

# Gender Bias in Natural Language Processing in Amharic

**Dr Solomon Gizaw**  
(Addis Ababa University, Ethiopia)

Friday, 8 May 2026 @ 14h00-15h00 SAST

**Venues:** NITheCS Seminar Room, Stellenbosch University; and Online

## ABSTRACT

Bias in language processing systems can reinforce societal inequalities by amplifying existing biases in language and culture. This research paper examines gender bias in Amharic word embeddings, which are vital for understanding Ethiopia's cultural and linguistic contexts. By analysing gendered word pairs, we assessed gender representation and found that many professional terms carry implicit biases favoring males, while terms like "Nurse" and "Sister" align with traditional gender roles for women. Notably, the word "Doctor" exhibits a gender-bias discrepancy between its written and translated forms. Additionally, arts and athletics professions often exhibit a female bias, whereas physically demanding and higher-education roles tend to be male-dominated. These findings highlight the implications of gender bias in Amharic, reflecting disparities in employment and educational opportunities, and aim to inform strategies to promote fair language representations.

## BIOGRAPHY

Dr Solomon Gizaw completed his PhD at the Localisation Research Centre (LRC)/Lero, the Irish Software Engineering Research Centre, at the University of Limerick. He also holds an MSc in Computer Science and a BSc in Applied Mathematics from Addis Ababa University (AAU) in Ethiopia.

He is one of the contributors to the development and innovation of the Service-Oriented Localisation Architecture Solution (SOLAS), a component-based, open-source localisation platform. He was a co-founder of the Ethiopian Free and Open Source Software Network (EFOSSNet), where he served as Regional Manager from 2005 to 2009. He was also a Council Member of the Free and Open Source Software Foundation for Africa (FOSSFA) from 2006 to 2010, and a Secretariat Member of the African Network for Localization (ANLoc) from 2008 to 2015.

Currently, he is a research member of the African-European Cluster of Research Excellence (CoRE AI), and a Research Fellow at AAU.



**REGISTER:** <https://bit.ly/4eZGP6s>

