

ENDALKACHEW ABEBE KEBEDE

endiabc@udel.edu

University of Delaware

211 Pearson Hall | Newark, DE 19716

EDUCATION

- 2022-Present **Ph.D. in Geography**
University of Delaware—Newark, Delaware
Advisor: Kyle Davis (Ph.D.)
- April 2021 **Master of Science in Water Science and Engineering**
Specialization in Hydraulic Engineering and River Basin Development
IHE Delft Institute of Water Education - Delft, the Netherlands
- July 2015 **Master of Science in Irrigation Engineering**
Haramaya University, Haramaya, Ethiopia
- July 2009 **Bachelor of Science in Soil and Water Engineering and Management**
Haramaya University, Haramaya, Ethiopia

APPOINTMENTS

- 2017-2022 **Researcher and Lecturer**
Guna Tana Integrated Field Research and Development Center
Department of Hydraulic and Water Resource Engineering
Department of Natural Resource Management
Debre Tabor University, Debre Tabor, Ethiopia
- 2012-2017 **Lecturer**
Department of Soil and Water Resource Management
Woldia University, Woldia, Ethiopia
- 2010-2012 **Instructor**
Department of Water Technology
Bahir Dar Polytechnic College, Bahir Dar, Ethiopia
- 2010 - 2010 **Irrigation Infrastructure Engineer**
Irrigation Directorate
Amhara Regional State Bureau of Agriculture, Makesengit, Ethiopia

PUBLICATIONS

Peer-Reviewed Journal Articles

- 2022 Hagos YG, Andualem TG, Yibeltal M, Malede DA, Melesse AM, Teshome FT, Bayabil HK, **Kebede EA**, Demissie EA, Mitku AB (2022) Assessment of Agricultural Land Suitability for Surface Irrigation Using Geospatial Techniques in the Lower Omo GibeBasin, Ethiopia. *Water* 14, 3887. <https://doi.org/10.3390/w14233887>.
- Kebede EA**, Vasileva SV, Bojinov B, Dengiz O (2022) Comparing Remote Sensing and In Situ Analyses on assessing the Phenology of Test Wheat Plants as Means for Optimizing Data Collection in Precision Agriculture. DOI: 10.21203/rs.3.rs-2160460/v.

- 2019 **Kebede EA**, Kebede A (2019) A Comparison of Hydrological Models Under Climate Change on the water resources of Megch River Catchment, Abbay Basin, Ethiopia, 2019. *J. Natur. Sci. Res.* **9**, 20-30. DOI: 10.7176/JNSR/9-1-03.
- Kebede EA** (2019). Grey water Irrigation: An Alternative Approach for Household Production. *Journal of Civil and Environmental Research* **11(2)** 27-33. DOI: 10.7176/CER/11-2-03.
- 2017 **Kebede EA**, Kebede A (2017) Assessment of Climate Change Impacts on the Water Resources of Megech River Catchment, Abbay Basin, Ethiopia. *Open Journal of Modern Hydrology* **7**, 141-152. Doi: 10.4236/ojmh.2017.72008.

CONFERENCE PRESENTATIONS

- 2022 **Kebede EA**, Crosato A, Paron P, Sloff K (2022) 1D morphological adaptation of Lower Zambezi River to dam construction, EGU General Assembly, Vienna, Austria.
<https://doi.org/10.5194/egusphere-egu22-13022> .
- Kebede EA**, Bojin B, Dengiz O, Vasileva SV (2022) Comparing Remote Sensing and In Situ Analyses of Test Wheat Plants as Means for Optimizing Data Collection In Precision Agriculture. II International Cappadocia Scientific Research Congress Cappadocia-Nevşehir, Turkey.’
https://en.cappadociacongress.org/_files/ugd/d0a9b7_71be4351e23540ffa0732d76a491ab15.pdf .
- 2021 **Kebede EA**, Vasileva SV, Bojinov B, Dengiz O (2022) Artificial intelligence and remote Sensing as a tool for sustainable agriculture: A review. International Soil Science Symposium on Soil Science and Plant Nutrition, Samsun, Turkey. . <http://www.fesss.org/pages.php?id=6>.
- 2017 **Kebede EA**, Kebede A (2017) A Comparison of Hydrological Models Under Climate Change on the water resources of Megch River Catchment, Abbay Basin, Ethiopia. 4th International Conference on the Advancements of Science and Technology (ICAST - 2017), Bahir Dar, Ethiopia. (Poster)
- 2016 **Kebede EA**, Kebede A (2016) Assessment of Climate Change Impacts on the Water Resources of Megech River Catchment, Abbay Basin, Ethiopia. Annual national science on Water Use, Recyclability, and Treatment Technology, Haramaya University, Ethiopia

