultural and Biological (ASABE) held online from July 12 – 15, 2021. Paper #: 2100145
40. **Adedeji A.A.** and Woomer, J. (2020). Characteristics of extruded products developed from spent grain and proso millet. Kentucky Local Food Systems Summit held at the Gatton Student Center on February 26, 2020. Poster
41. Agbali, F., and **Adedeji A.A.** (2019). Analytical estimation and experimental validation of wind energy utilization using turbine for mechanical aeration of small-scale ear corn drying. A paper presented (poster) at 2019 Annual International Meeting of American Society of Agricultural and Biological (ASABE) held in Boston, MA from July 7 – 10, 2019. Paper #: 1901683. Poster.
42. Adetola, O.A., Olalusi, A.P., and **Adedeji A.A.** (2019). Physicochemical properties of pasta derived from extrusion of durum wheat and cassava flour. A paper presented (poster) at 2019 Annual International Meeting of American Society of Agricultural and Biological (ASABE) held in Boston, MA from July 7 – 10, 2019. Paper #: 1900659. Poster.
43. Woomer, J. and **Adedeji A.A.** (2019). Extrusion for value-added utilization of spent grains from bourbon distilling and craft beer brewing. A paper presented (oral) at 2019 Annual International Meeting of American Society of Agricultural and Biological (ASABE) held in Boston, MA from July 7 – 10, 2019. Paper #: 1900335. Oral.
44. Agbali, F., **Adedeji, A.A.**, Aroh, A., and Ramadan, I. A. (2018). Aflatoxin contamination of grain in sub-Saharan Africa: Public health implication, Application of novel postharvest technologies and the role of policy in adoption. Presented at the 2nd International Conference on Food Safety and Security, Saint George Hotel and Conference Centre, Pretoria RSA on October 17, 2018. Oral.

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45. Akharume, F., **Adedeji, A.A.** and Korotkov, K. V. (2018). *In-vitro* digestibility, structural particulars and physico-chemical properties of proso millet flour proteins. A poster presented at the American Society of Agricultural and Biological Engineers (ASABE) annual conference. Held in Detroit, Michigan from July 29 – August 1st. 2018. Paper #: 1801689. Oral
46. Woomer, J., and **Adedeji, A.A.** (2018). Effect of extrusion operating conditions on physico-chemical and functional properties of extruded proso millet. A poster presented at the American Society of Agricultural and Biological Engineers (ASABE) annual conference. Held in Detroit, Michigan from July 29 – August 1st. 2018. Paper #: **1801272**.
47. Woomer, J., and **Adedeji, A.A.** (2018). Effect of bourbon distiller's spent grain (DSG) addition level and particle size on physico-chemical and functional properties of a millet-based extruded snack. An oral paper presented at the American Society of Agricultural and Biological Engineers (ASABE) annual conference. Held in Detroit, Michigan from July 29 – August 1st. 2018. Oral presentation. Paper #: 1801278. Oral.
48. **Adedeji, A.A.** Yarmand, M., and Agbali, F. (2018). High pressure treatment for tenderization of semimembranosus and biceps femoris muscles from goat. A poster presented at the American Society of Agricultural and Biological Engineers (ASABE) annual conference. Held in Detroit, Michigan from July 29 – August 1st. 2018. Oral presentation. Paper #: 1801724
49. **Adedeji, A.A.**, Yarmand, M., and Agbali, F. (2018). Effect of microwave heating on characteristics of Semimembranosus and Biceps femoris muscles from goat. A poster presented at the American Society of Agricultural and Biological Engineers (ASABE) annual conference. Held in Detroit, Michigan from July 29 – August 1st. 2018. Paper #: 1801721. Poster
50. Li, W., Chen, X., Das, L., **Adedeji, A.A.**, Shi, J. (2017). Renewable Energy & Energy Efficiency (RE3) Workshop, "Effect of pretreatment methods on biohydrogen production from industrial hemp," Poster, National, KY, United States. (May 22, 2017). Poster.
51. Agbali, F., Woomer, J., and **Adedeji, A.A.** (2017). Determination of the effect of extrusion parameters on the properties of ready-to-eat expanded millet snack enriched with arthropod (cricket) flour. A paper presented at the American Society of Agricultural and Biological Engineers (ASABE) annual conference. Held in Spokane Washington, July 16-19, 2017. Oral presentation. Paper #: 1700371. Oral.
52. Li, W., Woomer, J., **Adedeji, A.A.** and Shi, J. (2017). Ultrasound-assisted enzymatic transesterification of waste cooking oil. A paper presented at the American Society of Agricultural and Biological Engineers (ASABE) annual conference. Held in Spokane Washington, July 16-19, 2017. Poster presentation. Paper #: 1701449.
53. Woomer, J., Singh, M, and **Adedeji, A.A.** (2017). An organoleptic evaluation to determine consumer acceptance of millet-based gluten free breads. A paper presented at the American Society of Agricultural and Biological Engineers (ASABE) annual conference. Held in Spokane Washington, July 16-19, 2017. Poster presentation. Paper #:1700370.
54. Singh, M., and **Adedeji, A.A.** (2017). Rheological and Baking Properties of Millet Based Gluten-Free Formulations. A paper presented at Institute of Food Technology (IFT) Annual International Meeting, Food Engineering Division Poster Session. Held in Las Vegas, Nevada USA June 25 – 28, 2017.
55. Li, W., Chen, X., Das, L., & **Adedeji, A.A.** and Shi, J. (2017). Effect of pretreatment methods on biohydrogen production from industrial hemp. RE3 Workshop held in Muhammad Ali Center, Louisville, KY. From May 21 – 24, 2017. Poster
56. Singh, M., and **Adedeji, A.A** (2016). Physical, rheological and baking properties of proso millet cultivars. A paper presented at the American Association of Cereal Chemist International Annual Meeting held in Savannah, Georgia from October 23 – 26, 2016. Poster presentation.

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57. Singh, M., and **Adedeji, A.A.** (2016). Hydrocolloids effect on rheological and baking properties of proso millet composite dough. A paper presented at the American Association of Cereal Chemist International Annual Meeting held in Savannah, Georgia from October 23 – 26, 2016. Oral
58. Rady, A., and **Adedeji, A.A.** (2016). Assessing different processed meat adulterants using visible/near-infrared spectroscopy. A paper presented at Conference of Food Engineering held at Nationwide and Ohio Farm Bureau 4-H Center College of Food, Agricultural, and Environmental Science Campus. The Ohio State University from September 12 – 14, 2016.
59. **Adedeji, A.A.**, and Singh, M. (2016). Value-added utilization of millet for food, feed, fiber and energy. A paper presented at Conference of Food Engineering held at Nationwide and Ohio Farm Bureau 4-H Center College of Food, Agricultural, and Environmental Science Campus. The Ohio State University from September 12 – 14, 2016. Oral
60. Rady, A., and **Adedeji A.A.** (2016). Application of Hyperspectral Imaging Technique to Detect Adulteration in Processed Meats. A paper presented at American Society of Agricultural and Biological Engineers (ASABE) annual conference held at Orlando, Florida, USA from July 17 – 20, 2016. Poster presentation. Paper No.: 162460193. (Oral).
61. Rady, A., Giaretta, A., **Adedeji, A.A.** and Ruwaya, M. (2016). Optimizing deep-fat frying of sweet potato (*Ipomoea batatas*): effect of pretreatment and freezing rate. A paper presented at Institute of Food Technology (IFT) Annual International Meeting, Food Engineering Division Poster Session. Held at Chicago, IL USA July 16 – 19, 2016. (Poster).
62. Li, M., Ekrmirad, N., Rady, A., **Adedeji, A.A.**, Alimardani, R., & Solmon, H. (2016). Detection of codling moth infested apples using multivariate analysis of acoustic emissions. A paper presented at Institute of Food Technology (IFT) Annual International Meeting, Food Engineering Division Poster Session. Held at Chicago, IL USA July 16 – 19, 2016. (Short Oral/Poster).
63. Ekrmirad, N., Rady, A., Li, M., **Adedeji, A.A.**, Alimardani, R., & Patwardham A. (2016). Acoustic emission technique for detection of Codling moth infested apples. A paper presented at American Society of Agricultural and Biological Engineers (ASABE) annual conference Held at Orlando, Florida, USA from July 17 – 20, 2016. Paper No.: 162460815. (Oral).
64. Ekrmirad, N., Rady, A., **Adedeji A.A.**, Alimardani, R., Bessin, R., & Strang, J. (2016). Hyperspectral Imaging for Detection of Codling Moth Infestation and Prediction of Quality in Gold-Rush Apples. A paper presented at American Society of Agricultural and Biological Engineers (ASABE) annual conference Held at Orlando, Florida, USA from July 17 – 20, 2016. Poster presentation. Paper No.: 162461836. (Poster).
65. **Adedeji, A.A.**, Alavi, S., and Matthew, F. (2014). Micronutrient fortified extruded rice kernels: impact of processing and formulation on physico-chemical attributes. American Association of Cereal Chemists International (AACCI). Holding at Providence, Rhode Island USA October 5 – 8, 2014. Paper No. P-147. (Poster).
66. Joseph, M., Zhu, L., **Adedeji, A.A.**, Gwartz, J., Thiele, S. and Alavi, S. (2014). Adaptation of conventional wheat flour mill to refine sorghum, corn and cowpea grains. American Association of Cereal Chemists International (AACCI). Holding at Providence, Rhode Island USA October 5 – 8, 2014. (Poster).
67. Chijioke, E., **Adedeji, A.A.**, Danbaba, N. and Ngadi, M. (2014). Effect of Steaming on Physical and Thermal Properties of Parboiled Rice from Nigeria. A paper presented at American Society of Agricultural and Biological Engineering (ASABE) annual conference Held at Montreal, Canada from July 13 – 16, 2014. Poster presentation. Paper No.: 141913047. (Poster).
68. Alejandro, M. M., **Adedeji, A.A.** and Ngadi, M. (2014). Development of an objective freshness index for an American variety of eggplant (*Solanum melongena* L. cv. Traviata). A paper presented at American Society of Agricultural and Biological Engineering (ASABE) annual conference Held at Montreal, Canada from July 13 – 16, 2014. Poster presentation. Paper No.: 141913457 (Poster).

