

Dr. Worku Jimma

Department of Information Science,
Jimma University,
P. O. Box 378
Jimma, Ethiopia

Place of Birth: Ginchi, Ethiopia
Date of Birth: 05 August 1971
Sex: Male

Original Nationality: Ethiopian
Present Nationality: Belgian
Phone Number: (Mob.): +251988565487
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Work Experience

Associate Professor

Department of Information Science, Faculty of Computing and Informatics,
Jimma University, Ethiopia. May 2022 – until now

Assistant Professor

Department of Information Science, Faculty of Computing and Informatics,
Jimma University, Ethiopia. Feb. 2018 – Apr. 2022

Lecturer

Department of Information Science, Faculty of Computing and Informatics,
Jimma University, Ethiopia. Jany 2012 – Feb. 2018

Researcher

Ghent University, Laboratory of Aquaculture and Artemia Reference Center,
Gent, Belgium. Sept. 2006 – Mar. 2008

Researcher

Ethiopian Institute of Agricultural Research, National Fisheries and Other Living
Aquatic Resources Research Center, Sebeta, Ethiopia. May 1999 – Jul. 2000

Researcher

Oromia Agricultural Research Institute, Sinana Agricultural Research Center,
Ethiopia. Apr. 1995 - May 1999

Leadership Roles

Postgraduate Director, Jimma Institute of Technology, Jimma University Feb. 2023 until now

Dean, Faculty of Computing and Informatics, Jimma Institute of Technology,
Jimma University, Ethiopia Jul. 2020 – Jan. 2023

Head, Library and Archives Center, Institute of Oromo Studies, Jimma University.
Ethiopia Sept. 2020 – Jun. 2020.

Director for Website Administration and Promotional Materials Production,
Jimma University, Ethiopia Sept. 2013 to Apr. 2014.

Division Head of Animal Feeds and Nutrition at Sinana Agricultural Research Center, Oromia, Ethiopia	Sept. 1996 to May 1999
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Education

PhD in Health Information Management from Tehran University of Medical Sciences, Tehran Iran	December 2018
Master of Religious Studies from Nations University, Brentwood Tennessee, USA	September 2011
Master of Knowledge and Information Management, obtained with distinction from Ghent University, Gent, Belgium	September 2004
Master of Science in Aquaculture, obtained with distinction from Ghent University, Gent, Belgium	September 2002
Academic Degree of Graduate in the Complementary Studies in Aquaculture, obtained with distinction from Ghent University, Gent, Belgium	July 2001
Bachelor of Science in Agriculture (Animal Production and Rangeland Management) from Addis Ababa University, the then Awassa College of Agriculture, Ethiopia	July 1994

Short term training and certification

Master Class: Foundations for Excellence in Teaching Online	April 2024
Strategies for successful online learning	March 2024
Keeping Yourself Safe Online	March 2024
Research Data Management and Sharing	March 2024
Set goals to manage your time	March 2024
How to Evaluate Resources	February 2024
Ethics and Governance of Artificial Intelligence for Health	February 2024
Infodemic Management - Using human-centered design good practices	February 2024
Competency Based Teaching Learning Assessment Training	February 2024
Infodemic Management: Working effectively as an infodemic manager in the field	February 2024
Infodemic Management: Addressing health misinformation	February 2024
Infodemic Management: Defining a taxonomy for social listening	February 2024
Infodemic management 101	February 2024
Infodemic Management Social marketing and message testing methods	January 2024

New Technologies for Business Leaders	September 2021
Higher Diploma Program (HDP)	August 2021
Introduction and Programming with IoT Boards	July 2020
Stanford Introduction to Food and Health	June 2020
Research Management and Leadership Training	May 2020
Post Academic Training of Low Countries Studies, Gent University	June 2001

