

RECRUITMENT NOTICE

Junior Professor Chair (CPJ)

for an intended duration of 6 years

Recruitment for a research and teaching project under a fixed-term contract known as a “Junior Professor Chair” is intended to allow the appointee, after evaluation of their scientific merit and professional aptitude, to obtain a permanent position within the body of university professors.

The English translation of the profile, as well as the characteristics of this recruitment and this contract at UCA, can be found on the UCA website: <https://www.uca.fr/universite/travailler-a-luca/recrutement-chaire-professeurs-juniors>

Position and Project Description

Title of the contract and position to be filled: Tenure-track junior professorship

Body in which the selected candidate is intended to be tenured: Full Professor

Host institution/organization: Clermont Auvergne INP/Clermont Auvergne University

Name of the head of institution/organization: Vincent CHARVILLAT/Mathias BERNARD

Site concerned: Clermont-Ferrand

Academic region: Auvergne

Position number:

Beneficiary component: Polytech

Beneficiary laboratory: Institut Pascal, UMR6602

Planned partner institutions/organizations: Vinci Energies

Contact person: Pr. Khalil EL KHAMLICHI DRISSI (khalil.drissi@uca.fr)

Project name: Wireless power transfer for mobile robotics

Keywords: Magnetic resonance, wireless energy transfer, resonant converter, optimal trajectory control, mobile robotics.

Intended duration: 6 years

Scientific theme: Power electronics, Mobile robotics, Electromagnetism

Corresponding CNU/CoNRS/CSS section(s): CNU 63 or CNU 61 (equivalent to CoNRS Institute 08 or CoNRS Institute 07)

Research fields EURAXESS:

Field 1	Sub-field 1	Field 3	Sub-field 3
Electrical Engineering	Robotics	Electromagnetism	
Field 2	Sub-field 2	Field 4	Sub-field 4
Applied physics			

Brief teaching and research profile:

- PhD in electronics, power electronics, robotics or a related field, with solid experience in wireless electrical energy transfer by magnetic resonance.
- Experience supervising projects and publishing high-level scientific research.
- Strong skills in power electronics, modeling, simulation and robot guidance systems.
- Ability to develop interdisciplinary collaborations and secure research funding.
- Teaching skills in energy conversion and electric mobility.
- Innovative mindset, autonomy, teaching ability and capacity for teamwork.

Position profile: Tenure-track junior professorship in power electronics and mobile robotics – Chair dedicated to innovation in wireless electrical energy transmission by magnetic resonance.

Institutional strategy:

Clermont Auvergne INP and UCA pursue a policy of excellence around the theme “Designing sustainable models of life and production,” addressing the societal challenges of the 21st century.

In terms of research, this strategic positioning was affirmed in 2011 with the labeling of the IMobS3 Laboratory of Excellence “Innovative Mobility: Smart and Sustainable Solutions,” dedicated to developing innovative building blocks and systems for the mobility of people, goods and machines. This laboratory relied in particular on the Auvergne Platform for INtelligent Vehicles (PAVIN), which simulates a small-city with roads and various intersections, on which numerous algorithms are tested to increase vehicle autonomy. The theme of innovative mobility is now part of the Clermont-Ferrand I-SITE CAP 20-25 project, within the international research center “Innovative Transportation and Production Systems” (CIR ITPS). In order to strengthen this theme, CA INP/UCA obtained €1 million in European and industrial funding for the “Connected inductive road” project, whose aim is to supply, statically/dynamically and without contact, local shuttle vehicles on the Cézeaux campus.

Polytech Clermont, an engineering school that is part of Clermont Auvergne INP/UCA and hosts this chair, has for the past five years focused its educational strategy around three societal challenges: sustainable development, the mobility of the future, and energy.

Backed by the Academy of Sustainable Mobility, it aims to anticipate the long-term transformations of mobility systems and to foster new research fields at the interface of engineering sciences, humanities and social sciences, and environmental sciences. It will make it possible to explore, model and experiment with transition pathways that integrate technological developments, new uses, regulatory constraints, and the imperatives of decarbonization, resilience and frugality.

