



POSITION DESCRIPTION

Position Title:	Tracking and Sensor Fusion Researcher
Position Reference Number:	ECRNSID010b
Division	National Security & ISR Division
Position Classification:	S&T3-4
Position Location:	Edinburgh (SA)
Security Level:	Secret (NV Level 1)
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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

The Information Integration Branch in Edinburgh (SA) is looking for an enthusiastic researcher to join a dedicated team of Data and Information Specialists addressing automated solutions for difficult tracking and sensor fusion problems for high profile Defence projects. You will contribute to the development and evaluation of novel algorithms to identify objects of interest and what they are doing. This will require using data from surface, air, space-based surveillance sensors and other information sources. Your science & technology expertise will allow you to improve how tracking and sensor fusion is conducted in support of Defence today, and your imagination and innovation will influence the research into developing future tracking and sensor fusion systems. Your excellent interpersonal, verbal and written communication skills will enable you to collaborate with Defence and DST personnel, academia and industry with clarity and influence.

Position Duties

Under guidance of staff, the Tracking & Sensor Fusion Researcher will:

1. Share responsibility for investigating and developing new algorithms and techniques for identifying and tracking the position and dynamics of objects of interest by using and fusing data from one or more sources. This includes surface, air, space-based surveillance sensors and other information sources. The algorithms may be based on various mathematical, artificial intelligence and machine learning approaches.
2. Implement and evaluate new algorithms and techniques in support of research into tracking and identification of objects of interest.
3. Integrate tracking and sensor fusion algorithms into experimental and operational systems for demonstrating new or enhanced capability to the Australian Defence Force.
4. Collaborate with other DST teams, external research agencies and industry on tracking and sensor fusion applications and programs.
5. Participate in tracking and sensor fusion related aspects of Defence programs, projects and trials.
6. Assist in the administration and management of Data and Information fusion ICT infrastructure.
7. Promote good code hygiene and education on modern approaches to software design.