

Valourisation of fruit processing residues into high-value products

Degree level: Full-time research-based master's degree in chemical engineering

Commencement: The successful candidate must assume postgraduate work in July 2024 or January 2025.

Host: [Prof. Johann Görgens](#)

An opportunity is available for scholarship-funded postgraduate research in chemical engineering at master's level, focused on the assessment of processing methods for citrus fruit residues into valuable organic chemicals, biomaterials and/or bioenergy. Compositional analysis of the available residues will be combined with simulations of alternative process/product options to identify those that are technically and financially most attractive as investment opportunities.

These aforementioned postgraduate project falls within the [bioresource engineering research group](#) at the Department of Chemical Engineering, Stellenbosch University. This research group has broad and in-depth collaborations within the local agro-processing sector, based on meaningful expertise with a range of chemical, biochemical and microbial processing methods for plant biomass materials, to ensure that the research approaches and outputs remain relevant to industrial practice.

Successful postgraduate candidates will be exposed to a network of industry participants, which hold the promise of future career development. Successful candidates will be offered a minimum bursary of ZAR150 000 per year of study, for two years of master's studies.

Requirements

- A bachelor's degree (BEng/BScEng or similar) in Chemical Engineering from an accredited tertiary institution. *Candidates with BTech, National Diploma, or advanced diploma qualifications will not be considered for these positions.*
- Applicants must have good academic record (preferably with a course aggregate of >65%).
- Previous experience in bioprocess development and/or biomass processing will be a definite advantage but is not required.
- Preference will be given to South African citizens and permanent residents who display academic excellence.

Application

Interested candidates must provide a cover letter, CV, degree certificate(s), complete academic transcript(s), master's thesis, research publications, and contact details of at least three academic references. If the master's thesis was written in a language other than English, an English abstract must be submitted. Incomplete applications will not be considered. Applications can be sent to jfgorgens@sun.ac.za. Candidates may consider their application unsuccessful if they do not receive any feedback within four weeks of applying. (Read more [here](#) about the programme and admission requirements – an institutional application must also be submitted.)

Stellenbosch University reserves the right not to fill the position.