



Position Description

College/Division:	College of Science and Medicine
Faculty/School/Centre:	Research School of Astronomy and Astrophysics
Department/Unit:	Advanced Instrumentation and Technology Centre (AITC)
Position Title:	Postdoctoral Fellow
Classification:	Academic Level A
Position No:	43957
Responsible to:	Dr Noelia Martinez Rey
Number of positions that report to this role:	TBC
Delegation(s) Assigned:	TBC

PURPOSE STATEMENT:

The Advanced Instrumentation and Technology Centre (AITC) is the technical research department of the ANU Research School of Astronomy and Astrophysics, engaging in instrumentation and technology research, design and development for astronomy and space. The AITC is located at Mount Stromlo Observatory near Canberra, comprising state of the art research laboratories and space testing facilities including more than forty academic and engineering staff deployed across twelve research and education programs.

The Postdoctoral Fellow will contribute to the strategic goals of the AITC, working on instrumentation projects in ground and space-based astronomy and related fields.

The Postdoctoral Fellow is expected to undertake research and service (including outreach). The allocation of time to each area will be discussed with the position supervisor annually and be reflective of the external funding conditions that support the appointment, the appointees research agenda and leadership opportunities within the School environment.

The Postdoctoral Fellow may also be required to supervise or assist in the supervision of students, and contribute cooperatively to the overall intellectual life of the School, College and University.

KEY ACCOUNTABILITY AREAS:

Position Dimension & Relationships:

The Postdoctoral Fellow will be a member of the Research School of Astronomy and Astrophysics, accountable to the Laser Guide Star Adaptive Optics research group, led by Dr Noelia Martinez Rey.

The Postdoctoral Fellow will be expected to work collegially, leading by example to develop and maintain effective, productive and beneficial workplace relationships with the academic and professional School and College staff, students and honorary appointees, as well as with industry stakeholders. This position will also have a mentoring role for students and will engage in collegial and productive collaborations with local, national and where possible, international colleagues.

Role Statement:

In their role as an Academic Level A the Postdoctoral Fellow is expected to:

- Undertake independent research in the area of adaptive optics with a view to publishing original and innovative results in refereed journals, present research at academic seminars and at national and international conferences, and collaborate with other researchers at a national and/or international level. This includes working as part of a team on an externally funded project subject to deadlines.
- Collaborate with senior staff to actively seek and secure external funding, assist to prepare and submit research proposals to external funding bodies as appropriate.
- Supervise students working on individual or group projects at undergraduate, honours, graduate coursework levels. Assist with supervision of research students.

- Assist to supervise research support staff in your research area.
- Actively contribute to all aspects of the operation of AITC and, where relevant, the School. This may include representation through committee memberships.
- Assist in outreach activities including to prospective students, research institutes, industry, government, the media and the general public.
- Maintain high academic standards in all research and administration endeavours.
- Take responsibility for their own workplace health and safety and not wilfully place at risk the health and safety of another person in the workplace.
- Undertake other duties as required from time to time consistent with the classification level of the position.
- Comply with all ANU policies and procedures, and in particular those relating to work health and safety and equal opportunity

Skill Base:

A Level A academic will work with the support and guidance from more senior academic staff and is expected to develop their expertise in research with an increasing degree of autonomy. A Level A academic will normally have completed four years of tertiary study or equivalent qualifications and experience and may be required to hold a relevant higher degree.

A Level A academic will normally engage in scholarly, research and/or professional activities appropriate to their profession or discipline, and undertake administration primarily relating to their activities at the institution.

SELECTION CRITERIA:

1. A PhD (or awarding of a PhD within six months of appointment commencement) in physics, astronomy, optical engineering, or other relevant field with a track record of independent research in the field of experimental physics or engineering as evidenced by publications in peer-reviewed journals and conferences.
2. Demonstrated experience in instrumentation development for astronomy and/or space, with high-level expertise in one or more of the following areas: laser guide star adaptive optics, wavefront sensing or real time computing. Knowledge of project management and system engineering will be highly regarded.
3. An ability and commitment to contribute to bids for competitive external funding to support individual and collaborative research activities.
4. The ability to assist in the supervision of students working on research projects.
5. The ability to work as part of a team and to meet deadlines.
6. Excellent oral and written English language skills and a demonstrated ability to communicate and interact effectively and collegially with a variety of staff and students in a cross-disciplinary academic environment and to foster respectful and productive working relationships with staff, students and colleagues at all levels.
7. A demonstrated understanding of equity, diversity, inclusion, and equal opportunity principles and policies and a commitment to their application in a university context.

