



Dr Martin Venter

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Short Bio

Dr Venter completed his PhD in Mechanical Engineering at Stellenbosch University in 2015. He has worked as a Research Engineer and Product Developer at Vortex Innovation Worx between 2014 and 2015. Dr Venter joined Stellenbosch University full time in 2015.

Research Interests

Soft Robotics, Structural Simulation, Computational Methods, Data Analysis, and Material Characterisation.

Selected Publications

Generative Design Procedure for Embedding Specified Planar Behaviour in Modular Soft Pneumatic Actuators
Soft Robotics.

Ellis DR, Venter MP and Venter G

Soft Pneumatic Actuator with Bimodal Bending Response Using a Single Pressure Source
Soft Robotics

Ellis DR, Venter MP and Venter G

<https://doi.org/10.1089/soro.2020.0017>

Monitoring of Namibian Encroacher Bush using Computer Vision
AgriEngineering

Marggraff P, Venter MP

<https://doi.org/10.3390/agriengineering2020013>

Similarity measures for identifying material parameters from hysteresis loops using inverse analysis
International Journal of Material Forming

Jekel CF, Venter G, Venter MP, Stander N and Haftka R

<https://doi.org/10.1007/s12289-018-1421-8>

Simple implementation of plain woven polypropylene fabric
Journal of Industrial Textiles

Venter MP and Venter G

<https://doi.org/10.1177/1528083716665627>

Modelling PVC-coated polyester as a hypoelastic non-linear orthotropic material
Composite Structures

Jekel CF, Venter G and Venter MP

[10.1016/j.compstruct.2016.11.019](https://doi.org/10.1016/j.compstruct.2016.11.019)



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Obtaining a hyperelastic non-linear orthotropic material model via inverse bubble inflation analysis

Structural and Multidisciplinary Optimization

Jekel CF, Venter G and Venter MP

<https://doi.org/10.1007/s00158-016-1456-8>

Overview of the Development of a Numerical Model for an Inflatable Paper Dunnage Bag

Packaging Technology and Science

Venter MP and Venter G

<https://doi.org/10.1002/pts.991>

Teaching

Modelling 334 (Statistics)

Finite Element Methods 414 (FEM Applications)

Finite Element Methods 813 (FEM Applications)

Mechatronics 424 (Statistics)

Materials Science A 244 (Materials Science)