fcfm Ingeniería Eléctrica
FACULTAD DE CIENCIAS
FÍSICAS Y MATEMÁTICAS
UNIVERSIDAD DE CHILE

Application guidelines
2024 Postdoctoral Application in Space Instrumentation - ANID Anillo Research Project N. ATE220057

The call aims to hire **1 (one) Postdoctoral Researchers** who are going to work in the Anillo Project ANID/ATE220057, named "A laboratory as tested bed for novel space technologies: from blueprint to orbit", led by the Universidad de Chile, the Universidad de Santiago de Chile, and the Pontificia Universidad Católica de Chile, carrying out research aligned with the project framework. More details about the project can be found in the document attached to this call.

Duration:

The duration of the contract will be annual, renewable until the end of the project (October 2025), subject to performance.

Benefits:

The Postdoctoral Researcher contract considers the payment of CLP $2,020,000- before taxes per month (CLP $24,240,000 annual gross salary).

Successful applicant duties:

The Project Postdoctoral Researcher hired under this call must:

- Publish at least one Web of Science (WoS) scientific article (Q1 or Q2) yearly for the duration of the contract.
- Apply to ANID Fondecyt Postdoctoral project during the first year of the contract.
- Participate in all the dissemination and outreach activities considered in this project for this position.

Applicant Requirements:

- Availability to work full-time in the city of Santiago (Chile), in the University of Chile.
- Availability to travel within Chile and abroad, whereas necessary for the project execution.
- Not having full-time employment or having another postdoctoral subsidy during the duration of the contract.
- Being in possession of Chilean Nationality or residency, compliant with Chilean immigration law.
- Having a PhD degree in Electrical Engineering or similar by June 2024.
- Demonstrate scientific productivity in Q1 and Q2 journals in the last 5 years.

Mandatory Knowledge and Skills:

- Excellent oral and written English communication skills, including the ability to communicate with clarity. on complex information. A good level of writing for papers and academic work is highly desired.
- Demonstrable skills and knowledge (in the form of published work and PhD thesis) in the fields of embedded systems, electronics (both digital and analog), and satellite flight software.
- Demonstrable skills and knowledge (in the form of published work and PhD thesis) in the development of CubeSat-type space missions and/or miniaturized space experiments.
- Computer programming skills in Python, C, and C++.
- Analytical ability to facilitate conceptual thinking, innovation and creativity.
- Ability for independent research within the context of a team.
- Experimental and hands-on skills for designing and implementing experiments in electrical, electronics and software.

Desired Knowledge and Skills:

- Experience working with different types of microprocessors and microcomputers (e.g. PIC, AVR32, STMP32, Raspberry pi, etc.)
- PCB circuit design, manufacturing and testing.
- Experience with communication protocols, SPI, I2C, CAN and CubeSat Space Protocol (CSP).
- Experience in general purpose operative system (GPOS), in particular Linux, and real time operative systems (RTOS) such as FreeRTOS.

Applications documents:

- Cover letter explaining the interest in participating in the project, stating how the applicants' experience and achievements relate to the project.
- Curriculum Vitae, including academic and professional experience, as well as publications list, participation in conferences and other projects. Research output links to ORCID, WoS, Scopus and Google Scholar are strongly recommended.
- Copy of PhD Degree Certificate or certificate stating the date of the PhD viva examination.

An interview will be conducted with the preselected candidates. At this point two reference letters could be requested. The letters, if requested, should be sent directly by the person providing the referral to mdiazq@ing.uchile.cl and ddulic@ing.uchile.cl.

Evaluation of Applications:

The Evaluation Committee is composed of the main research team of the Project. The applicants will be selected and ranked considering the following criteria:

1. Academic Background and Research = 50%
2. Relevance of the research area and relationship with the project = 20%
3. Interview = 30%

Each point will be graded on a scale from 1 to 5, with 1 being considered a poor evaluation and 5 an excellent evaluation. The applicant with the highest scores will be selected to occupy the position of Postdoctoral Researcher of the Project. A minimum application score of 3.5 is required for the application to be successful.

Submitting an application:

All application documents must be sent to mdiazq@ing.uchile.cl and ddulic@ing.uchile.cl by email, specifying in the email subject: "Application to Postdoctoral position in Space Instrumentation - ATE220057 – Name of the Applicant". Applications must be submitted in English.

Important dates:

Applications deadline: **12th of July 2024**.

Results of the selection process will be communicated to the applicant, not after the **30th of July 2024**.

Contacts:

For more information about the project and the Postdoctoral please contact:

- Director: Marcos Diaz Quezada - mdiazq@ing.uchile.cl
- Vice director: Diana Dulic - ddulic@ing.uchile.cl

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