



POSITION DESCRIPTION

Position Title:	Acoustic Materials Design Researcher
Position Reference Number:	PDMD007
Division	Maritime Division
Position Classification:	S&T 3-4 (above)
Position Location:	Fishermans Bend
Security Level:	NV1
Minimum Academic Qualification:	PhD
Enquiries:	Steve Burke steve.burke@dst.defence.gov.au (03) 9626 7504 Nigel StJohn nigel.stjohn@dst.defence.gov.au (03) 9626 8447

Academic Disciplines

<input type="checkbox"/> Aerospace/ Aeronautical Engineering, Naval Architecture	<input checked="" type="checkbox"/> Chemical, Radiological, Biological, Food sciences	<input checked="" type="checkbox"/> Materials Science
<input type="checkbox"/> Computer Sciences, IT, Software Engineering, Telecommunications	<input checked="" type="checkbox"/> Mathematics and Physics	<input type="checkbox"/> Psychology and Social Sciences
<input type="checkbox"/> Mechanical and Mechatronic Engineering (including robotics)	<input type="checkbox"/> Electronic/ Electrical Engineering	<input type="checkbox"/> Other

Position Overview

The Acoustic Materials Design Researcher will join a multidisciplinary team working on innovative applications of materials science to assist in controlling the acoustic signature of ships and submarines. The work will exploit advances in materials science, material architectures and advanced fabrication technologies, with an emphasis on polymers, elastomers and fibre-reinforced composites for maritime applications.

Position Duties

Under guidance, the Acoustic Materials Design Researcher will:

1. Assist in the development and application of novel material systems to control the acoustic signatures of ships and submarines. The work will focus on the identification of the key materials properties required and how these properties can be realised in practice.
2. Plan and conduct laboratory experiments to determine the acoustic and structural performance of such material systems for maritime defence applications.
3. Carry out mathematical modelling, either using numerical analysis software or theory, to complement experimental work and assist in the development of new concepts.
4. Provide timely reports for clients and DST leadership on relevant research areas, and where possible, contribute to the publication of novel research in scientific journals.
5. Contribute to the management of laboratories and laboratory equipment, including WHS requirements

Other Requirements

Interstate travel may be required from time to time to attend scientific conferences, technical workshops or to participate in experimental trials

The successful candidate will be required to undergo a NV1 security clearance