



# POSITION DESCRIPTION

<b>Position Title:</b>	Information Management Scientist
<b>Position Reference Number:</b>	PDL008
<b>Division</b>	Land Division
<b>Position Classification:</b>	S&T 3-4 Above
<b>Position Location:</b>	Edinburgh, SA
<b>Security Level:</b>	Neg Vet 1
<b>Enquiries:</b>	Greg Judd, <a href="mailto:gregory.judd@dst.defence.gov.au">gregory.judd@dst.defence.gov.au</a> (08) 7389 5335

## 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 Management Scientist will conduct research into the application of emerging artificial intelligence (AI) and machine learning (ML) approaches to the unique challenge of managing information in tactical warfighting environments. This work will provide a decisive advantage to the war-fighter by ensuring that the ever increasing amount of important information being generated is shared as effectively as possible across constrained tactical communication networks. A key challenge will be developing autonomous systems that control information delivery, based on a contextual understanding of the military situation and capabilities of available communication networks. As part of an integrated team of DST, industry, academic and international researchers, the Information Management Scientist will use their knowledge and experience in computer science to implement potential AI and ML solutions in an existing exemplar software system called SMARTNet. They will then evaluate and prove the military benefits of these approaches through experimentation and analysis.

## Position Duties

The Information Management Scientist will:

- Research and develop novel solutions in the field of Artificial Intelligence and Machine learning for the improved management of information across constrained land tactical environments.
- Evaluate different approaches to the representation of military and network context in autonomous systems.
- Implement novel solutions and approaches in an existing exemplar software information integration system
- Demonstrate research outcomes by conducting experimentation using: modelling and simulation, hardware in the loop testing, and field trials.
- Collaborate with the research team of industry, academic and international partners.
- Publish findings in journals and at conferences; present and report outcomes to Defence stakeholders

## Other Requirements

Appointees will be initially be engaged on a **BASELINE** security clearance with an upgrade to a **Negative Vetting 1 (NV1) Security Clearance** required upon commencement.

Knowledge of, or experience in, one or more of the following areas:

- Computational intelligence for information systems and applications.
- Tactical network information management protocols and techniques.