



Position Title:	Radar Engineer
Position Reference Number:	R&INSID003
Division	Intelligence, Surveillance and Space Division
Position Classification:	S&T3-4 (APS4/5-6)
Position Location:	Edinburgh
Security Level:	NV1
Enquiries:	Tony Cook, tony.cook2@dst.defence.gov.au , 08 73895974

Academic Disciplines

<input type="checkbox"/> Aerospace/ Aeronautical Engineering, Naval Architecture	<input type="checkbox"/> Chemical, Radiological, Biological, Food sciences	<input type="checkbox"/> Materials Science
<input checked="" type="checkbox"/> Computer Sciences, IT, Software Engineering, Telecommunications	<input checked="" type="checkbox"/> Mathematics and physics	<input type="checkbox"/> Psychology and Social Sciences
<input type="checkbox"/> Mechanical and Mechatronic Engineering (including robotics)	<input checked="" type="checkbox"/> Electronic/ Electrical Engineering	<input type="checkbox"/> Other

Position Overview

- Conduct research into challenging radar engineering problems using the latest technology hardware
- Work collaboratively with international partners, other Government organisations, universities and industry
- Create innovative extensions to the Ingara experimental Synthetic Aperture Radar to support new research directions

The successful applicant will be responsible for undertaking real time computer systems software engineering in support of DST Group's advanced imaging radar research and experimentation program that is aimed at addressing challenging Defence surveillance problems. This includes designing, developing, implementing and testing new software capabilities on the Ingara Multi-Mode Synthetic Aperture Radar test bed. This work will be undertaken to support the advanced sensing research program in support of National Security and Defence projects; and involves research collaboration with international partners, other Government organisations, universities and industry.

This position requires good collaboration and teamwork skills and regular reporting within the group. The position also requires contribution and participation in field trials with experimental equipment, including airborne flight trials.

Position Duties

The role will provide electrical/electronic engineering and real-time computer systems/software engineering to support the on-going development and operation of the imaging radar ISR experimentation program. This will include all aspects of development and operation including: engineering support in defining and implementing new radar control mechanisms, both hardware and software; and setting to work new or replacement interfaces to radar sub-systems.

Examples of such interfaces include -

- high speed analogue to digital convertors (ADC's)
- Control Area Network Bus control interfaces
- Mil. Std. 1553 bus interface cards for connectivity to the inertial navigation unit (INU)



Other Requirements

Prepared to travel interstate for trials for typically 2 to 4 weeks. Participating in radar trials may involve preparing equipment to ship, operating the radar in the aircraft and assisting with ground support in the field when needed.