Institutional Assignments/appointments to Standing/Adhoc Committee

Secretary of Scientific Committee of Jimma University National Conference 2025	January 2025
Chairman of Jimma University Autonomy Charter Development Committee	Oct. 2024-Dec. 2024
Secretary of Jimma University Scientific Communication Core Committee	Feb. 2024 till now
Chairperson of Jimma University Training Organizing Committee	Feb. 2024 till now
Technical Committee member of Accreditation Board of Engineering and Technology (ABET) for accreditation process of 13 programs at Jimma Institute of Technology, Jimma University	2021 till now
Member of Jimma University's strategic plan past performance evaluation committee	2021
Member of core committee of 10 years strategic plan development of Jimma University	2021
Co-chairman of Jimma Institute of Technology differentiation document development Committee	2021
Member of doctoral committee of Jimma Institute of Technology	2021 till now
Member of Jimma Institute of Technology Research and Ethics Review Board	2021 till now
Member of Promotion Committee of Jimma Institute of Technology	Aug. 2021 – Feb. 2023
Academic council member of Jimma Institute of Technology	Jul. 2021 until now
Chairman of 10 years strategic plan cascading of Jimma University for Jimma Institute of Technology	2021

Professional Contributions/services

Horn African Journal of Health and Biomedical Sciences (HAJHBS)	Mar. 2024 till now
Reviewer of Journal Articles of Ethiopian Journal of Social Sciences and Language Studies, published by Jimma University	2022 till now
Reviewer of Journal articles of Ethiopian Journal of Health Sciences, published by Jimma University	2018 till now

Reviewer of Journal articles of Ethiopian Journal of Education and Sciences, published by Jimma University	2018 till now
Editorial member of Gadaa Journal published by Jimma University	2017 till now
Editorial Board Member of Universal Journal of Agricultural Research	2015 till now
Editorial Board Member of International Journal of Advances in Engineering Research	2014 till now
Reviewer of Universal Journal of Public Health	2014 till now

Professional Association/Society Membership

- Member of the Association of Information Science and Technology (ASIS&T)
- Lifetime member of Ethiopian Red Cross Society

Research and Publications

Journal Articles – Published/In Press

1. Dereje Kaba Gurmessa and **Worku Jimma**. A Comprehensive Evaluation of Interpretable Artificial Intelligence for Epileptic Seizure Diagnosis Using an Electroencephalogram: A Systematic Review. Digital Health Journal (*In Press*)
2. Bedasa Motuma, Daniel Alemneh and **Worku Jimma**. Exploring the challenges of e-resources acquisition to enhance access and the enabling factors to embrace patron-driven e-resources acquisition in Ethiopian university libraries, Information Development, Sage Journals. 2024.
<https://doi.org/10.1177/02666669241307>
3. Seifu Feyisa, **Worku Jimma**, and Eshetu Chaka. Resistance of Mycobacterium tuberculosis strains to Isoniazid: A systematic review and meta-analysis, Horn African Journal of Health and Biomedical Sciences (HAJHBS) Vol. 1 (1) (2024)
<https://www.hajhbs.sluchs.edu.et/index.php/hajhbs/article/view/22>
4. Tamene Fufa, Rahel Bekele, and **Worku Jimma**. Evaluation of the Health Management Information System Status and Effectiveness at Jimma University Medical Centre, 2018: A descriptive cross-sectional study. Horn African Journal of Health and Biomedical Sciences (HAJHBS) Vol. 1 (1) (2024)
<https://www.hajhbs.sluchs.edu.et/index.php/hajhbs/article/view/18>
5. Workineh Tesema, **Worku Jimma**. Muhammad Iqbal Khan, Johan Stiens and Bruno da Silva. A Taxonomy of Low-Power Techniques in Wearable Medical Devices for Healthcare Applications Journal of Electronics Vol 13 (15), 3097. (2024)
<https://doi.org/10.3390/electronics13153097>
6. Dereje Kaba Gurmessa and **Worku Jimma**. Explainable machine learning for breast cancer diagnosis from mammography and ultrasound images: a systematic review, BMJ health & care informatics vol. 31 (1) (2024)
<https://pubmed.ncbi.nlm.nih.gov/38307616/>

