

Postdoctoral Research Fellowship in sCO₂ cooling system

Stellenbosch University's [Division for Thermodynamics and Fluid Mechanics](#), hosted within the [Department of Mechanical and Mechatronic Engineering](#), has an opening for a 2-year Postdoctoral Research Fellow. The fellowship is intended to support research relating to sCO₂ cooling system behaviour.

Academic Hosts:

- Prof Johan van der Spuy (sjvdspuy@sun.ac.za)
- Dr Hannes Pretorius (jpp@sun.ac.za)

Location: Department of Mechanical and Mechatronic Engineering, Stellenbosch University, Stellenbosch, South Africa. (In person)

Duties and responsibilities:

The research fellow will be expected to contribute to the completion of ongoing research in the aforementioned field, through a combination of data analysis and scientific reporting, and possibly experimentation, numerical simulation and / or analytical analysis.

General requirements:

- A PhD in a relevant field (preferably mechanical engineering):
 - must have graduated within the last two years,
 - candidates with a confirmed examination outcome who have not yet graduated may apply (proof required);
 - candidates with a confirmed thesis submission who have not yet received their results may apply, but final appointment will only occur once a confirmed successful examination has been received (proof required);
- Excellent communication skills in English (both written and verbal);
- A proven publication record in high impact journals and or the ASME TurboEXPO Conference, and a demonstrated capacity to conduct independent research.
- Proven capabilities in terms of experimental, numerical (CFD) and analytical research.
- Familiarity with large diameter axial flow fans and the modelling and testing of these fans.

Commencement of duties: 1 February 2025

Duration: 1 year (extended to 2 years if acceptable progress)

Remuneration: R 200 000

Application closing date: 17h00 on 6 December 2024.

Application process: Candidates must send a letter of application, accompanied by a comprehensive curriculum vitae (including a list of publications, a link to the candidate's PhD thesis, and the names and contact details of two referees) to the academic hosts before the closing date.

Applicants will be notified by 9 December regarding possible interviews on 10 December and a final selection of a candidate will be made by 13 December.