# Position Description

## Research Projects – CSOF3

The following information is for applicants

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| Advertised Job Title**:** | Graduate Engineer (Mechatronics/Electronics/Electrical) |
| Job Reference: | 60099 |
| 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: | 20% |
| Percentage of Client Focus - External: | 80% |
| Reports to the: | Team leader, Solar Collection and Storage |
| Number of Direct Reports: | 0 |
| Name and Contact Details For Applicant Enquiries | Jin-Soo Kim via email: [Jin-Soo.Kim@csiro.au](mailto:Jin-Soo.Kim@csiro.au)  *Please do not email your application directly to Mr Kim. Applications received via this method may not be considered by the selection panel.* |
| Contact Details For Applying | Call 1300 984 220 or email [careers.online@csiro.au](mailto: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:

The role of Research Projects staff in CSIRO is to collaborate in scientific activities with other research staff usually by assisting with detailed planning, undertaking or assisting with experimental and observational work, and in carrying out the more practical aspects of the work.

CSIRO Energy has established the National Solar Energy Centre (NSEC) in Newcastle to conduct world class research and development in solar thermal and photovoltaics. The Graduate Engineer will join the Solar Energy Systems Group and work with an interdisciplinary team in the priority areas of Solar Energy Collection, Storage and Processes. The position will support practical research in the area of solar thermal component and system development aligned with CSIRO projects including experimental areas of:

* Heliostat Design, Control and Calibration
* Heliostat Field simulation and receiver optical/thermal design
* Laboratory component and experimental design
* Solar thermal plant component engineering and maintenance

## Duties and Key Result Areas:

* Under the direction of senior research scientists and engineers, carry out innovative, impactful research of strategic importance to CSIRO that will, where possible, lead to novel and important scientific outcomes.
* Communicate effectively and respectfully with all staff, clients and suppliers in the interests of good business practice, collaboration and enhancement of CSIRO’s reputation.
* Plan and carry out engineering tasks that contribute to, and expand, the solar thermal research activities within the Solar Energy Systems Group.
* Communicate research outcomes in both oral and written form for inclusion in presentations for a variety of audiences, reports and scientific publications
* Work as part of a multi-disciplinary research team, to carry out tasks under limited direction in support of scientific research.
* Work collaboratively with colleagues within your team, the Energy business unit and across CSIRO, to reach objectives.
* Provide instruction on activities pertaining to the immediate work area and responsibilities, as required.
* Adapt and/or develop original experimental methods in support of existing and further research.
* Adhere to the spirit and practice of CSIRO’s Values, Health, Safety and Environment plans and policies, Diversity initiatives and Zero Harm goals.
* Other duties as directed

## Competencies:

1. **Teamwork and Collaboration: Proactively seeks and considers the ideas and opinions of others from within and outside the team to help form decisions, plans or actions.**
2. **Influence and Communication: Puts forward ideas by presenting factual information supported by data, definitions, examples, illustrations or other aids, which will assist in conveying meaning.**
3. **Resource Management/Leadership: Provides instruction and assists other staff to complete allocated tasks and activities.**
4. **Judgement and Problem Solving:** Identifies and considers the implications of a range of available alternatives in order to select the most appropriate response to problems of a familiar or recurring nature.
5. **Independence: Recognise and makes immediate changes to improve performance (faster, better, lower cost, more efficiently, better quality, improved client satisfaction).**
6. **Adaptability:** Willingness to change ideas or perceptions based on new information, contrary evidence or other people's points of view. Prepared to try out different approaches.

## Selection Criteria:

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

***Essential Criteria:***

* Relevant tertiary qualification &/or equivalent experience in Mechatronics, Electronics, Software, Computer or Electrical Engineering
* Fundamental knowledge of mechatronics, robotics or electronics design processes
* Experience with micro-controller programming and software development in Python and/or C/C++
* The ability to work effectively as part of a multi-disciplinary research team, and carry out tasks under general direction from Scientific Researchers and Senior Engineers
* The ability & willingness to contribute novel ideas and approaches in support of scientific investigations

**Desirable Criteria:**

* Practical experience in fabrication or manufacturing of mechatronic/robotic or electrical/electronic components or systems
* Experience with electrical circuit and PCB design
* Experience with design and detailed drawing of components using 3D and 2D CAD software

## About CSIRO:

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

Find out more about CSIRO [Energy](https://www.csiro.au/en/Research/EF)