



PONTIFICIA
UNIVERSIDAD
CATÓLICA
DE CHILE

135
años
Comprometidos
con Chile

FACULTY POSITION IN CIRCULAR ECONOMY IN CIVIL AND MINING ENGINEERING

The **School of Engineering** and the **Institute for Sustainable Development** at the **Pontificia Universidad Católica de Chile**, one of the leading academic institutions in Latin America, invites outstanding candidates for a full-time faculty position in the area of Circular Economy in Civil and Mining Engineering. This is a joint position at the School of Engineering and the Institute for Sustainable Development, with a special interest in the civil and mining engineering area, related to the Departments of Construction Engineering and Management, Hydraulic and Environmental Engineering and Mining Engineering within the School of Engineering. Although this call is initially intended for candidates at the Assistant Professor level, exceptional applications at the Associate Professor level are also welcome.

The current climate crisis requires developing a new class of civil and mining engineering, evolving from a linear economy to a circular economy, with the capacity to lead research and work in a highly interdisciplinary and evolving environment. It is a unique opportunity to contribute towards the Circular Economy to face national and global challenges, take advantage of the synergies between mining and civil engineering-related industries, and strengthen the current development of sustainability in the broader sustainability initiative at PUC. We seek qualified candidates who can contribute to our academic community and society through their teaching, research, and professional services.

The Department of Hydraulic and Environmental Engineering addresses the areas of Environmental Fluid Mechanics, Hydrology and Hydrogeology, Environmental Engineering, Biotechnology and Chemistry, and Geo-sciences. The Department of Construction Engineering and Management addresses the areas of Architectural/Building Engineering, Highway Engineering, Materials Science and Technology, Construction Processes and Technology, and Construction Project Management. The Department of Mining Engineering addresses the areas of: development and sustainability in the mining industry, and process optimization and smart mining. The Institute for Sustainable Development considers an area of transitions and transformations for sustainable development, with a special focus on innovation and technological changes in production, distribution and consumption systems, contributing to the adaptive capacities of society within the biosphere. Our most relevant initiatives include but are not limited to the Center for Concrete Innovation (<http://grupohormigon.uc.cl/>), UC Energy Research Center (<http://energia.uc.cl/es/>), Global Climate Change Center (<https://cambioglobal.uc.cl/>), Institute of Biological and Medical Engineering (<https://ingenieriabiologicaymedica.uc.cl/es/>), Center for Sustainable Urban Development (www.cedeus.cl), Timber Innovation Center (<https://madera.uc.cl/es/>), Research Center for

Nanotechnology and Advanced Materials (<http://www.fis.puc.cl/~cienuc/>) and Research Center for Integrated Disaster Risk Management (<https://www.cigiden.cl/>), Center for Productivity and Sustainable Construction (<https://www.cipyics.cl/>), among others. All the departments are involved in a common Civil Engineering PhD Program, which considers two main research lines: (1) Sustainable and Resilient Infrastructure and (2) Geosciences, Environment and Resources.

We are looking for applicants that can collaborate, complement, and expand these fields. We encourage applications showing outstanding analytical, computational and/or experimental skills that can interface with the existing strengths and initiatives within our Departments, Faculties and Institutes across the University.

Duties

High quality teaching (at engineering undergraduate and graduate levels), and conducting independent research. Additional duties include knowledge transfer, outreach, student counseling and university administrative tasks. The new position in Circular Economy in Civil and Mining Engineering should conduct research in topics such as applied to Civil Engineering and Mining Engineering:

- Reduced Resource Consumption;
- Intensified Product Use;
- Extending Life of Products and Components;
- Recycling;
- Giving Resources New Life.

Requirements

Applicants must have earned a Ph.D. degree in Engineering, Natural Sciences or a related discipline at the time of hiring with emphasis on Circular Economy, at the time of hiring. Due to the joint nature of the position, the applicant will have the opportunity and should be willing to work collaboratively with the Institute for Sustainable Development and the three Departments of the School of Engineering involved in this faculty position. The appointment requires the selected candidate to have half of her/his workload in each of the two units (Institute for Sustainable Development and School of Engineering), maintaining a balance regarding the contribution to both units. Previous postdoctoral or international academic experience should be stated in the application.

Candidates do not need to be fluent in Spanish at the time of application, but should be prepared to learn the language well enough to teach in Spanish in the short term (two years maximum). Fluency in English is a requirement.

