# Position Details

## Technical Services- CSOF5

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| The following information is for applicants |
| Advertised Job Title | Supercomputing Applications Specialist |
| Job Reference | 75888 |
| Tenure | Indefinite Full-time |
| Salary Range | AU$100,710 to AU$108,985 pa (pro-rata for part-time) + up to 15.4% superannuation |
| Location(s) | Pawsey Centre - Kensington, Western Australia |
| Relocation Assistance | Will be provided to the successful candidate if required |
| Applications are open to | All Candidates |
| Position reports to the | Supercomputing Applications Team Leader |
| Client Focus – Internal | 20% |
| Client Focus – External | 80% |
| Number of Direct Reports | 0 |
| Enquire about this job | Contact Christopher Harris via email at chris.harris@pawsey.org.au P*lease do not email your application directly to Christopher Harris. Applications received via this method will not be considered.* |
| How to apply | Apply online at <https://jobs.csiro.au/> Internal applicants please apply via **Jobs Central**If you experience difficulties when applying, please email careers.online@csiro.au or call 1300 984 220. |

### Role Overview

The Pawsey Supercomputing Centre is a tier-1 high-performance computing facility accelerating scientific discoveries for Australia’s researchers. Located in Perth, Western Australia, Pawsey is currently serving scientists across the nation in domains such as radio astronomy, energy and resources, engineering, bioinformatics and health sciences. Pawsey supports Australia's commitment to the Square Kilometre Array (SKA) and Australian pathfinder projects (ASKAP and MWA).

The Centre is managed through a long-standing and successful unincorporated joint venture of the CSIRO, Curtin University, Edith Cowan University, Murdoch University and The University of Western Australia, and supported by funding from the Western Australian and Federal governments.

The Pawsey Supercomputing Centre has recently announced its new supercomputer as part of the biggest upgrade to the Pawsey computing infrastructure since the centre opened in 2009. The new supercomputer will deliver up to 50 petaFLOPs, or 30 times more compute power than its predecessor systems Magnus and Galaxy, to help power the future high-impact Australian research projects. The upgrade of the Pawsey’s computing infrastructure will also include the deployment of large-scale object storage for scientific data. Pawsey is also involved in multiple future technology evaluation projects including quantum computing.

The Supercomputing Application Specialist will work within the Scientific Services Team. This position will work collaboratively with researchers to assist them in exploiting the vast opportunities enabled by the supercomputers operated in the Pawsey centre. A technical aptitude, strong interpersonal skills and a desire to learn are essential to support the researchers and to grow with technology. The Supercomputing Application Specialist will participate in defining and building new supercomputing services for the next-generation Pawsey Supercomputing System.

### Duties and Key Result Areas:

* Provide specialist advice and software enhancement to research groups, drawing on extensive knowledge and experience to enable their utilisation at scale of significant supercomputing resources at Pawsey.
* Undertake collaborative projects with researchers, communities, software developers, vendors and other international centres.
* Identify suitable technologies, tools and algorithms relevant to user activities and encourage adoption to improve the productivity of the research community.
* Engage in and undertake strategic projects such as the Square Kilometre Array (where requested).
* Develop and deliver specialist training to the Pawsey user community.
* Participate in evaluations of novel systems and technologies to inform the Pawsey infrastructure and services roadmap, and support transition to new systems.
* Undertake technical assessment of applications for computational resources through merit allocation schemes.
* Promote success stories through (for example) conferences, publications, case studies and networking.
* 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.
* Work collaboratively as part of a multi-disciplinary, often regionally dispersed research team, and business unit to carry out tasks in support of CSIRO scientific objectives.
* 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.

## **Required Competencies:**

* **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.
* **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.
* **Resource Management/Leadership:** Sets up and maintains effective and efficient work teams and manages performance and resources, to achieve objectives. Chooses appropriate management strategies and communication styles to maintain high levels of motivation and productivity. Gives feedback for development purposes and provides support and direction for improvement.
* **Judgement and Problem Solving:** Investigates underlying issues of complex and ill-defined problems and develops appropriate response by adapting/creating and testing alternative solutions.
* **Independence:** Plans, sets and works to meet challenging standards and goals for self and/or others. Recognises where endeavours will make the most impact or difference, decides on desired outcome and sets realistic goals to reach this target.
* **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.

## **Selection Criteria**

#### Essential

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

1. Relevant post graduate qualification or significant progress towards postgraduate qualifications in a scientific or computer-science discipline; or combination of equivalent relevant work experience and/or education/training.
2. Proven working knowledge of parallel programming models, such as OpenMP, MPI, HIP or CUDA.
3. Demonstrated effective communication skills including the ability to articulate technical concepts to a diverse range of clients.
4. The ability to work effectively in a team and carry out tasks autonomously.
5. Demonstrated ability and willingness to contribute novel ideas and approaches in support of scientific investigations.

## **Desirable:**

1. Demonstrated expertise in the support, development and optimisation of supercomputing applications.

Special Requirements

The successful candidate will be asked to obtain and provide evidence of a National Police Check or equivalent. Please note that people with criminal records are not automatically deemed ineligible. Each application will be considered on its merits.

The successful candidate must be willing and able to travel interstate and internationally as required.

The successful candidate must be available to work after office hours from time to time.

## **About CSIRO:**

We solve the greatest challenges through innovative science and technology. To find out more visit us [online](http://www.csiro.au/)!

Find out more about CSIRO [Scientific Computing](https://www.csiro.au/en/Research/Technology/Scientific-computing)

Find out more about the [Pawsey Supercomputing Centre](https://pawsey.org.au/)

Find out more about the [Pawsey Capital Refresh Project](https://pawsey.org.au/about-us/capital-refresh/)

**Pawsey and the CSIRO Operating Structure:**

CSIRO is Australia’s national science research agency and an Australian Government corporate entity.  The operating model underpins the successful execution of CSIRO’s strategy and delivery of its goals. It ensures the best position to maximise the impact of science. The operating model defines the roles, relationships and accountabilities of leaders and business units in CSIRO.

The Pawsey Supercomputing Centre is an unincorporated joint venture and operates within CSIRO's Information Management and Technology (IMT) business unit, which is part of the Digital National Facilities and Collections line of the business. Find out more about the [Strategy-structure/Operating-model](https://www.csiro.au/en/About/Strategy-structure/Operating-model)