7. Geleta Negassa, Chala Diriba , **Worku Jimma**. Developing a self-learning knowledge-based system for the follow-up and treatment of pregnancy-induced hypertension. International Journal Agricultural and Biological Research 40 (1), 880-886, (2024)
8. Dirba Abdeta, Chala Diriba and **Worku Jimma**. Pulmonary tuberculosis bacilli detection in sputum smear microscopy images using image processing techniques, International Journal Agricultural and Biological, 40 (1), 887-89, (2024)
9. Dereje Kaba Gurmessa and **Worku Jimma**. A Comprehensive Evaluation of Explainable Artificial Intelligence Techniques in Stroke Diagnosis: A Systematic Review, Journal of Cogent Engineering Vol 10(2). (2023)
<https://www.tandfonline.com/doi/full/10.1080/23311916.2023.2273088>
10. Behailu Gebremariam, Shimelis Assefa, and **Worku Jimma**. Personal Healthcare Management through Social Media: A Study of Graduate Students in Selected Ethiopian Universities. Universal Journal of Public Health Vol. 11 (5). (2023)
[UJPH9-17633952.pdf \(hrpub.org\)](https://hrpub.org/UJPH9-17633952.pdf)
11. Woldemariam, Misganaw Tadesse, and **Worku Jimma**. Adoption of electronic health record systems to enhance the quality of healthcare in low-income countries: a systematic review. BMJ health & care informatics vol. 30 (1) (2023): e100704. doi:10.1136/bmjhci-2022-100704
[bmjhci-2022-100704.pdf \(nih.gov\)](https://bmjhci-2022-100704.pdf (nih.gov)). (2023)
12. Amansisa Embabo, **Worku Jimma** and Chala Diriba. A self-learning knowledge-based system to mitigate the impact of drug interaction in type two diabetics Vol. 10, Issue, 3, page 241-250, (2022)
<https://www.hrpublish.com/download/20220530/UJPH1-17626409.pdf>
13. Chala Diriba, **Worku Jimma**, and Hailu Merga . Developing Risk Level Prediction Model and Clinical Decision Support System for Cardiovascular Diseases in Ethiopia. International Journal of Clinical Case Reports and Reviews, Vol 13(5), (2023)
<https://auctoresonline.org/article/developing-risk-level-prediction-model-and-clinical-decision-support-system-for-cardiovascular-diseases-in-ethiopia>
14. Diriba Girma, **Worku Jimma** and Chala Diriba. Developing Self-Learning Knowledge Based System for Predominant Chicken Diseases Diagnosis, Prevention and Management, Journal of Veterinary Science and Technology Vol 14 (1), (2023)
<https://www.hilarispublisher.com/open-access/developing-selflearning-knowledge-based-system-for-predominant-chicken-diseases-diagnosis-prevention-and-management-97092.html>
15. Ashenafi Adere, **Worku Jimma**, and Elsabet Wedajo. Exploration of Indigenous knowledge for Conflict Management in Communities in Southwest Ethiopia, Gadaa Journal Vol 5(1), (2022).
<https://journals.ju.edu.et/index.php/gadaa/article/view/3597>
16. Fetene Tushura, **Worku Jimma**, and Workineh Tesema. Indigenous Knowledge Practices on Weather Forecasting and Drought Disaster Management: The Case of Borana Zone, Oromia Region, Ethiopia. Gadaa Journal Vol 5(2), (2022)
<https://journals.ju.edu.et/index.php/gadaa/article/view/4017/1518>
17. Legese Chelkeba, Zeleke Mekonnen, Daniel Emanu Aga, **Worku Jimma** and Tsegaye Melaku. Prevalence of soil-transmitted helminths infections among preschool and school-age children in Ethiopia: a systematic review and meta-analysis, (2022).