Applicants must demonstrate a strong commitment to all aspects of academic life and public good of the institution. They must be highly motivated to continuously improve their teaching skills, have a genuine interest in getting involved with our graduate programs (specially the doctoral program) and be able to develop and maintain an active research agenda leading to high quality publications, securing research grants, generating and participating in interdisciplinary projects, leading scientific and industry-liaison initiatives, strengthening and creating national and international academic networks, etc. The candidate will also be expected to create new undergraduate and graduate courses and teach traditional courses in related areas.

If selected for the position, foreigners that apply from abroad must obtain the appropriate visa in their country of residence, to join the University faculty.

Application instructions

Applicants should submit the following documents to vacantes-academicas@ing.puc.cl (in the email subject line, please indicate: **Faculty position in Circular Economy in Civil and Mining Engineering**; see note A) **by January 19th, 2024** (late applications will be considered until the position is filled).

1. A research statement (in English) indicating the immediate and long-term goals of the applicant's research plan and detailing potential collaboration networks with other researchers and plans for interactions with scientists in Chile and other countries.
2. A teaching statement of purpose (in English) indicating why the applicant should be considered for the position and the plans for teaching. The applicant should be as specific as possible by providing examples of the plan to transfer knowledge to undergraduate and graduate students.
3. An updated curriculum vitae (in English, see note B).
4. If available, copies of five recent Web of Science publications that are relevant to the context of the application (see note C).
5. At least, three letters of recommendation, which must be e-mailed directly by the signatories to vacantes-academicas@ing.puc.cl. materials has been received, the applicant will be contacted within two months after the application deadline and informed whether the application has been accepted for further consideration. If this initial screening is successful, the candidate will be asked to continue the process following the steps described in **Appendix 1**.

Note A: The applicant will get an automatic response from this email address confirming that the documents have been received.

Note B: The CV must be organized as follows: i. Personal information: name, address, contact telephone number (with country and city codes), email address, web page (if any). ii. Education: all academic and professional degrees, indicating the granting institutions and dates. If the applicant is currently enrolled in a doctoral program, please indicate the expected date for the degree. iii. Educational experience (university or institution, courses taught and years). iv. Professional experience (employer, duties, years). v. Research: a. List of Web of Science journal publications (see note C). b. List of other publications such as reports, books or book chapters, conferences attended, research projects participated in, patents, etc. vi. Other: awards, computer skills, languages, and any other relevant background information.

Note C: Please avoid padding the list with other publications, such as those published in journals not indexed in the Web of Science database, conference presentations and alike.

Once the complete set of application materials has been received, the applicant will be contacted within two months after the application deadline and informed whether the application has been accepted for further consideration. If this initial screening is successful, the candidate will be asked to continue the process following the steps described in Appendix 1.

Further information

Additional information can be obtained by emailing the Sergio Vera, Associate Professor of the School of Engineering.

EEO/AAP Policy Statement

The Pontificia Universidad Católica de Chile is committed to fostering an environment that welcomes and embraces diversity, and does not discriminate on the basis of race, color, creed, religion, origin, disability, age, sexual orientation, or marital status in its activities, including employment, admissions, and educational programs. Moreover, according to the “Regulation for the Selection of Academics” of the Engineering School UC, in case of equal academic merits, the hiring of a female academic should be favored.

Other Chilean and University employment benefits may be found in:

- Foreign workers in Chile: <https://www.dt.gob.cl/portal/1626/w3-article-93693.html>
- University rules and regulations: http://direcciondedesarrolloacademico.uc.cl/index.php?option=com_content&view=article&id=286&Itemid=178

All members of the Pontificia Universidad Católica de Chile subscribe the Code of Ethics that can be found in <https://www.uc.cl/codigodehonor>

Appendix 1. Application steps

1. Interviews/Seminar:

- Interview with the Selection Committee
- Interview with faculty members of the School of Engineering and Institute for Sustainable Development.
- Psychological Interview
- Seminar (open to faculty members of the School of Engineering and Institute for Sustainable Development)

The interviews and seminar are generally carried out within a week.

2. Selection of the final candidate by the Department and the Selection Committee

3. Ratification of the selected candidate by the Council of the School of Engineering and Council of the Institute for Sustainable Development.

4. The selected candidate is informed (offer letter)

The time that elapses from the interviews until the final resolution is typically around two months.