



## Position Description

|                               |  |
|-------------------------------|--|
| <b>College/Division:</b>      | ANU College of Medicine, Biology & Environment |
| <b>Faculty/School/Centre:</b> | Fenner School of Environment & Society         |
| <b>Position Title:</b>        | Senior Research Officer                        |
| <b>Classification:</b>        | ANU Officer Grade 7 (Research)                 |
| <b>Responsible to:</b>        | Professor Albert van Dijk                      |

### PURPOSE STATEMENT

The Senior Research Officer provides comprehensive, high level support on a diverse range of research activities, including the application of solid knowledge of the discipline and research skills to conduct research independently as part of the research team. This position will manage field remote sensing, climate, water and fire research, predominantly within the ACT at research sites in the National Arboretum Canberra, Namadgi NP, Black Mountain and elsewhere, as well as occasionally outside the ACT, e.g. at Kioloa Coastal Campus. This position may also represent the Centre at national/international meetings on sensors, instruments and experimental designs. This position may be required to supervise junior Research and Administrative Assistants.

### KEY ACCOUNTABILITY AREAS

#### Position Dimension & Relationships:

The Senior Research Officer works closely with the lead researcher as part of the research team, contributing to the design, implementation and maintenance of instruments for research undertaken by the Centre for Water and Landscape Dynamics. The Senior Research Officer provides high level support to the research team, including monitoring contractual milestones and coordinating support aspects of allocated research activities.

#### Role Statement:

Under broad direction, the Senior Research Officer will:

1. Provide high level support to the research team, including but not limited to:
  - Coordinating the design and conducting of qualitative and quantitative research studies and the analysis of data. This may involve conducting experimental work and/or fieldwork and related activities.
  - Undertake spectral and physical sampling of vegetation, soil and water, sample processing and storage
  - Sourcing research materials utilising multiple sources including libraries, online publications and repositories. Preparing research profiles, research papers and literature reviews and undertaking relevant archival work.
  - Specify, build and install new sensors, under no supervision instruments and experimental designs and provide information to the Director of Centre
  - Creating, testing, maintaining and managing complex databases.

- Coordinating relevant approvals to ensure compliance with regulatory and policy requirements including the ethics approval for the research team, as required.
2. Conduct high level data synthesis and analysis, including the preparation and development of the relevant analysis reports and briefs, presenting research findings to internal and external stakeholders in a public forum including conferences and workshops as required.
  3. Monitor contractual milestones to ensure compliance with relevant regulations, and undertake timely reporting to Research Offices and/ or external funding agencies.
  4. Contribute to the financial management of research output including monitoring contractual milestones to ensure compliances with relevant regulations, providing timely progress reporting to Research Offices and external funding agencies, and proactively sourcing relevant funding opportunities.
  5. Provide mentoring, training and support to junior project team members. This may involve, at times, direct staff supervision.
  6. Participate in workshops and professional networks across campus, develop extensive industry knowledge and participate initiatives to improve the area's research practices and processes.
  7. Comply with all ANU policies and procedures, in particular those relating to work health and safety and equal opportunity.
  8. Perform other duties as requested, consistent with the classification level of the position and in line with the principle of multi-skilling.

## SELECTION CRITERIA

1. Degree in a related discipline and demonstrated extensive relevant experience in a research or research support role or an equivalent combination of relevant experience and education/ training with environmental sensor technology design and assembly.
2. Sound knowledge of and demonstrated experience using quantitative and qualitative research methodologies and working with environmental scientists in measurement experimental design.
3. Demonstrated experience assembling, installing and servicing field instruments, including digital measurement and power supply with extensive experience with spectral and physical field sampling processing and storage.
4. Demonstrated high level verbal and written communication skills, including experience producing high-level business correspondence, project progress reports and various research related papers.
5. Demonstrated high level interpersonal skills, with an ability to mentor and supervise staff and an ability to consult and liaise effectively with a wide range of people in a culturally diverse environment.
6. Proven organisational skills and attention to detail, with a demonstrated ability to prioritise own workload and to work effectively both independently and as part of a team, meeting competing deadlines and delivering high-quality outcomes.
7. High level computer skills with demonstrated experience using information systems to generate complex reports and skills using the MSOffice suite, in particular Excel. Demonstrated experience designing, implementing and maintaining databases for research purposes is required. Experience in using high-level statistical software (e.g. R, SAS, SPSS) and bibliographical managements software (e.g. EndNote) may be regarded positively.
8. A demonstrated understanding of equal opportunity principles and policies and a commitment to their application in a University context.

