Australian Government

ANSTO
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POSITION DESCRIPTION

Position Title:	Accelerator Support Technician
Cluster / Business Unit / Division	NSTLI
Section or Unit:	Centre for Accelerator Science (CAS)
Classification:	Band 4
Position Description Number:	PD-1046
Work Contract Type:	Technical

POSITION PURPOSE

The primary objective of the Accelerator Support Technician is to provide technical support, for the operation, maintenance and development of accelerator facilities using skills in fields including electronics, electro-technology, and mechanical instrumentation to ensure the safe and effective operation of plant and equipment.

ORGANISATIONAL ENVIRONMENT

ANSTO leverages great science to deliver big outcomes. We partner with scientists and engineers and apply new technologies to provide real-world benefits. Our work improves human health, saves lives, builds our industries and protects the environment. ANSTO is the home of Australia's most significant landmark and national infrastructure for research. Thousands of scientists from industry and academia benefit from gaining access to state-of-the-art instruments every year.

Nuclear Science, Technology and Large Infrastructure (NSTLI) manages the $68 million Centre for Accelerator Science (CAS) that provides Accelerator Mass Spectrometry (AMS) and Ion Beam Analysis (IBA) capabilities for research utilising a broad range of scientific plant and equipment. This includes the 10 MV ANTARES, 6MV SIRIUS, 2 MV STAR and 1MV VEGA tandem accelerators and 17 associate beamlines and 10 ion sources.

CAS provides nuclear-based products, services, applications, capabilities and knowledge for the benefit of the Australian economy. It provides opportunities for direct linkages to ANSTO businesses helping them to solve problems and improve operations. CAS is recognised nationally and internationally for its quality of research facilities, accelerator based research capabilities and its analytical expertise.

ACCOUNTABILITIES & RESPONSIBILITIES

Key Accountabilities

The key accountabilities for this position include:

- Work with scientists to operate and maintain accelerator end station equipment and provide on demand support to operate ion sources and accelerators.
- Design and develop new innovative end station equipment from conceptual ideas including electronic circuits from component level.
- Ensure samples processed in the laboratory are managed in a timely manner to meet established deadlines.
- Ensure plant and equipment associated with the operation of the accelerator is maintained. This involves using technical knowledge to diagnose, calibrate and repair faults.

- Responsibility for planning, undertaking and completing technical work allocated. Includes utilising judgement to assess priorities of multiple work orders and consulting with your supervisor.
- Responsible for maintaining a store of inventory of crucial electronic and non-electronic components and support instrumentation, to ensure that repairs and maintenance can be conducted on demand.
- Ability to safely use hand tools to manufacture components for maintenance and development projects.
- Committed to getting the job done, often working to important deadlines or tight timeframes.
- Contribute to team effort on projects and the open sharing of technical information among team members.
- Provides technical advice on maintenance and operational matters and wherever it is believed that there may be a better way of proceeding in order to optimise the outcome.
- Complete technical reports on demand.
- Experience using design software and office software including Microsoft Word, Excel and Outlook would be valuable
- Undertake additional duties as required and during period of leave of other staff.

Decision Making

- The position will consult with the Manager of Accelerator Systems and Development Group on complex, sensitive and major issues that have a significant impact on the Centre for Accelerator Science and its staff.
- Day to day work will be planned and prioritised in context with the group's goals but the position will, from time to time, be require to reprioritise their work in order to support changing priorities within the group.
- The position is required to ensure that technical decisions are based on sound evidence and where this is not clear will be required to make consultative decisions with support from senior technicians within the group.
- The levels of authority delegated to this position are those approved and issued by the Chief Executive Officer. All delegations will be in line with the ANSTO Delegation Manual AS-1682 (as amended or replaced).

Key Challenges

The major challenges for this position include:

- Becoming a licensed operator of accelerators and ion sources as instructed.
- Making repairs to complex electronic devices at component level.
- Pro-actively keep up to date with changes to new technology and practices relevant to accelerators.
- Ability to draw knowledge, experience and technical support from other technicians.
- Ensuring clear interpretation and understanding of client requests and needs.
- Adhere to strict specifications in design of new parts for plant & equipment and fabrication of prototypes.
- The Support Technician is to be pro-active, deadline driven and reliable in following through with actions

KEY RELATIONSHIPS

Who	Purpose
Internal	
Manager/Executive	• The Manager of ASD Group is available to provide advice and guidance on complex, sensitive and major issues that have a significant impact on the Centre for Accelerator Science and its staff. Where there is a need to get alternate advice or guidance the Leader of CAS may also be engaged. • The Manager of ASD group is available for guidance on career management.
Work area team members	• Work area team members are available to provide assistance and advice to learn about accelerator systems and day to day technical processes used by the group. • Work team member can also assist and advise on personnel and environmental safety, operations, project work, etc.

