

CALL FOR THE RECRUITMENT OF TRAINEE RESEARCH STAFF FPI-UPC PERTE Chip 2024

1. Object of the call

The main aim of this call is to promote the recruitment and attraction of research talent in a wide range of technology areas within the Advanced Architectures and Photonic Systems Chair (CAASFO), led by the Universitat Politècnica de Catalunya. The call involves awarding grants for recruiting predoctoral research staff dedicated full-time to studies leading to a doctoral degree, which must be undertaken in a UPC programme.

The call is for nine FPI-UPC PERTE Chip 2024 grants with a three-year duration to prepare a doctoral thesis at the UPC in one of the following research lines:

- Deposition and lithography techniques **IDEADED (1 PhD)**
- Laser diode design and manufacturing **MONOCROM (1 PhD)**
- Electronic design automation **QUALCOMM (2 PhDs)**
- High resolution image sensors **IMASENIC (1 PhD)**
- Hardware acceleration for genomic data analysis **LENOVO (1 PhD)**
- Performance evaluation of graphics processing units **NVIDIA (3 PhDs)**

The grant awards are funded in part by a project financed by the State Secretariat for Telecommunications and Digital Infrastructure and by the European Union-Next Generation EU.

2. Remuneration of grants

The annual gross remuneration for the contract, in 14 instalments, is €23,590.

The grant also includes compensation costs for the end of the contract when the agreed time has expired. The amount is equivalent to that envisaged for fixed-term contracts in Article 49 of the recast text of the Workers' Statute Law.

In addition, all the beneficiaries of the FPI-UPC PERTE Chip 2024 programme have the right to free enrolment for academic supervision of the doctoral programme, with a maximum of three free enrolments in total for the entire grant period. The fees for management of the academic record are not covered by the grant. If the grant recipient withdraws from the programme in the first three months, they will have to return the amount of the enrolment fee.

3. Structure and duration of the grants

The UPC will contract the beneficiaries under a predoctoral contract in accordance with the provisions of Article 21 of Law 14/2011, of 1 June, on Science, Technology and Innovation, amended by Law 17/2022, of 5 September, and Royal Decree 103/2019, of 1 March, on the Statute of Predoctoral Trainee Researchers. The contracts must be full-time.

The contract must be for at least one year and may be extended annually in the context of this programme up to a maximum of four years, as long as the requirements of Law 14/2011, of 1 June, on Science, Technology and Innovation and Royal Decree 103/2019, of 1 March, on the Statute of Predoctoral Trainee Researchers are met and subject to a favourable report from the doctoral programme's academic committee.

In accordance with Law 14/2011, of 1 June, on Science, Technology and Innovation, the awarding of the doctoral degree will mark the end of the training stage of the research staff and the start of the postdoctoral stage intended for professional improvement and specialisation. From this moment on, the aim of the contracts covered by this grant will be postdoctoral orientation for a maximum of 12 months, without exceeding the total of four years established for the grant. It is an obligation of the doctoral student to inform the UASLR-SP of the date of the thesis defence at least 10 days in advance.

If the beneficiaries leave the doctoral programme, the contract will be terminated and the grant will be lost.

The award of a predoctoral research grant in no way implies a commitment on the part of the University to later hire the beneficiary as UPC staff.

Failure to execute the contract within the period established by the University, which will be communicated to interested parties once the call has been resolved, will be considered tacit relinquishment of the grant, unless the relevant vice-rector expressly authorises a delay in execution.

Temporary disability and periods of full-time leave for gestation, risk during pregnancy and infant feeding, childbirth, maternity, paternity, adoption, fostering for the purposes of adoption or temporary foster care, and accumulated infant feeding leave, or similar situations related to the above, such as leave for reasons of work-life balance or the care of minors, relatives or dependants, and the time devoted to leave of absence for the care of a child or relative or due to gender violence during the

term of the contract will cause the contract to be extended for an equivalent amount of time.

Periods of part-time leave for birth, maternity, paternity, adoption, fostering for the purposes of adoption or temporary foster care, and reduced working hours for infant feeding, the birth of a child who is premature or hospitalised after birth, legal guardianship, the care of minors who have cancer or a serious illness, relatives who have had an accident or a serious illness or dependants, or due to gender violence, or reduced working hours for similar situations related to the above and for reasons of work-life balance or the care of minors, relatives or dependants during the term of the contract will cause the contract to be extended for an equivalent amount of time.

4. Interruption of grants

The vice-rector for Research may authorise interruption of the grant at the reasoned request of the interested party, subject to a report by the professor who is responsible for the recruitment. Interruptions will be subject to the following conditions:

- a) An interruption can be for no more than six months during the entire grant period.
- b) During the interruption period the person under contract will be deregistered from the Social Security system.
- c) Failure to take up the grant again at the end of the interruption period will be considered relinquishment and will lead to automatic withdrawal.
- d) During the interruption, corresponding payments will be suspended.

