



31 July 2022

## **POSTGRADUATE OPPORTUNITY AVAILABLE AT THE SOUTH AFRICAN GRAPE AND WINE RESEARCH INSTITUTE (SAGWRI) FOR 2023**

The following project is available for an MSc-level study from 2023, for a suitable student with an Engineering /Applied mathematics background.

**Project Title: Physical and chemical bunch characterization of table grapes using machine vision**

### **Project description:**

#### **Objectives and Rationale**

The main objective of this project is to test and validate different protocols for in-field and laboratory data and image acquisition for developing robust and non-destructive methods for the assessment and quantification of chemical and physical bunch characteristics. The table grape industry needs to incorporate new technologies to optimise fruit monitoring in order to improve decision-making. The current methods for determining chemical and physical quality parameters of table grapes are destructive and time-consuming, which leads to practical problems in monitoring the ripeness process and crop load estimations. In this project, machine vision and image digital analysis techniques will be used in conjunction with modelling methods in order to develop models to determine chemical and physical bunch characteristics.

### **Contact persons for the project:**

Prof Carlos Poblete ([cpe@sun.ac.za](mailto:cpe@sun.ac.za)) or Talitah Venter ([tventer@sun.ac.za](mailto:tventer@sun.ac.za))

**Please send a CV, as well as a cover letter to Prof M.A. Vivier ([mav@sun.ac.za](mailto:mav@sun.ac.za)) to indicate your interest in this opportunity.**

### **General contacts for SAGWRI:**

Prof MA Vivier: Interim Director of SAGWRI

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Ms Lorette de Villiers: Postgraduate Admin officer

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