

#### Geta Kidanemariam Gelaw

Position:	Assistant Professor
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### **Education:**

- ✓ Ph.D., in Mechanical Design Engineering, at Addis Ababa University, Ethiopia
- ✓ M.Sc, in Agricultural Mechanization Engineering, at Nitra University, Slovakia Republic
- ✓ Diploma in Agro- Mechanics, at Bahir Dar Polytechnic Institute, Ethiopia

### **Courses:**

✓ Product design and development, Design for-X, Agricultural Machinery Design, Advanced Machine Dynamics, Advanced Finite Element Method, Advanced Agricultural Machinery Design, Crop Production Machineries, Fluid Power System design and Product Testing, Medical Product Development,

### **Professional Experience:**

✓ Mechanic II [4years]

Maintenance and repairing of small and field vehicles, Tractors and heavy-duty farm machinery with accessories, scheduling maintenance planning, assisting for identifying the spare parts of machinery, inventory of parts.

- ✓ Expert of Agricultural Mechanization[1.5year] Providing technical support and training for all farm machinery operators and mechanics; preparing training manual about farm machineries used in the corporation; Scheduling the maintenance and repairing; preparation of life history for all machinery; preparing specification for the spare parts of all agricultural machineries.
- ✓ Associate Researcher I and II, Team Coordinator and leader [18years] Problem identification about the small-scale agricultural technology, Writing research proposals for internal and external budget appraising, reviewing the other researcher's proposals. Preparing conceptual design and embodiment design, manufacturing drawing for appropriate agricultural implement, mainly pre-harvest, small scale irrigation, alternative power, post-harvest and animal husbandry technologies which can be suited for small scale farmers. Prepare design in Bio-gas constructions and participate in constructions of Bio gas plants in rural area for use of light and cooking purpose, for small holder farmers. Managing the teams composed of different professionals.
- ✓ Assistant Professor[5years] Delivering courses and student advising for post graduate (MSc), co-advising for PhD students; Coaching and advising the instructors in Agricultural Mechanization Engineering chair, on research, technology development and consulting.

### **Research Interests:**

- ✓ Agricultural Machinery design, analysis and development
- ✓ Precision Agriculture and Sustainable development
- ✓ Design optimization and Eco-friendly product development
- ✓ Agricultural Mechanization, IoT based technologies and Automations
- ✓ Impact assessment on improved Agricultural Machinery and Technologies
- ✓ Study on Mechanization Index for different crops
- ✓ Study on Agro-processing Technologies

# Honors & Awards:

✓ The best student or red diploma in MSc study

# **Publications:**

- ✓ Modification and evaluation of sorghum thresher Wondimu Baye (ed).2012. Proceedings of 4<sup>th</sup> Annual Regional conference on Completed Research Activities, 4-7 November, 2009.Amhara Regional Agricultural Research Institute (ARARI), Bahir Dar, Ethiopia.
- ✓ Development and evaluation of camel drawn Cart Agricultural Mechanization for productivity and Sustainable use of the Natural resource, Proceedings of the first National Agricultural Mechanization Post-Harvest and Food Science research Completed Forum (page19\_26), 2007 G.C, EIAR, Addis Ababa, Ethiopia
- ✓ Participatory evaluation and demonstration of animal drawn compactor for Teff seedbed preparation. Agricultural Engineering International: CIGR Journal, 15(2): 112-121. Vol. 15, No.2.July 2013.
- ✓ Potato Harvester for Smallholder Producers (2<sup>nd</sup> Author). International Journal of Mechanical Engineering and Applications. Vol. 3, No. 6, 2015, pp. 103-108. doi: 10.11648/j.ijmea.20150306.13
- ✓ Characterization and evaluation of the mechanical and physical properties of *Tef* stem (*Eragrostistef* (Zucc.) Trotter). Agricultural Engineering International: CIGR Journal Open access at Vol. 21, No. 1 169. April 2019.
- ✓ Design and Evaluation of Tef Row Seeder and Fertilizer Applicator. Agrotechnology, Journal open access, Vol.10 Iss. 4 No: 209; ISSN: 2168-9881. April 23, 2021.
- ✓ The Design Prospect of Threshing and Separation System. Book, Publisher: Scholars' Press; ISBN-10 : 6202302275; ISBN-13 : 978-6202302272; October 26, 2017.
- ✓ Conceptual Design of Animal Feed Chopper with Medium Capacity. American Journal of Food Science and Technology (AJFST); Volume 1 Issue 1, Year 2022 ISSN: 2834-0086 (Online) DOI:https://doi.org/10.54536/ajfst.v1i1.532
- ✓ Participatory Evaluation and demonstration of Hand held maize Sheller. 10<sup>th</sup> International Conference on the Advancements of Science and Technology (ICAST 2022). November 4-6, 2022 Bahir Dar Ethiopia
- ✓ Effect of designed threshing unit on performance of Teff [Eragrostistef (Zucc.) Trotter] thresher. Agricultural Engineering International: CIGR Journal Open access at Vol. 25, No.3 210-222, September, 2023.
- ✓ Assessment of harvest and postharvest losses of Teff (Eragrostistef (Zucc.)) and methods of loss reduction: a review HELIYON PII: S2405-8440(24)06429-6 https://doi.org/10.1016/j.heliyon.2024.e30398, April 2024

# **Conference:**

- ✓ Animal Traction network for Eastern and Southern Africa conference for establishing Animal Traction Network for Ethiopia, in 1994 G.C at Addis Ababa
- ✓ Improving Donkey utilization and management, Ethiopia, Debre-Zeit in 1996 G.C
- ✓ Rice mechanization in Rice post-harvest and value addition, in 2002 G.C Cotonou, Benin
- ✓ Development and experience shearing on tropical agricultural machineries and technologies, in 2014 G.C, Germany

# **Projects:**

- ✓ Higher Education Partnership in Sub Saharan Africa(HEPSSA 2024/2025)
- ✓ Feasibility study for Amhara Seed Enterprise 2024/25
- ✓ University industry linkage and community engagement in two projects 2022 and 2024