

	Curriculum Vitae
Personal information	
First name(s) / Surname(s)	Dessie Tarekegn Bantelay (Assistant Professor)
Address(es)	P.O.Box 26, Bahir Dar, Ethiopia
Telephone(s)	Mobile: +251- 0918353879/0937382121
E-mail	dessie2000ec@gmail.com
Nationality	Ethiopian
Date of birth	September 8, 1982 G.C
Gender	Male
Desired employment/ Occupational field	Assistant Professor
Work Experience	
Dates	From March 22, 2012, to date
Occupation or position held	Lecturer and researcher
Occupation or Main activities and responsibilities	<ul style="list-style-type: none"> ▪ I deliver course lectures, tutoring, and laboratories in engineering thermodynamics, fluid mechanics, turbomachinery, renewable energy technology, fluid power (pneumatic and hydraulics), facility layout, quality management, machine installation, and plant maintenance. ▪ Research renewable energy, electromechanical technology, productivity improvement, and technology transfer. ▪ I advise undergraduate students, prepare course material, develop curriculum, and engage in other extracurricular activities. ▪ Provide community services such as factory design and consultancy, alternative energy and energy efficiency, maintenance training and supervision, capacity development, air conditioning system design, and supervision.
Name and address of employer	Bahir Dar University, Institute of Technology, Bahir Dar; Ethiopia
Type of business or sector	Government Higher Education
Date	Nov 10, 2006 to Mar 22, 2012
Occupation or position	Lecturer, Technology Transfer Expert, and Quality Manager

Main activities and responsibilities	<ul style="list-style-type: none"> ▪ Coordinate quality management system implementation as quality manager and top management representative. ▪ Giving theoretical and practical training on Electro-mechanical equipment. Including; Pump operation & maintenance, Basic maintenance technology, IC engine operation & maintenance, Hand pump design, and fabrication, ▪ Work on technology selection, design, manufacturing, and transfer activities ▪ Participate in curriculum development, arranging workshops and similar activities
Name and address of employer	Bahir Dar Poly Technic College (JICA program), Bahir Dar; Ethiopia
Type of business or sector	Government Higher education
Date	Sep 12, 2005, to Dec 10, 2006.
Occupation or position	Project Coordinator, Basic Maintenance Foreman
Main activities and responsibilities	Coordinate expansion projects and manage engineering and utility section maintenance tasks
Name and address of employer	Bahir Dar Textile SCo. Bahir Dar; Ethiopia
Type of business or sector	Governmental Textile Industry
Date	June 1, 2012, to July 30, 2015
Occupation or position	General Manager
Main activities and responsibilities	<ul style="list-style-type: none"> ▪ Strategic Planning ▪ Financial Management ▪ Operation and Resources Management ▪ Business Development and Communication ▪ Risk Management and Legal Compliance ▪ Performance Evaluation
Name and address of employer	Zengena Engineering Plc. Bahir Dar, Ethiopia,
Type of business or sector	Private limited share company (Plc)
Date	
Occupation or position	General Manager
Main activities and responsibilities	<ul style="list-style-type: none"> ▪ Strategic planning ▪ Financial management ▪ Operation and resources management ▪ Business development and communication ▪ Risk management and legal compliance ▪ Performance evaluation
Name and address of employer	Ethio Tec Engineering Bahir Dar, Ethiopia,
Type of business or sector	Private limited share company (Plc)
Date	
Education and Training	
Date	November 2024
Title of qualification awarded	Ph.D in Mechanical Engineering (Thermal stream)

Principal subjects/occupational skills covered										
Name and type of organization providing education and training	Bahir Dar University, Bahir Dar Institute of Technology, Bahir Dar; Ethiopia									
Level in national or international classification	MSc. Degree									
Date	February 2014									
Title of qualification awarded	MSc. in sustainable energy engineering									
Principal subjects/occupational skills covered	Renewable energy technologies include hydropower, solar, wind, biomass, and geothermal; energy system design and audit; power generation; power plant engineering; turbomachinery; fluid power engineering; fluid mechanics; and related.									
Name and type of organization providing education and training	Bahir Dar University, Bahir Dar Institute of Technology, Bahir Dar; Ethiopia									
Level in national or international classification	MSc. Degree									
Date	From 2001 to 2005									
Title of qualification awarded	BSc. in Industrial Engineering									
Principal subjects/occupational skills covered										
Name and type of organization providing education and training	Mekelle University, Mekelle, Ethiopia									
Level in national or international classification	BSc. Degree									
Awarded Certificate of Training	<ul style="list-style-type: none">▪ CoC in Electromechanical Equipment and Machinery Maintenance IV.▪ ISO 9001: 2008 Quality Management System Development and Implementation▪ ISO 19011:2002 Quality Management System Auditing▪ Air conditioning and ventilation system design▪ AutoCAD and SolidWorks software▪ Basic building construction/masonry									
Personal skills and competencies										
Language										
Mother tongue(s)	Amharic (The national language of Ethiopia)									
Other languages (s)										
Self-assessment	Understanding				Speaking				Writing	
<i>European level (*)</i>	Listening		Reading		Spoken interaction		Spoken production			
English	C1	Proficient user	C2	Proficient user	C1	Proficient user	C1	Proficient user	C1	Proficient user
Language	C2	Proficient user	C2	Proficient user	C1	Proficient user	C1	Proficient user	C2	Proficient user