It will thus participate in structuring the training offer dedicated to the Ecological Transition for Sustainable Mobility, intended to become a reference environment for research, innovation, experimentation, and technology transfer at the site.

Strategy of the host laboratory:

Institut Pascal, a CNRS Engineering research unit (UMR), develops innovative and intelligent systems; it works to strengthen interdisciplinary research and support emerging themes.

The proposed chair, with strong innovation potential, is the continuation of exploratory research work begun in 2021 through a CIFRE springboard, followed by a doctoral thesis on “Dynamic wireless charging system,” defended in 2024 and resulting in a European patent titled “2D control of loosely coupled resonant converters for wireless power transfer,” with support from Clermont Auvergne Innovation.

The PHOTON (CNU 63), ISPR (CNU 61) and M3G (CNU 60) research axis of the UMR obtained €1 million in European and industrial funding for the “Connected inductive road” project, led by the CAINP-UCA, SMTAC and VINCI consortium.

The chair intends to develop and consolidate the interdisciplinary work of the Clermont Auvergne site around mobile robotics, building on a well-established scientific track record and the support of the CIR ITPS (annual budget of €1.4 million).

RNSR of the host laboratory: 199412376H, IP INSTITUT PASCAL

Strategy in terms of international attractiveness:

As part of its contract and its institutional project, UCA aims to strengthen its internationalization. This will rely on its ability to leverage European tools as well as major international calls for proposals, by improving the response and success rate for these projects, thereby securing its place among the leading scientific rankings and enhancing its international reputation. Within this overall strategy, the CPJ scheme has been used by introducing the candidate’s international background as one of the major selection criteria. Having Clermont Auvergne INP/UCA staff with strong international experience will help structure and strengthen partnerships, responses to calls for proposals, and the establishment of international networks serving both research and training. In June 2024, the project “Alliance for Regional Transition, Equality, Mobility, Inclusion and Sustainability (ARTEMIS),” led by UCA, was selected under the “European Universities” initiative. ARTEMIS aims to advance education, foster research, and deepen community engagement. The chair will be part of this alliance, with the aim of exchanging international Master’s-level students and teacher-researchers, and working to build a sustainable mobility track.

It will help forge strong ties with HVL Western Norway University of Applied Sciences, given that Norway has pursued an all-electric automotive policy since 2025.

HVL has also included new disciplines in its roadmap to address the challenges of sustainable mobility, responsible innovation and sustainable energy transition.

Summary of the scientific project:

Wireless energy transmission for mobile robots is a promising technology that makes it possible to power robots without physical connections. This is particularly useful in environments where cables are inconvenient or even dangerous, or in sectors where increased productivity is essential.

Our scientific project focuses on magnetic resonance, which is well suited to increasing the autonomy of mobile robots and improving productivity by allowing them to recharge either while parked or near a source of electrical energy. This opens the way to applications in various fields, such as logistics, agriculture, or space exploration.

The scientific challenges focus on achieving high transfer efficiency (CNU63) and advanced guidance performance (CNU61), with the objective of developing integrated, high-performance systems.

We are looking for a scientist able to combine expertise in power electronics and mobile robotics to develop innovative technologies and applications for the future.

We also offer a high-quality experimental environment with the “Connected electric road” project, which began on July 1, 2025 and runs until December 31, 2028, with funding of more than one million euros.

Summary of the teaching project:

Polytech Clermont is evolving its educational offering toward sustainable, collaborative and interdisciplinary engineering, with particular attention to sustainable development, the mobility of the future, and energy. This strategy notably took shape with the launch, in September 2020, of the “Sustainable mobility” cross-disciplinary specialization open to all departments of the school, for cohorts of twelve students.

This momentum was reinforced in June 2023 when Clermont Auvergne INP obtained funding under the AMI Compétences et Métiers d’Avenir (Skills and Future Occupations initiative). This funding notably supports the deployment of the cross-disciplinary option “Sustainable mobility and infrastructure,” planned for October 2027.

These initiatives contribute to structuring the training offer of the ECOMOB campus, intended to become a reference environment for training, research, innovation, experimentation, and technology transfer. The chair will be able to support this structuring effort by strengthening the links between teaching and research, developing interdisciplinary teaching methods, and integrating the needs of socio-economic stakeholders.