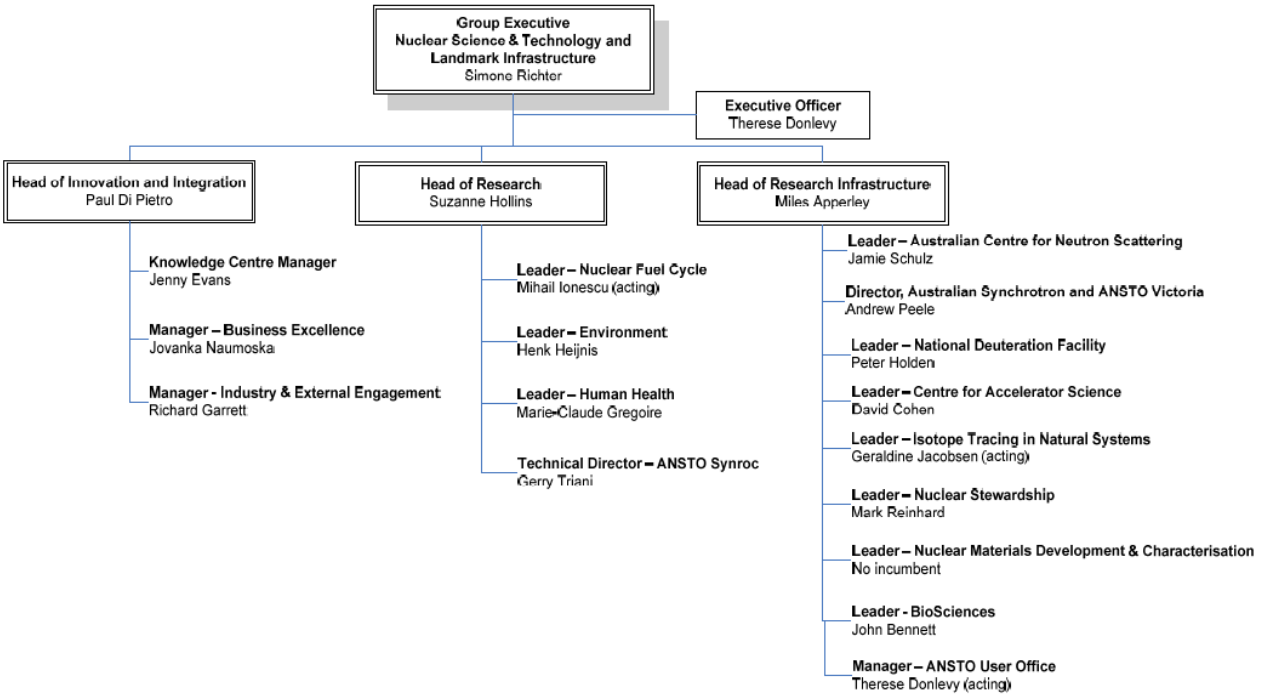
POSITION DIMENSIONS

Staff Data	
Reporting Line	Reports to the Manager of Accelerator Systems and Development Group

Special / Physical Requirements	
Location:	• Lucas Heights • Centre for Accelerator Science building 22, 29 and 53
Travel:	May be required to travel to field work sites in local and regional locations
Physical:	• Office based physical requirements including sitting, standing, minimal manual handling, movement around office and site. • Some climbing, stooping, kneeling, crouching, crawling will be required in the course of completing work. • Working within a moderately loud environment from time to time while wearing hearing protection. • Industrial facility physical requirements including lifting, standing for moderate periods, operating machinery and equipment. • Wearing personal protective equipment in the course of completing work. • Working in a confined space environment.
Radiation areas:	May be required to work in radiation areas under tightly regulated conditions
Hours:	• Willingness to work extended and varied hours based on operational requirements • After hours work may be required for short and infrequent periods
Clearance requirements:	Satisfy ANSTO Security and Medical clearance requirements

Workplace Health & Safety	
All Roles and Officers	While at work, a worker must: a) take reasonable care for their own health and safety; and b) take reasonable care that their acts or omissions do not adversely affect the health and safety of other persons; and c) comply, so far as the worker is reasonably able, with any reasonable instruction that is given by ANSTO; and d) co-operate with any reasonable policy or procedure of ANSTO relating to health or safety at the workplace that has been notified to workers. a) acquire and keep up-to-date knowledge of work health and safety matters; and b) gain an understanding of the nature of the operations of ANSTO and generally of the hazards and risks associated with those operations; and c) ensure that ANSTO has available for use, and uses, appropriate resources and processes to eliminate or minimise risks to health and safety from work carried out; and d) ensure that ANSTO has appropriate processes for receiving and considering information regarding incidents, hazards and risks and responding in a timely way to that information; and e) ensure that ANSTO has and implements, processes for complying with any duty or obligation under the WHS Act; and f) verify the provision and use of the resources and processes referred to in paragraphs (c) to (e) above.

ORGANISATIONAL CHART



KNOWLEDGE, SKILLS AND EXPERIENCE

- Associate Diploma in Electronic or Mechanical Engineering. An appropriate trades certificate or equivalent, along with proof that one of the above Diploma's is currently being completed will also be considered.
- Industrial experience in electronic and/or electrical instrumentation technology along with demonstrated experience in basic mechanical technology.
- An electricians licence would be desireable
- Diagnose and rectify instrumentation/systems faults.
- Ability to make repairs to electronic instrumentation to component level.
- Ability to read and interpret electronic-electrical drawings, schematic diagrams and manuals.
- Install instrumentation and commission systems from engineering drawings.
- Apply knowledge of modern maintenance practices in industrial plant.
- Develop working designs from conceptual ideas and produce engineering and/or schematic drawings for manufacture.
- Take responsibility to safely operate large plant and equipment.
- Produce Oral and written reports, instructions and procedures.
- Use communication and interpersonal skills to work in a team.
- Work in a safe manner and apply knowledge of QA systems.

VERIFICATION

This section verifies that the line manager and appropriate senior manager/executive confirm that this is a true and accurate reflection of the position.

Line Manager		**Delegated Authority**	
Name:	David Garton	Name:	Geraldine Jacobsen
Title:	Manager ASD Group	Title:	(Acting) Leader of CAS
Signature:		Signature:	
Date:		Date:	