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69. Alakali, J. S., Eze, S. O., Adewale P.O., **Adedeji, A.A.**, and Ngadi, M. O. (2014). Dynamic and steady flow behavior of *Deterium microcarpum* gum solutions. A paper presented at American Society of Agricultural and Biological Engineering (ASABE) annual conference Held at Montreal, Canada from July 13 – 16, 2014. Paper No.: 141909304. (Poster).
70. Zhu, L., Desam, G. P. R., Herald, T.J., **Adedeji, A.A.**, and Alavi, S. (2014). Effect of whey protein concentrate on dough rheology and tortilla quality parameters in corn and sorghum. Institute of Food Technology (IFT), Food Engineering Division Poster Session. Held at New Orleans, LA USA. June 21 – 24, 2014. (Poster).
71. Joseph, M., Zhu, L., **Adedeji, A.A.**, and Alavi, S. (2014). Physico-chemical properties of Fortified Blended Foods developed using extrusion. Institute of Food Technology (IFT), Food Engineering Division Poster Session. Held at New Orleans, LA USA June 21 – 24, 2014. (Poster).
72. Joseph, M., **Adedeji, A.A.**, and Alavi, S. (2013). Novel delivery mechanism for nutrition using sorghum based extruded pre-cooked 'beans'. Institute of Food Technology (IFT), Food Engineering Division Poster Session. Held at Chicago, IL USA. July 13 – 16, 2013. Poster No. **031-15**.
73. Padmanabhan, N., **Adedeji, A.A.**, Zhu, L., and Alavi, S. (2013). Physicochemical properties of newly developed extruded sorghum-soy blends for US Food Aid programs. Institute of Food Technology (IFT), Food Engineering Division Poster Session. Held at Chicago, IL USA. July 13 – 16, 2013. Poster No. **031-22**.
74. **Adedeji, A.A.**, Padmanabhan, N., Zhu, L., and Alavi, S. (2013). Digestibility and micronutrient retention of fortified extruded sorghum-soy blends. Institute of Food Technology (IFT), Food Engineering Division Poster Session. Held at Chicago, IL USA. July 13 – 16, 2013. Poster No. **135-06**.
75. Zhu, L., **Adedeji, A.A.**, and Alavi, S. (2013). Utilization of germinated wheat in extruded Products – digestibility, biofunctional compounds, and sensory analysis. Institute of Food Technology (IFT), Food Engineering Division Poster Session. Held at Chicago, IL USA. July 13 – 16, 2013. Poster No. **135-07**.
76. Zhou, Y, Fan, X., Davis, D.A., **Adedeji, A.A.**, and Alavi, S. (2013). Growth of juvenile pacific white shrimp *litopenaeus vannamei* fed diets containing different level of sorghum co-product (ddgs) using extrusion and pelleting methods. World Aquaculture Society held at Nashville Tennessee, USA. February 21 – 25. Paper Number **114**. Oral presentation.
77. Padmanabhan, N., Joseph, M., **Adedeji, A.A.**, Zhu, L., and Alavi, S. (2013). Novel Nutrition Delivery Mechanisms and Strategic Partnerships for Implementation in US Food Aid Programs. Universities Fighting World Hunger Summit 2013. Held at Kansas City Sheraton Overland Park Hotel at the Convention Center from March 2-4, 2013. Session 6. Oral presentation.
78. Joseph, M., **Adedeji, A.A.**, Alavi, S., Maichel, E, and Plattner, B. (2012). Development and characterization of a sorghum based, pre-cooked bean like product using extrusion. Kansas State University Graduate Student Research Forum. November 6, 2012. **Pp 38**. Poster.
79. Maughan, C., Padmanabhan, N., **Adedeji, A.A.**, Alavi, S., and Chambers IV, E. (2012). Descriptive analysis of corn-soy blend and sorghum-soy blend products at 20% solids. Kansas State University Graduate Student Research Forum. November 6, 2012. **Pp 42**. Poster presentation.
80. Padmanabhan, N., **Adedeji, A.**, Maughan, C., Chambers IV, E., and Alavi, S. (2012). Extrusion of novel sorghum-based fortified blended food for infants, young children and adults. Kansas State University Graduate Student Research Forum. November 6, 2012. **Pp 43**. Poster.
81. Alavi, S, A. **Adedeji, A.A.**, Joseph, M., and Plattner, B. (2012). Innovations in extrusion— Configuring a multi-operation, low-shear, semicold process for novel and nutritious products. American Association of Cereal Chemists International (AACCI). Held at Hollywood Florida USA September 30 - October 3. Paper No. - **48-S, CFW 57:A15**. Oral Presentation.

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82. Padmanabhan N., **Adedeji, A.A.**, Olson, V., Chambers, E and Alavi, S. (2012) Novel sorghum-based fortified blended food for infants, young children, and adults. American Association of Cereal Chemists International (AACCI). Held at Hollywood Florida USA September 30 - October 3. Paper No. - **55-O, CFW 57:A27**. Oral Presentation.
83. **Adedeji, A.A.**, Yangen, Z., Davis, A. and Alavi S. (2012). Utilization of sorghum co-product (DDGS) in aquatic feed production. American Association of Cereal Chemists International (AACCI). Held at Hollywood Florida September 30 - October 3. Paper No. - **CFW 57:A31**. Poster presentation.
84. **Adedeji, A.A.**, Joseph, M., Plattner, B., and Maichel, E. and Alavi, S. (2012). Novel sorghum based bean like product—bean analog. American Association of Cereal Chemists International (AACCI). Held at Hollywood Florida September 30 - October 3. Paper No. - **CFW 57:A32**. Poster presentation.
85. Alavi, S and **Adedeji, A.A.** (2012). Value-Added Utilization of Grain Sorghum and Its Co-Products via Extrusion. Presented at the 29th Sorghum Research and Utilization Conference - Great Plains Sorghum Conference held at Kansas State University International Grains Program Conference Center. August 28 – 30, 2012. Oral presentation.
86. **Adedeji, A.A.** and Ngadi, M. (2011). Shelf-life extension in preformed pizza using pulsed ultraviolet light. NABEC 2011. Held at Burlington Vermont, USA. July 24 – 27, 2011. Paper No. 11-061. Oral presentation.
87. Rahimi, J., Mofidi, S., Adewale, P., **Adedeji, A.A.**, Singh, A., Ngadi, M.O. and Raghavan, G.S.V. (2011). Textural properties of freeze-dried apple slices as coated by CMC and osmo-dehydrated in sugar solution. Paper number 11-041. Northeast Agricultural and Biological Engineering Conference, NABEC 2011 (July 2011), South Burlington, VT, USA. Paper number 11083. Oral Presentation.
88. Rahimi, J., **Adedeji A.A.**, Abdel-Nour, N. and Ngadi, M. O. (2010). Porosity and shrinkage of batter coating during deep-fat frying. NABEC 2010. Held at Geneva, Pennsylvania, USA. July 18 – 21, 2010. Paper No. 10-038. Oral Presentation.
89. **Adedeji, A.A.** and Ngadi, M. (2009). Influence of batter formulation on physical and microstructural properties of deep-fat fried chicken nugget coatings. Presented at annual international meeting of Institute of Food Technology (IFT) at Anaheim, California USA. June 6 – 10, 2009. Paper No. 255-02. Poster presentation.
90. Lui, L, Ngadi M.O., **Adedeji A.A.**, Prasher, S.O. and Garipey, C. (2009). Predicting intramuscular fat content of pork using hyperspectral imaging technique. Presented at annual international meeting of Institute of Food Technology (IFT) at Anaheim, California USA. June 6 – 10, 2009. Paper No. 254-02. Poster presentation.
91. **Adedeji, A.A** and Ngadi, M. O. (2008). Microstructural characterization of deep-fried breaded products using X-ray micro-computed tomography. A presented at International Congress of Engineering and Food held at Vina Del Mar, Chile from April 20 – 24, 2008. Paper number M06. Poster presentation.
92. **Adedeji, A.A.** and Ngadi, M. O. (2008). Use of confocal laser scanning microscopy in the study of breaded food microstructures. A paper (08-040) presented at Northeast Agricultural and Biological Engineering Conference (NABEC). Held at Aberdeen, Maryland, USA between 27th - 30th July 2008. Oral presentation.
93. **Adedeji, A.A.** and Ngadi, M. (2007). Pore characteristics of chicken nuggets breading coating. A paper presented at NABEC conference held at Wooster, Ohio, USA July 29th - August 1st, 2007. Paper number 07-013. Oral presentation.
94. **Adedeji, A.A.**, M. Ngadi, M. and. Raghavan, G.S.V. (2006). Effect of Microwave Precooking on Mass Transfer of Deep Fat Fried Chicken Nuggets. A paper presented at NABEC conference held in Montreal, QC, Canada. July 30th - August 2nd, 2006. Paper number 06-023. Oral presentation.