Employment in this position is conditional on satisfactory results in accordance with the [Background Checking Procedure](#) which sets out the types of checks required by each type of position. All appointments are required to make relevant declarations to comply with the [National Higher Education Code to Prevent and Respond to Gender-Based Violence](#).

Supervisor/Delegate Name:	Dr Noelia Martinez Rey	Date:	August 2026
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References:

[Minimum Standards for Academic Levels \(MSAL\)](#)



Pre-Employment Work Environment Report

Position Details

College/Div/Centre	College of Science and Medicine	Dept/School/Section	RSAA, AITC
Position Title	Postdoctoral Fellow	Classification	Academic Level A
Position No.	43957		

In accordance with the Work Health and Safety Act 2011 (Cth) the University has a primary duty of care, so far as reasonably practicable, to ensure the health and safety of all staff while they are at work in the University.

- This form is used to advise potential applicants of work environment and health and safety hazards prior to application.
- This form must be completed by the supervisor of the position. Without this form jobs cannot be advertised.
- Once an applicant has been selected for the position they must familiarise themselves with the University [WHS Management System Handbook](#).
- The hazards identified below are of generic nature in relation to the position. It is not correlated directly to training required for the specific staff to be engaged. Identification of individual WHS training needs must be in accordance with WHS Local Training Plan and through the WHS induction programs and Performance Development Review Process.
- Information regarding reasonable workplace adjustments that may be required to enable an individual to fulfil the inherent requirements of their position is available at [2024_ANU Inherent Requirements Reference Table.pdf](#)

Potential Hazards

Please indicate whether the duties associated with appointment will result in exposure to any of the following potential hazards, either as a **regular** or **occasional** part of the duties.

TASK	regular	occasional	TASK	regular	occasional
key boarding	☒	☐	laboratory work	☒	☐
lifting, manual handling	☐	☒	work at heights	☐	☐
repetitive manual tasks	☐	☐	work in confined spaces	☐	☐
organizing events	☐	☐	noise / vibration	☐	☐
fieldwork & travel	☐	☒	electricity	☐	☒
driving a vehicle	☐	☐			
NON-IONIZING RADIATION			IONIZING RADIATION		
solar	☐	☐	gamma, x-rays	☐	☐
ultraviolet	☐	☐	beta particles	☐	☐
infra red	☐	☒	nuclear particles	☐	☐
laser	☐	☒			
radio frequency	☐	☐			
CHEMICALS			BIOLOGICAL MATERIALS		
hazardous substances	☐	☐	microbiological materials	☐	☐
allergens	☐	☐	potential biological allergens	☐	☐
cytotoxics	☐	☐	laboratory animals or insects	☐	☐
mutagens/teratogens/carcinogens	☐	☐	clinical specimens, including blood	☐	☐
pesticides / herbicides	☐	☐	genetically-manipulated specimens	☐	☐
			immunisations	☐	☐

PSYCHOSOCIAL HAZARDS (please specify):

OTHER POTENTIAL HAZARDS (please specify):



Position Description

College/Division:	College of Science and Medicine
School/Centre:	Research School of Astronomy and Astrophysics
Department/Unit:	Advanced Instrumentation and Technology Centre (AITC)
Position Title:	Research Fellow
Classification:	Academic Level B
Position No:	43957
Responsible to:	Dr Noelia Martinez Rey
Number of positions that report to this role:	TBC
Delegation(s) Assigned:	TBC

PURPOSE STATEMENT:

The Advanced Instrumentation and Technology Centre (AITC) is the technical research department of the ANU Research School of Astronomy and Astrophysics, engaging in instrumentation and technology research, design and development for astronomy and space. The AITC is located at Mount Stromlo Observatory near Canberra, comprising state of the art research laboratories and space testing facilities including more than forty academic and engineering staff deployed across twelve research and education programs.

The Research Fellow will contribute to the strategic goals of the AITC, working on instrumentation projects in ground and space-based astronomy and related fields.

The Research Fellow is expected to undertake research and service (including outreach). The allocation of time to each area will be discussed with the position supervisor annually and be reflective of the conditions of the external funding, the appointees research agenda and leadership opportunities within the School environment. The Research Fellow may also be required to supervise or mentor less senior staff, and undertake leadership roles as applicable. The staff member will contribute cooperatively to the overall intellectual life of the School, College and University.

KEY ACCOUNTABILITY AREAS:

Position Dimension & Relationships:

The Research Fellow will be a member of the Research School of Astronomy and Astrophysics, accountable to the Laser Guide Star Adaptive Optics research group, led by Dr Noelia Martinez Rey. The Research Fellow will be expected to work collegially, leading by example to develop and maintain effective, productive and beneficial workplace relationships with the academic and professional School and College staff, students and honorary appointees, as well as with industry stakeholders. This position will also have a mentoring role for students and will engage in collegial and productive collaborations with local, national and, where possible, international colleagues.