**References:** [Professional Staff Classification Descriptors](#)



Australian  
National  
University

## Pre-Employment Work Environment Report

### Position Details

|                    |   |                     |   |
|--------------------|---|---------------------|---|
| College/Div/Centre | ANU College of Medicine,<br>Biology & Environment | Dept/School/Section | Fenner School of<br>Environment & Society |
| Position Title     | Senior Research Officer                           | Classification 7    |   |
| Position No.       |   | Reference No.       |   |

In accordance with the Occupational Health and Safety Act 1991 the University has a duty of care to provide a safe workplace for all staff.

- This form must be completed by the supervisor of the advertised position and forwarded with the job requisition to Appointments and Promotions Branch, Human Resources Division. Without this form jobs cannot be advertised.
- This form is used to advise potential applicants of work environment issues prior to application.
- Once an applicant has been selected for the position consideration should be given to their inclusion on the University's Health Surveillance Program where appropriate – see [http://info.anu.edu.au/hr/OHS/\\_Health\\_Surveillance\\_Program/index.asp](http://info.anu.edu.au/hr/OHS/_Health_Surveillance_Program/index.asp) Enrolment on relevant OHS training courses should also be arranged – see [http://info.anu.edu.au/hr/Training\\_and\\_Development/OHS\\_Training/index.asp](http://info.anu.edu.au/hr/Training_and_Development/OHS_Training/index.asp)
- 'Regular' hazards identified below must be listed as 'Essential' in the Selection Criteria - see 'Employment Medical Procedures' at [http://info.anu.edu.au/Policies/\\_DHR/Procedures/Employment\\_Medical\\_Procedures.asp](http://info.anu.edu.au/Policies/_DHR/Procedures/Employment_Medical_Procedures.asp)

### 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                        | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | laboratory work                     | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| lifting, manual handling            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | work at heights                     | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| repetitive manual tasks             | <input type="checkbox"/>            | <input type="checkbox"/>            | work in confined spaces             | <input type="checkbox"/>            | <input type="checkbox"/>            |
| catering / food preparation         | <input type="checkbox"/>            | <input type="checkbox"/>            | noise / vibration                   | <input type="checkbox"/>            | <input type="checkbox"/>            |
| fieldwork & travel                  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | electricity                         | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| driving a vehicle                   | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |                                     |                                     |                                     |
| <b>NON-IONIZING RADIATION</b>       |                                     |                                     | <b>IONIZING RADIATION</b>           |                                     |                                     |
| solar                               | <input type="checkbox"/>            | <input type="checkbox"/>            | gamma, x-rays                       | <input type="checkbox"/>            | <input type="checkbox"/>            |
| ultraviolet                         | <input type="checkbox"/>            | <input type="checkbox"/>            | beta particles                      | <input type="checkbox"/>            | <input type="checkbox"/>            |
| infra red                           | <input type="checkbox"/>            | <input type="checkbox"/>            | nuclear particles                   | <input type="checkbox"/>            | <input type="checkbox"/>            |
| laser                               | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |                                     |                                     |                                     |
| radio frequency                     | <input type="checkbox"/>            | <input type="checkbox"/>            |                                     |                                     |                                     |
| <b>CHEMICALS</b>                    |                                     |                                     | <b>BIOLOGICAL MATERIALS</b>         |                                     |                                     |
| hazardous substances                | <input type="checkbox"/>            | <input type="checkbox"/>            | microbiological materials           | <input type="checkbox"/>            | <input type="checkbox"/>            |
| allergens                           | <input type="checkbox"/>            | <input type="checkbox"/>            | potential biological allergens      | <input type="checkbox"/>            | <input type="checkbox"/>            |
| cytotoxics                          | <input type="checkbox"/>            | <input type="checkbox"/>            | laboratory animals or insects       | <input type="checkbox"/>            | <input type="checkbox"/>            |
| mutagens/teratogens/<br>carcinogens | <input type="checkbox"/>            | <input type="checkbox"/>            | clinical specimens, including blood | <input type="checkbox"/>            | <input type="checkbox"/>            |
| pesticides / herbicides             | <input type="checkbox"/>            | <input type="checkbox"/>            | genetically-manipulated specimens   | <input type="checkbox"/>            | <input type="checkbox"/>            |
|                                     |                                     |                                     | immunisations                       | <input type="checkbox"/>            | <input type="checkbox"/>            |

OTHER POTENTIAL HAZARDS (please specify):

|                                |   |         |          |
|--------------------------------|---|---------|----------|
| Supervisor/Delegate Signature: |  | Date:   |          |
| Printed Name:                  | Albert van Dijk   | Uni ID: | U5250651 |