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INVITED TALK AND KEYNOTE PRESENTATION (Internal, National, and International)

1. **Adedeji A.A.** (2023). Agrifood waste reduction and upcycling – challenges and opportunities. An invited talk during the special session on circular bioeconomy systems organized by the Processing and Energy Systems (PRS & ES) Communities of ASABE during their annual international meeting held at the Chi Health Center/Hilton in Omaha NE on July 13, 2023. **INVITED (International)**
2. **Adedeji A.A.** (2023). Data Science Applications for Addressing 21st Century Challenges in Food Processing. Invited talk by the Department of Food Science and Human Nutrition, University of Illinois. March 22, 2023. **INVITED (National)**
3. **Adedeji A.A.** (2023). Practical-Systemic Approach for Teaching Engineering Contents to Food Science Students. Invited talk by the Department of Food Science and Human Nutrition, University of Illinois. March 22, 2023. **INVITED (National)**
4. **Adedeji A.A.** (2022). Sustainability and Data Analytics, A Two-Prong Approach to Addressing Current Gaps in Food Manufacturing. Invited talk to the Biological Systems Engineering and Food Science and Technology departments at the University of Nebraska – Lincoln. April 26, 2022. **INVITED (National)**
5. **Adedeji A.A.** (2022). Practical-Systemic Approach to Teaching Engineering Contents to a Broad-Based Student Population. Invited talk by the Biological Systems Engineering and Food Science and Technology departments at the University of Nebraska – Lincoln. April 25, 2022. **INVITED (National)**
6. **Adedeji A.A.** (2021). Keynote Speaker at the Planetary Session on Foods by National Science Foundation Graduate Research Traineeship (NRT) Symposium 2021 held on December 9, 2021. The Age of ‘ALT Proteins’: Impact on Water and Energy Conservation. **KEYNOTE (Internal)**
7. **Adedeji A.A.** (2021). My Scientific Research Journey. An invited online talk on May 21, 2021, by Beyond Meat Inc. California, USA. **INVITED (National)**
8. **Adedeji A.A.** (2020). Teaching and Learning Challenges under COVID-19: Lessons from Developed Countries, Professors and Students Perspective. An invited virtual presentation during Obafemi Awolowo University’s (Nigeria) Webinar Series given to an audience of Vice-Chancellors (Presidents), administrators and professors of public and private universities in Nigeria. July 28, 2020. **INVITED (International)**
9. **Adedeji A.A.** and Ngadi, M. O. (2013). Microstructural characterization of foods using x-ray micro-computed tomography. SYMPOSIUM on Food as Porous Media: Novel Approaches to Improved Understanding and Optimization of Processes. Institute of Food Technology (IFT) Meeting. Held at Chicago, IL USA. June 13 – 16, 2013. Paper No. 045-01. **INVITED (International)**

CONFERENCE, SUMMIT, AND WORKSHOPS ORGANIZED/CO-ORGANIZED

1. Co-organized a special invited session on circular bioeconomy systems at the annual meeting of ASABE held at the Chi Health Center/Hilton in Omaha from July 9 – 13, 2023.
2. Organized a training workshop on Non-destructive Methods Development (hyperspectral Imaging and Machine learning) for two visiting professors from Nigeria. July 3 – 7, 2023.
3. Co-organizer, Publicity Group and Entrepreneurial Pillar, Alliance for Modernizing African Agriculture (AMAA) Africa Conference November 2023 in Dakar Senegal.

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4. Co-organized the Breakout Sessions on “AI Applications in Food Processing” at the SEC Conference with the theme: “USDA NIFA AI in Agriculture: Innovation and Discovery to Equitably meet Producer Needs and Perceptions” held in Orlando Florida in April 17 – 19, 2023.
5. Co-organized the Tri-Community Symposium by African Network Group of ASABE (ANGASABE), Association of Chinese Agricultural, Biological and Food Engineers (AOCABFE), and Association Agricultural, Biological and Food Engineers of Indian Origin (AABFEIO). Topic: Post Pandemics Lesson Learned, Opportunities and Challenges in Developing Economies. Held during the AIM of ASABE in Houston and Omaha in July of 2022 and 2023.
6. 1st AI Conference in the SEC Region of the US. Envisioning 2050 in the Southeast: AI-driven Innovations in Agriculture Conference. Held at Auburn University from March 9 – 11, 2022. Co-Organized the Breakout Sessions on “AI Applications in Food Processing and Supply Chain”.
7. Co-organized Special Symposium by the PRS Community of ASABE on AI at the 2021, 2022 and 2023 AIM held from July 12 - 16, 2021, July 17 – 21, 2022 and July 9 – 12, 2023.

WORKSHOPS, TECHNICAL PAPERS AND INVITED COURSE PRESENTATIONS

1. **Adedeji A.A.** (2022). Food Insecurity Challenges: A Local to Global Perspective. A zoom lecture presented to Food Systems and Society, DHN 605 class in fall 2022 (October 18), in the Department of Dietetics and Human Nutrition, University of Kentucky.
2. **Adedeji A.A.** (2020 & 2022). Local to international perspective of food processing, packaging and distribution. A virtual lecture presented to Food Systems and Society, DHN 605 class in fall 2020, in the Department of Dietetics and Human Nutrition, University of Kentucky.
3. **Adedeji A.A.** (2020). Virtual State Fair, University of Kentucky College of Agriculture, Food and Environment (CAFÉ). Corn Extrusion from Bourbon and High-Tech Agriculture. August 22, 2020.
4. **Adedeji A.A.** (2019). A project proposal presentation to Kentucky Small Grain Growers Association (KySGGA) on a project titled: “Use of LED lights to optimize barley malt diastatic (fermentation) power and bioactive compounds for food production.”
5. **Adedeji A.A.** and Agbali, F. (2019). *A System Designed to Harness the Power of the Wind Energy for Effective Drying of Agricultural Products*. A workshop held for Elementary School kids from Capital Day School, Frankfurt, KY on April 23, 2019, from 10 – 11:30 AM.
6. **Adedeji A.A.** (2016, 2017 & 2018). *Introduction to Food Engineering*. Presented to Introduction to Food Processing Class (FSC 107) Food Science department at University of Kentucky. November 15, 16 & 17, 2016, 2017 & 2018, respectively.
7. **Adedeji A.A.** (2018). *So That’s How They Make It - Engineering New Foods from Millet and Spent Grain* - University of Kentucky Food Connection Food@Lunch Invited talk given on November 8, 2018.
8. **Adedeji A.A.** (2017). *How snacks and breakfast cereal are made using extrusion*. A 4-H Teen Conference workshop held in Biosystems and Agricultural Engineering Department on June 13 - 14, 2017
9. **Adedeji A.A.** (2015, 2016). *Extrusion Processing Technology*. Presented to Introduction to Food Processing Class (FSC 103) Food Science department at University of Kentucky. November 17&18, 2015 & 2016.
10. **Adedeji A.A.** and Pekarchik, K. (2015, 2016). *How to make yummy yogurt at home*. A 4-H Teen Conference workshop held in Biosystems and Agricultural Engineering Department on June 14 - 15, 2016.
11. **Adedeji AA.** (2016). *Approach to writing a winning research grant proposal*. Faculty of Engineering and Technology, Ladoke Akintola University of Technology, Ogbomoso Nigeria. May 31, 2016.

