Research Associate – Magnetotelluric Geophysics

College/Division	College of Sciences and Engineering
School/Section	School of Natural Sciences - Physics, (with close links to Institute for Marine and Antarctic Studies – Oceans and Cryosphere)
Location	Hobart – Sandy Bay
Classification	Academic Level A/B
Reporting line	Reports to Professor – ARC Australian Centre for Excellence in Antarctic Science

Position Summary

The University of Tasmania (UTAS) is building a vision of a place-based University with a mission to enhance the intellectual, economic, social and cultural future of Tasmania, and from Tasmania, contribute to the world in areas of distinctive advantage. The University recognises that achieving this vision is dependent on the people we employ as well as creating a people-centred University that is values-based, relational, diverse, and development-focused.

The researcher in Magnetotelluric Geophysics will use field and computer-based approaches applied to geophysical data with a focus on magnetotelluric methods. This position is part of the ARC Australian Centre for Excellence in Antarctic Science (ACEAS), a national-scale, University-led, international centre focused on helping the world community prepare for climate risks emerging from East Antarctica and the Southern Ocean by integrating knowledge of the ocean, atmosphere, cryosphere and ecosystems, and their interplay. ACEAS will grow to support the activities of around 150 researchers, administrative staff, and students, with exciting opportunities to collaborate across disciplinary and institutional boundaries.

The 2 year Research Associate in Magnetotelluric Geophysics will commence by mid-2023. The successful candidate will contribute to ACEAS Program 1, Circum Antarctic and East Antarctica, which addresses the overarching question: “How can shifts in carbon, heat and moisture transport in the Antarctic and Southern Ocean system be better constrained to improve projections of future climate and sea level changes?”. Specifically, the successful candidate will focus on the following aims: a) Use geophysical data to provide a better constraint on future sea level rise projections; and b) Assess risks to the effective prediction of changes to ice mass that arise from interactions and feedbacks between systems, and from instability and threshold changes. The Research Associate will also contribute to ACEAS Program 3, Sub-regional and Regional Antarctic Margin, which addresses the mass loss from key subglacial basins with a focus on optimising and combining model predictions and field observations. At the time of advertising, it is expected that there will be an Antarctic field season in the 2023/24 Austral summer that the Research Associate would participate in.

We are an inclusive workplace committed to ‘working from the strength that diversity brings’ reflected in our Statement of Values. We are dedicated to attracting, retaining and developing our people and are committed to inclusive principles. We celebrate the range of diverse assets that gender identity, ethnicity, sexual orientation, disability, age and life course bring. Applications are encouraged from all sectors of the community. **Tell us how we can make this job work for you.**

What You'll Do

- Carry out research using geophysical approaches, working with Kate Selway and Anya Reading, with a focus on magnetotellurics. More generally, progress the interdisciplinary understanding of interactions between the solid Earth, glaciers and ice mass change in East Antarctica.
- Communicate results through oral presentations and scientific journal articles, adhering to FAIR data management principles.
- Carry out magnetotelluric data processing, modelling and interpretation and, where possible, participate in Antarctic fieldwork.
- Co-supervise related research projects at the Honours and/or HDR level.
- Undertake other duties as assigned by the supervisor(s).

What We're Looking For (success criteria)

- A PhD or equivalent postdoctoral experience in a relevant area (e.g., magnetotelluric methods, geophysics applied to the polar regions, or similar).
- A good record of, and continuing commitment to, internationally recognised research that has made worthwhile contributions to the field of geophysics, polar science, and/or related disciplines, demonstrated by quality publications and presentations at conferences.
- Expertise in magnetotelluric data collection, processing and/or analysis with skills that can be applied to Antarctic research questions.
- Demonstrated ability to work efficiently with minimal supervision, with a capacity to set and prioritise strategic research directions and to design and complete collaborative research programs to achieve scientific goals.
- Demonstrated ability to work collaboratively in a research team covering multiple disciplines and achieve collective as well as individual outcomes.
- Experience in performing geophysical field work or handling geophysical data (e.g., in polar or remote regions and/or from relevant databases).

Other desirable criteria

- Experience in HDR student supervision.
- Enthusiasm for planning, organising and carrying out field work in polar regions
- Service, or research community liaison, experience in the area of polar research or other relevant area.

University of Tasmania

The University of Tasmania is an institution with an enduring commitment to our state and community, and a strong global outlook. We are committed to enhancing the intellectual, economic, social and cultural future of Tasmania. Our Strategic Direction strongly reflects the University community's voice that our University must be place based but globally connected as well as regionally networked and designed to deliver quality access to higher education for the whole State.

We believe that from our unique position here in Tasmania we can impact the world through the contributions of our staff, students and graduates. We recognise that achieving this vision is dependent on the people we employ, as well as creating a university that is values-based, relational, diverse, and development-focused.

Check out more here:

https://www.utas.edu.au/jobs

https://www.utas.edu.au/careers/our-people-values-and-behaviours

The intention of this position description is to highlight the most important aspects, rather than to limit the scope or accountabilities of this role. Duties above may be altered in accordance with the changing requirements of the position.

It is not the intention of the position description to limit the scope or accountabilities of the position but to highlight the most important aspects of the position. The aspects mentioned above may be altered in accordance with the changing requirements of the role.