5. Rights and obligations of trainee research staff

Rights

- a) The rights outlined in Law 14/2011, of 1 June, on Science, Technology and Innovation, amended by Law 17/2022, of 5 September (Art. 13, which amends Art. 14), and Royal Decree 103/2019, of 1 March, on the Statute of Predoctoral Trainee Researchers (Art. 12).
- b) To have the appropriate means and facilities for carrying out their duties within the limits arising from the application of the principles of effectiveness and efficiency in the allocation, use and management of these means and facilities by the organisations for which they provide services and within the available budget.
- c) To have consideration and respect for their scientific activity and assessment, in accordance with public, objective, transparent and preestablished criteria.
- d) To use the name of the entities for which services are provided in the undertaking of their scientific activity.

Obligations

- a) The obligations outlined in Law 14/2011, of 1 June, on Science, Technology and Innovation, amended by Law 17/2022, of 5 September (Art. 14, which amends Art. 15), and Royal Decree 103/2019, of 1 March, on the Statute of Predoctoral Trainee Researchers (Art. 13).
- b) To align with the priorities of the European Research Area and with the principles of the European Charter for Researchers and the Code of Conduct for Recruitment of Research Staff (Charter & Code), to promote institutional measures that are aligned with the European initiative of the Human Resources Strategy for Researchers (HRS4R) and to promote excellence in research, an attractive work environment and a framework of actions to support the professional development of research staff.
- c) To respect the principles set out in the European Code of Conduct for Research Integrity and in Article 11 of Royal Decree 103/2019 and have the rights and duties recognised by current legislation, the UPC's internal regulations and articles 12 and 13 of Royal Decree 103/2019.
- d) To notify the organisations for which they provide services of all findings, discoveries and results that may be subject to legal protection, and to collaborate in the protection and transfer of their research results.
- e) To participate in meetings and activities of the governing and management bodies of which they form part, and in the processes of assessment and improvement that are required of them.
- f) To channel their research towards the achievement of the strategic objectives of the entities to which they provide services and to obtain or collaborate in the processes of obtaining the permits and authorisations that are required before starting their task.
- g) To inform the entities to which they provide services or that finance or supervise their activity of potential delays or redefinitions of the research projects for which they are responsible, and of the finalisation of projects, or the need to abandon or halt projects earlier than planned.
- h) To enrol each academic year in the UPC doctoral programme throughout the duration of the grant.
- i) In all of the scientific output and particularly in related publications, the UPC's established institutional affiliation guidelines

must be followed. In the acknowledgements section of any publication or communication, the interested party must include the following text: "The corresponding/first/second/etc. author gratefully acknowledges the Universitat Politècnica de Catalunya for the financial support provided through the predoctoral grant FPI-UPC PERTE Chip 2024".

In addition, the project has received funding from the Ministry for Digital Transformation and Civil Service, the State Secretariat for Telecommunications and Digital Infrastructure and the European Union's NextGenerationEU grant scheme (TSI-069100-2023-0015). In the acknowledgements section of any publication or communication, the following text must also be included: "I sincerely acknowledge the funding provided by the Ministry of Digital Transformation and Civil Service, the State Secretariat for Telecommunications and Digital Infrastructure and the European Union's NextGenerationEU grant (TSI-069100-2023-0015) to support the project associated with this application".

- j) To communicate relinquishment of the grant 15 days before the completion date, through a written communication to the UASLR-SP.
- k) To request authorisation from the vice-rector for Research for any change, trip or period abroad, or for any incident that affects the performance of the contract and the work plan. In particular, to communicate the date of the thesis defence to the UASLR-SP at least 10 days in advance.

6. Requirements for candidates

To be admitted to the selection process, candidates must meet the following requirements when they accept the grant:

- They must have been accepted on the doctoral programme with a commitment to enrol for thesis supervision in the 2024-2025 academic year in the ordinary enrolment period (25 September 2024 to 25 October 2024). Candidates can also participate if they are already enrolled in the 2023-2024 academic year for academic supervision of the doctoral programme at the time of accepting the grant.

The doctoral programme must be at the UPC.

- Master's degree studies or equivalent that are required to take the doctoral programme must have been completed from 1 January 2018.

