

Research Position: Postdoctoral Research Fellowship

Employer Name Stellenbosch University	
Department Civil Engineering	
Job Title Postdoctoral researcher/fellowship in Data-Driven Road Safety Standards using VR Technologies	
Location South Africa	City Stellenbosch
Telephone Number +27-(0)21-808-3838 or preferably enquire at msinclair@sun.ac.za	
Scope of Research: <p>The research project seeks to explore the utility of emerging visualisation technologies and machine learning to develop safe ways to test road safety design standards on new and existing roads. The project will combine conventional safety-related data as well as traffic data and digital imagery, and will create a desk-based technique of assessing road safety, and of calculating the safety levels of combined geometric design properties of roads.</p>	
Research project job description <ul style="list-style-type: none">- Develop and deliver a research project that addresses:<ul style="list-style-type: none">o Development of a data driven technique (primarily VR) for assessing road safety levels of new and existing roads which incorporates conventional data, digital imagery and industry standardso Utilising the model to assess the appropriateness of minimum geometric design standards of roads in South and southern Africa- Formulate and prepare four publication ready journal paper for an ISI accredited peer reviewed journal	
Other tasks <ul style="list-style-type: none">- Co-supervise 1 or 2 postgraduate students projects allied to this topic- Assistance with course delivery and administration:<ul style="list-style-type: none">o One post graduate courseo One undergraduate courses	
Dates: <ul style="list-style-type: none">- Submission of applications: 14 Feb 2022- Notification of position: 28 February 2022- Commencement of position: 1 April 2022	

- Duration of appointment: 24 months

Scholarship amount: R 23,500 per month (tax free) (Note that as this is a tax-free bursary the holder is not entitled to employee benefits.)

Required Skills and Experience

- PhD with a subject field within Engineering from a recognised international program (graduated within the last five years)
- Prior experience of working with Virtual Reality technologies (or other relevant visualisation technologies) specifically with developing imagery for visuals

Desired skills

- PhD in civil engineering and transportation engineering
- Prior involvement in road safety research in Southern Africa
- Prior experience in teaching Transport-related subjects at a university level
- Excellent statistical skills
- Prior experience of using GIS in research
- Knowledge of programming languages will be beneficial.

How to apply?

- **Send application via email:** Email address : msinclair@sun.ac.za

Send a letter of application, accompanied by a comprehensive curriculum vitae, including list of publications and the names and contact details of at least two referees, to Prof Marion Sinclair at msinclair@sun.ac.za.

Reference Number: Transport/PD/2022