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12. **Adedeji A.A.** (2016). *My academic journey*. A seminar organized by Department of Food Technology, University of Ibadan as part of my Carnegie Fellowship to the department. May 11, 2016.
13. **Adedeji A. A.** (2016). *Developing Teaching Statement and Research Portfolio*. A seminar organized by Department of Food Technology, University of Ibadan as part of my Carnegie Fellowship to the department. May 18, 2016.
14. **Adedeji A.A.** (2016). *Submission for Change*. A seminar organized by department of Food Technology, University of Ibadan as part of my Carnegie Fellowship to the department. May 25, 2016.
15. **Adedeji A.A.** (2016). *What is Food Engineering?* Introduction to Food Processing Class (FSC 102) at University of Kentucky. April 13, 2016.
16. **Adedeji A.A.** (2016). *Food Engineering Program in Biosystems and Agricultural Engineering department at University of Kentucky*. A seminar given on January 29, 2016 during BAE department Graduate Recruitment Weekend.
17. **Adedeji A.A.** and others (2015). *Feedback on Implementation and Observations from Skills gained in the Training*. eLII – Panel Discussion held at David Marksbury Building University of Kentucky on November 19, 2015. 4 – 6 PM.
18. **Adedeji A.A.** (2015). *Cassava Initiatives in Africa*. A presentation made to Senior Seminar Class (BAE 400), Biosystems and Agricultural Engineering Department University of Kentucky. Fall 2015. November 2, 2015.
19. **Adedeji, A.A.** and Shi, J. (2015). Presentation to Kentucky Small Grain Growers Association (KYSGGA) to defend a proposal on *Fundamental Understanding of Millet Functionality as Ingredient in Human Food Applications and Biofuel Production*. July 30, 2015.
20. **Adedeji A.A.** (2014). *Agricultural produce value addition through processing*. A research seminar made during faculty interview in Biosystems and Agricultural Engineering department at University of Kentucky, March 27, 2014.
21. **Adedeji, A.A.** and Alavi, S. (2013). Introduction to extrusion processing and alternate extrusion technologies. KSU-Pakistan Aquaculture Short Course. Held at International Grain Program Center (IGP), Kansas State University, Manhattan KS, USA. February 18, 2013.
22. **Adedeji, A.A.** and Alavi, S. (2013). Value-Added Utilization of Grain Sorghum and Its Co-Products via Extrusion. Presentation made to a group of young sorghum growers undergoing leadership training courtesy – United Sorghum Checkoff Program (USCP). Held at Bioprocessing and Industrial Value-added Program (BIVAP), Kansas State University, Manhattan KS, USA. November 27th, 2013.
23. **Adedeji, A.A.** and Alavi, S. (2012). Value-Added Utilization of Grain Sorghum and Its Co-Products via Extrusion. Presentation made to the group of ADM senior management team visiting Grain Science and Industry department. October 16th, 2012. Held at International Grain Program Center (IGP), Kansas State University, Manhattan KS, USA.
24. Joseph, M., **Adedeji, A.A.** and Alavi, S. (2012). Development & Characterization of sorghum based pre-cooked bean like product using extrusion. Presented at the Grain Science and Industry Graduate Students 5th Annual Symposium. Held at International Grain Program Center (IGP), Kansas State University, Manhattan KS, USA.
25. Padmanabhan, N., **Adedeji, A.** Alavi, S., Maichel, E., Plattner, B., Lindshield, B., Procter, S. and Chambers, E. (2011). Novel Sorghum-Based Fortified Blended Foods for Infants, Young Children and Adult Nutrition. Dept of Grain Science and Industry, Kansas State University, Manhattan, KS. Presented at the Grain Science and Industry Graduate Students 4th Annual Symposium. Held at International Grain Program Center (IGP), Kansas State University, Manhattan KS, USA.

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26. **Adedeji, A.A.** (2011). Food Engineering in Nigeria – Challenges and Prospects. A paper presented at the annual meeting of National Association of Food Science and Technology Students, Ladoko Akintola University of technology Chapter, Ogbomoso, Nigeria.
27. **Adedeji, A.A.** (2011). Starch/poly vinyl alcohol/ Na⁺MMT based biodegradable nanocomposites using melt extrusion. Authors – Alavi, S., Sandeep, K. P. and Zhong, X. USDA-NIFA Project Director’s meeting at Arlington Virginia. October 23 - 26, 2011.

PROJECT REPORT AND UPDATE PRESENTATIONS

1. **Adedeji A. A.** (2022). *ALT* Proteins: A Sustainable Approach within the Nexus of Food, Energy and Water. Biosystems and Agricultural Engineering Departmental Seminar. February 18, 2022.
2. **Adedeji A.A.** (2019 - 2022). Project reports on USDA-NIFA Project #:2019-67021-29692 Machine learning and sensor data fusion approach for nondestructive multivariate classification of codling moth infested apples.
3. **Adedeji A.A.** (2021). Kentucky Small Grain Growers Association (KySGGA). Project report on 2019 funded project and proposal for a new one titled: “Light energy induced accelerated production of barley malt hydrolytic enzymes and bioactive compounds for food production processes”. August, 2022.
4. **Adedeji A.A.** (2019). USDA-Multistate (NC1023) station Report on Research Projects presented on October 21, 2019 during the USDA NC1023 multistate meeting held at New Mexico State University, Las Cruces, New Mexico.
5. **Adedeji A.A.** (2017). USDA-Multistate (NC1023) station Report on Research Project presented on December 4 -6, 2017 during the NC1023 multistate USDA meeting held at Washington State University, Pullman, Washington.
6. **Adedeji A.A.** (2016). USDA-Multistate (NC1023) station Report on Research Project presented on October 17, 2016 during the NC1023 multistate USDA meeting held at Oregon State University, Corvallis, Oregon.
7. **Adedeji A.A.** (2016). My eLearning Journey. eLII Round 2 Faculty Community Ignite Presentation. Held in Niles Gallery - Lucille Fine Arts Library, University of Kentucky on April 6, 2016.
8. **Adedeji A.A.** (2015). eLII Buzz: Volume 3|Cohort 2 Presentation on Pedagogical Techniques Implementation In Blended and Online Courses. Held in David Marksbury Building, University of Kentucky on November 17, 2015.
9. **Adedeji A.A.** (2015). USDA-Multistate (NC1023) station Report on Research Project presented on October 26, 2015 during the NC1023 multistate USDA meeting held at Madison Wisconsin near University of Wisconsin.
10. Ekramirad, N and **Adedeji, A.A.** (2015). Non-destructive detection of insect infestation in apples using acoustic and hyperspectral imaging techniques. A presentation made in the department of Biosystems and Agricultural Engineering, University of Kentucky on September 25, 2015.
11. Giarretta, A., Rady, A and **Adedeji A.A.** (2015). Optimization of deep-fat frying of sweet potato – effect of pretreatment and freezing rate. A presentation made in the department of Biosystems and Agricultural Engineering, University of Kentucky on July 24, 2015.
12. **Adedeji A.A.**, and Ngadi M. O. (2014). Fat absorption kinetics and structural changes during finish frying of potato strips. A presentation made at McCain Foods project meeting held at McGill University Macdonald campus on February 14, 2014.
13. **Adedeji, A.A.**, Cortbaoui, P and Ngadi (2014). Examining the influence of oven type and temperature distribution on pink coloration of St-Hubert chicken grills. A research project report submitted to Rôtisseries St-Hubert Ltee. June 5, 2014.

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14. **Adedeji, A. A.** A report summary of keynote address and sessions presentations during the Sixth McGill Global Conference on Food Security held on October 8 – 9, 2013.
15. **Adedeji, A. A.** and Alavi, S. (2012). PATH Ultra Rice – Product Improvement Project. A preliminary and project update report submitted to Program for Appropriate Technology in Health (PATH) between April and August, 2012.
16. **Adedeji, A.A.** and Alavi, S. (2012). Utilization of sorghum ingredients and co-products in aquatic animal feed production. A report submitted to United Sorghum Check-Off Program on January 30, 2012.
17. Padmanabhan, N., **Adedeji, A.A.**, Maichel, E, Plattner, B and Alavi, S. (2012). Novel sorghum based food products for infants, young children and adult nutrition. A Final report submitted to Kansas State Grain Sorghum Commission on April 15, 2012.
18. Padmanabhan, N., **Adedeji, A.A.**, Maichel, E, Plattner, B and Alavi, S. (2011). Novel sorghum based food products for infants, young children and adult nutrition. A mid-year report submitted to Kansas State Grain Sorghum Commission on November 23, 2011.
19. **Adedeji, A. A.** and Alavi, S. Pilot-scale studies for optimization and production of oat and multi-grain flakes. (2011). A report submitted to PepsiCo Co. USA on November 21, 2011.

MEDIA MENTION (Citations in the Press) 2014 - Date

1. UK research reveals breakthrough in gluten-free food safety. College of Agriculture, Food and Environment article. [URL](#). July 31st, 2023.
2. UK's Adedeji receives prestigious John Clark Award from Canadian Society of Bioengineering. College of Agriculture, Food and Environment. [URL](#). August 30, 2021.
3. CSBE Announcement of my John Clark Award: [URL](#). May 2021
4. ASABE Resource May 2020. Finding a better way to detect worms in apples. May/June 2020 edition of ASABE Resource Magazine. [URL](#)
5. Fruit Growers News. Kentucky studies detection of worms in apples.[URL](#). Published October 10, 2019.
6. University of Kentucky News, UKNOW. UK Researchers Studying Ways to Detect Worms in Apples. [URL](#)
7. College of Engineering UK NEWS, October 2, 2019: [URL](#)
8. College of Agriculture, Food and Environment NEWS: [URL](#). September 25, 2019 | By: Katie Pratt
9. Morning Ag. Clips. Student project could have international impact. Published April 5, 2018. [URL](#)
10. UKNOW. UK Student Project has Potential to Make International Impact. [URL](#) April 6, 2018.
11. UK College of Agriculture, Food and Environment. [URL](#)
12. University of Kentucky, College of Engineering News and Events and Seed Today. University of Kentucky Student Project Has Potential To Make International Impact. [URL](#). April 9 & 23, 2018.
13. How A Wind Turbine Made In Ky. Could Be A Game Changer For Nigerian Farmers by Roxanne Scott, 89.3 WFPL (National Public Radio, Louisville, KY). [URL](#)

TEACHING RECORD

Undergraduates and Graduate Courses

AEN 340 - Principles of Food Engineering. Improved by adding 5 Lab classes, and teaching materials. Since Fall 2014 to date.

HON 395 – Research Project Credit, (Spring, 2018 & 2020: Megon Davisson and Ivory Simon-Okube)

BAE 400 – Senior Seminar class Fall 2017 to 2020

BAE 402 – Senior Design: 2016/2018; 2018/2019

BAE 450 – Undergraduate Student Independent Study (Summer 2015, Spring 2018, 2022)

Curriculum Vitae

BAE 549 – Bioprocess Engineering. Since Fall 2015 to date.

