# Research Projects – CSOF3

Role summary for potential applicants

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| Advertised Job Title**:** | Research Assistant/Junior Engineer |
| Reference Number**:** | 51603 |
| Classification**:** | CSOF3 |
| Salary Range: | AU $61K to AU $78K plus up to 15.4% superannuation |
| Location**:** | Adelaide (Waite Campus), SA |
| Tenure: | Specified Term of 2 years |
| Relocation assistance**:** | Will be provided to the successful candidate if required. |
| Applications are open to: | Australian/New Zealand Citizens and Australian Permanent Residents Only* *For Specified Term positions, we will accept applications from Temporary Residents with working rights for the length of the term, who do not require sponsorship.*
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| Functional Area**:** | Research Projects |
| % Client Focus - Internal: | 0% |
| % Client Focus - External: | 100% |
| Reports to the: | Research Team Leader |
| Number of Direct Reports: | 0 |

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| **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.The Research Assistant/Junior Engineer will assist with hardware/software development for use within 'Digital Viticulture'. Specifically, this role will assist with development and use of integrated proximal sensors (e.g. RGB, LiDAR, hyperspectral), supporting analytics and associated software under the direction of senior project staff and leaders. Field testing and regular use of developed sensors in commercial vineyards and/or CSIRO grapevine plantings are also requirements of this role. |

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| **Duties and Key Result Areas:** |
| * Optimisation of existing LiDAR data analysis pipeline.
* Assist with development of integrated sensor hardware and associated support software.
* Assist with development of novel sensor data analytics for application in viticulture.
* Field testing of new hardware, regular field collection of data using existing hardware.
* Reporting to senior staff on experiments and progress.
* Communicate effectively and respectfully with all staff, clients and suppliers in the interests of good business practice, collaboration and enhancement of CSIRO’s reputation.
* Work as part of a multi-disciplinary, often regionally dispersed research team, to carry out tasks under limited direction in support of scientific research.
* Work collaboratively with colleagues within your team, the 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/equipment/software/concepts/ ideas 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.
* Any other duties within the scope of this position that may arise from time-to-time, for which the incumbent holds the skills and abilities to perform.
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| **Selection Criteria:** |
| *Under CSIRO policy only those who meet all essential criteria can be appointed****Pre-Requisites:***1. **Education/Qualifications:** Relevant Bachelors/Masters Degree or equivalent experience in Electrical or Software engineering, agricultural or environmental studies.
2. **Communication:** Ability to communicate in a fluent and courteous manner, both orally and in writing, offering factual information supported by proven data, and providing appropriate feedback when required.
3. **Behaviours:** A history of professional and respectful behaviours and attitudes in a collaborative environment.
4. **Adaptability:** The ability to effectively manage a number of competing priorities simultaneously, and carry out non-routine tasks under general direction.
5. **Problem Solving:** Proven ability to investigate routine problems by identifying and considering the implications of a range of available alternative solutions**.**

***Essential Criteria:***1. Demonstrated experience with programming and data analysis in Python/R/Matlab or similar languages.
2. Demonstrated experience with field-deployed agricultural or environmental sensing.
3. The ability to work effectively as part of a multi-disciplinary, regionally dispersed research team, and carry out tasks under general direction from Scientific Researchers.
4. The ability & willingness to contribute novel ideas and approaches in support of scientific investigations.

**Desirable Criteria:**1. Demonstrated experience in machine learning and computer vision.
2. Demonstrated experience with deployment of autonomous sensor platforms such as wireless sensor networks, robotics or UAVs.
3. Demonstrated experience with fieldwork and field deployment of proximal sensors.

**As Australia’s Innovation Catalyst, CSIRO has strategic actions underpinned by behaviours aligned to**:* Excellent science
* Inclusion, trust & respect
* Health, safety & environment
* Delivery on commitments.

**In your application and at interview you will need to demonstrate alignment with these behaviours.*****Other special requirements:***To be eligible for this position you must be willing and able to undertake fieldwork which, on occasion, will require overnight stays.  |

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| **Other Information:** |
| **How to Apply**Please apply for this position online at <https://jobs.csiro.au/> and enter requisition number 51603. Internal applicants please apply via ‘Jobs Central’ in SAP (click ‘Recruitment’).Please load your CV (Maximum 2MB). You may also be required to respond to some screening questions.  If you experience difficulties applying online call 1300 984 220 for assistance. Outside Australian business hours please email: csiro-careers@csiro.au. **Referees**: Please provide contact details of two previous supervisor or academic/professional referees in your resume/CV. We will ask your permission before making contact. **Contact:** If after reading the position details above you require more information please contact:**Dr Everard Edwards**via email: everard.edwards@csiro.au or phone: +61 8 8303 8649Please do not email your application directly to Dr Edwards. Applications received via this method may not be considered by the selection panel.**About CSIRO**Australia is founding its future on science and innovation. Its national science agency, the Commonwealth Scientific and Industrial Research Organisation (CSIRO) is a powerhouse of ideas, technologies and skills for building prosperity, growth, health and sustainability. It serves governments, industries, business and communities across the nation. Find out more! [www.csiro.au](http://www.csiro.au). We work flexibly at CSIRO, offering a range of options for how, when and where you work. Talk to us about how this role could be flexible for you. Find out more! [CSIRO Balance](https://www.csiro.au/en/Careers/A-great-place-to-work/Work-life-balance) **CSIRO Agriculture and Food** is helping Australian farmers and industry improve productivity and sustainability across the agriculture sector. The Agriculture and Food business unit will conduct research to impact on the whole value chain from paddock to plate by focussing on the following challenges:* crop improvement
* livestock and aquaculture genetic improvement
* farming systems for productivity and sustainability
* interactions between agriculture and the environment; climate change, adaptation and mitigation; science for health soils
* global food security and development.
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