# Position Description

*Climate Modelling Support*

## Research Projects – CSOF4

The following information is for applicants

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| Advertised Job Title**:** | Climate Modelling Support |
| Job Reference: | 62288 |
| Relocation Assistance**:** | Will be provided to the successful candidate if required. |
| Applications Are Open To: | Australian/New Zealand Citizens and Australian Permanent Residents Only |
| Percentage of Client Focus - Internal: | 70% |
| Percentage of Client Focus - External: | 30% |
| Reports to the: | Team Leader - Coupled Climate Modelling |
| Number of Direct Reports: | 0 |
| Name and Contact Details For Applicant Enquiries  | Martin Dix - Phone: 03 9239 4533, Email: martin.dix@csiro.au  |
| Contact Details For Applying | Call 1300 984 220 or email careers.online@csiro.au.  |
| How to Apply: | Please apply online at [jobs.csiro.au](https://jobs.csiro.au/) and enter the requisition number**.** Internal applicants please apply via ‘Jobs Central’ through the ‘People Hub’ icon  |

## Role Overview:

Research Projects staff in CSIRO collaborates in scientific and technological activities with other research staff usually by assisting with detailed planning, undertaking or assisting with experimental, observational or technology development work, and in carrying out the more practical aspects of the work. Research Projects staff may be involved in providing consulting services, science management and/or industry liaison.

The Australian Community Climate and Earth System Simulator (ACCESS) is a key tool for CSIRO to produce model simulations of present and future global climate. The role provides technical support for the ACCESS model with a particular focus on the atmosphere component (the UK Met Office Unified Model) as well as the interaction of the atmosphere with the Australian land surface model (CABLE). The position is in the Coupled Climate Modelling Team in the Climate Science Centre, a program within CSIRO Oceans and Atmosphere.

## Duties and Key Result Areas:

* Solving technical computing problems associated with the ACCESS model, e.g. debugging, optimization, updating model code and associated tools, porting to new computer systems.
* Setting up and managing ACCESS model runs.
* Preparing input datasets for model runs.
* Post-processing and visualization of model output.
* Contributing to the writing and maintenance of technical documentation.
* Developing relationships with collaborating groups to gain expertise in, and solve technical problems with coupling codes, component models and forcing datasets, in particular the UK Met Office and the National Computational Infrastructure National Facility at the Australian National University.
* Work collaboratively as part of a multi-disciplinary, often regionally dispersed research team, and business unit to carry out tasks in support of CSIRO’s scientific objectives.
* Communicate openly, effectively and respectfully with all staff, clients and suppliers in the interests of good business practice, collaboration and enhancement of CSIRO’s reputation.
* Adhere to the spirit and practice of CSIRO’s Code of Conduct, Health, Safety and Environment plans and policies, Diversity initiatives and Zero Harm goals.
* Other duties as directed.

## Competencies:

1. **Teamwork and Collaboration: Cooperates with others to achieve organisational objectives and may share team resources in order to do this. Collaborates with other teams as well as industry colleagues.**
2. **Influence and Communication: Uses knowledge of other party's priorities and adapts presentations or discussions to appeal to the interests and level of the audience. Anticipates and prepares for others reactions.**
3. **Resource Management/Leadership: Allocates activities, directs tasks and manages resources to meet objectives. Provides coaching and on the job training, recognises and supports staff achievements and fosters open communication in the team.**
4. **Judgement and Problem Solving:** Investigates underlying issues of complex and ill-defined problems and develops appropriate response by adapting/creating and testing alternative solutions.
5. **Independence: Recognise and makes immediate changes to improve performance (faster, better, lower cost, more efficiently, better quality, improved client satisfaction).**
6. **Adaptability:** Copes with ambiguity or situations that lack clarity. Adapts readily to changing circumstances and new responsibilities (which may include activities outside own preferences) in the interests of achieving team objectives. Recognises the need for and undertakes personal development as a result of changes.

## Essential Criteria:

*Under CSIRO policy only those who meet all essential criteria can be appointed.*

1. A relevant bachelor’s degree in computing, engineering or physical sciences, or equivalent relevant experience.
2. Demonstrated experience solving technical computing problems associated with the development and use of large-scale numerical models.
3. Highly developed skills in Fortran 90 (preferred) or C++, python programming, and UNIX shell scripting.
4. Ability to work flexibly and independently as well as part of a team and to form and maintain effective working relationships with a range of colleagues and collaborators.
5. Excellent written and verbal communication skills including the ability to document results and communicate effectively with colleagues and clients in order to meet project goals and timelines.

## Desirable Criteria:

1. Experience with UM/ACCESS or other atmospheric modelling codes.
2. Experience of modern code management practices (e.g. experience with svn, github, bug-tracking

 and documentation systems).

1. Knowledge of the physics of the climate system.
2. Experience working across a range of computing platforms, and expertise in working with the

 Message Passing Interface (MPI), scientific computer graphics and netCDF data format.

## About CSIRO:

We imagine. We collaborate. We innovate. To find out more visit us [online](http://www.csiro.au/)!

Find out more about CSIRO [Oceans and Atmosphere](https://www.csiro.au/en/Research/OandA)