<https://pubmed.ncbi.nlm.nih.gov/35307028/>

18. Letensea Gereabzgi, **Worku Jimma**, and Elsabet Wedajo. Impact of Organizational Learning Culture and Structure on Organizational Performance and Innovativeness. *The Ethiopian Journal of Social Sciences and Language Studies (EJSSLS)*, Vol 7(2) (2020)
<https://journals.ju.edu.et/index.php/ejssls/article/view/4766>
19. Habteyes Hailu Tolaa, Khalid Jamal Khadoura, **Worku Jimma**, Saharnaz Nedjata and Reza Majdzadeha (2020). Multidrug resistant tuberculosis treatment outcome in children in developing and developed countries: A systematic review and meta-analysis. *International Journal of Infectious Diseases* 96, (2020)
<https://www.sciencedirect.com/science/article/pii/S1201971220301971>
20. Eyasu Kedir, **Worku Jimma**, Tadesse Takele). Developing a Prototype Knowledge-Based System for Diagnosis and Treatment of Diabetes Using Data Mining Techniques. *Ethiop J Health Sci.* 30(1): 115–124. doi: 10.4314/ejhs.v30i1.15, (2020)
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7036459/>
21. Seifu Gizaw Feyisa, Ahmed Abdulahi Abdurahman, **Worku Jimma**, Eshetu Ejeta Chaka, Jalil Kardan-Yamchi, Hossein Kazemian. Resistance of Mycobacterium tuberculosis strains to Rifampicin: A systematic review and meta-analysis. *Heliyon* 5 (2019) e01081, (2019).
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6314001/pdf/main.pdf>
22. Chala Diriba and **Worku Jimma** Prototype Knowledge-Based System for Land Suitability Prediction for Coffee Production in Afaan Oromoo. *Gadaa Journal/Barruulee Gadaa*, 2.(1). 56-68, (2019).
<http://journals.ju.edu.et/index.php/gadaa/article/view/561>
23. Yonatan Gemechu, **Worku Jimma** and Chala Diriba. Practices and Challenges of Indigenous Knowledge on Soil and Water Conservation in Central Ethiopia: The Case of Sebeta-Hawas District. *Gadaa Journal/ Barruulee Gadaa*, Vol. 1 No. 2, (2018).
<https://www.ju.edu.et/gj/sites/default/files/3%20Worku%20.pdf>
24. **Worku Jimma**, Marjan Ghazisaeedi, Leila Shahmoradi, Ahmed Abdulahi Abdurahman, Sharareh Rostam Niakan Kalhori, Mahshid Nasehi, Sharif Yazdi and Reza Safdari. Prevalence of and risk factors for multidrug-resistant tuberculosis in Iran and its neighboring countries: systematic review and meta-analysis. *Journal of the Brazilian Society of Tropical Medicine*: 50(3): 287-295, (2017).
http://www.scielo.br/scielo.php?pid=S0037-86822017000300287&script=sci_arttext
25. Leila Shahmoradi, Reza Safdari and **Worku Jimma**. Knowledge Management Implementation and the Tools Utilized in Healthcare for Evidence-Based Decision Making: A Systematic Review. *Ethiopian Journal of Health Sciences*: 27(4). 541-558, (2017)
<https://www.ajol.info/index.php/ejhs/article/view/160296>
26. Bilisuma Wakuma, Elsabet Wedajo and **Worku Jimma** (2017). Determining the Implementation of Knowledge Management for Decision Making and Products Improvement: The Case of Arjo-Didessa Sugar Factory, Ethiopia. *Journal of European Academic Research*: 5(5)
<http://euacademic.org/UploadArticle/3254.pdf>
27. Rameta Mossisa, **Worku Jimma** and Rahel Bekele. Knowledge Management Strategy for Indigenous Knowledge on Land Use and Agricultural Development in Western Ethiopia. *Universal Journal of Agricultural Research*: 5(1): 18-26, (2017).

