



Australian Government

Department of Defence
Defence Science and
Technology Organisation

DSTO

Graduate and Post-Graduate Opportunities

Engineering & Technology

DSTO is looking for the best and brightest graduates and postgraduates with excellent academic achievement or experience in the following areas:

- ▶ **Aeronautical/ Aerospace**
- ▶ **Aircraft Structures**
- ▶ **Electrical/ Electronics**
- ▶ **Flight Mechanics**
- ▶ **Mechanical**
- ▶ **Fluid Mechanics**
- ▶ **Naval Architecture**
- ▶ **Microwave**
- ▶ **Weapons Systems**
- ▶ **Robotics**
- ▶ **Materials Engineering**
- ▶ **Systems Engineering and Integration**

Current research projects

Hypersonics

Research in hypersonics develops and validates technologies that enable sustained operation of aerospace systems within the atmosphere at speeds five times the speed of sound. Hypersonics is a critical aerospace technology that has the potential to provide revolutionary capabilities for Defence, including low-cost access to space.

Aircraft Structures

DSTO provides expert advice to the Royal Australian Air Force on aircraft structural issues. This advice is based on extensive testing and evaluation programs, including assessing aircraft loads, structural strength, monitoring systems, fatigue lifting algorithms as well as developing and applying crack growth modelling tools. This work is applied to ADF air vehicles including transport surveillance, fighter aircraft and land based and ship-embarked helicopters. DSTO engineers and scientists interact with other technical areas such as air operations, propulsion, materials, human factors, weapon systems and signatures.

Naval Architecture

DSTO undertakes a variety of research to support the Royal Australian Navy's surface and underwater vehicles. This ranges from submarine and surface ship stability and sea keeping, to structural integrity analysis of both normal operational and military loadings. This requires a combination of advanced computational techniques such as finite element analysis and computational fluid dynamics, laboratory and scale model testing and full scale at-sea trials. Support is also given to the acquisition of all new Navy platforms.

The Future Submarine

DSTO is studying key criteria that will determine the performance for the Future Submarine (SEA 1000). DSTO expertise in monitoring technology trends prevents obsolescence throughout the design and build phase of the project.

Non- Destructive Evaluation Materials

DSTO contributes to aircraft, ship and submarine safety through the development of advanced non-destructive evaluation (NDE) materials. NDE research is diverse and draws on a broad range of disciplines to address new structural material challenges such as detecting advanced composite damage in next generation ships and aircraft.



DSTO

Science and Technology for a Secure World

www.dsto.defence.gov.au