

Yabebal Chekole Mihret

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SUMMARY

I'm a young, dynamic, dedicated, committed, energetic, detail-oriented, and progressive-thinking Agricultural Mechanization and Mechanical Engineering graduate. I'm open-minded and always eager to learn from multidiscipline. I'm also a fast learner, hardworking, and a team player, and I am passionate about pursuing a career as a researcher and academia in Agricultural Machinery design, Precision agriculture, and agricultural product drying. I'm always ready to participate, collaborate, conduct, and contribute to multidisciplinary research in the agricultural and biosystem engineering fields.

EDUCATION

Bahir Dar University, Bahir Dar, Amhara, Ethiopia 2022
Master of Science (MSc.) in Agricultural Mechanization Engineering
Final Grade: First Class with Honor GPA: 4.0/4.0
Thesis Title: Development and Performance Evaluation of Small-scale rice husk fueled mixed-flow rice dryer
Advisor: Prof. Mulugeta Admasu Delele (PhD)

Bahir Dar University, Bahir Dar, Amhara, Ethiopia 2021
Higher Diploma Program (HDP) in Teaching

Bahir Dar University, Bahir Dar, Amhara, Ethiopia 2019
Bachelor of Science (BSc.) in Mechanical Engineering
Final Grade: First class with Great Distinction GPA: 3.79/4.0
Thesis Title: Design and Prototype of Mini Maize Harvester
Advisor: Asso Prof. Yonas Mitiku Degu

SKILLS AND COMPETENCES

Digital and Laboratory skills: Finite Element Analysis, CFD, AutoCAD, SolidWorks, Mathlab, Agricultural Production Systems SiMulator (APSIM), python, and other Mechanical testing

Personal Strengths: Excellent communication, Interpersonal relationship skills, Leadership, and Team Player, Organizational skills, Time, and Project Management.

RESEARCH EXPERIENCE

Research Assistant, Department of Mechanical Engineering 2022-Present
Bahir Dar University, Bahir Dar, Ethiopia

- Assist MSc. students in their thesis in the fields of Agricultural machinery research (Three theses)
- Assist undergraduate research projects in the fields of agricultural machinery design (Two final year projects and one internship project)

TEACHING EXPERIENCE

Lecturer 2022-Present
Faculty of Mechanical and Industrial Engineering, Bahir Dar University, Bahir Dar, Ethiopia

- Prepared academic materials and organized lectures for undergraduate students, and seminars for colleagues and other students at higher and lower levels.
- Conduct research and engage in community services.

Assistant Lecturer 2019-2022
Faculty of Mechanical and Industrial Engineering, Bahir Dar University, Bahir Dar, Ethiopia

- Prepared academic materials and organized tutorials for undergraduate students.
- Assist lecturers and other colleagues during class.

PUBLICATIONS

1. Y. C. Mihret, M. A. Delele, and S. T. Hailemesikel, “Design, development, and testing of rice-husk fueled mixed-flow rice dryer for small-scale rice producer farmers,” *Heliyon*, vol. 9, no. 7, Jul. 2023, doi: 10.1016/j.heliyon.2023.e18077.
2. M. A. Delele, Y. C. Mihret, and J. Mellmann, “Performance evaluation and improvement of prototype rice husk fueled mixed flow rough rice dryer using CFD model,” *Drying Technology*, vol. 41, no. 15, pp. 2447–2463, 2023, doi: 10.1080/07373937.2023.2252056.
3. Y. C. Mihret, G. M. Ketsela, and S. M. Mintesinot, “Implementation and application of APSIM for crop modelling in Ethiopia: A comprehensive review,” May 30, 2024, *Elsevier Ltd.* doi: 10.1016/j.heliyon.2024.e31612.
4. Y. C. Mihret, S. T. Hailemesikel, A. G. Alemu, and M. A. Delele, “Modeling the drying kinetics, performance evaluation, and economic analysis of rice drying using a rice husk-fueled mixed-flow dryer,” *Energy Conversion and Management: X*, vol. 24, p. 100774, Oct. 2024, doi: 10.1016/J.ECMX.2024.100774.
5. Y. C. Mihret, M. M. Takele, and A. M. Mintesinot, “Advancements in Agriculture 4.0 and the Needs for Introduction and Adoption in Ethiopia: A Review,” *Advances in Agriculture*, February 18, 2025, vol 2025, no 4, DOI: 10.1155/aia/8828400.
6. A. J. Bezie, A. G. Alemu, T. G. Tesfa, M. Z. Getie, H. M. Wassie, M. A. Alemu, M. S . Alem, D. A Mersha, Y. C. Mihret, T. S. Ayalew, “Experimental investigation of the performance of a solar-powered direct evaporative cooler using a chiller: Case study Bahir Dar, Ethiopia”, *ICAST 2024*, book chapter, ongoing in production.

CONFERENCE/WORKSHOP/SEMINAR

- The World Without Hunger Conference (Participant) 2024
- 12th International Conference on Advancements of Science and Technology-ICAST (Participant) 2024
- Seminar on “Advancements, Challenges, and Opportunities in the Design, Development, and Construction of Selective Fruit Harvesting Robots: A Review” (Presenter) 2023
- 10th International Conference on Advancements of Science and Technology-ICAST (Participant) 2022

INDUSTRIAL EXPERIENCE

Mechanical Engineering Intern Feb-June 2018
Adama Agricultural Machinery Industry, Adama, Oromia, Ethiopia

- Assembled different agricultural machines and machine parts including tractors, disk plows, and harrows.
- Participated in tractor maintenance and troubleshooting.
- Operated lathe machines, and performed welding, and other workshop machines.
- Designed and fabricated two-row potato planters as an internship project..

VOLUNTEERING & LEADERSHIP EXPERIENCE

Member of Faculty Discipline Committee June 2024 –Present
Grade 12 National University Entrance Examination Invigilator July 2024
Grade 12 National University Entrance Examination Invigilator August 2023
MSc. Students Class Representative 2020-2022
Students Tutor During the Summer July-September 2018

AWARDS/CERTIFICATES

UAVs in Precision Agriculture January 2025
Decomposition investigation of agricultural machinery test November 2024
Agricultural equipment operation testing November 2024
Bruh Ethiopia 2024 Innovative Business Idea Competition September 2024
Disassembly and assembly of agricultural machinery August 2024
Master class for teaching online (Open edx) March 2024

Power tiller performance testing methodology

November 2023

Power tiller testing methodology (Basic)

September 2023

Agri-innovation Bootcamp 2023 Innovative Business Idea Competition

July 2023

BIC Ethiopia Starter Training on AgriTech and Agribusiness Enterprise Incubation

June 2023

Design Your Venture (DYV) Training

March 2023

Appropriate Scale Mechanization Consortium-Ethiopia

April 2019