



Position Title:	Radar Signal Processing Scientist
Position Reference Number:	PDNSID005 and ECRNSID006
Division	Intelligence, Surveillance & Space Division (ISSD)
Position Classification:	S&T 3-4
Position Location:	Edinburgh (SA)
Security Level:	NV1
Enquiries:	Scott.Capon@dst.defence.gov.au , 08 7389 7173

Academic Disciplines

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

Position Overview

- Research challenging problems in signal processing (applying your mathematics, physics or engineering knowhow)
- Create innovative solutions to radar problems
- Collaborate nationally and internationally

The Microwave Radar and Signatures (MRS) Branch in Edinburgh is looking for an enthusiastic person with an interest in tackling practical problems from a mathematical perspective, in the area of radar signal processing. MRS Branch undertakes world leading research into passive and active radar systems, and collaborates with organisations around the world in performing this research. Come and join the team that undertakes experimental research, to help the Australian Defence Force (ADF) to succeed in an increasingly challenging electromagnetic environment. You will undertake research in challenging signal processing problems that contribute to the system performance and survivability of active and passive radar systems. As the ideal candidate, your passion to improve how radar systems operate today and your desire to innovate will contribute directly to programs within the Australian Defence Force to improve their capabilities in radar surveillance.

You will have the opportunity to think critically and work in collaboration with ADF personnel, academia and industry. You will have access to world class radar research facilities onsite in Edinburgh to assist you in your research and development.

Position Duties

Under guidance, the Radar Signal Processing Scientist will:

1. Develop novel signal processing techniques for radar in areas including electronic protection and beam forming.
2. As part of a team, implement signal processing algorithms in MATLAB, C++, and CUDA for execution both in radar testbed hardware and simulations.
3. Develop software in a team environment using agile processes.
4. Undertake field trials of radar systems, process results and document outcomes for military clients.
5. Work collaboratively with team members from DST, industry and academia to progress research in radar signal processing.



Other Requirements

Infrequent interstate travel will be required. Overseas travel may be required.
Participation in field trials within Australia is a requirement of the position.