UNIVERSITY OF CAPE TOWN
IYUNIVESITHI YASEKAPA • UNIVERSITEIT VAN KAAPSTAD

Funded MSc bursary: Artificial Intelligence for South African Sign Language in Healthcare

University of Cape Town · Division of Biomedical Engineering / UCT MedTech, with the Department of Mathematics and Applied Mathematics, the UCT AI Initiative and Health Sciences · start early 2027

Purpose

The SASLiVE MSc bursary is funded by a UCT Faculty of Health Sciences Research Stimulus Award to the SASLiVE project. SASLiVE is developing AI tools to help Deaf people who use South African Sign Language (SASL) communicate with health practitioners in telehealth settings. The project brings together AI and machine learning, computer vision, biomedical engineering and health sciences at UCT, and builds on conversations with the SignTalk team at KNUST in Ghana. The bursary supports one MSc student to carry out research within the project.

Call for applications

Applications are invited for one bursary for full-time study towards the MSc in Biomedical Engineering by dissertation, starting in early 2027. Depending on the student's interests and progress, the research will involve:

- Building and curating a high-quality SASL video dataset for clinical vocabulary, co-designed with the Deaf community from the start.
- Developing sign-recognition models using pose/skeleton-based and transformer approaches, drawing on existing sign-language frameworks.
- Evaluating accuracy, latency and usability in real telehealth settings.

Conditions

The successful candidate will be required to:

- register full-time for the MSc in Biomedical Engineering by dissertation in the Division of Biomedical Engineering at UCT;
- comply with the University's approved policies, procedures and practices for the postgraduate sector.

The successful candidate may take up part-time employment of up to 12 hours a week, but may not hold this bursary alongside salaried or full-time employment. No service will be required in return for the award.

Value and tenure

The bursary is worth **R100,000 a year**. It is tenable for one year from early 2027 and may be renewed for a second year on evidence of satisfactory academic progress and subject to the availability of funds.

Further funding is being sought to increase the value of the bursary. The successful candidate may also be nominated for a DSI-NRF bursary through the SARChI Chair in Biomedical Engineering and Innovation. South African citizens and permanent residents with at least 65% in their Honours degree may receive a partial-cost award for up to two years. Of these, students who are financially needy, living with a disability or have an average of at least 75% may receive a full-cost award for up to two years. Nominations open in early February 2027. The NRF makes the final decision, so an award cannot be promised. If a SARChI award is made, the value of this bursary may be adjusted to keep the student's total income from all sources within UCT's limit for master's students.

Academic criteria

- An Honours degree (or equivalent four-year degree) in computer science, electrical/computer engineering, applied mathematics, biomedical engineering, data science or a related field that qualifies the applicant for MSc registration at UCT.
- Programming ability in Python and working familiarity with machine learning. Interest in computer vision or sequence models is an advantage.
- Interest in accessibility, healthcare and research done with communities rather than on them.

Application requirements

Applications should include:

- a letter of application of no more than one page explaining why this project interests you;
- a CV;
- copies of academic transcripts;
- the names and contact details of two academic referees who have taught, supervised or worked with you.

Applicants should also apply for admission to the MSc in Biomedical Engineering by dissertation through UCT's online application system at applyonline.uct.ac.za.

Selection process

The supervisory team will consider eligible, complete applications. Shortlisted applicants may be invited to an interview.

Supervisory team

A/Prof Jonathan Shock (AI/ML), Dr Paul Amayo (African Robotics Unit), Prof Sudesh Sivarasu (Biomedical Engineering/UCT MedTech), Prof Harsha Kathard (health and disability studies).

Closing date

30 November 2026.

Contact details

Send applications and enquiries to A/Prof Jonathan Shock at jonathan.shock@uct.ac.za.

UCT's indemnities

The University of Cape Town reserves the right to disqualify ineligible, incomplete and/or inappropriate applications.

The University of Cape Town reserves the right to change the conditions of award or to make no awards at all.

UCT is committed to equity and diversity in its research community.

Advert approved on 5 November 2026.
Chantal Swartz, PG Funding Office