

## Motivation for 2020 ESiWACE Summer School

I write to express my interest in participating in the 2020 ESiWACE Summer School as advertised on the Met-Jobs email alerts. I am a man aged 36, and undertaking fulltime doctoral studies in Hydrology at University of KwaZulu Natal in South Africa. I hold MSc in Agricultural Meteorology and BSc in Physics. My PhD research topic is 'Understanding the interception component of the hydrological cycle using Eddy covariance and surface renewal methods: A woody encroachment study at Cathedral Peak, experimental catchment at Maloti Drakensberg'. The studies will involve carrying out experiments using micrometeorological instruments namely eddy covariance systems and surface renewal systems. The two methods will generate high frequency data that include heat energy fluxes, latent heat flux and CO<sub>2</sub> fluxes for 2 rainfall seasons. The data will be complemented by a separate automatic weather station collecting data in the same vicinity. This will entail processing of a lot of daily data that will require data processing softwares and techniques that are quick and that produce accepted scientific analysis. Therefore the HPC summer school training will come in handy as it will equip me with the necessary skills to handle such data. I have elementary knowledge of programming in C, Visual basic and Python and have been looking forward to improve these skills.

The other part of the doctoral studies will involve modelling of evapotranspiration under different climate scenarios using a Variable Storage Gash model and Global climate models to simulate future climate conditions. HPC summer school will equip me to handle these tasks with confidence.

Thank you

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