



POSITION DESCRIPTION

Position Title:	Rapid UAS Prototyping Researcher
Position Reference Number:	PDAD002
Division	Aerospace Division
Position Classification:	S&T3-4 Above
Position Location:	Fishermans Bend (VIC)
Security Level:	Neg Vet 1
Minimum Academic Qualification:	PhD (including nearly finishing)
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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 rapid prototyping researcher will work as part of the structural mechanics science team and contribute to research and development in structural and material optimisation for novel integrated design and manufacture of mission capable uninhabited aerial system (UAS).

Position Duties

Under guidance and as part of the structural mechanics science team, the Rapid UAS Prototyping Researcher will:

- Investigate and develop improved computational approaches to optimisations of multiscale structural topology, material and/or multi-physics for improved functional performance of UAS;
- Investigate and develop new concept demonstrators, for improved mission capable UAS designs, integrating structural, material and/or multiphysics optimisation with agile manufacturing technologies including additive manufacturing;
- Partner with academia, industry and Defence to understand, develop and deliver technological solutions that meet client requirements;
- Document science and technology findings in a timely manner and to scientific publication standard; and
- Assist in the selection, installation and maintenance of relevant infrastructure, including computer systems in support of R&D and client projects.

Other Requirements

Science and technology excellence, demonstrated by critical thinking and evidenced by publications, in one or more of the following areas:

- Finite element modelling of structures;
- Structural topological optimisation;
- Analysis and modelling of additively manufactured components;