SA Grape and Wine research Institute

Programme/Project Info for

Prospective MSc and PhD Students

# Programme: DIGITAL VITICULTURE “New Tools for Precision Management”

|  |  |
| --- | --- |
| Improving the efficiency and quality of wine and table grape production through sensors, robots and advanced analytics. | New technologies, such as sensors, thermal cameras, image analysis, drones and robots are converging to make precision viticulture possible. The introduction of new technologies for supporting vineyard management allows the efficiency and quality of production to be improved and, at the same time, reduces the environmental impact. Our projects are related to climate change impacts on agriculture, estimations of water consumption using models and micrometeorological techniques, development of new computational and technological tools for precision viticulture and plant physiology and detection of water stress using Thermography, Remote sensing and Unmanned Aerial Vehicles (UAVs). |

# OpPortunities for 2023

|  |  |
| --- | --- |
| 1. Integrated vineyard monitoring system to improve water management |  |
| 1. A novel and fast method for multi-parameter ripening and quality monitoring of intact bunches (Hyperspectral images) |  |
| 1. Thermal Monitoring System (TMS) to optimize water use in vineyards |  |

# general Contact information

|  |  |
| --- | --- |
| To apply: | Lorette de Villiers ; [lorette@sun.ac.za](mailto:lorette@sun.ac.za); tel 021 808 3770 |
| Bursary office: | [Postgradfunding@sun.ac.za](mailto:Postgradfunding@sun.ac.za);tel 021-808 4208 |
| Website | <http://www.sun.ac.za/english/faculty/agri/viticulture-oenology> |