BAE 750 – Special BAE Problems Credit (Spring 2016: Manjot; Fall 2016: Francis & Melody; Spring 2017: Francis Agbali & Joseph Woomer; 2019 Spring, Felix Akharume; Spring 2023: Tosin Olanrewaju).

BAE 775 Professional Practice, Fall 2022 (50%)

STUDENT AND STAFF ADVISORSHIP (7 graduate students, 2 post-doctoral scholars, 11 visiting scientists, 21 undergraduate students and 2 high schoolers)

Faculty Advisor, National Science Foundation Graduate Research Traineeship (NRT) – Center for Applied Energy and Research (CAER), University of Kentucky. December 2021 – Date.

Staff

Research Assistant, Part-Time: Tyler Johnson, May – August 2023. Project: Meat color prediction, cornmeal-wheat cross-contamination prediction, and proso millet cultivar differentiation and quantification

Post-Doctoral Scholars:

1. Al Fadhl Yahya Khaled, Ph.D. Post-Doctoral Scholar. March 2020 – July 2021. Nondestructive detection of codling moth infestation in apples. A USDA-NIFA funded project.
2. Ahmed Rady Ph.D. (Post-Doctoral Scholar), March 2015 – October 2016. Detecting adulterants in processed meat using non-destructive methods – hyperspectral imaging. Assistant Professor at Alexandria University, Egypt.

Graduate student advisorship

Current:

3. Adewale Oloyede (MS Student) Fall 2023 – Summer 2025. AI applications in food quality evaluation – allergen detection and quantification/ seed viability detection.
4. Tosin Olarewaju (MS Student) Fall 2022 – Summer 2024. Distillers' spent grain value-addition

Graduated students:

5. Nader Ekramirad (Ph.D.) BAE Fall 2019 – Fall 2021/Summer 2022. Nondestructive methods development for insect infestation detection and classification in apples.
6. Felix Akharume (Ph.D.), BAE Fall 2017 – Summer 2020. Structural determination, physico-chemical characterization, and molecular dynamic modelling of proso millet storage proteins for enhanced functionality.
7. Abuchi Okeke (MSc), BAE Spring 2019 – Summer 2020. Rapid method for the detection of gluten in raw and processed foods.
8. Francis Agbali (MSc), BAE Fall 2015 – Spring 2019. Design and testing of a wind energy harnessing system for forced convective aeration of grain in low wind speed, warm and humid climates. Best oral presentation at 2nd International Conference on Food Safety, Pretoria, South Africa Oct. 2018.
9. Joseph Woomer (MSc), BAE Fall 2016 – Fall 2018. Valorization of proso millet and spent grain for extruded snack development.
10. Manjot Singh (MSc), BAE 2015 – 2016. Physicochemical, Rheological and Baking properties of proso millet. Graduated December 2016. Outstanding MSc Student, Gamma Sigma Delta (College of Agriculture, Food and Environment Honor's) Society. Currently works for Bunge, USA.

Transfer Student

Curriculum Vitae

11. Mengxing Li (Ph.D.), Fall 2016 – Summer 2017. Nondestructive method for agricultural produce safety and quality assurance – acoustic and hyperspectral imaging. Left for another university to re-connect with his M.S. advisor to work on a different project.

International Student Advising

1. Omolara Adedokun. MSc 2019 - 2022. Formulation of functional beverage from a blend OF BAOBAB (*Adansonia digitata*), pineapple (*Comosus ananas*) and black-plum (*Syzygium cumini*) fruits. The Nelson Mandela African Institution of Science and Technology, Tanzania. Appointed external advisor by the institution; guided the student from research ideation till the final defense.

Visiting scientists hosted:

1. Prof. Sam Omobowale and Prof. Aremu from Agricultural and Environmental Engineering Department, University of Ibadan Nigeria. July 3 – 7, 2023. Training on nondestructive/AI methods for Agrifood systems evaluation.
3. Engr. Paul Omale. Visiting student from Federal University of Agriculture, Makurdi Benue State Nigeria. October 2022 – April 2023. Project Title: Optimization of tiger nut (*Cyperus esculentus*) oil extraction system & evaluation of its quality characteristics
4. Prof. Reza Alimardani, visiting scientist on sabbatical from the University of Tehran. January 10 – March 11, 2020. Project: State of the Art on Internet of Thing (IoT) Application in Agricultural Production and Food Processing.
5. Hosted Dr. Babatunde Ogunsina of the Department of Agricultural and Environmental Engineering, Faculty of Technology, Obafemi Awolowo University, Ile Ife, Nigeria from June 20 – 21, 2019.
6. Hosted two Korean Scientists (Drs. Youngwook Seo and Young Hee Lee) from the National Institute of Agricultural Sciences, RDA, Korea on February 11, 2019.
8. Mr. Olufemi Adetola (Visiting faculty and Ph.D. student from Federal University of Technology, Akure, Nigeria). Jan – July 2018.
9. Dr. Yarmand (Visiting Professor from University of Tehran, Iran). Feb – Sept 2017. Goat meat tenderization, using novel approach – microwave and high-pressure treatment.
10. Ms. Xiao Chen (Visiting MSc student from Henan University, China). July 2016 – April 2017. Food waste conversion to bioenergy (bio-hydrogen).
11. Dr. Nader Ekramirad (Visiting Ph.D. student from University of Tehran), April - September 2015. Non-destructive methods for assessing insect larvae damage in apples. Graduated Nov 2016.

Undergraduate (UG) student research assistant/intern:

1. Tyler Johnson, August – December 2022. UG Research Assistant on barley cross-contamination prediction model development project...
2. Julia Loeb, May – December 2021. UG Research Assistant on plant-based protein product development and nondestructive testing projects.
3. Lauren Doyle, Feb – December 2021. UG Research Assistant on barley malt and nondestructive testing projects.
4. Ivory Okube, Sept 2019 – May 2020. UG Research Assistant on protein quality and non-dairy milk projects.
5. Theshmey Coq, May – June 2018. Summer intern working on extruded products material characterization.
6. EPA P3 Student Competition Mentees: David Cline, John Mays and Chase Mahoney.
9. Megan Davisson, Jan – May 2018, Jan – Feb 2019. Understanding material properties of extruded and expanded products from millet and spent grains.

Curriculum Vitae

10. Team Wind: Senior Design group in BAE 402 and 403, Fall and Spring 2016/2017; 2018/2019. Eight **(8)** students.
18. Bradley Ballard, September 2016 – August 2017. Chia mucilage extraction and coating on seeds; Gluten free bread from millet. Product development and sensory evaluation.
19. Shinta Marchelia Sugiharto, Indonesia International Institute of Life Sciences. June – August 2016. Hyperspectral imaging for predicting carrot qualities.
20. Winda Winda, Indonesia International Institute of Life Sciences. June – August 2016. Millet bread quality characterization.
21. Andrew Giarretta (Undergrad Intern), May - July 2015: Sweet potato frying process optimization.

High and Middle School Scholars

- High Schoolers: Kristian Bolden and Jonathan Lott. Design, Fabrication and Testing of a Pulsed UV Light System for Treatment of Produce (Strawberry) to extend their shelf-life and Design and Testing of Ultraviolet Light System for Treatment of Fruits to extend their Shelf-life as Compared to Biomass Derived Antioxidant. NSF STEM scholarship for under-represented minority in High School in Kentucky. Jan – May 2018 and Spring 2019. Both came 2nd place at the Divisional and State level Science Fair in 2019.
- Middle School Scholars: Science Fair Mentor Project. Fall 2023

VOLUNTEER AND SERVICES

Graduate Student Committee

6. Student's Name: Chadwick Parrish. Degree: Master of Science. Thesis Title: Vibro-Acoustic Codling Moth Larvae Infestation Detection in Apples. Electrical and Computer Engineering Department at the University of Kentucky. April 28, 2021.

External Examiner Duty

University of Kentucky, KY USA

1. Ms. Jasmine Wood: Degree: Doctor of Philosophy. Dissertation Title: Developing a biocatalytic toolbox to aid in diversifying nucleoside antibiotics. Pharmaceutical Sciences, College of Medicine, University of Kentucky. July 21, 2023.
2. Mr. Brien Washington: Degree: Doctor of Philosophy. Dissertation Title: Dosimetric and clinical investigation into dose variations of the target and organs at risk in high dose rate gynecological brachytherapy. Department of Radiation Oncology, College of Medicine, University of Kentucky. April 26, 2023.
3. Ms. Aryia Byrd. Degree: Doctor of Philosophy. Dissertation Title: Elucidating the role of polycomb repressive complex in lung disease. Department of Toxicology and Cancer Biology, College of Medicine, University of Kentucky. April 27, 2022.
4. Mr. Siavash Mazdeyasna. Degree: Doctor of Philosophy. Dissertation Title: Noncontact Multiscale Diffuse Optical Imaging of Deep Tissue Hemodynamics in Animals and Humans. Biomedical Engineering Department at the University of Kentucky. September 2020.

Outside The US:

University of Kwazulu-Natal, South Africa

5. Ms. Sandile Sifiso Dlalda. Degree: Master of Science. Thesis Title: Effects of different packaging materials and storage conditions on the quality attributes of tomato fruits across the South African supply chain. January 2022

McGill University, QC Canada

Curriculum Vitae

6. Mr. Sai Kranthi Kumar Vanga. Degree: Doctor of Philosophy. Dissertation Title: Effects of novel processing techniques on proteins in plant-based alternative milk. Bioresource Engineering Department at McGill University. July 2018.

