# Research Projects – CSOF3

Role summary for potential applicants

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| Advertised Job Title**:** | Junior Embedded Software Engineer |
| Reference Number**:** | 45162 |
| Classification**:** | CSOF3 |
| Salary Range: | AU $61K - $78K plus up to 15.4% superannuation |
| 9Location**:** | Pullenvale, QLD |
| Tenure: | Specified Term of 2.5 years |
| Relocation assistance**:** | Will be provided to the successful candidate if required. |
| Applications are open to: | Australian & NZ Citizens, Permanent and Temporary Residents currently residing in Australia who have full work rights.\**\*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.* |
| 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. We are looking for a motivated junior embedded engineer or recent engineering graduate with strong embedded (microcontroller) programming skills.In this position you will report, under close mentorship, to a Senior Engineer while engaging with research scientists and engineers to translate algorithms into reliable embedded code for close-to-market embedded devices. |

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| **Duties and Key Result Areas:** |
| * Design and implementation of embedded code for next generation cattle ear-tags.
* Reporting to senior engineers and scientists 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.
* Other duties as directed.

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| **Selection Criteria:** |
| *Under CSIRO policy only those who meet all essential criteria can be appointed****Pre-Requisites:**** **Education/Qualifications:** Relevant Degree &/or equivalent experience in Electrical or Software engineering.
* **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.
* **Behaviours:** A history of professional and respectful behaviours and attitudes in a collaborative environment.
* **Adaptability:** The ability to effectively manage a number of competing priorities simultaneously, and carry out non-routine tasks under general direction.
* **Problem Solving:** Proven ability to investigate routine problems by identifying and considering the implications of a range of available alternative solutions**.**

***Essential Criteria:**** Demonstrated experience with programming of embedded IoT platforms, including Cortex-M architecture, embedded OS (contiki, FreeRTOS or similar), development of low level drivers (using SPI, I2C, DMA etc), storage drivers, time-synchronisation, and energy-optimized software.
* Demonstrated experience with low-power wireless network stacks (BLE, 802.15.4, LoRa/LoRaWAN).
* Experience with linux, UNIX, raspbian
* Ability to work with multi-disciplinary team, working within research environments, willingness to travel to regional and remote locations
* Ability to start in a full-time capacity in early October.

**Desirable Criteria:*** 3D CAD modelling (e.g. Solid works) and PCB layout design (e.g. Altium)
* Demonstrated experience of field deployments of wireless sensor platforms
* Experience with activity sensing on humans or animals

***CSIRO Values:***As Australia’s Innovation Catalyst, CSIRO has strategic actions underpinned by behaviours aligned to Excellent science, Inclusion, trust & respect, Health, safety & environment and Deliver on commitments.  In your application and at interview you will need to demonstrate alignment with these behaviours.***Data61 Values:*****Great Impact**: We focus our valuable resources on areas where we can lead globally and have large impact for Australia, to aid our future prosperity and independence.  **Mastery**: We are fearless, curious and we improve every day. We strive to excel in research, technology and business, and to work with the best in the world.  **Co-Creation of Value**: Everything we do involves co-creation with our network: team, customers and partners. Generously empowering their success is central to our success.  **Ownership of Results**: We jointly hold ourselves accountable for our actions. We do this via trust and commitment. **People and their Differences**: We embrace the creativity that comes from the diversity of our people. **Agility and Flexibility**: We view the changing world as an opportunity. This requires agility and flexibility in everything we do; everything changes, except our constant desire to adapt. **Tell it Straight, with Respect:**We say what we mean, mean what we say, and do not mislead, obfuscate or spin. We're direct and always respectful. |

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| **Other Information:** |
| **How to Apply**Please apply for this position online at [www.csiro.au/careers](http://www.csiro.au/careers). You may be asked to provide additional information (online) relevant to the selection criteria. If so, then responding will enhance your application so please take the time to provide relevant succinct answers. Applicants who do not provide the information when requested may not be considered.If you experience difficulties applying online call 1300 301 509 and someone will be able to assist you. Outside business hours please email: csiro-careers@csiro.au. **Referees**: If you do not already have the names and contact details of two previous supervisors or academic/ professional referees included in your resume/CV please add these before uploading your CV.**Contact:** If after reading the selection documentation you require further information please contact: Brano Kusy via email: Brano.Kusy@data61.csiro.au or phone: +61 07 3327 4023.Please do not email your application directly to Brano Kusy. Applications received via this method will not be considered.**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). **CSIRO Data61** In today’s data-focused world, there’s no doubt that numbers count. [**Data61**](http://www.data61.csiro.au/) are the largest data innovation group in Australia, a connector that brings together technology innovators, businesses and universities to transform Australian industry and to help solve our greatest challenges. A CSIRO business, we are creating our data-driven future.**Our commitment to you**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. We emphasise an individual’s growth and development which is supported by interacting and learning from world leading scientists and engineers, who provide the opportunity to challenge, transform and innovate new ideas. CSIRO’s Data61 is committed to sourcing the brightest and best talent to become part of the Data61 family, which contributes to creating Australia’s data driven future. |