	<i>(*) Common European Framework of Reference for Languages</i>
Technical skills & competences	<ul style="list-style-type: none"> ▪ The task involves the design and supervision of a comprehensive textile factory. ▪ Design and supervision of ginning factory ▪ The design and supervision of the furniture factory ▪ Design, supervision, and capacity building on electro-mechanical projects. ▪ We provide design and consultancy services for air conditioning systems.
Social skills and competencies	<ul style="list-style-type: none"> ▪ Effective communication skills acquired through study and teaching work experience and different leadership positions including General Manager, Project Coordinator, Basic Maintenance Foreman...
Organizational skills and competencies	<ul style="list-style-type: none"> ▪ Excellent leadership skills and organizational skills obtained through being a general manager, top management member, quality manager, and task force member in different committee work such as quality management system implementation at Bahir Dar Polytechnic College and Kaizen implementation at Bahir Dar University.
Computer skills and competencies	<ul style="list-style-type: none"> ▪ In addition to Microsoft programs, I have a good background and skills in different application software like MatLab, Solid Work, Homer, Ansys, and C++.
Research and Publication	
Patents	<ul style="list-style-type: none"> ▪ Minor Patent on wood press machine, EFDR Ministry of Science & Technology, Office of Intellectual property ▪ Minor Patent on hand pump, EFDR Ministry of Science and Technology, Office of Intellectual property

Research Articles published in reputable journals	<ol style="list-style-type: none"> 1. Bantelay, D. T., Gebresenbet, G., Admasu, B. T., Tigabu, M. T., & Getie, M. Z. (2024). Performance prediction of a pump as a turbine using energy loss analysis. <i>Energy Reports</i>, 12, 210-225. https://doi.org/10.1016/j.egy.2024.06.023. 2. Bantelay, D. T., Gebresenbet, G., Admasu, B. T., & Gebeyehu, S. G. (2024). One-dimensional pump geometry prediction modeling for energy loss analysis of pumps working as turbines. <i>International Journal of Thermofluids</i>, 21, 100562. https://doi.org/10.1016/j.ijft.2024.100562. 3. Yematawu, S., Tamrat, B., Tarekegn, D., & Mulugeta, H. (2024). Experimental testing on the performance of solar dryer equipped with evacuated tube collector, rock bed heat storage and reflectors. <i>Energy Reports</i>, 12, 453-471. https://doi.org/10.1016/j.egy.2024.06.027 4. Bantelay, D.T., G. Gebresenbet, and B.T. Admassu. Challenges and Prospects of Hydro-Pumps for Small Scale Irrigation. in <i>Advances of Science and Technology: 9th EAI International Conference, ICAST 2021, Hybrid Event, Bahir Dar, Ethiopia, August 27–29, 2021, Proceedings, Part II</i>. 2022. Springer International Publishing. https://doi.org/10.1007/978-3-030-93712-6_33. 5. Bantelay, D.T. (2021). Analytical Modeling of Specific Energy Consumption and Cost-share in Comprehensive Textile Industry: Case Study of Ethiopia, <i>Journal of Optimization in Industrial Engineering</i>. 13 (2), 47-56. https://doi.org/10.22094/joie.2019.580631.1612. 6. Bantelay, D. T. (2019). Investigating Water Supply System Electro-Mechanical Equipments Problems: A Case Study of Ethiopia. <i>Journal of Optimization in Industrial Engineering</i>, 12(2), 45-54. https://doi.org/10.22094/JOIE.2018.568034.1563. 7. Bantelay, D. T., Dedimas, T., & Kelemu, N. (2019, August). An Integrated Approach to Solve Small Farm Holder's Mechanization Barriers in Ethiopia. In <i>International Conference on Advances of Science and Technology</i> (pp. 42-58). Springer, Cham. https://link.springer.com/chapter/10.1007/978-3-030-43690-2_4. 8. Bantelay, D. T., & Nigus, G. (2014). Design, manufacturing and performance evaluation of household gasifier stove: A case study of Ethiopia. <i>American Journal of Energy Engineering</i>, 2(4), 96-102. 10.11648/j.ajee.20140204.12.
Peer-reviewed and Published Book	<ul style="list-style-type: none"> ▪ Machine installation, operation, and maintenance engineering textbook

