# Research Scientist/Engineer – CSOF5

Role summary for potential applicants

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| Advertised Job Title**:** | Research Scientist/Engineer |
| Reference Number**:** | 58820 |
| Classification**:** | CSOF5 |
| Salary Range: | AU 97,276 to AU 105,269 plus up to 15.4% superannuation |
| Location**:** | Clayton, Victoria |
| Tenure: | [ ] Indefinite OR [x] Specified Term of 3 years and 0 months |
| Relocation assistance**:** | Will be provided to the successful candidate if required. |
| Applications are open to: | [ ]  Australian Citizens Only[ ]  Australian/New Zealand Citizens and Australian Permanent Residents Only* [x]  All Candidates
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| Functional Area**:** | Research Scientist / Engineer |
| % Client Focus - Internal: | 30% |
| % Client Focus - External: | 70% |
| Reports to the: | Deposition and Additive Structures Team Leader |
| Number of Direct Reports: | 0 |

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| **Role Overview:** |
| The role of Research Scientist Staff in CSIRO is to conduct innovative research leading to scientific achievements that are aligned with CSIRO's strategies. You may be engaged in scientific activity ranging from fundamental research to the investigation of specific industry or community problems. You 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.CSIRO Manufacturing has established a state of the art innovation centre to conduct world class research in Additive Manufacturing (AM) for the Australian Manufacturing industry. We are seeking a self-motivated CSOF5 person to join the Deposition and Additive Structures Team. As the successful candidate, you will contribute to multiple projects undertaken by the CSIRO with commercial partners. These projects include development of large-scale, robotic titanium additive manufacturing, multilayer materials for high temperature environments and cold spray repair of metallic structures. |

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| **Duties and Key Result Areas:** |
| * Incorporate novel approaches to scientific investigations by adapting and/or developing original concepts and ideas for new, existing and further research.
* Self-motivated role in cold spray additive manufacturing
* Assisting on client based projects with a time critical Milestone delivery
* Problem solving, development of new technologies based on cold spray.
* Ascertain the physical and mechanical properties of materials, e.g. by tensile testing, fatigue testing and density measurement, and interpretation of these data.
* Interpret heat treatment – microstructure – property relationships, in particular for titanium alloys.
* Develop new surface treatments / coatings.
* Metallographic sample preparation.
* Develop complex tool path strategies for cold spray.
* Communicate effectively and respectfully in the interests of good business practice, collaboration and enhancement of CSIRO’s reputation.
* Produce high quality scientific and/or engineering papers suitable for publication in quality journals and for presentation at national and international conferences.
* Work effectively as part of a multi-disciplinary, often regionally dispersed research team, to undertake independent scientific investigations and carry out associated tasks under the guidance of more senior Research Scientists/Engineers.
* Under the guidance of Senior Research Scientists/ Engineers, work collaboratively and honestly with internal and external colleagues, clients and partners to help define and satisfy objectives for small to medium research projects.
* Assist in leading small research projects, including the negotiation of resource requirements.
* Provide coaching and on-the-job training to technical staff and students to ensure experiments are established in accordance with research design.
* 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:***1. **Education/Qualifications:** A doctorate or equivalent research experience in a relevant discipline area, such as Materials Engineering or Mechanical Engineering.
2. **Communication:** Strong written and oral communication skills including the ability to publish research results, prepare reports and present the results of scientific investigations at national and international conferences and stakeholder meetings.
3. **Publications: A solid record of publication in quality, peer reviewed journals.**
4. **Behaviours: A history of professional and respectful behaviours and attitudes in a collaborative environment.**

***Essential Criteria:***1. Demonstrated experience in Cold Spray
2. Understanding of metal microstructures and their interpretation
3. Demonstrated experience in robot programming
4. **The ability to work effectively as part of a multi-disciplinary, regionally dispersed research team, and carry out independent individual research, to achieve organisational goals.**
5. A record of science innovation and creativity plus the ability & willingness to incorporate novel ideas and approaches into scientific investigations.

**Desirable Criteria:**1. Experience with other material deposition methods such as laser deposition
2. Experience in powder technologies and powder characterisation
3. Knowledge of titanium metallurgy

**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.** |

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| **Other Information:** |
| **How to Apply**Please apply for this position online at <https://jobs.csiro.au/> and enter requisition number **58820**. 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 Peter King**via email: peter.king@csiro.au or phone: **+61 401 390 416**Please do not email your application directly to Dr King. Applications received via this method may not be considered by the selection panel.About CSIRO:We imagine. We collaborate. We innovate. To find out more visit us [online](http://www.csiro.au/)! Find out more about CSIRO [Manufacturing](https://www.csiro.au/en/Research/MF)  |