



Postdoctoral Position
in

"Integrated Research on Evapotranspiration and Biophysical Models for Sustainable Water Management in Chilean Ecosystems"

Introduction

The Pontificia Universidad Católica de Chile (UC|Chile) is a renowned research institution with a history spanning over a century. It is home to more than 30,000 students and employs over 3,400 academics. The university is dedicated to promoting excellence in teaching and research, embracing diversity, and positively impacting society. The Faculty of Agronomy and Natural Systems, established 120 years ago, has significantly influenced the development and exportation of produce in the country.

Presentation

Professor Francisco Meza is seeking a Postdoctoral researcher to join his research group in the Department of Ecosystems and Environment at the Faculty of Agronomy and Natural Systems and the Center for Global Change, UC|Chile.

Project Description

Climate change represents one of the most significant challenges for the sustainable development of our society and the ecosystems that support it. In Central Chile, one of the main problems is the marked trend towards reduced rainfall, reducing the water supply for multiple uses, and the viability of support and regulation systems provided by natural vegetation. Unfortunately, there is a lack of research that allows us to understand the actual water needs of natural Mediterranean-type vegetation in these systems, making it necessary to have extensive, reliable, and replicable monitoring systems to determine scarcity conditions, supplement needs, impacts on water supply and carbon capture, among others.

This project seeks to integrate biophysical energy balance models, boundary layer meteorology, and satellite images to provide estimates of water use/consumption from these systems and relate them to simple geographic and physical parameters that allow us to extrapolate them to other simulated conditions.

The postdoctoral position primarily focuses on research in developing biophysical models based on energy balance and their extension with satellite images to estimate evapotranspiration in native vegetation surfaces of the Mediterranean ecosystem.



Job Information

Contract duration: 1 year, renewable for a second year

Work location: UC|Chile, Faculty of Agronomy and Natural Systems (FASN), Santiago de Chile

Expected start date: October, 2024

Requirements

Applicants must meet all the criteria outlined in the [Postdoctoral UC 2024 call](#), which are part of this announcement:

1. Doctorate obtained within the last three years (from September 02, 2021 to September 02, 2024). It is advantageous in the case of micrometeorology, soil physics, remote sensing, irrigation science, and the ability to manipulate large databases using software developed in platforms such as Python or R.
For female applicants who have had children in the last three years, an additional year can be counted for each child (i.e., four or more years since obtaining the doctorate).¹
2. Curriculum, including links to relevant publications for the PostDoc.
3. Cover letter indicating your knowledge, experiences, and interest in the position.
4. Support letters from at least two academic references.
5. Other background, children's birth certificate,

What does this position offer you

We offer you the opportunity to join a leading national and Latin American university with multiple research units, cultural activities, sports, and more. Additionally, you'll enjoy a pleasant work environment on a spacious campus with a dynamic academic atmosphere. Here are the details:

1. Academic Appointment as a Postdoctoral Fellow
2. Honorarium Contract
3. Available Budget
 - Salary: CLP 26,000,000 annually (equivalent to USD 27,500/year).
 - Installation Expenses: CLP 2,500,000 (first year only, equivalent to USD 2,640).
 - Equipment/Investment: CLP 4,500,000 (at the beginning of the project, comparable to USD 4,760).
 - Operational costs for PostDoc research will be funded by research grants already granted.

¹ To access this, it will be mandatory to attach the child's birth certificate to the application. Additionally, male and female applicants who have been legally granted custody or personal care during the same period as a protective measure, or in accordance with Articles 19 or 24 of Law No. 19,620 on the adoption of minors, may also access this extension. To qualify for this extension, it will be necessary to attach a copy of the court resolution granting custody or personal care, demonstrating that it is final and enforceable.



Application Process

Applications will be accepted through the following form: [Postdoc UC 2024 – FASN](#). Applicants must fill out all mandatory fields. Please attach your research proposal (maximum ten pages), previously agreed with the Sponsor Researcher, which should include the following information:

- Theoretical-conceptual foundations
- State of the art
- Research question or hypothesis, objectives
- Methodology
- Work plan or Gantt chart
- Scientific or technological novelty in the proposal

Important Dates

- Application starting date: July 15, 2024
- Application deadline: ~~August 18, 2024~~ ([Form PostDoc UC 2024 – FASN](#))
- Selected candidates' interviews: August 28 to 30, 2024
- Published results: September 12, 2024
- Estimated starting date: October, 2024

New deadline: Tuesday, August 27, 2024

For additional information about this position, please get in touch with Ximena Alvarez (xaalvare@uc.cl) or the Research and Innovation Office (dipagronomia@uc.cl)