Short-Term Training Manuals	<ul style="list-style-type: none"> ▪ A guide to quality management system implementation – (for TVET trainers) ▪ Kaizen implementation strategy – (for TVET trainers) ▪ Facility layout planning – (for BSc students) ▪ The petrol engine-driven pump operation and maintenance – (for pump maintainers) ▪ Submersible pump operation and maintenance – (for water utility operators) ▪ Wastewater treatment electro-mechanical system – (for ADSWE experts) ▪ Hydraulic and pneumatic system lab manual - (for BSc students) ▪ ANRS TVET Technology Symposium Juries ▪ Pump Operation and Maintenance Training ▪ Consultancy for Bahir Dar Textile Factory Expansion project ▪ Ginning and edible oil Factory Design for Loyal Titret Plc. ▪ Furniture Factory design for Dream Furniture Plc ▪ capacity building training on “Engine-driven Pump Operation and maintenance” ▪ capacity building training on “electro-mechanical equipment installation, operation & maintenance”.
Certified Community services	
Teamwork participation	<ul style="list-style-type: none"> – As faculty promotion standing committee member since 01/09/2009 EC – As thermal lab purchased equipment quality-assuring committee member from 04/12/09EC to 1/12/10EC. – As FMIE workshop reorganizing committee member from 07/03/09 EC to 11/04/10EC. – As FMIE media promotion, fundraising & sponsor hunting committee member from 11/06/08EC to 9/10/08EC. – As an FMIE Kaizen committee member from 05/11/04EC to 08/07/06EC. – As property disposal estimating committee member from 23/04/06Ec to 05/05/08EC – As Holistic exam preparation and organizing committee member from 18/12/08EC to 22/03/09EC.

Projects	<ol style="list-style-type: none"> 1. Project coordinator and principal investigator, EFDR construction authority, “Identify Gaps, propose and recommend a solution, and prepare an implementation manual in the Construction Laws (Licensing, Construction Procurement, and Building Supervision Works). 2. Project coordinator and principal investigator, EFDR construction authority, “Construction equipment valuation and disposal, directive, manual, and software development” 3. Maksegnet, Debretabor, Woledaya, Finoteselam, Enjebara, Adet... water supply and sewerage offices system design and implementation. 4. Project coordinator, Maksegnit town water supply and sanitation, capacity building 5. Team member, Debre Tabor town water supply and sanitation, automation project 6. Project coordinator and principal investigator, International Committee of the Red Cross (ICRC), with Ethio Tec Engineering PLC 7. Project coordinator and principal investigator, Rehabilitation of Generator and Installation of UPS in Debarb Hospital, International Committee of the Red Cross (ICRC), with Ethio Tec Engineering PLC, 22,819.62 CHF, 05/12/2023 to 11/08/2023. 8. Project coordinator and principal investigator, Rehabilitation of Electrical Systems (Solar) in Erepti Health Centre, International Committee of the Red Cross (ICRC), with Ethio Tec Engineering PLC, 31,658.71 CHF, 02/01/2023 to 11/08/2023. 9. Project coordinator and principal investigator, 70 hand pump repair works in different kebelles of Tsegede woredas, Amhara Region, International Committee of the Red Cross (ICRC), with Ethio Tec Engineering PLC, 37,719.11 CHF 09/05/2022 to 30/06/2022. 10. Project coordinator and principal investigator, consultancy works for water schemes Electro-Mechanical Facility Assessment in Tsegede woreda, Amhara Works 11. Project coordinator and principal investigator, 41 Indian Mark II hand pump repair works in different kebeles in Raya Kobo Woreda, Amhara Region, Ethiopia, International Committee of the Red Cross (ICRC), with Ethio Tec Engineering PLC, 20,604.24 CHF, 15/05 (March), 2022 to +45 days 12. Project coordinator and principal investigator, 50 handpump installation works in Kafta Humera and Tsegede Woreda, International Committee of the Red Cross (ICRC), with Ethio Tec Engineering PLC, CHF 25,494.20 from 10/06/2021 to 20/09/2021.
Additional information	
Research areas of interest	Productivity improvement, capacity utilization, machine installation, operation & maintenance, efficient energy utilization, alternative renewable energy

Hobby	Watching soccer and movies, reading materials related to my profession and spiritual books, and visiting spiritual and historical heritages.
REFERENCES	<p>Dr. Bimrew Tamrat Admasu Associate professor at Bahir Dar Institute of Technology, Bahir Dar University Mobile: +251-(0)900911283/0941290542 E-mail: betselotbim@gmail.com Bahir Dar, Ethiopia</p> <p>Dr. Muluken Zegeye Asistant professor at Bahir Dar Institute of Technology, Bahir Dar University Mobile: +251-(0)911048961 E-mail: mulez1997@gmail.com Bahir Dar, Ethiopia</p> <p>Dr. Muluken Temesegen Asistant professor at Bahir Dar University, Bahir Dar Institute of Technology, Mobile: +251-(0)913833895 E-mail: mulhitemz@gmail.com Bahir Dar, Ethiopia</p>