FUNDED PROJECTS

- 2019 Participatory Eco-hydrology Project on Gumara Catchment, Upper Blue Nile Basin, Ethiopia. Federal Democratic Republic of Ethiopia Ministry of Water Resource and Irrigation, Research Fund for Eco-hydrology, 2019. (\$15,178) - Co-PI (Lead Pi: Hailu Minale)
- 2018 Improving Agricultural Water Productivity in the Guna Tana Watershed. Debre Tabor University Research Vice President Annual Research Grant, 2018. (\$3,984) - Lead PI
- 2017 Hydrodynamic Modelling of Upper Ribb Catchment for Increased Sustainability of Reservoirs through Community Managed Catchments, Debre Tabor University Research Vice President Annual Research Grant, 2017. (\$2,357) - Lead PI

FELLOWSHIPS AND AWARDS

- 2022 Graduate Research Assistantship, Dept. of Geography & Spatial Sciences, Univ. of Delaware
- 2020 Erasmus Mundus Fellowship
- 2019 Nuffic-Orange Knowledge Program Fellowship - IHE Delft Institute for Water Education.
- 2014 Haramaya University master’s thesis research grant.’

TEACHING

Debre Tabor University (2017– 2022)

Soil and Water Conservation (Fall 2017 and 2018)

Introduction to Natural Resource Management (Spring 2017 and 2018)

Woldia University (2012– 2017)

Surface Hydrology (Spring 2015 and 2016)

GIS and Remote Sensing (Fall 2015 and 2016)

Research Method and Experimental Design (Fall 2015 and 2016)

Irrigation Engineering (Fall 2015 and 2016)

Farm Machinery (Spring 2012)

Soil Physics (Spring 2012)

Introductory Soils (Fall 2012)

Bahir Dar Poly Technic College (2010– 2012)

Design and construction of Sanitary Structures (Spring 2011)

Design and construction of Water Supply System Structures (Fall 2011 and 2012)

ADVISING

- 2019 **Yonas Gebresilase.** The impact of Land Cover change on the hydrology of Ribb Watershed. Undergraduate thesis.
- 2016 **Wudu Abiye.** Review on Impacts of Land Degradation on Agricultural Production in Ethiopia. Undergraduate Seminar.
- 2016 **Zinabu Abera, Dabosh Molla, and Atalay Wodaje.** The Cause and Effect of Soil Water Erosion in Ethiopia. Undergraduate senior seminar.
- 2016 **Gebrehiwot Welekidan, Genet Burako, and Fkir Kefyalew.** Challenges And Opportunities of Soil Conservation Practice In Ethiopia. Undergraduate senior seminar.

ACADEMIC LEADERSHIP

- 2017 -2019 Member of research grant review committee, Guna Tana Integrated Field Research and Development Center, Debre Tabor University, Debre Tabor, Ethiopia.
- 2015-2017 Member of the Academic Council (AC), College of Agriculture, Woldia University, Woldia, Ethiopia.
- 2012-2013 Chair of Soil and Water resource management department, Woldia University, Ethiopia.
- 2018-2019 Member of national conference organizing committee, Debre Tabor University, Debre Tabor, Ethiopia

AFFILIATIONS

European Geosciences Union
International Water Resources Association
American Water Resource Association
Ethiopian Hydraulic Engineer Association

CERTIFICATIONS

- 2023 **Introduction to Remote Sensing for Catchment and Water Resource Management** (ClimWaR01). UNESCO open learning.
- 2021 **Capstone: Retrieving, Processing, and Visualizing Data with Python.** Coursera with the University of Michigan.
<https://www.coursera.org/account/accomplishments/certificate/EFVVBGZNX5EB>
- 2021 **Python Data Structure. Coursera with the University of Michigan.**
<https://www.coursera.org/account/accomplishments/certificate/LZN76CTVSA9A>
- 2021 **Programming for Everybody (Getting Started with Python). Coursera with the University of Michigan.**<https://www.coursera.org/account/accomplishments/verify/ABRDCEWZDTP5>.
- 2019 **Introduction to GIS for Water Science and Engineering.** IHE Delft Institute for Water Educations, Delft, the Netherlands. <http://changelog.qgis.org/en/qgis/certificate/QGIS-1567/>.
- 2017 **Introduction to Remote Sensing.** Woldia University Capacity Building Directorate and Department of Geography.

COMPUTING SKILLS

Hydrological and hydraulic modeling: Delft 3D | GR4J | HBV-Light | HEC-RAS | HEC-HMS | MIKE-SHE | MIKE-11 | MODFLOW | SOBEK | SOBEK-RE | SWAT | WEAP

GIS and Remote Sensing: ArcGIS | ENVI | Erdas Imagine | Google Earth Engine | QGIS | SNAP

Data analytics tools: Java | Python | R | Machine Learning

Crop water productivity and other agricultural models: AquaCrop | Cowpat | FAO-WAPOR Model