

Research scientist/Senior Research Scientist (Regional Ocean Modeller)

Centre for Climate Research Singapore

The Centre for Climate Research Singapore (CCRS) is the research arm of the Meteorological Service Singapore (MSS). Formally launched in 2013, the centre has two research branches: Climate Branch and Weather Branch. The centre's focus is on weather and climate research areas of importance to Singapore and the wider Southeast Asian region.

Appointments will be for a 2-year initial period with a prospect of a permanent position.

Annual salaries will be in the range of SGD \$55K to \$120K. The starting salary and the level of entry will depend on experience. In addition to annual salaries, relocation allowances may apply.

Deadline for application: **4 January 2020**

Background

As a densely populated island city-state situated in the tropics, Singapore is vulnerable to the effects of climate change. CCRS is the leading national research centre building local research expertise in the weather and climate of Singapore and the wider Southeast Asia region. As such, CCRS delivered a National Climate Change Study released in 2015 to inform policy decisions about adaptation and planning and will update this study in 2022 with a new set of projections coherent with the international research community agenda.

Early this year Singapore government announced the launch of a S\$7 million National Sea Level Programme (NSLP) to bring together the research community in Singapore and provide robust scientific evidence about future sea level rise and its impact on coastal areas of Singapore and the wider region. A particularly important issue for Singapore is an understanding of a potential sea level rise and extreme sea levels, and their impacts. Quantitative understanding of the causes of sea level variability near the coast is important for the development of improved future sea level projections and assessment of related coastal impacts. This post will contribute to advance the understanding of the connections between the large-scale ocean circulation and coastal sea level, including how climatic modes of variability project onto the coastal zone.

The ideal candidate will have experience in regional ocean modelling (e.g. NEMO), or experience in numerical modelling, and a good understanding of the sea level rise issues in climate research.

The specific job responsibilities of this position are to:

- Keep abreast with the latest international developments in regional ocean modelling techniques and strategies (e.g. NEMO developments);
- Contribute with regional model simulations to the future sea level rise projections for Singapore and surrounding areas, emerging from CMIP6 climate simulations and other methods;
- Work with CCRS' ocean/atmospheric modelling experts to set up and run required simulations to complement findings from other parts of the National Sea Level Programme;
- Provide advice to the NSLP manager regarding appropriate research topics within the scope of the programme;

- Establish working relationships with local research institutions involved in the NSLP to ensure the programme delivers a comprehensive perspective on risks associated with sea level rise;
- Communicate effectively with national agencies involved in sea level adaptation responses and planning under the Resilience Working Group; and
- Published research findings in peer-reviewed journals.

Candidate Requirements:

- A PhD in a research area relevant to the topic of sea level rise;
- Proficiency in scientific computing and ocean modelling;
- Demonstrated understanding of the technical, numerical and scientific issues related to fluid dynamical modelling, understanding of specific issues related to atmospheric/ocean modelling;
- Good understanding of the complexity of sea level rise issues across the various contributing components;
- Ability to undertake scientific research independently or with limited supervision;
- Proven record of success as demonstrated by publications in peer-reviewed journals;
- Good written and verbal presentation skills.
- At least 5 years post graduate research experience and a recognised expert in their field (a requirement for the Senior Research Scientist level); and
- Knowledge of the NEMO ocean modelling system and experience of working with the NEMO ocean model (running and developing code).

Application details:

Interested candidates are invited to apply online at the Singapore Public Service Job Portal at www.careers.gov.sg. Only shortlisted candidates will be notified.