# Position Description

|                               |  |
|-------------------------------|--|
| <b>College/Division:</b>      | ANU College of Science                 |
| <b>Faculty/School/Centre:</b> | Fenner School of Environment & Society |
| <b>Position Title:</b>        | Research Officer                       |
| <b>Classification:</b>        | ANU Officer Grade 5/6 (Research)       |
| <b>Responsible to:</b>        | Professor Albert van Dijk              |

## PURPOSE STATEMENT

The Research Officer provides comprehensive, high level support on a diverse range of research activities, including demonstrating solid knowledge of the discipline and research skills to conduct research as part of the research team. Under the broad guidance of Professor Albert van Dijk, Leader, Water and Landscape Dynamics Group and the Senior Research Officer, this position will assist in field remote sensing, climate, water and fire research, predominantly within the ACT at research sites in the National Arboretum Canberra, Namadgi NP, Black Mountain and elsewhere, as well as occasionally outside the ACT, e.g. at Kioloa Coastal Campus.

## KEY ACCOUNTABILITY AREAS

### Position Dimension & Relationships:

The Research Officer works closely with the lead researcher as part of the research team, assisting with maintenance of instruments predominantly Forest Spectroscope, Phenomic and Environmental Sensor Array and Cosmic Ray sensors (<http://wald.anu.edu.au/measurement-technology/>) for research undertaken by the Centre for Water and Landscape Dynamics. The Research Officer provides high level support to the research team including support aspects of allocated research activities.

### Role Statement:

Under direction, the Research Officer will:

1. Provide support to the research team, including but not limited to:
  - Assisting with the design and conducting of qualitative and quantitative research studies and the analysis of data. This may involve experimental work and/or fieldwork and related activities.
  - Undertaking spectral and physical sampling of vegetation, soil and water, sample processing and storage
  - Sourcing research materials utilising multiple sources including libraries, online publications and repositories. Preparing research profiles, research papers and literature reviews and undertaking relevant archival work.
  - Under supervision assist with installation of new sensors, including instruments and experimental designs and provide information to Professor Albert van Dijk and Senior Research Officer.

- Assist with outdoor sensor networks and systems, such as weather stations and soil moisture measurements.
  - Specify optical measurements of the land surface in visible and infrared spectrum.
  - Coordinating, under direction of the Senior Research Officer relevant approvals to ensure compliance with regulatory and policy requirements, as required.
2. Provide general support on a range of research related matters, including coordinating team meetings, coordinating the communications to various stakeholders and organising relevant travel and events
  3. Conduct data synthesis and analysis, including the preparation and development of the relevant analysis reports and briefs.
  4. Comply with all ANU policies and procedures, in particular those relating to work health and safety and equal opportunity.
  5. Perform other duties as requested, consistent with the classification level of the position and in line with the principle of multi-skilling.

## SELECTION CRITERIA

1. Degree or demonstrated extensive relevant experience in a research or research support role with environmental sensor technology design and assembly.
2. Demonstrated experience using quantitative and qualitative research methodologies and working with environmental scientists in measurement experimental design.
3. Experience assembling and installing field instruments, including analogue and digital sensors, data loggers and computer based data acquisition systems, micro-controllers and associated power supply systems with extensive experience with spectral and physical field sampling processing and storage.
4. Demonstrated knowledge in the use of hyperspectral or multi-spectral optical sensors (eg imagers or line scanners).
5. Demonstrated high level verbal and written communication skills and an ability to consult and liaise effectively with a wide range of people in a culturally diverse environment.
6. Proven organisational skills and attention to detail, with a demonstrated ability to prioritise own workload and to work effectively both independently and as part of a team, meeting deadlines and delivering high-quality outcomes.
7. High level computer skills with demonstrated experience using information systems to generate complex reports and skills using the MSOffice suite, in particular Excel. Demonstrated experience using LabVIEW or Python for data acquisition and analysis, particularly real-time video imaging.
8. A demonstrated understanding of equal opportunity principles and policies and a commitment to their application in a University context.

*ANU Officer Levels 5 and 6 are broadbanded in this stream. It is expected that at the higher levels within the broadband occupants will have a deeper understanding, and a more independent application, of the research theory and techniques.*

**References:** [Professional Staff Classification Descriptors](#)



# Pre-Employment Work Environment Report

**Position Details**

|                    |                        |                     |  |
|--------------------|------------------------|---------------------|--|
| College/Div/Centre | ANU College of Science | Dept/School/Section | Fenner School of Environment & Society |
| Position Title     | Research Officer       | Classification 5/6  |  |
| Position No.       |                        | Reference No.       |  |

In accordance with the Occupational Health and Safety Act 1991 the University has a duty of care to provide a safe workplace for all staff.

