

Postdoctoral fellowship: Meta-Heuristic Optimization Development and Benchmarking

The Department of Industrial Engineering focuses on the following areas of research to improve global competitiveness: Operations Research, Data Science in Industrial Engineering; Operations Management and Logistics; Advanced Manufacturing; and Engineering and Technology Management.

The successful candidate will be expected to keep abreast of the latest academic content and practical applications in the areas where they are deployed to ensure relevance and sustainability of the department.

This fellowship is intended for a young researcher who has obtained a PhD within the last five years in Industrial Engineering, Computer Science or a related field with a focus on Meta-heuristics for Optimisation and Machine Learning, and would like to explore the field further. The term is for two years, and can be renewed depending on funding and performance. The successful candidate will work with other researchers in the focus areas of Optimisation and Machine Learning, to further research in the development of Meta-heuristics for Optimisation and Machine Learning, and the analysis of such meta-heuristics.

Duties:

Research participation and support, publication of research papers, collaboration with researchers and postgraduate students, co-supervision of post graduate students and limited undergraduate teaching.

Requirements:

A PhD in Industrial Engineering, Computer Science or a related field, with a focus on Meta-heuristics, Optimisation, and Machine Learning • An excellent academic record • A publication record with at least two articles in accredited journals, supported by publications in mainstream conference proceedings, on research related to Meta-heuristic design and analysis • Excellent computer programming skills, specifically in Python • Good software engineering knowledge and skills • Good verbal and written communication skills.

Recommended:

Experience in collaborative research environments • Good organisational skills • Fluency in Afrikaans and English.

Commencement of duties: 1 June 2023 or as per agreement

Closing date: 30 April 2023

Enquiries: Prof Andries Engelbrecht on 021 808 4234 (engel@sun.ac.za)

The University will consider all applications in terms of its Employment Equity Plan, which acknowledges the need to diversify the demographic composition of the staff corps, especially with regard to the appointment of suitable candidates from the designated groups.

The University reserves the right not to make an appointment.

Applicants should forward an application letter, comprehensive CV and 2 confidential reports by independent referees by the closing date direct to the above address.