Role Statement:

In their role as an Academic Level B the Research Fellow is expected to:

- Undertake independent research in the area of adaptive optics with a view to publishing original and innovative results in refereed journals, present research at academic seminars and at national and international conferences, and collaborate with other researchers at a national and/or international level. This includes working as part of a team on externally funded projects subject to deadlines and being primarily responsible for project delivery in some areas.
- Actively seek and secure external funding including the preparation and submission of research proposals to external funding bodies.
- Supervise students working on individual or group projects at undergraduate, honours, and graduate course work levels, and supervise research students at postgraduate levels.
- Supervise Postdoctoral Fellows and research support staff in your research area.
- Actively contribute to all aspects of the operation of the AITC and the School. This may include representation through committee memberships.

- Assist in outreach activities including to prospective students, research institutes, industry, government, the media and the general public.
- Maintain high academic standards in all research and administration endeavours.
- Take responsibility for their own workplace health and safety and not wilfully place at risk the health and safety of another person in the workplace.
- A demonstrated understanding of equal opportunity principles and policies and a commitment to their application in a university context.
- Other duties as required that are consistent with the classification of the position.

Skill Base:

A Level B academic will undertake independent research in their discipline or related area. In research and/or scholarship a Level B academic will make an independent contribution through professional practice and expertise and coordinate and/or lead the activities of other staff, as appropriate to the discipline.

A Level B academic will normally engage in independent scholarship and/or research and/or professional activities appropriate to their profession or discipline. The academic will normally undertake administration primarily relating to their activities at the institution.

SELECTION CRITERIA:

1. A PhD in physics, astronomy, optical engineering or a related area, with a track record of independent research in a field related to astronomical and/or space instrumentation in the visible and/or infrared wavelength as evidenced by publications in peer-reviewed journals and conferences, a record of developing and maintaining collaborations and by other measures such as awards, and invitations to present at conferences.
2. Demonstrated experience in instrumentation development for astronomy and/or space, with high-level expertise in two or more of the following areas: laser guide star adaptive optics, wavefront sensing or real time computing. Experience in designing, fielding, using and/or operating Adaptive Optics systems on large astronomical telescopes will be highly
3. Understanding of basic project management and systems engineering principles .
4. A demonstrated ability and commitment to apply for competitive external funding to support individual and collaborative research activities.
5. An ability to supervise and graduate high quality PhD/Masters research students.
6. The demonstrated ability to work as part of a team, contributing to team management and meeting deadlines for project elements.
7. Excellent oral and written English language skills and a demonstrated ability to communicate and interact effectively and collegially with a variety of staff and students in a cross-disciplinary academic environment and to foster respectful and productive working relationships with staff, students and colleagues at all levels.
8. A demonstrated understanding of equity, diversity, inclusion, and equal opportunity principles and policies and a commitment to their application in a university context.

Employment in this position is conditional on satisfactory results in accordance with the [Background Checking Procedure](#) which sets out the types of checks required by each type of position. All appointments are required to make relevant declarations to comply with the [National Higher Education Code to Prevent and Respond to Gender-Based Violence](#).

Supervisor/Delegate Name:

Dr Noelia Martinez Rey

Date:

August 2026

References:

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Pre-Employment Work Environment Report

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Position No.	TBC	Reference No.	

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lifting, manual handling	☐	☒	work at heights	☐	☐
repetitive manual tasks	☐	☐	work in confined spaces	☐	☐
organizing events	☐	☐	noise / vibration	☐	☐
fieldwork & travel	☐	☒	electricity	☐	☒
driving a vehicle	☐	☐			
NON-IONIZING RADIATION			IONIZING RADIATION		
solar	☐	☐	gamma, x-rays	☐	☐
ultraviolet	☐	☐	beta particles	☐	☐
infra red	☐	☒	nuclear particles	☐	☐
laser	☐	☒			
radio frequency	☐	☐			
CHEMICALS			BIOLOGICAL MATERIALS		
hazardous substances	☐	☐	microbiological materials	☐	☐
allergens	☐	☐	potential biological allergens	☐	☐
cytotoxics	☐	☐	laboratory animals or insects	☐	☐
mutagens/teratogens/ carcinogens	☐	☐	clinical specimens, including blood	☐	☐
pesticides / herbicides	☐	☐	genetically-manipulated specimens	☐	☐
			immunisations	☐	☐

[PSYCHOSOCIAL HAZARDS](#) (please specify):

OTHER POTENTIAL HAZARDS (please specify):