# Research Projects – CSOF5

Role summary for potential applicants

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| Advertised Job Title**:** | Experimental Scientist or Senior Experimental Scientist |
| Reference Number**:** | 56126 |
| Classification**:** | CSOF4 or CSOF5, depending on skills and experience |
| Salary Range: | CSOF4: AU $80,833 to AU $90,451 plus up to 15.4% superannuation  CSOF5: AU $95,369 to $103,205 plus up to 15.4% superannuation |
| Location**:** | Hobart, TASMANIA |
| Tenure: | Indefinite |
| Relocation assistance**:** | Will be provided to the successful candidate if required. |
| Applications are open to: | Australian Citizens and Permanent Residents Only |
| Functional Area**:** | Research Projects |
| % Client Focus - Internal: | 0% |
| % Client Focus - External: | 100% |
| Reports to the: | Team Leader, Broadscale Ocean Dynamics & Observations |
| 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. At senior levels, Research Projects staff may be involved in providing consulting services, science management and/or industry liaison.  CSIRO leads the Australian Argo Program. This includes:   * Technical operations: float preparation and deployment; * Real-time operations: float purchasing, float logistics (e.g., telecommunications, deployment logistics), real-time data distribution (to the Global Telecommunications System (GTS)), processing (automated quality control), and dissemination (publishing data on Regional and Global Data Acquisition Centres); * Delayed-mode (DM) operations: delayed-mode quality control (DMQC); * Software support: for real-time data processing software, and delayed-mode quality control software; and * Data analysis and Argo Science.   The Argo team is contracted, by IMOS, to manage the Australian Argo array (currently about 600 operational floats) and to deliver data in real-time to operational centres around the world (via the GTS), underpinning ocean forecast systems and seasonal prediction. The Argo team purchase and deploy about 50 Argo floats each year and this number will be doubled over the next two years.  The successful applicant will join the Argo Team in Hobart, playing a key role in the support of real-time operations, delayed-mode quality control, and maintaining a suite of software systems to underpin our day-to-day activities. The role needs someone who wants to be part of a team, has a keen interest in ocean observations, and has good scientific programming skills.  Note: This position is advertised across two salary/competency levels. To be appointed at the higher CSOF level (CSOF5), candidates need to demonstrate the skills and expertise required for the higher level. The additional duties and selection criteria for the higher level are documented in red. |

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| **Duties and Key Result Areas:** |
| * Supporting the real-time operations of the Australian Argo program, including the acquisition of Argo floats, organisation of float deployments, and processing of data in real-time. * Performing careful, delayed-mode quality control of float data, to ensure that the reported observations are of the highest-possible standard. This element of the role requires great attention to detail, thorough work practices, commitment to quality, and persistence. * Maintaining an existing suite of software - written in matlab and python - and possibly contributing to the development of the next generation of software to future-proof our program. The programming maintenance side of the role requires well-developed skills in matlab and python. The programming development side is an opportunity to be creative. * Collaborate with researchers in other disciplines who are undertaking climate impact assessments to inform adaptation. * (CSOF5) Set-up and/or maintain effective and efficient work teams, allocate and manage resources and undertake staff performance management and career development. * (CSOF5) 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. * (CSOF5) Lead the development of scientific software, formulate relevant mathematical problems, and build software solutions. * Contribute to publication of findings in journal papers, conference abstracts, consultancy reports, brochures and web-pages. * Contribute to effective functioning of a research team. * 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 the team, the Business Unit and across CSIRO, to reach objectives. * Allocate activities, direct tasks and manage resources to meet objectives. * Foster open communication, provide coaching and on-the-job training to both project support and research colleagues, as required, and provide recognition and acknowledgement for staff achievements. * 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:***   1. **Education/Qualifications:** Relevant Bachelors/Masters Degree in science, preferably with major subjects in physical sciences including Atmospheric Science, Oceanography, Physics, Mathematics, information technology, or Geography &/or equivalent experience. 2. **Communication:** Excellent communication skills, both written and oral, including the ability to anticipate the interests and knowledge level of an audience and present information and feedback accordingly**.** 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 limited direction. 5. **Problem Solving:** Proven ability to investigate underlying issues of complex and ill-defined problems and develop appropriate responses by adapting/creating and testing alternative solutions**.**   ***Essential Criteria:***   1. (CSOF5) Demonstrated ability to lead the development of scientific software, formulate relevant mathematical problems, and build software solutions. 2. (CSOF5) Demonstrated experience showing initiative and leadership within a team, leading to improved work practices, efficiencies, and/or efficacy. 3. (CSOF5) Demonstrated ability & willingness to contribute novel ideas and approaches in support of scientific investigations. 4. Demonstrated scientific programming experience, preferably with Matlab or Python, with experience maintaining software and trouble-shooting minor software issues, and familiarity with working in Unix-based environments. 5. Demonstrated experience in the processing and/or quality control of observational data, with a high degree of attention to detail. 6. Demonstrated ability to document methods and/or software products for adoption by other users. 7. Demonstrated ability to work effectively as part of a multi-disciplinary team and carry out tasks autonomously in support of scientific research.   **Desirable Criteria:**   1. Working knowledge of physical oceanography and experience working with ocean sensors and instrumentation. 2. A willingness and ability to travel at sea for prolonged periods; and be willing and able obtain a Certificate of Sea Safety Training issued by the Australian Maritime Safety Authority and have the ability and willingness to obtain a Certificate of Medical Fitness to a standard required by the Australian Antarctic Division for seagoing operations and a Maritime Security Identification Card.   **CSIRO is a values based organisation. You will need to demonstrate behaviours aligned to our values of:**   1. Integrity of Excellent Science 2. Trust & Respect 3. Creative Spirit 4. Delivering on Commitments 5. Health, Safety & Sustainability |

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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 984 220 and someone will be able to assist you. Outside business hours please email: [careers.online@csiro.au](mailto:careers.online@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:  Dr Peter Okevia email: peter.oke@csiro.au or phone: +61 3 6232 5387  Please do not email your application directly to Dr Oke. 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’s** [**Ocean and Atmosphere**](http://www.csiro.au/en/Research/OandA/About)research is uniquely placed to deliver significant economic, social and environmental benefits for Australia and the region. We seek to secure Australia’s future through our seas and skies.  Understanding our oceans, coasts, climate and atmosphere is fundamental to Australia’s sustainable development and prosperity. |