# Position Details

## Research Scientist/Engineer- CSOF5

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| The following information is for applicants | |
| Advertised Job Title | Technical Lead – Embedded Engineer |
| Job Reference | 65065 |
| Tenure | Indefinite  Full-time |
| Salary Range | AU$98,735 to AU$106,848 pa (pro-rata for part-time) + up to 15.4% superannuation |
| Location(s) | Pullenvale, QLD |
| Relocation Assistance | Will be provided to the successful candidate if required |
| Applications are open to | Australian/New Zealand Citizens and Australian Permanent Residents Only |
| Position reports to the | Research Team Leader |
| Client Focus – Internal | 0% |
| Client Focus – External | 100% |
| Number of Direct Reports | 2-3 |
| Enquire about this job | Contact Philip Valencia via email at: [Philip.Valencia@data61.csiro.au](mailto:Philip.Valencia@data61.csiro.au)  or phone: +61 7 3327 4136 |
| 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. |

### Role Overview

The Technical Lead - Embedded Engineer will manage a group of experts within the Pervasive Computing team in Data61 working on a close-to-market system of wirelessly networked embedded devices, for low-power tracking of location and activity of assets and people within a construction context. The position will also work within the Distributed Sensing Systems research group and in partnership with external companies, make a significant contribution towards impactful research and development aimed at improving the efficiency of construction site management operations.

### Duties and Key Result Areas:

* Manage team members including junior hardware engineers and software engineers to deliver a close-to-market embedded device.
* Lead the design and development of an embedded device for asset management and site safety that provides real-time location of assets and people in GPS-denied areas on construction and other commercial sites.
* Lead documentation and software handover for technology transfer to external clients.
* Design and develop testing systems for verification of device hardware and software.
* Lead lab and field-testing activities to ensure the developed hardware and software reaches commercial ready quality and is reliable during the whole of the construction phase.
* Maintain effective and efficient software and hardware development across the team.
* Choose appropriate management strategies and communication styles to maintain high levels of motivation and productivity, give feedback for development purposes and provide support and direction for improvement, as required.
* 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, often regionally dispersed 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 procedures and policy, Diversity initiatives and Making Safety Personal 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. A relevant Bachelors/Master’s Degree and/or equivalent experience in Electrical or Software Engineering.
2. Demonstrated experience with technology transfer or leading commercialisation of research to external clients.
3. Extensive background in the programming of embedded IoT platforms, embedded OS. (FreeRTOS or similar), the development of low-level drivers, and energy-optimized software.
4. Expertise with low-power wireless network stacks (BLE and/or LoRaWAN).
5. Previous experience with LINUX, UNIX or Raspbian.
6. Demonstrated experience working as a full-stack developer.
7. A track record of project management and supervising/working with staff to deliver against external project milestones on time and within budget.
8. Demonstrated experience with project management tools and software version tracking.
9. Willingness and ability to travel regularly.
10. The ability to work effectively as part of a multi-disciplinary, regionally dispersed research team, and carry out tasks autonomously in support of commercialisation of CSIRO IP.
11. Willingness to contribute novel ideas and approaches in support of commercial outcomes.

## **Desirable:**

1. Experience with git flow, software revisioning and reviewing.
2. A background with database, middleware and system architecture design (Azure, AWS, etc).
3. Experience with field deployments of sensing platforms that measure activity (sensing on humans, animals, or objects).

Special Requirements

Appointment to this role is subject to the following condition:

* 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.

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