Emmanuel Y.H. Bobobee

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RESEARCH

Interests: Agricultural mechanisation · Animal Welfare

Areas: Mechanical Engineering · Plant Science · Civil and Structural Engineering · Agronomy and Crop Science · Horticulture · Food Science

RESEARCH SUMMARY

39	388	10	10	0.78	6%
Publications	Citations	h-index	i10-index	Field-weighted impact	World top 10%

Counted from the 39 publications listed below, 1993–2026. Field-weighted impact is the mean over the 16 works scored for it; 1.00 is the world average for works of the same field, type and year. 1 of the 16 papers scored for it are among the world's most cited tenth for their field, type and year.

POSITIONS

Associate Professor 1988–present
Department of Agricultural Engineering, Kwame Nkrumah University of Science and Technology, Kumasi, Ghana

Specialist Researcher in Mechanisation 2013–2015
Institute for Agricultural Engineering, Agricultural Research Council, Pretoria, South Africa

EDUCATION AND QUALIFICATIONS

PhD 2003–2007
Department of Energy and Technology, Swedish University of Agricultural Sciences,, Uppsala, Sweden

Msc 1984–1995
Silsoe College, Department of |Agricultural Mechanisation, Cranfield University, Cranfield, United Kingdom

DISTINCTIONS, MEMBERSHIPS AND SERVICE

Council Member 2019–2024
Agricultural and Biosystems Engineering, Pan African Society for Agricultural Engineering (PASAE), Kumasi, Ghana

PUBLICATIONS

Journal articles 35

1. Randy Amuaku, Eric Amoah Asante, **Emmanuel Y.H Bobobee**, Jerry Oppong Adutwum, Godwin Amanor (2026). Effect of maturity and the colour parameters on the cocoa opening force using the existing mechanical system. *Research in Agricultural Engineering*. https://doi.org/10.17221/149/2025-rae
2. David Amidu Wandusim, **Emmanuel Y H Bobobee**, Joseph Oppong Akowuah, Eric Amoah Asante, Michael Amponsah Ampomah, Abebrese Kwabena Agyeman, Philip Yaro Laari (2025). Performance modelling and

optimization of disc angle and tractor speed for a disc ridger in loamy soil using RSM. *International Journal of Agricultural Research Innovation and Technology*. https://doi.org/10.3329/ijarit.v15i1.82759

3. **EYH Bobobee** (2024). Agricultural and Biosystems Engineering Education in Ghana. *Agricultural, Biosystems, and Biological Engineering Education: Global Perspectives and Current Practice*. https://books.google.com/books?hl=en&lr=&id=H08aEQAAQBAJ&oi=fnd&pg=PA288&dq=info:yenGJyC1IGQJ:scholar.google.com&ots=UVjGG-1vY-&sig=z3INIL6J3FAFWnHiRFt-tXUW6WA
4. Johnson Opoku-Asante, **Emmanuel Bobobee**, Joseph O Akowuah, Eric Amoah Asante, Albert Kumi Arkoh (2024). Comparative analysis of mechanical properties of paddy rice for different variety-moisture content interactions. *International Journal of Agricultural Research Innovation and Technology*. https://doi.org/10.3329/ijarit.v14i1.74525
5. KA Budu, JO Akowuah, **EYH Bobobee**, EA Asante (2024). Determination of drying performance of different slice thicknesses from different cassava varieties using hybrid dryer. *Solar Compass*. https://www.sciencedirect.com/science/article/pii/S2772940024000316
6. Kodwo A. Budu, **Emmanuel Y.H. Bobobee**, Kojo A. Aikins, Albert K. Arkoh (2024). Effects of variations in speed and cutting blade projection on performance and conformity of slice thickness to the adjustment of the cutting blade projection of motorised cassava slicer. *Journal of Engineering Research*. https://doi.org/10.1016/j.jer.2024.07.004
7. Johnson Opoku Asante, **Emmanuel Bobobee**, Joseph O Akowuah, Eric Amoah Asante (2024). Evaluation of integrated threshing and drying design concepts for paddy rice using analytical hierarchy process. *International Journal of Agricultural Research Innovation and Technology*. https://doi.org/10.3329/ijarit.v14i1.74526
8. Amuaku Randy, Eric Asante, **E. Bobobee**, Godwin Amano (2024). Mechanised Removal of Cocoa Beans from the Pod and Strategies to Optimize the Technique: A Review. *American Journal of Agriculture and Forestry*. https://doi.org/10.11648/j.ajaf.20241203.15
9. Francis Amoah, Eric Amoah Asante, Randy Amuaku, **Emmanuel Bobobee** (2023). Cutting resistance assessment for three varieties of cassava roots. *Journal of the Ghana Institution of Engineering (JGhIE)*. https://doi.org/10.56049/jghie.v23i4.116
10. Randy Amuaku, Eric Amoah Asante, Timothy Abeo Apasiba, **Emmanuel Y.H Bobobee** (2023). Development and evaluation of a mechanical model for the assessment of cocoa pod opening force. *Journal of the Ghana Institution of Engineering (JGhIE)*. https://doi.org/10.56049/jghie.v23i4.111
11. David Amidu Wandusim, **Emmanuel Y. H. Bobobee**, Fabrice Abunde, Emmanuel Awuah, Michael A. Ampomah (2023). Development and testing of a double-row adjustable disc ridger. *Journal of the Ghana Institution of Engineering (JGhIE)*. https://doi.org/10.56049/jghie.v23i1.58
12. Francis Amoah, **Emmanuel Y. H. Bobobee**, Ahmad Addo, Joseph O. Darko, Joseph O. Akowuah (2022). A review of mechanical cassava peeling and its adoption by processors. *Journal of the Ghana Institution of Engineering (JGhIE)*. https://doi.org/10.56049/jghie.v22i1.37
13. **EYH Bobobee** (2021). DEVELOPMENT OF A MOTORIZED CASSAVA PEELER FOR SMALL AND MEDIUM SCALE ENTERPRISES. *Agricultural Engineering International: CIGR Journal*. https://cigrjournal.org/index.php/Ejounral/article/view/6775
14. A. K. Arkoh, **E. Y. H. Bobobee**, A. Addo (2021). Development of a Double Row Tractor Operated Yam Minisett Planter. *International Journal of Engineering and Advanced Technology*. https://doi.org/10.35940/ijeat.a3114.1011121
15. **E Bobobee** (2020). The tek mechanical cassava harvester development in ghana–challenges, opportunities and prospects for cassava production in africa. *Journal of Engineering in Agriculture and the Environment*. https://www.academia.edu/download/106888659/jeae-volume5-no1.2019-4.pdf
16. Bright G. Adu, Alex Yeboah, Richard Akromah, **Emmanuel Bobobee**, Stephen Amoah, Alexander W. Kena, Richard A. Amoah (2020). Whole genome SNPs and phenotypic characterization of cassava (Manihot esculenta Crantz) germplasm in the semi-deciduous forest ecology of Ghana. *Ecological Genetics and Genomics*. https://doi.org/10.1016/j.egg.2020.100068