The chair aims to support the emergence and evolution of occupations related to the decarbonization of mobility systems. It will notably contribute to training engineers and experts capable of designing electrified drivetrains, energy infrastructure and intelligent mobility systems, as well as assessing the environmental impact of the solutions developed. Related career paths include sustainable mobility engineer, embedded electrical systems architect, decarbonization and environmental performance expert, life-cycle analysis specialist, eco-design project manager, and environmental data manager. These profiles rely on a systemic approach combining engineering, energy, digital technology, environmental sciences, and an understanding of socio-economic and regulatory frameworks.

Financial summary:

The funding requested from the ANR (French National Research Agency) covers the three components essential to the deployment of the CPJ: human resources, scientific equipment, and operating expenses.

The chair holder’s research team will include a PhD student for three years and an engineer during the fourth year, ensuring continuity between the research work, its experimental implementation, and its valorization. An investment of €30k is planned for the acquisition of targeted equipment. This will be supplemented by internal funding for the purchase of vehicles and mobile robots. Operating funds will be used to finance the outsourcing of certain instrumental developments and participation in national and international scientific events.

The institution will also contribute to funding the doctorate and the acquisition of additional equipment. This arrangement is thus based on a coordinated mobilization of ANR and institutional resources, ensuring both the feasibility of the project, control over investment, and the sustainability of research activities beyond the funded period.

Use of the ANR package	€200k
Doctoral student	€115k
Postdoctoral researcher (36-month contract)	€0k
Engineer	€40k
Equipment	€30k
Operating costs (travel, conferences, etc.)	€15k
Co-funding of the package TO BE SPECIFIED	€150k
Specify the nature of the planned expenses	PhD student on Electric Vehicles and additional equipment
Co-funding of the CPJ salary	€0k
Total funded under CPJ (including ANR package)	€350k

Scientific dissemination:

This project is expected to produce at least 6 A-ranked publications (1 top-tier (rank A) publication per year), 6 international conferences with proceedings (including A-ranked proceedings at selective international conferences in the field), 3 national conferences, 2 patents, and public outreach communications.

Open science:

The project follows an approach that complies with UCA's open science policy, which reflects the commitments made in this area:

(<https://science-ouverte.uca.fr/nos-engagements/engagements-uca>).

The list of publications mentioned above will be deposited on an open archive platform (HAL).

Science and society:

Making the project's results accessible to as many people as possible will be an objective in its own right. Several outreach formats will be used: public demonstrations, notably during the Fête de la Science (Science Festival), popular science talks in educational and cultural institutions, and communication activities at national scientific events.

The project's visibility will also be enhanced through press releases aimed at local and national media, whether print, radio or television. The recruited candidate will benefit from the environment provided by the "Science with and for Society" label, obtained by the site in November 2021, to develop outreach activities tailored to different audiences.

At the close of the project, Clermont Auvergne INP and UCA will lead a large-scale communication initiative to showcase the scientific advances achieved, concretely illustrate their benefits, and foster dialogue between research and society.

Indicators:

The recruited person will benefit from personalized support from Clermont Auvergne INP on administrative, regulatory, HR and financial matters. Biannual scientific and educational monitoring, carried out by the delegated directors of Clermont Auvergne INP, will make it possible to assess project progress, scientific output and valorization, as well as any funding or adjustment needs. This mechanism aims to secure the success of the chair and to prepare tenure under the best possible conditions.

Measures to make the position attractive:

- i. The junior professor has a teaching service obligation of 64 HTD hours per year, with no possibility of additional teaching;
- ii. He/she benefits from support throughout the project from a scientific mentor;
- iii. The minimum gross annual salary is 43 416 € (IM 735);
- iv. The junior professor will benefit from ANR support of €200k (doctoral student, postdoc, project-operating costs).

Interview arrangements:

Only candidates preselected on the basis of their application by the selection committee will be invited to interview.

Practical exercise planned YES ☐ NO ☒

The interview will be organized over 50 minutes: it will begin with a 20-minute presentation by the candidate on their scientific and educational background, their motivations, and their research and teaching projects. The interview will conclude with 30 minutes of discussion with members of the selection committee.