Technical Proposal Review and Jury Service

1. Reviewer, French National Research Agency – IRIS, April 2023
2. Reviewer, University of Kentucky, Wethington/Matthews/Singletary Fellowships 2023
3. Reviewer, FRQNT - Fonds de Recherche du Québec, January 2023
4. Reviewer, National Oceanic and Atmosphere Administration of US, NOAA, December 2022
5. Reviewer, USDA Equipment Grant, April 2022
6. Reviewer, USDA SBIR 8.5 Phase I. Jan 2022, Dec. 2022
7. Reviewer, QUAD Fellowship, October and November 2022
8. Reviewer, MITACS Canada, March 2022
9. Proposal Reviewer, Carnegie African Diaspora Fellowship Program's applications for Spring 2020, 2019, 2018, Fall 2017.
10. Panelist, BAE Periodic Program Review panel. Jan. 23, 2018.
9. Reviewer, Ontario Ministry of Agric., Food & Rural Affairs (OMAFRA). Jan 2017
10. Reviewer, Virginia Tech. CALS Animal Nutrition Pratt's Grant Program. Jan 2017
11. Reviewer, USDA-AFRI/NIFA panel on "Improving Food Quality". October 10 – 13, 2016.
12. Reviewer, USDA-AFRI/NIFA panel on Agricultural Systems and Technology: Engineering. Products and Processes. June 15 – 18, 2015.
13. Judge on STEM Clean Tech Competition. 2016, 2019.

Journal Review Service

Editorial Duties

1. Special Topic Editor – MDPI Publisher 2021 to 2023
 - a. Special Issue topic in Foods Journal: Applications of Non-destructive Technologies for Agric. & Food Products Quality Determination 2021 – 2022 (7 papers edited & published)
 - b. Special Issue topic Agriculture Journal: Innovative Methods and Technology for Resilience Agrifood Systems 2022 – 2023
2. Editorial Board Member, Frontiers
 - a. Associate Editor, Frontiers in Nutrition and Food Science Technology (2021) (8 papers assigned; 8 papers completed)
 - b. Guest Associate Editor, Frontiers in Sustainable Food Processing. Topic: Advances in Millet Research (2022) (3 papers published)
 - c. Topic Editor, Frontiers in Sustainable Food Processing: Processing, Value Addition and Storage Millets (2023)
3. Associate Editor, ASABE (PRS, ITSC & NRES) August 2015 to date (28 papers Assigned: 27 completed)

Journal Review Duties

1. Journal of Food Process Engineering 2009 to date (14 papers reviewed)
2. Transactions of ASABE & Applied Engineering 2014 to date (16 papers reviewed)
3. Journal of Food Processing and Preservation 2015 to date (12 papers reviewed)
4. Journal of Food Engineering 2017 to date (16 papers reviewed)
5. Food and Bioprocess Technology 2015 to date (9 papers reviewed)
6. Food Chemistry 2019 to date (2 papers reviewed)

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7. LWT	2016 to date (17 papers reviewed)
8. Journal of Food Measurement and Characterization	2016 to date (5 papers reviewed)
9. Journal of Food Science	2015 to date (12 papers reviewed)
10. Meat Science	2017 to date (4 papers reviewed)
11. Journal of Science of Food and Agriculture	2012 to date (5 papers reviewed)
12. Critical Review in Food Science and Technology	2015 to date (2 papers reviewed)
13. Foods	2019 to date (5 papers reviewed)
14. Meat and Meat Biology	2019 to date (2 paper reviewed)
15. Food Analytical Methods	2020 to date (1 paper reviewed)
16. Int'l Journal of Biological Macromolecules	2020 to date (2 papers reviewed)
17. Scientific Reports	2020 to date (1 paper reviewed)
18. Cereal Chemistry	2020 to date (1 paper reviewed)
19. Microchemical Journal	2021 to date (2 papers reviewed)
20. Journal of Cereal Science	2021 to date (1 paper reviewed)
21. Frontiers	2022 to date (2 papers reviewed)
22. Applied Food Research	2022 to date (1 papers reviewed)
23. Journal of Agriculture and Food Research	2023 to date (1 papers reviewed)
24. Journal of Food Composition and Analysis	2023 to date (1 papers reviewed)

Book Review Duties

1. Sorghum and Millets: Chemistry, Technology and Nutritional Attributes, 3rd edition (2023)
2. Plant-based proteins- Sources, Extraction, Applications, and Value-chain. Elsevier (2022)
3. Food and industrial applications of Bambara groundnut. Springer Nature. (2020)

Service position within BAE Department

1. Chair, Research and Graduate Studies Committee (RGSC). August 2021 – present
2. Laboratory Safety Committee, member. August 2021 – present
3. Seminar committee, member. August 2021 – present
4. Member, Search Committee for Engineer Associate for Electrical Engineering, BAE Department, University of Kentucky. 2018-2019, 2019 - 2020.
5. Member, Search Committee for Assistant/Asso. Professor of Food Processing/Fermentation, BAE Department, University of Kentucky. 2020
6. Departmental delegate to the College of Agriculture, Food and Environment Faculty Council, 2019.
7. Member, Search Committee for Research Facilities Manager, BAE Department, University of Kentucky. 2016, 2019.
8. Member, Undergraduate curriculum committee. August 2017 to date.
9. Chair, Student Recruitment and Outreach committee. BAE Department. 2015 to 2020.
10. Secretary, BAE Faculty Meeting. 2015-2017.
11. Member, University of Kentucky TSM program curriculum committee. 2015 to date.
12. Member, BAE student recruitment and outreach committee, 2014 – 2015.
13. Alumni and development committee member, 2014 – 2015.
14. Member, Search Committee for Assistant Professor of Bioprocessing, BAE Department, University of Kentucky. 2014 – 2015.

Service within University of Kentucky (CAFE, COE, and UK)

1. Reviewer, Wethington/Matthews/Singletary Fellowships - Graduate School's Fellowship, 2023

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2. Search Committee member, Assistant Professor position in the Department of Retailing and Tourism Management. August 2022 – 2023.
3. Reviewer, University of Kentucky Graduate School Committee on Fellowships and Traineeships 2022 - 2025
4. Member, College of Agriculture, Food and Environment (CAFÉ) Barnhart Fund of Excellence Award Selection Committee 2019 – to date.
5. High School Student Mentor, NSF Scholars Program, UK-Carter G. Woodson Academy - 2018
6. Advisor, EPA P3 Student Competition at US Engineering and Science Festival held in Walter E. Washington Convention Center in DC under National Sustainable Design Expo. April 7 – 8, 2018
7. Member, UK Food Connection Committee on Student Support Program 2014-2015
8. Mentor, UK Team from College of Engineering to the 1B FirstBuild competition on October 2, 2015 in Louisville, KY

Service within Professional Associations

1. ASABE
 - a. Conference Session Organizer (Circular Bioeconomy, AI- and Tri-Community Symposia) and Chair/Moderator. ASABE Annual International Meetings, 2022- 2023
 - b. Conference Session Organizer, Southeast Conference (SEC) Artificial Intelligence Conference on Agricultural Systems. March 2022 and April 2023.
 - c. Chair of PRS 06 (M154) – Nominating Committee – International Food Engineering Award. 2022 – 2023
 - d. Member, ASABE M-102 Awards Coordinating committee. 2022 - 2023
 - e. Member, Alliance for Modernizing African Agriculture (AMAA). July 2020 to date
 - f. Membership Development Council of ASABE – PRS Rep since July 2021 – to date
 - g. President, African Network Group of American Society of Agricultural and Biological Engineers (ANGASABE). 2022 – 2023.
 - h. Vice President, African Network Group of American Society of Agricultural and Biological Engineers (ANGASABE). 2020 – 2022.
 - i. Chair and Ad-hoc committee member for awards, publicity (website & social media) – African Network Group of ASABE (ANGASABE), 2019 – 2020.
 - j. Past Chair, Chair, Vice Chair, Secretary, Process System Community (PRS), 2019 – 2023.
 - k. Judge for Superior Paper Award, ASABE-PRS Community – 2019 & PRS Poster competition: 2019 – present.
 - l. Past Chair (2020 – 2022), Chair (2018 – 2020), Vice Chair (2016 – 2018) and Secretary (2015 – 2016) – ASABE-PRS 701 Committee,
 - m. P-129 (Student Poster and Oral Competition) Committee - Rep for PRS, 2018 – 2021.
 - n. Vice Chair Publicity, ASABE Kentucky Section, 2017 - 2018
 - o. Conference Session Chair/Moderator, ASABE-PRS 701, 703: Spokane 2017(1); Detroit 2018(3); Boston 2019(1); Virtual 2020 (PRS Community Showcase Live Session Moderator); Virtual 2021 (PRS 01 Live Session and PRS 701)
 - p. Member, Ad-hoc committee on Revitalization Program for ASABE-PRS 701, 2015 - 2017
 - q. Member, Ad-hoc committee on development of collaboration between African Network & our Chinese colleagues, 2016 - 2017
 - r. Panel Member, ASABE AIM 2016 - Marketing Yourself in Academia CPD Panel. July 17, 2016.
 - s. ASABE Future City Regional Competitions - Special Award Judge, 2015
2. Institute of Food Technology (IFT)
 - a. IFT Bluegrass Branch, Scholarship Award Committee, member 2017 – to date

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- b. IFT Annual Meeting Scientific Program Track Team Reviewer (Food Engineering Division), 2013 -2016, 2018-2023
- c. IFT Research and Development Awards Jury, 2015 – 2017, 2023
- d. IFT Feeding Tomorrow Scholarship Jury, 2014, 2016, 2017
3. Member, NC 1023 multistate hatch committee, 2014 to date
4. Ad-hoc committee member (Resources for Mathematical Modeling; Teaching Food Engineering to Engineers and Non-thermal Processing) NC 1023 October 2014 to date.
5. OTHERS:
 - a. International Congress of Food Engineering, June 2023. Session Chair/Moderator: Reactivity & confined systems.

