

Stellenbosch University Solar Resource and Weather Station

STERG Facilities

A solar resource measurement and weather station is installed at Stellenbosch University, located at 33°55' S, 18°51' E and elevation: 119 m (Fig. 1). The system comprises a set of high quality radiometry and meteorological instruments complete with a website that allows free public downloads at <http://weather.sun.ac.za/>.

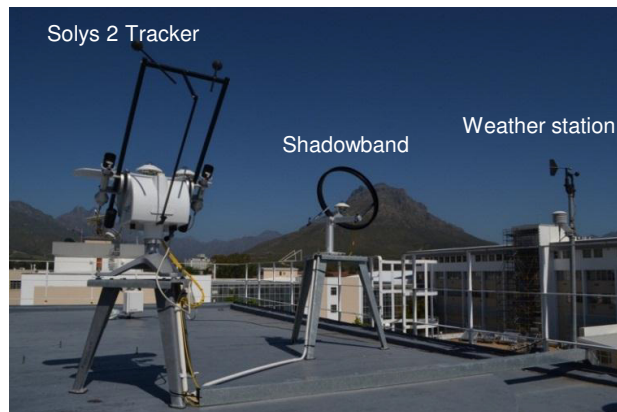


Fig. 1 The collective solar resource and weather station system.

The installation includes a Kipp and Zonen (K&Z) Model Solys 2 dual-axis sun tracker which houses:

- two K&Z CHP1 pyrhemeters for direct normal irradiance (DNI) measurements
- a shaded K&Z CMP11 pyranometer for diffuse horizontal irradiance (DHI) measurements
- an un-shaded K&Z CMP11 pyranometer for global horizontal irradiance (GHI) measurements
- a UVS-AB-T radiometer for UVA (315-400nm) and UVB (280-315nm) measurements

A K&Z CM 121 shadow ring with CMP6 Pyranometer is installed for comparable DHI measurements.

The weather station houses:

- a Campbell Scientific CS215 probe with 41303-5A radiation shield for temperature and relative humidity measurements,
- RM Young wind sentry, model 03001 for wind speed and direction measurements, and
- RM Young sensor, model 61205V for barometric pressure measurements

There are also additional measurements at SU, for more information please contact us.

Also see www.sauran.net for more information on the Southern African University Radiometric Network.