



University of Fort Hare
Together in Excellence

POSTDOCTORAL RESEARCH FELLOWSHIP



Photovoltaic Thermal Systems (1 post)

The purpose of this postdoctoral fellowship is to conduct research and develop a highly efficient hybrid photovoltaic thermal system to utilize the same aperture area for both power and heat production.

The key performance areas include:

- Develop novel models for solar photovoltaic thermal (PVT) system, particularly back-of-module water capillary configuration to optimize heat exchange.
- Apply machine learning for thermoelectric performance assessment of PVT systems including use of data collected from existing systems.
- Assist in the design and manufacturing of a PVT prototype and an on-board monitoring system.

Minimum requirements:

- Doctoral degree in Mechanical Engineering, Physics, Electrical Engineering, or related field obtained within the last 4 years
- Expertise in computational fluid dynamics including programming experience in MATLAB, Python, R, and machine learning applications.
- A track record of publications in DHET accredited journals

Expected outcomes:

- Modelling and prototype of PVT system with on-board performance monitoring capabilities
- A minimum of 4 publications in DHET accredited journals
- Co-mentoring of postgraduate students
- Assist with teaching and learning in primary department

Enquiries and further details regarding this post, may be directed to Prof. E. Meyer via email: emeyer@ufh.ac.za. Applications must be sent to postdocs@ufh.ac.za on or before 30 September 2023. Please consider your application unsuccessful if you have not received feedback within 3 weeks of the closing date.

