

Project 10 - Advancing environmental and water research with emerging remote sensing opportunities

Location: The project is based at Flinders University, Adelaide, SA

Required area of expertise/background: An Honours degree or MSc degree in Hydrology, Atmospheric Science, Environmental Sciences/Engineering, or relevant fields with good understanding of physics or mathematics.

Project: Project Description (Max 200 words): Remote sensing provides unprecedented opportunities to monitor and understand our environment, ecosystems, and water resources. In addition to widely available satellite imagery, also airborne (planes and drones) imagery offer great possibilities. PhD research opportunities are available in smart use of various remote sensing techniques and associated modelling products (e.g., LANDSAT, MODIS, GRACE, LIDAR, hyperspectral data) to investigate environmental and resource problems.

Potential research projects include

- (1) Remote sensing algorithm development (e.g., evapotranspiration algorithm, spatial downscaling)
- (2) Remote sensing ecosystem production, water use efficiency, and their climatic responses
- (3) Remote sensing surface features to understand hydro(geo)logical systems
- (4) Remote sensing environmental hazards and niches in extreme climate events
- (5) Remote sensing of urban environments

2017 RTP full time RTP Stipend Rates* (\$26,682). Approximate annual top-up amount: Subject to funding availability

Principal Supervisor:

This is a collaborative research project

Co Supervisors:

[Prof Okke Batelaan](#) - Flinders University

[Assoc Prof Huade Guan](#) – Flinders University