17. **E Bobobee**, JK Agbenorhevi, IN Oduro (2019). Characterization of starch from new cassava accessions at different maturity. *Journal of Food Security*. https://scholar.google.com/scholar?cluster=18929341584981329 79&hl=en&oi=scholarr

18. **EYH Bobobee** (2019). Mechanisation of cassava (root and tuber crops) production in Ghana. *ROOTS AND TUBERS IN GHANA: OVERVIEW AND SELECTED RESEARCH PAPERS*. https://www.researchgate.net/profile/Faustina-Wireko-Manu/publication/339054468_Enhancing_the_food_applications_of_cocoyam_Xanthosoma_sagittifolium_Deductions_from_a_three-year_study/links/5ea44add299bf112560ca50c/Enhancing-the-food-applications-of-cocoyam-Xanthosoma-sagittifolium-Deductions-from-a-three-year-study.pdf#page=423

19. **E Bobobee** (2018). Development and performance evaluation of a motorized Jatropha curcas seed cracker-winnower. *International Journal of Agricultural and Biosystems Engineering*. https://www.researchgate.net/profile/Francis-Amoah-2/publication/329444109_Development_and_Performance_Evaluation_of_a_Motorized_Jatropha_curcas_Seed_Cracker-Winnower/links/5c090687299bf139c742300c/Development-and-Performance-Evaluation-of-a-Motorized-Jatropha-curcas-Seed-Cracker-Winnower.pdf

20. **E Bobobee**, V Owusu (2015). Animal traction–potential and constraints. *Rural 21*. https://www.academia.edu/download/58496337/rural2015_02-S14-15.pdf

21. **E Bobobee** (2015). Assessment of waste logistics models in the Kumasi metropolitan area. *ADRRI Journal of Agriculture and Food Sciences*. https://scholar.google.com/scholar?cluster=4510098498634628517&hl=en&oi=scholarr

22. Samuel Frimpong, Girma Gebresenbet, **Emmanuel Bobobee**, Elias Aklaku, Ibrahim Hamdu (2014). Effect of Transportation and Pre-Slaughter Handling on Welfare and Meat Quality of Cattle: Case Study of Kumasi Abattoir, Ghana. *Veterinary Sciences*. https://doi.org/10.3390/vetsci1030174

23. Joseph Sarkodie-addo, **EYH Bobobee**, WA Agyare (2014). Mechanical cassava harvesting as influenced by seedbed preparation and cassava variety. *Applied Engineering in Agriculture*. https://elibrary.asabe.org/abstract.asp?aid=44938

