# Position Details

## Research Scientist/Engineer- CSOF5/6

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| The following information is for applicants | |
| Advertised Job Title | Mechanical / Mechatronic Engineer (Research Engineer) |
| Job Reference | 94939 |
| Tenure | Specified Term of 4 years  Full-time |
| Salary Range | CSOF5: AU$105,806 – AU$114,500 per annum (pro-rata for part-time) plus up to 15.4% superannuation  CSOF6: AU$121,455 - AU$142,321 per annum (pro-rata for part-time)  plus up to 15.4% superannuation  \*Applications are invited and assessed across two capability levels and the successful candidate will be appointed at the level commensurate with their skills and experience. |
| Location(s) | Newcastle, NSW |
| Relocation Assistance | Will be provided to the successful candidate if required |
| Applications are open to | * Australian/New Zealand Citizens and Australian Permanent Residents * Australian Temporary Residents with a valid visa for the duration of the specified term |
| Position reports to the | Research Team Leader |
| Client Focus – Internal | 50% |
| Client Focus – External | 50% |
| Number of Direct Reports | 0 |
| Enquire about this job | Dr Ben Duck via e-mail benjamin.duck@csiro.au or phone +61 2 4960 6011 |
| 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](mailto: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 Solar Technologies Group is seeking an experienced mechanical/mechatronics engineer to contribute to the development of solar energy technologies specifically for utility scale photovoltaics. The successful candidate will work within a multidisciplinary engineering and scientific team to develop ground-breaking technology. Active projects include work in industrial scale photovoltaic applications including but not limited to novel racking and mount designs, autonomous maintenance robotics, and novel module designs for next generation solar cells.

The role of Research Scientist/Engineer staff is to conduct innovative research leading to scientific achievements that are aligned with CSIRO’s strategies. The Research Scientist/Engineer may be engaged in scientific activity ranging from fundamental research to the investigation of specific industry or community problems. The Research Scientist/Engineer will have the opportunity to build and maintain networks, play a lead role in securing project funds, provide scientific leadership and pursue new ideas and approaches that create new concepts.

This position is offered across two capability levels, the appointment level will be determined by the qualifications, skills and relevant experience of the successful candidate.

### Duties and Key Result Areas

* Contribute to the development of new solar energy technologies, with a focus on utility scale photovoltaics through the design, prototyping, and implementation of mechanical and automated, components and systems.
* Develop automated mechanical systems across a range of Utility Scale Photovoltaic

technologies with the aim of reducing costs of deployment and operation.

* 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.
* Demonstrate developed solar technologies in the field in collaboration with commercial partners
* Take a lead on client engagement, project development, planning, and delivery.
* Lead and supervise staff to ensure experiments are established in accordance with the research design and are completed within the agreed timeframes and budget.
* Use well developed communication skills to represent CSIRO externally, including in public forums, with industry, the research sector, and with Government.
* Adhere to the spirit and practice of CSIRO's Code of Conduct, Health, Safety and Environment procedures and policy, Diversity initiatives and Making Safety Personal goals.
* Other duties as directed.

## **Selection Criteria**

#### Essential

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

1. A PhD (or an equivalent combination of qualifications and research experience) in a relevant field such as Mechanical Engineering or Mechatronics including 5+ years of practical experience.
2. Demonstrated ability to undertake original, creative and innovative research by generating and pursuing novel ideas and solutions to scientific research problems.
3. A demonstrated publication history of authorship on scientific papers in peer reviewed journals and/or reports, grant applications or inventorship on patent applications.
4. Advanced skills in developing prototypes or virtual models for production.
5. Advanced skills in in CAD modelling of mechanical components using Solidworks, Catia, Fusion 360, or similar.
6. Evidence of Hands-on experience in prototyping production ready designs
7. A history of professional and respectful behaviours and attitudes in a collaborative environment.

## **Desirable**

1. Experience in Photovoltaics
2. Experience in large scale renewable energy deployment.

## **Required Competencies CSOF5**

* **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 responses 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 change.

**Required Competencies CSOF6**

* **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:** Identifies critical stakeholders and influences them via an influential third party, for example through an established network, to gain support for sometimes contentious proposals/ideas.
* **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:** Anticipates and manages problems in ambiguous situations. Develops and selects an appropriate course of action and provides for contingencies. Evaluates, interprets and integrates complex bodies of information and draws logical conclusions, synthesises proposals and defends options with reasoned arguments.
* **Independence:** Assesses the risk and opportunity of identified strategies, options and actions. Overcomes problems and setbacks in achieving goals. Invariably includes consideration of value-added future impact on bottom line when determining the optimal and efficient use of resources.
* **Adaptability:**Demonstrates flexibility in thinking and adapts to, and manages, the increasing rate of organisational change by adjusting strategies, goal and priorities.

Special Requirements

Appointment to this role is subject to provision of a pre-employment background check and may be subject to other security/medical/character clearance requirements.

* The successful candidate will undertake a pre-employment background check. Please note that individuals with criminal records are not automatically deemed ineligible. Each application will be considered on its merits.

## **About CSIRO**

We solve the greatest challenges through innovative science and technology. Visit [CSIRO Online](http://www.csiro.au/) and [CSIRO Energy’s Ultra Low Cost Solar](https://www.csiro.au/en/research/technology-space/energy/ultra-low-cost-solar) page for more information.

CSIRO is a values-based organisation.  In your application and at interview you will need to demonstrate behaviours aligned to our values of:

* People First
* Further Together
* Making it Real
* Trusted