Full PhD Scholarship available with leading bushfire behaviour researchers.

Scholarship Details

The University of New South Wales Canberra is offering the following prestigious scholarship to an international or domestic student of exceptional research potential to undertake a PhD with leading bushfire behaviour researchers.

Tuition Fee Remission (TFR) Scholarship + Faculty Research Stipend. Provides remission of tuition fees and an annual stipend of $25,392 - The award is provided for three years subject to satisfactory progress.

In addition, UNSW Canberra will provide
- a $1,200 per annum top-up
- an Establishment Scholarship of $1,000
- one week temporary accommodation at no cost to the scholarship holder
- pick-up service on arrival in Canberra

Project title: Computational fluid dynamics analysis of laboratory-scale flows over topography with application to dynamic fire spread prediction.

Supervisors: Dr Jason Sharples (UNSW Canberra), Dr Andrew Sullivan (CSIRO)

Brief description: The interaction between prevailing winds and topographic obstacles is an important consideration in a variety of applications such as pollution dispersal, light and recreational aviation, and the prediction of bushfire spread. In particular, such interactions have been shown to result in distinctly dynamic modes of bushfire propagation, which can cause the rapid transition of a fire to catastrophic levels. This project aims to complement research using numerical weather prediction models and laboratory-scale fire behaviour experimentation on dynamic fire propagation. The proposed research will combine computational fluid dynamics methods with combustion tunnel experiments to better understand the detailed flow patterns produced through wind-terrain interactions and how they are further modified due to the presence of heat sources. As such, this project will provide valuable information on the intermediate regime between landscape-scale modelling of extreme fire behaviour processes and investigations at the laboratory-scale.

For more information please email a copy of your curriculum vitae (CV) and interest to Dr Jason Sharples - j.sharples@adfa.edu.au