24. Samuel Frimpong, Girma Gebresenbet, Techane Bosona, **Emanuel Bobobee**, Elias Aklaku, Ibrahim Hamdu Q (2012). Animal Supply and Logistics Activities of Abattoir Chain in Developing Countries: The Case of Kumasi Abattoir, Ghana. *Journal of Service Science and Management*. https://doi.org/10.4236/jssm.2012.51003

25. **E Bobobee** (2012). Effect of transport times on welfare of pigs. *Journal of agricultural science and technology. A*. https://pub.epsilon.slu.se/id/eprint/10494/contents

26. **Emmanuel Y.H. Bobobee**, Girma Gebresenbet (2007). Effect of cutting edge thickness and state of wear of ploughshare on draught force and heart rates of Sanga oxen in Ghana. *Soil and Tillage Research*. https://doi.org/10.1016/j.still.2007.01.006

27. **Emmanuel Y.H. Bobobee**, Kofi Sraku-Lartey, Simon C. Fialor, Emmanuel A. Canacoo, Sampson K. Agodzo, Albert Yawson, Girma Gebresenbet (2006). Wear rate of animal-drawn ploughshares in selected Ghanaian soils. *Soil and Tillage Research*. https://doi.org/10.1016/j.still.2006.05.004

28. **E Bobobee** (2002). No more Fingertip Shelling: The TEK groundnut Cracker to the Rescue. *The International Journal of Small-scale Food Processing*. https://scholar.google.com/scholar?cluster=15159669255928000980&hl=en&oi=scholarr

29. **EYH Bobobee** (2000). Mechanical Cassava Harvesting Technique": Final Report. *National Agricultural Research Project (NARP), Council for Industrial and Scientific Research (CSIR)*. https://scholar.google.com/scholar?cluster=13617274317122579142&hl=en&oi=scholarr

30. **EYH Bobobee** (1999). Animal traction utilisation, constraints and research options in Ghana. *Renard, G., Krieg, S., Lawrence, P., von Oppen, M.(Eds.), Farmers and Scientists in a changing Environment: Assessing Research in West Africa*. https://scholar.google.com/scholar?cluster=3396286895708210198&hl=en&oi=scholarr

31. **EYH Bobobee** (1999). Role of draft animal power in Ghanaian agriculture. *Conservation Tillage with Animal Traction; ATNESA: Harare, Zimbabwe*. https://www.animaltraction.net/contil/contil-bobobee-animalpower-

GH.pdf

32. **EYH Bobobee** (1996). Animal Traction Technology; interim report. *National Agricultural Extension Project of Agricultural Extension Services. Ministry of Food and Agriculture*. https://scholar.google.com/scholar?cluster=13596762202997059614&hl=en&oi=scholarr

33. **EYH Bobobee** (1994). Performance evaluation of a mechanical cassava harvester. *Proc. Intl. Commission of Agric. Eng.(CIGR) XII World Congress*. https://scholar.google.com/scholar?cluster=7710439556054380983&hl=en&oi=scholarr

34. **EYH Bobobee** (1994). Policy issues of irrigation in Ghana: 1960-1990. *Proceedings of the 12th CIGR World Congress on Agricultural Engineering, Milano, Italy, August 28-September 1*. https://scholar.google.com/scholar?cluster=13950098788680209 67&hl=en&oi=scholarr

35. **EYH Bobobee** (1993). Status of animal traction development in Ghana. *Recherche Pour Le Développement de la Traction Animale en Afrique de L'Ouest*. https://books.google.com/books?hl=en&lr=&id=Z7kq5HdLZHIC&oi=fnd&pg=PA279&dq=info:6o3E2G1y6OIJ:scholar.google.com&ots=ze27zzKtvi&sig=WoexlGXr0odYMKYfSZ3owGY5wvM

Book chapters 1

1. **E Bobobee** (2006). Effect of work endurance on comfort and welfare of draught animals. A case study from Ghana. *Proceedings of the 5th colloquium on working equines*. https://scholar.google.com/scholar?cluster=3175581875954004939&hl=en&oi=scholarr

Conference papers 1

1. **E Bobobee** (2012). Improving loading facilities and methods to minimize stress on animals during transport from farm to abattoir. *2012 IX International Livestock Environment Symposium (ILES IX)*. https://elibrary.asabe.org/abstract.asp?aid=41585

Reports 2

1. **E Bobobee** (2013). Animal Traction in Ghana. Ghana Strategy Support Program Working Paper No. 34. *International Food Policy Research Institute*. https://scholar.google.com/scholar?cluster=15521580721284413373&hl=en&oi=scholarr

2. **E Bobobee**, V Owusu (2013). Animal traction in Ghana. *International Food Policy Research Institute*. https://cgspace.cgiar.org/items/a3bc21eb-d2d7-4387-8d56-ee53e4a686ee