http://www.hrpub.org/journals/article_info.php?aid=5348

28. Dereje Roba, **Worku Jimma** and Chala Diriba. Individual, Organizational and Technological Factors Affect Knowledge Sharing Practices in Assosa Hospital, Ethiopia. *Journal of European Academic Research*: 4(5), (2016).
<http://euacademic.org/UploadArticle/2722.pdf>
29. Chala Diriba, **Worku Jimma** and Dereje Roba (2016). Status of Knowledge Sharing Practices among Health Professionals the Mechanisms and Tools that Foster Knowledge Sharing: The Case of Assosa Hospital, Ethiopia. *Journal of European Academic Research*: 4(8): 6628-6651
<http://euacademic.org/UploadArticle/2851.pdf>
30. Hambisa Mitiku, **Worku Jimma** and Chala Diriba. Managing Indigenous Knowledge for Corrective and Preventive Cares: The Case of Horro Guduru Wollega Zone, Oromia, Ethiopia. *Universal Journal of Public Health*: 4(4) 212-217, (2016).
http://www.hrpub.org/journals/article_info.php?aid=3996
31. Zemene Worku, Samuel Tilahun, Taye Tolemariam, and **Worku Jimma** Assessment of the Prevailing Cattle Fattening Practices in Jimma Zone, South-Western Ethiopia. *Journal of Global Veterinaria*: 17(2): 105-113, (2016).
[https://idosi.org/gv/gv17\(2\)16.htm](https://idosi.org/gv/gv17(2)16.htm)
32. Lawrence Abraham Gojeh and Worku Jimma. Effect of Jimma University Libraries System Usage and Contributions to Quality Education in Jimma University, Ethiopia. *Ethiopian journal of Education and Science*: 11 (1): 1-8, (2015).
<https://www.ajol.info/index.php/ejesc/article/view/136455>

Chapters in a Book

1. Haftamu Ebuy, Rahel Bekele and Worku Jimma. Assessment of Knowledge Management Practices in Jimma University Consideration of Technology, Leadership, Organization and Learning Pillars. In Mammo Muchle. Amare Desta, Montesnot Mengesha (eds.) SCIENCE, TECHNOLOGY AND INNOVATION for Sustainable Future in the Global South, Publisher: AFRICA WORLD PRESS. P 131, (2016)
2. Worku Jimma, Daniel Adjei-Boateng and Nicolas Van Vosselen, Scenario Planning as a Management Tool for Sustainable Aquaculture. In Mammo Muchle. Amare Desta, Montesnot Mengesh (eds.) SCIENCE, TECHNOLOGY AND INNOVATION for Sustainable Future in the Global South, Publisher: AFRICA WORLD PRESS. P 89, (2016).

Conference Papers:

1. Dereje Kaba Gurmessa, **Worku Jimma** and Kula Kekeba. Systematic Review of Explainable Artificial Intelligence for Early Warning Epileptic Seizure Onset: To Wards Responsible Artificial Intelligence. National Conference of Jimma University, January 30-31, 2025, Jimma University, Ethiopia.
2. Ahmed Habib, Abu Santure, Bekalu Ferede and **Worku Jimma**. Developing a Predictive Model to Improve Student Outcome Using Big Data Analytics and Machine Learning Techniques. National Conference of Jimma University, January 30-31, 2025, Jimma University, Ethiopia.
3. Ashenafi Adere, **Worku Jimma** and Elsabet Wedajo. Exploration of Indigenous Knowledge for Conflict Management and Web-Based Application System Development: The Case of Two Communities in Southwest Ethiopia. National Conference on Peace Building through Peace Education and Peace Research, May 23-24, 2024, Jimma University, Ethiopia.
4. Workineh Tesema, Bruno Da Silva, **Worku Jimma** and Johan Stiens. Power Saving Techniques for Wearable Devices in Medical Applications. ICON, 48th Annual Conference of IEEE Industrial Electronics, October 17-20, 2022, Vrije University of Brussels, Belgium.
5. Zelalem Asfaw, Daniel Alemineh, and **Worku Jimma**. Data-Driven Decision-Making and Its Impacts on Education Quality in Developing Countries: A Systematic Review. 2023 International Conference on Information and Communication Technology for Development for Africa (ICT4DA), 26-28 Oct. 2023, Bahir Dar University, Ethiopia.
6. Zelalem Asfaw, Daniel Alemineh, **Worku Jimma** and Bekalu Ferede. Data-Driven Decision-Making Practice in Higher Education Institutions in Ethiopia. Proceedings of the Association for Information Science and Technology, 86th Annual Meeting of the Association for Information Science & Technology, 86th Annual Meeting of the Association for Information Science & Technology, Oct. 27 - 31, 2023, London, United Kingdom

MSc and BSc theses advising:

