

Postdoctoral Research Fellow

College/Division College of Sciences and Engineering

School/Section School of Information and Communication Technology

Location Launceston

Classification Academic Level B

Reporting line Reports to Research Leader, HIT Lab

Position Summary

The University of Tasmania is building a vision of a place-based University with a mission to enhance the intellectual, economic, social and culture 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.

We are seeking to appoint a Postdoctoral Research Fellow in the <u>School of Information and Communication</u> Technology which is part of College of Sciences and Engineering.

The Human Interface Technology Laboratory, Australia (HIT Lab AU) has a postdoctoral research fellow position for a highly motivated and talented researcher to work on human computer interaction relevant to the research project "Operational Immersive Visualisation and Measurement of Dense Point Cloud Data in Forest Inventory". The position will work with the project's research team and industry collaborators to research and develop a systematic approach of Human-in-the-Loop (HITL) that integrates an immersive visualisation in Virtual Reality (VR) with an active learning concept of machine learning.

With the emergence of promising automatic segmentation algorithms using machine learning techniques to extract tree stem measurements from acquired point cloud data of plantation forest has potential to improve the visualisation of the tree features. However, the resulting accuracy of the machine learning depends on the "quality" of training examples provided that the examples provided sufficiently represent different types of trees and forest environments present. This is a challenge, which brings forward an interesting solution where the human operators (in VR environment) and machine learning algorithms can reciprocally benefit from one another, within the HITL framework.

The HIT Lab is a research facility in the School of Information and Communication Technology, College of Sciences and Engineering, the University of Tasmania. The Lab's mission is to empower people by building advanced human-computer interface technology that will unlock the power of human intelligence, improve quality of life and link minds globally.

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

- Make an effective and sustained contribution to the University in achieving its strategic objectives and fulfilling its operational responsibilities.
- Undertake high-quality research of national and increasingly of international standing, publish research findings and contribute to the successful supervision of research higher degree students, in order to meet and regularly exceed the University's research performance expectations for Level B.
- Contribute to the development and maintenance of productive and effective links inside the University and locally and nationally with the discipline, relevant interdisciplinary domains, profession, industry and/or wider community.
- Undertake other duties as assigned by the supervisor.



What We're Looking For (success criteria)

- A PhD or equivalent in a relevant field.
- A good record of, and continuing commitment to, research that has achieved national recognition
 and made worthwhile contributions to the field of Human Computer Interaction (HCI), demonstrated
 by a record of quality publications, presentations at conferences and preferably success in securing
 external competitive and other funding.
- A record of contributing to building and maintaining effective and productive links locally and nationally with the discipline, profession, industry (where relevant) and wider community.

Other position requirements

- Occasional intrastate/ interstate/ international travel is required to deliver research outcomes
- Willingness to undertake a medical assessment based on meeting the inherent position requirements

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:

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