FACULTY POSITIONS IN ELECTRICAL ENGINEERING
Pontificia Universidad Católica de Chile

Job Title	FACULTY POSITIONS IN ELECTRICAL ENGINEERING
Department	Electrical Engineering https://www.ing.uc.cl/electrica/
Institution	Pontificia Universidad Católica de Chile Santiago, RM, Chile
Date Posted	Sep. 24, 2020
Application Deadline	Open until filled
Position Start Date	Mar. 1, 2021
Job Categories	Assistant Professor
Academic Field(s)	Electrical and/or Electronics
Job Website	https://www.ing.uc.cl/trabaja-con-nosotros/areas-to-apply-2/
Apply By Email	vacantes-academicas@ing.puc.cl

Job Description

The School of Engineering at the Pontificia Universidad Católica de Chile, one of the leading engineering academic institutions in Latin America and recognized as one of the top four emerging leaders for engineering education worldwide, invites outstanding candidates for three full-time faculty positions at the Assistant or Associate levels in the areas of Communications, Power Electronics, Microelectronics, Electromagnetics, and Astronomical Instrumentation at the Department of Electrical Engineering. Exceptional candidates in other areas of electrical engineering will be considered as well. The applicants must have a demonstrated ability and commitment to excellence in independent research and teaching. Previous experience in teaching and research, having led or participated in research and development projects, and having a technological or experimental approach based on the foundations of the discipline will be considered positively.

FACULTY POSITIONS IN ELECTRICAL ENGINEERING
Pontificia Universidad Católica de Chile

The successful candidates are expected to carry out teaching and research in one of the areas mentioned above. Research on other topics, collaboration with other faculties and technology transfer to the productive sector are not mandatory but welcome.

Duties
High quality teaching at undergraduate and graduate levels primarily at the Department of Electrical Engineering and conducting independent research are mandatory. Additional duties include knowledge transfer, outreach, and university administrative tasks.

The position in Communications is open to all fields in digital and wireless communications, including but not limited to: communications for machines and devices, architectures, protocol stacks, middleware, frameworks and services for all applications of IoT communications; coordination and interoperability of IoT networks and dynamic adaptation; topics related to low energy consumption and energy harvesting, RFID, wireless sensor networks, real-time systems and embedded software; optical communications for IoT, 6G and sub-millimeter wave communications, satellite communications.

The position in Power Electronics is open to all related fields of the discipline, including but not limited to: design, modeling, control, and development of power converters for high or low power applications such as HVDC, FACTS, multilevel converters, motor drives, electromobility, electric vehicle chargers, energy storage systems, renewable energies, distributed generation, energy harvesting, aerospace systems, wireless power transmission, power semiconductor gate circuits, resonant converters, and wide band-gap semiconductors, etc. The candidate is expected to be part of the energy conversion laboratory to form a research group with related professors and interact with professors from other areas.

The position in Microelectronics is open to all related fields of the discipline, including but not limited to: analog, mixed-signal, RF or digital IC design, IC fabrication, and semiconductor devices and materials, and focused on topics and applications such as data converter design, biomedical circuits and systems, integrated signal processing, micropower energy harvesting circuits, communication circuits, emerging computer architectures, 3D ICs, microelectronics for the IoT/IoE, instrumentation systems, organic electronics, emerging transistor technologies, steep slope transistors, MEMS, image sensors, THz electronics, custom hardware for AI applications, etc.

The selected candidate to the open position in Electromagnetics should conduct research in areas related to electromagnetics, either in fundamental research in the discipline (e.g. wave propagation in matter, antennas, and microwave engineering) or applied engineering such as personal communication systems (e.g. 5G), space communications (e.g. satellite communications, radio astronomy), biomedical methods and techniques, and industry applications.

FACULTY POSITIONS IN ELECTRICAL ENGINEERING
Pontificia Universidad Católica de Chile

Applicants to the available position in Astronomical Instrumentation are required to hold a Ph.D. degree in Electrical Engineering or Electrical and Computer Engineering, or Physics, Astrophysics or related fields. The search is open to all areas of astronomical instrumentation, defined as experimental hardware and software developments for the study of the Cosmos and aerospace exploration. These areas include, but are not limited to: visible and near-infrared spectroscopy, adaptive optics, millimetric astronomy, data processing and astronomical simulations based on high performance computing. The successful candidate is expected to affiliate with the Center of Astro Engineering (AIUC, http://www.aiuc.puc.cl/), an interdisciplinary initiative of the Faculties of Engineering and Physics, created to promote the development of astronomical technology in Chile, taking advantage of the presence of major international observatories in the country.

Requirements
Applicants must hold a Ph.D., preferably in Electrical Engineering or Electrical and Computer Engineering or a closely related field, with a clear focus on the mentioned areas, at the time of hiring. It is important that the applicants are willing to work collaboratively with faculty in areas such as Biomedical Engineering, Fundamental Physics, Chemistry, Astronomy, Computational Science, Mitigation of Natural Disasters, Complex Systems, Inverse Problems, Cybersecurity, Cyber-physical Systems, and others. 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 willing to learn the language well enough to teach in this language within two years. 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 successful candidates may also be expected to create new undergraduate and graduate courses and teach traditional courses in related areas.

Application instructions
Applicants should submit the following documents to vacantes-academicas@ing.puc.cl (in the email subject line, please indicate: Faculty position in Electrical Engineering - Field ; see note A) by November 30th, 2020 (late applications will be considered until the position is filled).

FACULTY POSITIONS IN ELECTRICAL ENGINEERING
Pontificia Universidad Católica de Chile

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.
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.
An updated curriculum vitae (in English, see note B).
If available, copies of five recent Web of Science publications that are relevant to the context of the application (see note C).
At least, three letters of recommendation, which must be e-mailed directly by the signatories to vacantes-academicas@ing.puc.cl.

Note A:
Field must identify one of the following fields: Communications, Power Electronics, Microelectronics, Electromagnetics, and Astronomical Instrumentation. The applicant will get a response from the email address vacantes-academicas@ing.puc.cl confirming that the documents have been received.

Note B:
The CV must be organized as follows:
Personal information: name, address, contact telephone number (with country and city codes), email address, web page (if any).
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.
Educational experience (university or institution, courses taught and years).
Professional experience (employer, duties, years).
Research:
List of Web of Science journal publications (see note C).
List of other publications such as reports, books or book chapters, conferences attended, research projects participated in, patents, etc.
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 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.

FACULTY POSITIONS IN ELECTRICAL ENGINEERING
Pontificia Universidad Católica de Chile

Further information
Additional information can be obtained by emailing the Department Chair, Professor Angel Abusleme, angel@uc.cl

MIT News (March 27, 2018): http://news.mit.edu/2018/reimagining-and-rethinking-engineering-education-0327

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
Labor laws in Chile: https://www.thisischile.cl/labor-laws-in-chile/?lang=en
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
Interviews/Seminar (Lecture):
Interview with the Dean of the School of Engineering
Interview with faculty members and the Head of the Department of Electrical Engineering
Interview with the Selection Committee
Psychological Interview
Seminar (Lecture) (open to faculty members of the School of Engineering)
These interviews and presentation are generally carried out within a week.

Selection of the final candidate by the Department and the Selection Committee
Approval the candidate by the School Council
The successful candidate is informed (offer letter)
The time that elapses from the interviews until the final resolution is typically around two months.

EEO/AA Policy

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.

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Contact Information

Please reference Academickeys in your cover letter when applying for or inquiring about this job announcement.

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