- I have advised (as principal advisor and co-advisor) more than 50 MSc theses since 2012 till now [*List of the titles at: <https://sites.google.com/ju.edu.et/workujimma/research/students-thesis>*]
- I have advised different batches of undergraduate students for their Senior Research Projects

My PhD students and their respective thesis area

1. Behailu G/Mariam Health Informatics - Defended his dissertation in February 2025
2. Zelalem Asfaw - Data Science/Data Driven Decision Making Approach – Ongoing
3. Bedassa Motuma – Library Science, Jimma University – Ongoing
4. Elsabet Wedajo – Health Informatics, Jimma University - ongoing
5. Gemechu Moti – Machine learning, Jimma University – ongoing
6. Workineh Tesema – Medical Technology, Jimma University - Ongoing
7. Mlsganaw Tadesse – Instructional Technology, Jimma University – Ongoing
8. Daraje Kaba – Explainable Artificial Intelligence, Jimma University - Ongoing
9. Andualem W/Giorgis - Machine Learning, Arba Minch University – On-going

Serving as a jury member, external/internal examiner of MSc and PhD Candidates

- I have served as an external examiner for one PhD candidate from Department of Computer Science and Software Engineering, Adama Science and Technology University.
- I have served as an external examiner for one PhD candidate from Department of Computer Science and Software Engineering, Arba Minch University.
- I have served as an internal Examiner for one PhD candidate from Department of Information Science, Jimma University
- I have served as an external for three Computer Science MSc Students of Mettu University in 2023.
- I have served as a chairperson of a jury for one PhD candidate thesis defense at Information Science Department, Jimma University in 2021.
- I have served as internal examiner for several MSc students' thesis at Information Science Department, Jimma University from 2013 till now.

Grants won

Won a grant of 1,000,000 Ethiopian Birr research grant in 2023 for a research project titled: *Study on Open Data, Big Data Analytics and Digitalization: Developing a Novel Model to Improve Quality of Education in Ethiopia*

Won a grant of 33,000 Ethiopian Birr research grant in 2013 for a research project titled: *Effect of Jimma University Libraries System Usage and Contributions to Quality Education in Jimma University, Ethiopia*

Teaching

The courses I taught, and Seminar advising/mentoring are as follows:

To PhD students:

- Scholarly writings – for three batches
- Advanced Research Methods – for one batch
- Advanced Seminar I and II - mentoring/advising - 6 PhD students since 2020 till now

To MSc Students:

- Foundation of Knowledge Management
- Knowledge Management System
- Information Architecture for the Web
- Research Methods for Information Science students
- Research Methods for Data Science Students
- Electronic Resources Management in Disciplines
- Advanced Web Technology
- Data Management Policy
- Laboratory Information System and Management – for Medical Laboratory students
- Fish Health and Management – For Biology Department students
- Seminar advising – several students since 2012

To BSc Students:

- Scholarly Communications and Bibliometrics
- Health Informatics
- Research Methods

Honors and Awards

- Medal and Certificate award of outstanding teacher of the year from the Faculty of Computing and Informatics, 2021.
- Medal and Certificate award of outstanding researcher of the year from the Faculty of Computing and Informatics, 2021.
- Medal and Certificate award of outstanding indigenous knowledge researcher of the year from Jimma University, 2021.

My H-index scores

Google Scholar = 10

ResearchGate = 9

Semantic Scholar = 8

Scopus = 6

Google Scholar Link: <https://scholar.google.com/citations?user=LZliAXoAAAAJ&hl=en&oi=ao>

My Hobbies:

- Walking,
- Watching Athletics Competitions,
- Admiring Nature.

Name and address of my references:

- 1) Professor Femi Emauel Olu, PhD
Jimma University, Ethiopia
E-mail : olu.femi@ju.edu.et

- 2) Professor Daniel Alemineh Gelaw, PhD
University of North Texas, USA
E-mail : daniel.alemneh@unt.edu

- 3) Professor Shimelis Assefa, PhD
Associate Professor
Department of Research Methods and Information Science
Morgridge College of Education
University of Denver
E-mail: shimelis.assefa@du.edu

For additional Information about me, Please see my personal website at:

<https://sites.google.com/ju.edu.et/workujimma/home>