



POSITION DESCRIPTION

Position Title:	Research Engineer – Communications Networks
Position Reference Number:	ECRCEWD008b
Division	Cyber and Electronic Warfare Division
Position Classification:	S&T3-4 (APS4/5-6)
Position Location:	Edinburgh, SA
Security Level:	NV1
Enquiries:	Marek Kwiatkowski 08 7389 7301

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

Under broad direction, carry out research and development of networking technologies supporting the survivability of Defence tactical networks operating in complex terrains and stressed radio frequency (RF) environments. This includes the use of autonomous systems, such as autonomous unmanned aerial vehicles (UAVs) providing range extension and data ferrying. The position involves working in a small team working to effectively leverage novel techniques, such as swarming, in order to provide survivable communications to the war fighter. Survivability is understood here as the ability of a network to exchange user information in a timely fashion in the presence of challenges, such as excessive distance and radio interference. The position also affords the opportunity to collaborate with other parts of DST, international research partners and academia.

Position Duties

- Participate in research and development of networking technologies to support the survivability of Defence tactical networks.
- Develop state-of-the-art domain knowledge in networking technologies relevant to Defence communications networks.
- Contribute to research partnerships and collaborations within DST, international partners, academia and industry.
- Utilise extant software development skills to realise research results on physical platforms.
- Participate in field trials and demonstration exhibiting the team’s novel approaches.
- Leverage knowledge and experience in networking technologies and network modelling.

Other Requirements

This position may offer the opportunity to undertake international travel for trials and conference attendance. Occasional travel for domestic trials will be required.