- This form must be completed by the supervisor of the advertised position and forwarded with the job requisition to Appointments and Promotions Branch, Human Resources Division. Without this form jobs cannot be advertised.
- This form is used to advise potential applicants of work environment issues prior to application.
- Once an applicant has been selected for the position consideration should be given to their inclusion on the University's Health Surveillance Program where appropriate – see . [http://info.anu.edu.au/hr/OHS/\\_Health\\_Surveillance\\_Program/index.asp](http://info.anu.edu.au/hr/OHS/_Health_Surveillance_Program/index.asp) Enrolment on relevant OHS training courses should also be arranged – see [http://info.anu.edu.au/hr/Training\\_and\\_Development/OHS\\_Training/index.asp](http://info.anu.edu.au/hr/Training_and_Development/OHS_Training/index.asp)
- 'Regular' hazards identified below must be listed as 'Essential' in the Selection Criteria - see 'Employment Medical Procedures' at [http://info.anu.edu.au/Policies/\\_DHR/Procedures/Employment\\_Medical\\_Procedures.asp](http://info.anu.edu.au/Policies/_DHR/Procedures/Employment_Medical_Procedures.asp)

**Potential Hazards**

|   |                                     |                                     |          |
|---|-------------------------------------|-------------------------------------|----------|
| <ul style="list-style-type: none"> <li>• Please indicate whether the duties associated with appointment will result in exposure to any of the following potential hazards, either as a <b>regular</b> or <b>occasional</b> part of the duties.</li> </ul> |                                     |                                     |          |
| <b>TASK</b>   | <b>regular</b>                      | <b>occasional</b>                   |          |
| key boarding  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |          |
| lifting, manual handling  | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |          |
| repetitive manual tasks   | <input type="checkbox"/>            | <input type="checkbox"/>            |          |
| catering / food preparation   | <input type="checkbox"/>            | <input type="checkbox"/>            |          |
| fieldwork & travel  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |          |
| driving a vehicle   | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |          |
| <b>NON-IONIZING RADIATION</b>   |                                     |                                     |          |
| solar   | <input type="checkbox"/>            | <input type="checkbox"/>            |          |
| ultraviolet   | <input type="checkbox"/>            | <input type="checkbox"/>            |          |
| infra red   | <input type="checkbox"/>            | <input type="checkbox"/>            |          |
| laser   | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |          |
| radio frequency   | <input type="checkbox"/>            | <input type="checkbox"/>            |          |
| <b>CHEMICALS</b>  |                                     |                                     |          |
| hazardous substances  | <input type="checkbox"/>            | <input type="checkbox"/>            |          |
| allergens   | <input type="checkbox"/>            | <input type="checkbox"/>            |          |
| cytotoxics  | <input type="checkbox"/>            | <input type="checkbox"/>            |          |
| mutagens/teratogens/<br>carcinogens   | <input type="checkbox"/>            | <input type="checkbox"/>            |          |
| pesticides / herbicides   | <input type="checkbox"/>            | <input type="checkbox"/>            |          |
| <b>TASK</b>   | <b>regular</b>                      | <b>occasional</b>                   |          |
| laboratory work   | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |          |
| work at heights   | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |          |
| work in confined spaces   | <input type="checkbox"/>            | <input type="checkbox"/>            |          |
| noise / vibration   | <input type="checkbox"/>            | <input type="checkbox"/>            |          |
| electricity   | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |          |
| <b>IONIZING RADIATION</b>   |                                     |                                     |          |
| gamma, x-rays   | <input type="checkbox"/>            | <input type="checkbox"/>            |          |
| beta particles  | <input type="checkbox"/>            | <input type="checkbox"/>            |          |
| nuclear particles   | <input type="checkbox"/>            | <input type="checkbox"/>            |          |
| <b>BIOLOGICAL MATERIALS</b>   |                                     |                                     |          |
| microbiological materials   | <input type="checkbox"/>            | <input type="checkbox"/>            |          |
| potential biological allergens  | <input type="checkbox"/>            | <input type="checkbox"/>            |          |
| laboratory animals or insects   | <input type="checkbox"/>            | <input type="checkbox"/>            |          |
| clinical specimens, including blood   | <input type="checkbox"/>            | <input type="checkbox"/>            |          |
| genetically-manipulated specimens   | <input type="checkbox"/>            | <input type="checkbox"/>            |          |
| immunisations   | <input type="checkbox"/>            | <input type="checkbox"/>            |          |
| <b>OTHER POTENTIAL HAZARDS (please specify):</b>  |                                     |                                     |          |
|   |                                     |                                     |          |
| <b>Supervisor/Delegate Signature:</b>   |                                     | <b>Date:</b>                        |          |
| Printed Name:   | Albert van Dijk                     | <b>Uni ID:</b>                      | U5250651 |