Advisory Board Membership

Member, Advisory Board of Biosystems and Agricultural Engineering program at Florida A&M University. 2015 to date.

Other volunteer services

- Community Organization volunteer: Gbongan Notables Worldwide (GNW), Chair Agricultural Committee). A community organization in my hometown in Nigeria. June – July 2021.
- Board Member, Creekside Andover Neighbor Homeowners' Association Sept 2019 - date
- Member of Choir, Immanuel Baptist Church, Lexington KY Aug 2018 - date
- McGill University International Student Buddy Program Jan 2005 to Jan 2009
 - Helped intending, new and international students with information related to travel visa, housing, cost of living etc.
 - Met with new students after arrival to help them settle quickly and easily.

PROFESSIONAL DEVELOPMENT ACTIVITIES ATTENDED 2014 - Present

Research & Development Workshops and Seminars Attended

1. Headwall webinar on Non-Contact Fish Histamine Detection using Hyperspectral Imaging. Held on March 28, 2023.
2. Grant Writing Seminars and Workshops organized by CAFE and facilitated by Grant Central, USA. Dec 6 & 7, 2022 at the Y.T Young Library, University of Kentucky.
3. Global Engagement Academy training. Six Modules. University of Kentucky, Feb 2022 – May 2023
4. USDA Roundtable: Food Loss and Waste Successes from the U.S. and Canada. Held on November 2, 2022, online via zoom.
5. VP for Research Lunch and Learn. Tools & Services to Enhance Research Productivity: Electronic Systems, Libraries & Complex Grant Support. October 26, 2022.
6. USDA-HEC: Enhancing Learning Outcomes Using Student-Centered Approaches – Workshop held at the University of Maine RiSE Center from August 1 – 3, 2022.
7. Cultural Awareness for Global Business Workshop. By Gatton College of Business and Economics. March 2022.
8. Introduction to Sustainability Reporting and the GRI Standards. Online training on sustainability and reporting. From Dec 2021 – June 2022.
9. LeanCor Lean Six Sigma Green Belt Certification, May 2021
10. LeanCor Fundamental of Project Management Certification, August 2019
11. MSF Python Workshop 11:30-1 on Friday Dec 6, 2019, in Room 383 in Business Building (Gatton College of Business and Economics).
12. LinkedIn Learning. Critical Thinking. Mike Figliuolo. May 3, 2019.
13. LinkedIn Learning. Strategic Thinking. Dorie Clark. February 19, 2019.

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14. Department of Plant Science Seminar. Embracing Complexity in Biological Systems by Dr. Jacobson, Oakridge Lab. Held on March 28, 2019 (Thursday) 1:30 PM, Cameron Williams Lecture Hall, 101 Plant Science Building
15. Grant Writers Seminars and Workshop in Association with University of Tennessee Knoxville and University of Kentucky. 2017, 2018. By Dr. Broyles.
16. IBM Workshop Cognitive, HPC and Cloud Review - Deep Learning HPC State of Review. Held at 1 pm in Jacob's Science Building Rm 108.
17. NSF Career Workshop by Dr. Christina Payne, Associate Director NSF CBET Program. Held in 307 Gatton College of Business from 10 am - 12 pm.
18. University of Kentucky, Office of VP Research Workshop - Mentor Training Sessions. March 23, 30 & April 6, 2018. Held in Charles T. Wethington Building 312.
19. Promotion and Tenure Workshop on Feb. 19, 2018. Held in Gorham Hall, Good Barn, College of Agriculture, Food and Environment.
20. College of Engineering Faculty development Spring 2018 Workshop Series: Holding difficult conversation (Jan 24, 2018); Meet Productively (February 28); Time Management (March 28, 2018); Handling Disagreements in the Workplace (April 25, 2018).
21. CAFE Workshop: Integrity and Ethics in Instruction Workshop held on Jan 9, 2018, 3 - 5 pm in 221 Jacob Science Building
22. Unconscious Bias. University. 8:30 – 10 am on March 24, 2017.
23. Active Shooter Forum held in Seay Auditorium in Ag North at 1 pm on Wednesday, February 15, 2017.
24. Strengthening the Connection between Life-Science Research and K-12: An NSF Sponsored Workshop. Held on April 2nd, 2016 at UK-Lexmark Building, from 8:30 am – 5 pm.
25. Cayuse 424, a new proposal submission platform at UK. Held on May 22, 2017 in Cameron Williams hall from 10 – 11:30 am.
26. Microsoft AZURE. February 7, 2017. David Marksbury. 9 am – 4:30 pm.
27. Introduction to Zoom Web Conferencing. Online Webinar. February 6, 2017.
28. Introduction to ENVI. Held by Harris Corp Company in Bloomfield, Colorado. January 24 – 26, 2017.
29. College of Engineering (COE) Faculty Development Workshop Series: January 17 – Proposal Development and Management (Pre- and Post-awards); February 21 - Patent Literature (as it pertains to research) and Building a Brand; March 21 – Effective Teaching; May 16 – Research Commercialization Strategies, IP Policy, and Innovation Held in 112 Oliver H. Raymond building.
30. The College of Agriculture, Food and Environment (CAFE) Faculty Council Lunch & Learn session for November held on November 17, from 12:00-1:00 in the Weldon Suite of the E.S. Good Barn.
31. First Modeling and Simulation of Food Systems (MSFS) workshop. Held in Capri Italy. June 6 – 9, 2016.
32. Coursera online module on Data Science: Module 2, “R Programming Language” -. John Hopkins University. Feb – April, 2016. Grade Achieved – 96%.
33. Office of VP Research, University of Kentucky Grant Writing Workshop Series. Developing a Research Proposal: NSF and DOD/DOE. Mining Building on March 8, 2016.
34. Promotion and Tenure Workshop on Feb. 26, 2016. At Cameron Williams auditorium of the Plant Sciences building.
35. Transformative Food Technologies to Enhance Sustainability at the Food, Energy, and Water Nexus. Held at the Innovation Center Conference Center, University of Nebraska, Lincoln Nebraska. February 22 – 24, 2016.

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36. Imaging Symposia. Biomedical Informatics. By Dr. Zhang, a Professor Internal Medicine at, Director for Medical Informatics and Director for Biomedical Informatics Core, at University of Kentucky. Pavilion H Rm HX303.
37. "Working with Distressed and Distressing Students". A presentation made by Mary Chandler Bolin, PhD, Director-University of Kentucky Counseling Center and Therese Smith, Students of Concern Case Manager, both of University of Kentucky. November 17, 2015 at 2 – 3:30 pm in C.E. Barnhart Building Room 249.
38. Center for Enhancement of Education and Learning (CELT) Workshop. "Why We Love the Classroom: A Conversation". Monday, October 12th, 2015 from 3:30 - 4:30 p.m. Held in Niles Gallery, Lucille Little Fine Arts Building, UK, Lexington KY.
39. Performance Reviews and Dossier Preparation Workshop by Black Faculty Group at UK. September 23, 2015, 11 am - 1:30 pm at Hilary Boone Faculty Club, UK.
40. Workshop on "Data Analytics with MATLAB". September 16, 2015. W.T. Young Library, Room B108C.
41. Audited Calculus by MIT on Edx.org. July – August 2015.
42. Online Module on "Introduction to Data Science" on Coursera. John Hopkins University. May 4 – 31, 2015. Grade Achieved – 100%.
43. Online Webinar on "Simulating Food Industry Processes with COMSOL Multiphysics". By COMSOL on May 28, 2015.
44. Promotion and Tenure Beginnings Workshop. Held on May 12, 2015 at Lexmark Room 209, Main Building, UK. Facilitated by Associate Provost for Faculty Advancement and Institutional Effectiveness.
45. NSF Career Proposal Writing Workshop. Held at Northeastern University, Boston MA from April 27 – 28, 2015.
46. NSF Career Workshop Organized titled "NSF Career Workshop - Prospects & Recent NSF Reviewers". Organized by UK College of Engineering on April 22, 2015 at Boone Center Hunt Room.
47. Intellectual Property Workshop in Commercialization Workshop Series organized by UK Office for Commercialization and Economic Development, Gatton College of Business and Economics, UK office of the VP for Research and UK Office of the Provost. Held on March 4, 2015 in Wethington Health Sciences Building, room 127.
48. Promotion and Tenure Workshop on Feb. 13, 2015. At Cameron Williams auditorium of the Plant Sciences building.
49. 2015 NSF CAREER Proposal Writing Workshop. Held at Northeastern University, Boston, MA from April 27 – 28, 2015.
50. International Non-thermal Processing Short Course. Held at Ohio State University, Columbus. October 21, 2014.
51. Basic Grantsmanship ~ A Framework for Success Tomorrow. A presentation organized by office of Vice President for Research at University of Kentucky. Presenter: Kathy Doyle Grzech, M.A., Associate Director, UK Proposal Development Office. Held on October 7, 2014.
52. Grant writing workshop organized by University of Kentucky Center for Clinical and Translational Science. Titled: Grant Writing: *Progressing from an Idea to Funding*. Held on September 24, 2014.
53. COMSOL Multiphysics Workshop. Held at Four Point by Sheraton Lexington KY on Nov 13, 2014.

