

Postdoc - Techno-economics and sustainability of biorefineries and bioenergy production

Employer: **Process Engineering, Stellenbosch University**

An opportunity for a postdoctoral researcher focused on the techno-economics and sustainability assessment of biomass conversion to energy, chemicals and materials is currently available. The position will focus on various types of (thermo)chemical and biochemical processes for the recovery of valuable products from various types of plant biomass, in research programs at the Department of Process Engineering and its collaborators.

This research group is currently collaborating with industrial and academic partners on the assessment of alternative process options for the conversion of plant biomass into energy, chemicals and materials. Such technology developments require techno-economic, environmental impact and sustainability assessments, to identify preferred technology options as well as the required improvements in technological processes for industrial implementation.

The postdoctoral researcher will be expected to contribute significantly to:

- A. Independently working on process simulations and techno-economics for a range of process technologies for biomass valorisation
- B. Provide technical support to other researchers in the group working on similar projects
- C. Critical evaluation of existing technologies, and proposals for technical development to improve these.
- D. The publication of research outputs from current and previous projects
- E. Development of new areas of research within the research group.
- F. Writing new funding proposals to sustain research activities

The fellowship is available for a minimum period of 12 (twelve) months, with a starting date of 1 April 2021, or shortly thereafter and renewable thereafter based on performance and funding availability. A minimum scholarship of XXX-XXXX per annum has been granted for the position and, provided that the necessary procedures are put in place. Please note that postdoctoral fellows are not appointed as employees and are therefore not eligible for employee benefits. Postdoctoral fellowships are also awarded tax free.

- Salary: R33 333.00 - R37 500.00 Per Month

See <http://processengineering.sun.ac.za/> for more details on the department and Stellenbosch University.

Closing date for applications is 28 February 2021. The university reserves the right not to fill the position.

Candidate Requirements

A Ph.D. in Chemical Engineering, obtained within the past five years, with a strong background in process simulations, techno-economics and LCA assessments, as described above.

Candidates with a proven track record in chemical process design, process simulations such as AspenPlus®, techno-economic assessments of process technologies and Life Cycle Assessment of environmental impacts, are particularly encouraged to apply. Experience with carbon accounting, sustainability assessments and environmental LCA software such as SimaPro would be an advantage.

How to apply:

<https://www.careers24.com/jobs/adverts/1732740-postdoc-techno-economics-and-sustainability-of-biorefineries-and-bioenergy-production-stelle/>

Deadline: 28 February 2021.