At the end of the interviews, the committee will decide based on the merits of the candidates, taking into account the quality and originality of their research projects, their motivations, their forward-looking vision of the field, and their capacity for scientific and educational supervision.

APPLICATION PROCEDURES AND SCHEDULE

Candidates must imperatively enter their application declaration and upload the various documents making up their application file on the ODYSSEE platform by clicking [HERE](#)

Registration on ODYSSEE opens on September 16, 2026, at 10:00 a.m. (Paris time).

Deadline for submitting the application file on ODYSSEE: no later than October 16, 2026, at 4:00 p.m. (Paris time)

Any file still incomplete by the submission deadline will be declared inadmissible.

YOUR APPLICATION FILE

References:

- *Decree No. 2021-1710 of December 17, 2021 relating to the junior professor chair contract provided for in Article L. 952-6-2 of the Education Code and Article L. 422-3 of the Research Code*
- *Order of February 6, 2023 setting the application procedures for recruitment through a junior professor chair contract*

Candidates must prepare a digital application file addressed to the President of Clermont Auvergne University and accessible to members of the selection committee.

In accordance with [Article 26 of the Order of February 6, 2023](#), **the application file must include the following documents:**

- 1 The application form completed online (via ODYSSEE)
- 2 An identity document with photograph (front and back)
- 3 A document certifying possession of a doctorate, as provided for in Article L612-7 of the Education Code, or a diploma, title or qualification whose equivalence is recognized by UCA's Council of Teaching and Research Staff (CP2E), following the procedure set out in Article 5(1) of Decree 2021-1710 of December 17, 2021;
- 4 The PhD defense report (doctoral thesis defense report/ it is recommended that the document be on university letterhead with the reviewers' names clearly identifiable), or a certificate from the institution attesting that no defense report was produced
- 5 An analytical presentation of the work, publications, articles, achievements and activities related to the profile of the position sought, indicating those the candidate intends to present at the interview, **prepared using the "CPJ application form" template (available for download on the CPJ page of the ODYSSEE portal or [here](#))**
- 6 A copy of each of the works, publications, articles and achievements mentioned in the analytical presentation that the candidate intends to present at the interview, not exceeding six documents.

French translation of certain documents:

Administrative documents (documents 2 and 3) as well as the defense report **written wholly or partly in a foreign language** must be accompanied by **a French translation whose accuracy the candidate certifies on their honor. Otherwise, the file will be declared inadmissible.**

Translation of the analytical presentation, as well as of the works, publications, articles and achievements, is optional.

In the case of multiple applications, the candidate must prepare a separate file for each position they wish to apply for.

Please note: ODYSSEE is not compatible with the use of a tablet or smartphone; please use a computer only.

ADDITIONAL INFORMATION

Additional information about the recruitment and the characteristics of this contract at UCA is available on the Université Clermont Auvergne website: www.uca.fr, under the “University” tab, then “Working at UCA,” then “Teaching Staff Recruitment” and “Junior Professor Chair Recruitment”: click [here](#)

TRACKING YOUR APPLICATION AND RECRUITMENT SCHEDULE

Digital application tracking:

You will not receive any paper documents from the University.

The ODYSSEE platform will allow you in particular to:

- track your application(s) and the processing status of each file,
- view the recruitment result,
- submit, where applicable, your acceptance of the position.

Provisional schedule:

- **Collection of applications:** until October 16, 2026, 4:00 p.m. (Paris time)
- **Application review and interviews*:** From October 21 to November 19, 2026
- **Start date:** From December, 1 2026

* See the schedule on the UCA website: <https://www.uca.fr/universite/travailler-a-luca/recrutement-chaire-professeurs-juniors>

Recruitment result and acceptance of the position:

The selected candidate must enter their acceptance of the position (acceptance or refusal) in the ODYSSEE application, from **Friday, November 20, 2026 at 10:00 AM (Paris time) until Friday, November 27, 2026 at 4:00 PM, (Paris time).**

Publication of results:

Results will be published on ODYSSEE **Friday, November 20, 2026.**