Teaching Workshops and Seminars Attended

1. Center for Enhancement of Education and Learning (CELT) Workshop on "Learning How to Learn: Powerful Mental Tools to Help You Master Tough Subjects". Held on Friday, April 12, 2019 from 2:00 - 3:00 in Gatton College of B&E, Room 311.

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2. Faculty Learning Community (FLC), facilitated by ASD for Instruction, CAFÉ, Dr. Grabau. We met once a week on Tuesdays from March 26 to May 7, 2019. We extensively discussed the book by Ken Bain, "What the best college teachers do".
3. Wiley. Connecting and Engaging Students in Your Face-to-Face Course. By Roshelle Overton and Casey Colson. March 19, 2019.
4. Center for Enhancement of Education and Learning (CELT) Workshop on "The Right Tools – Selecting Technology Strategically and Effectively". Held on Wednesday, March 9, 2019 from 3:30 - 4:30 p.m. in Niles Gallery, Lucille Little Fine Arts Library
5. What's The Focus? (WTF?) CELT Workshop on Multimedia held on February 29, 2016, at 2 - 3:30 pm in Young Library B24A.
6. Center for Enhancement of Education and Learning (CELT) Workshop. "Who Are Our Students? A Student Panel Discussion". Held on Wednesday, February 3, from 3:30 - 4:30 p.m. in Niles Gallery, Lucille Little Fine Arts Library.
7. Faculty Learning Community (FLC), College of Environment, Food and Agriculture, University of Kentucky. Met from February – March, 2016.
8. Faculty Learning Community (FLC), eLearning Blended and Online Group. Met from September 2015 - April 2016, once a month.
9. Center for Enhancement of Education and Learning (CELT) Workshop. "The Good, the Bad, and the Ugly: Teacher and Course Evaluations". Wednesday, November 18th, 2015 from 3:30 - 4:30 p.m. Held in Niles Gallery, Lucille Little Fine Arts Building, UK, Lexington KY.
10. Center for Enhancement of Education and Learning (CELT) Workshop. "The Right Tools – Selecting Technology Strategically and Effectively". Wednesday, October 21st, 2015 from 3:30 - 4:30 p.m. Held in Niles Gallery, Lucille Little Fine Arts Building, UK, Lexington KY.
11. eLII: Innovation + Design Lab 3-day workshop. Facilitated by CELT, UKAT and UK eLearning. Held from May 12 – 14, 2015 at Little Library and King Library on UK Campus.
12. STEM teaching enhancement workshop and forum. April 25th, 2015. Held at Hilary J. Boone Center, University of Kentucky.
13. eLII – Panel Discussion held at David Marksbury Building on April 9, 2015. 4 – 5 PM.
14. The Nature of Undergraduate Education. The Office of Faculty Advancement & Institutional Effectiveness in collaboration with The Office of Undergraduate Education and UK Analytics and Technologies presents Dr. Jillian Kinzie. March 25, 2015, at Center Theatre, Student Center, UK.
15. Public Speaking Seminar Series – Power Hour, University of Kentucky Library, Fall Semester 2014. Topics includes : Formal Speech Making, Speech Delivery, Presentation Aids, Intellectual Property, Avoiding Plagiarism and Listening & Responding: Empathy, Understanding, & Constructive Criticism.
16. Graduate Teaching Workshop – A teaching workshop organized by Tomlinson Project in University-Level Science Education (T-PULSE) for Teaching Assistants at McGill to introduce them to Learner's Centered Approach. Jan 2007

Professional Meetings Attended 2014 - date:

1. International Congress on Engineering and Foods. Held in Nantes, France from June 19 – 23, 2023.
- 2.
3. Canadian Society of Bioengineering (CSBE) Annual General (AGM). Held in Charlottetown Prince Edward Island, Canada from July 24 – 27, 2022.
4. American Society of Agricultural and Biological Engineers (ASABE) Annual International Meeting (AIM). Held in Houston Texas from July 17 – 21, 2022.
5. Envisioning 2050 in the Southeast: AI-driven Innovations in Agriculture Conference. Held at Auburn University from March 9 – 11, 2022.

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6. American Society of Agricultural and Biological Engineers (ASABE) Annual International Meeting (AIM). Held virtually from July 12 – 16, 2021.
7. American Society of Agricultural and Biological Engineers (ASABE) Annual International Meeting (AIM). Held virtually from July 12-15, 2020
8. American Society of Agricultural and Biological Engineers (ASABE). Held in Boston, Massachusetts State from July 6 - 10, 2019.
9. 3rd International Symposium on Broomcorn Millet held in Fort Collins Colorado from August 8 – 12, 2018
10. American Society of Agricultural and Biological Engineers (ASABE) annual conference. Held in Detroit, Michigan from July 29 – August 1st. 2018
11. American Society of Agricultural and Biological Engineers (ASABE). Held in Spokane, Washington State from July 16 - 19, 2017.
12. Institute of Food Technology (IFT) Annual Meeting & Food Expo 2015. Held in Las Vegas, Nevada. June 25 - 28, 2017.
13. NC1023 USDA Multistate Annual Meeting held at 100 LaSells Stewart Center/OSU Conference Center, Corvallis OR. October 16 – 18, 2016.
14. American Society of Agricultural and Biological Engineers (ASABE). Held in Orlando, Florida from July 17 - 20, 2016.
15. NC1023 USDA Multistate Annual Meeting held at 525 West Johnson Street, Madison, WI 53703. October 25 – 27, 2015.
16. American Society of Agricultural and Biological Engineers (ASABE). Held in New Orleans, LU from July 26 - 29, 2015.
17. Institute of Food Technology (IFT) Annual Meeting & Food Expo 2015. Held in Chicago, IL. July 11 – 14, 2015.
18. American Society of Agricultural and Biological Engineers (ASABE). Held in Montreal Quebec Canada from July 13 – 17, 2014.
19. NC1023 USDA Multistate Annual Meeting held at Hilton Garden Inn near the Ohio State University, Columbus, OH from October 19 – 21, 2014.
20. Institute of Food Technology (IFT), Food Engineering Division Poster Session. Held at Chicago, IL USA. June 13 – 16, 2013.
21. American Association of Cereal Chemists International (AACCI). Held at Hollywood Florida USA September 30 - October 3.
22. 29th Sorghum Research and Utilization Conference - Great Plains Sorghum Conference held at Kansas State University International Grains Program Conference Center. August 28 – 30, 2012.
23. Northeast Agricultural and Biological Engineering Conference, NABEC. Held at Burlington Vermont, USA. July 24 – 27, 2011.
24. NABEC 2010. Held at Geneva, Pennsylvania, USA. July 18 – 21, 2010.
25. Annual international meeting of Institute of Food Technology (IFT) at Anaheim, California USA. June 6 – 10, 2009.
26. Northeast Agricultural and Biological Engineering Conference (NABEC). Held at Aberdeen, Maryland, USA from 27th - 30th July 2008.
27. American Society of Biological and Agricultural Engineering (ASABE) annual conference Held at Providence, Rhode Island, USA between June 29th – July 2nd, 2008.
28. 3rd CIGR conference held at Naples, Italy from September 24-26, 2007
29. NABEC conference held at Wooster, Ohio, USA July 29th - August 1st, 2007.
30. Annual International meeting of American Society of Agricultural and Biological Engineers at Minneapolis, USA from 17-20 June 2007
31. NABEC conference held in Montreal, QC, Canada. July 30th - August 2nd, 2006.

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32. Annual General Meeting of the Nigerian Institute of Food Science and Technology (NIFST), held at Conference Centre, University of Ibadan, Ibadan, Oyo State Nigeria, from 12th – 14th October 2004.
33. First National Drying Symposium, held at Crab Park Hall, University of Port-Harcourt, Port-Harcourt, Rivers State, Nigeria. 21st- 23rd October 2003.

PROFESSIONAL ASSOCIATION MEMBERSHIP

Professional Member, Institute of Food Technology (IFT)	Dec 2008 to date
Pro. Member, American Society of Ag & Biological Engr. (ASABE)	Dec 2006 to date
Member, Canadian Society of Biological Engineers (CSBE)	Dec 2006 to date
Reg. member, Council for Regulation of Engr. in Nigeria (COREN)	July 2005 to date
Member, Nigerian Institute of Food Science and Tech. (NIFST)	Dec 1995 to date
Member, Society of Food Engineers (SoFE)	Sept 2016 - date
Member, American Society for Quality (ASQ)	Dec 2012 – Dec 2015
Member, Canadian Inst. of Food Science and Technology (CIFST)	Sept 2009 to 2016
Professional member, Nigerian Society of Engineers (NSE)	Jan 2004 to date
Member, International Society of Food Engineering (ISFE)	Oct 2009 to date
Member, Project Management Institute (PMI)	March 2014 - 2015