# Position Details

## Research Scientist/Engineer- CSOF5

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| The following information is for applicants |
| Advertised Job Title | Environmental / Chemical Engineer |
| Job Reference | 94879 |
| Tenure | Specified Term of 3 years  |
| Salary Range | AU$105k to $ 114k pa (pro-rata for part-time) + up to 15.4% superannuation |
| Location(s) | Pullenvale, Queensland |
| Relocation Assistance | Will be provided to the successful candidate if required |
| Applications are open to | Australian/New Zealand Citizens and Australian Permanent residents. |
| Position reports to the | Team Leader – Environment and Sustainability Research Team |
| Client Focus – Internal | 40% |
| Client Focus – External | 60% |
| Number of Direct Reports | 0 |
| Enquire about this job | Dr Ramesh Thiruvenkatachari at ramesh.thiruvenkatachari@csiro.au or 07 3327 4196 |
| 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. |

**Acknowledgement of Country**

CSIRO acknowledges the Traditional Owners of the land, sea and waters, of the areas that we live and work on across Australia. We acknowledge their continuing connection to their culture and pay our respects to their Elders past and present. View our [vision towards reconciliation](https://www.csiro.au/en/about/Indigenous-engagement/Reconciliation-Action-Plan).

**Child Safety**

CSIRO is committed to the safety and wellbeing of all children and young people involved in our activities and programs. View our [Child Safe Policy](https://www.csiro.au/en/about/policies/child-safe-policy).

### Role Overview

The Environment and Sustainability team is focused on studying emerging science and developing cutting-edge technologies to address environmental issues in the mining industry and support the industry transformation towards sustainable future. The team’s research activities have strong focus towards current industry needs and are directly aligned towards strategic direction of circular economy and Net Zero Emissions.

The Successful Candidate will join a multidisciplinary Environment and Sustainable Research team that is conducting diverse research & development activities in water treatment, remediation and reuse, emission mitigation, dust/particulate control and waste minimisation and re-utilisation.

The candidate will work closely on the team's growing research projects in the areas of water and wastewater treatment and reuse, and environmental remediation. The candidate will be working collaboratively with other Scientists and Project Managers, in liaison with the Industry and Government representatives, communities and other research collaborators in the strategically important Water Remediation Research.

Specific to this role, the involved research aims to develop fit-to-purpose innovative and impactful technologies for effective water management and resource recovery in mining, minerals and other industry sectors to achieve environmental sustainability impacts.

**Duties and Key Result Areas**

* The position will be regularly required to work in laboratory testing environment, pilot plant facilities, industrial and remote field environments and is required to follow all safety requirements according to CSIRO and onsite safe work policies.
* Work collaboratively within the multidisciplinary team internally and with external stakeholders.
* Travel to mines, industrial sites and remote communities for field sampling and pilot plant operations.
* Design and development of pilot and industrial scale water treatment systems.
* Develop and assist with the preparation of safety related documentation and project plans, pilot scale unit operation and maintenance as required to support successful project delivery.
* Carry out laboratory experiments including materials synthesis and characterisation, operate water analytical instruments andbench scale testing.
* Collect, interpret and manage data including real-time data from control & monitoring systems.
* Develop and assist with preparation of project proposals, project technical reports and manuals, patents, and publications.
* 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 research team, and business unit to carry out tasks in support of CSIRO’s 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:** 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.
* **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. Tertiary/PhD in Chemical or Environmental Engineering or other related Science fields with minimum 2 yrs relevant experience.
2. Experience and knowledge in water treatment operation and practices with strong experience in biological and nature based water treatment processes.
3. Clear understanding of fundamental unit operations with heat and mass transfer principles.
4. Skills and experience in materials chemistry, synthesis and characterisation.
5. Demonstrated leadership and project team management skills to deliver research outcomes on time.

## **Desirable:**

* Previous experience in field sampling and/or industrial water treatment applications.
* Competency in the water analytical instrument operation
* Experience in using process simulation software (e.g. HYSYS, Pro-Treat, UniSim).
* Techno economic evaluation and life cycle assessment capabilities.
* Experience with emission reduction studies or practices.

Special Requirements

Appointment to this role may be subject to conditions including provision of a national police check as well as other security/medical/character clearance 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 will be required to undertake a pre-employment medical examination prior to commencement.
* The successful candidate must be willing and able to travel to mine sites for project activities, and to drive a car domestically.

## **About CSIRO:**

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

CSIRO is a values-based organisation. We expect our employees to demonstrate behaviours aligned to our values of:

• People First

• Further Together

• Making it Real

• Trusted

Find out more about CSIRO [Mineral Resources](https://www.csiro.au/en/Research/MRF)