Candidates can also participate in the call if they met the above requirements between 1 January 2016 and 31 December 2017 and, after having met these requirements, they have been in one of the following exceptional situations:

- They have been on maternity leave.
 - They have been responsible for looking after children under six years old.
 - They have been responsible for looking after children with a legally recognised physical, mental or sensory disability, who depend on the beneficiary and need special dedication.
 - They have suffered from a serious illness or accident that required major surgery or treatment in a hospital and led to sick leave from work or from the usual activity of the person during a continuous period of at least six months. Minor surgery or outpatient surgery and rehabilitation treatments outside of the hospital system are excluded.
 - They have suffered from any of the situations envisaged in Article 1 of Organic Law 1/2004, of 28 December, on comprehensive protection measures against gender violence.
 - They have refugee status according to the Geneva Convention of 1951.
- They must not have received any other grant of a similar nature lasting more than 12 months on the deadline for submitting applications.
 - They must not hold a doctoral degree.
 - They must have the endorsement of a thesis supervisor from the UPC teaching and research staff with accredited research experience and a permanent relationship with the UPC, or a contract that is longer than the three years of the grant. In the case of joint supervision of the thesis, at least one of the thesis supervisors must meet this requirement.

7. Applications

Applications must be completed by candidates in accordance with the provisions in the following paragraphs.

Submission of applications:

Candidates can only submit an application through the e-services portal of the UPC:

<https://seuelectronica.upc.edu/ca/tramits>. The form “Call for the recruitment of trainee research staff FPI-UPC PERTE Chip 2024” must be completed and the required documents attached.

In accordance with the provisions of Article 45 of Law 39/2015, of 1 October, on the Common Administrative Procedure of Public Administrations, the official website within the general website <https://rdi.upc.edu/ca> is the official means of communication for this call. The instructions and notifications of this call will only be communicated through this official website.

Documentation that must be submitted:

- Curriculum vitae (following the template in the appendix).
- Copy of the academic certificates of degrees that were not taken at the UPC.
- Endorsement document of the thesis supervisor/joint supervisor who backs the application (using the model provided on the website). Each professor can only endorse one application.
- Copy or receipt of the application for admission to the doctoral programme.
- Copy of the average grade equivalency documents for university studies undertaken at institutions in other countries, issued through the website of the Ministry, if applicable. Candidates who have taken part or all of their pre-EHEA degree, bachelor’s degree, diploma or master’s degree at an institution outside of the Spanish university system must accompany their academic records with statements of calculated equivalency, in accordance with the provisions of the Ministry of Universities. Link: https://universidades.sede.gob.es/pagina/index/directorio/Equivalencia_notas_medias/language/ca_ES

Recommended additional documentation:

- To calculate the weighted average grade, the candidates must submit an official document that indicates the average grade of the graduates in their cohort. If they do not submit this document, the average grade of the candidate will be used.

For UPC degrees, this document does not need to be submitted as it will be requested from the corresponding UPC service. To calculate the weighted average grade, the average grade of graduates of the same year in which the candidate completed the bachelor’s degree or master’s degree will be taken into account.

At any time in the processing of the grants, the UPC may request any documentation that it considers necessary to prove that the requirements established in the call have been met. Failure to submit the required documentation in the legally stipulated period could lead to refusal of the grant.

8. Period for submitting applications

The period for submitting candidates’ applications is **from 16 to 30 May 2024** at 2 p.m. (local time in Barcelona). Submissions must be made through the e-services portal using the procedure “Call for the recruitment of trainee research staff FPI-UPC PERTE Chip 2024”.

9. Admission of candidates

Following the deadline for submission of applications, the provisional list of admitted and excluded candidates and the reasons for the exclusions is published on the official website of the call. Applicants can remedy any defects that led to the exclusion or present any claims they consider appropriate through the corresponding procedure on the UPC e-services portal within the period provided (the amendment procedure). At the end of this period, the Office of the Vice-Rector for Research reviews the amendments submitted and publishes the definitive list of admitted and excluded candidates.

In accordance with the provisions of Article 45 of Law 39/2015, of 1 October, on the Common Administrative Procedure of Public Administrations, publication on the official website of the call is considered sufficient notification to the candidates.

10. Selection process

A total of 7% of the new grant awards, which is equivalent to one grant, will be awarded to candidates with a degree of disability of 33% or higher, recognised by the Catalan government's Ministry of Social Rights or equivalent. Grants reserved for people with disabilities that are not awarded accumulate in the general call of the FPI-UPC PERTE Chip 2024.

Once the candidates have been assessed according to the criteria established in the appendix, the provisional prioritisation list is published. Candidates can present any claims that they consider appropriate through the e-services portal in the section open for this purpose as a claims process.

At the end of the period, once the claims have been assessed by the vice-rector for Research, the prioritisation list is submitted to the Research Committee for its approval. Claims are only accepted if they correspond to the documentation that has already been submitted. During the claims period, no documents that were not submitted before the application submission deadline may be submitted.

The final award decision approved by the Research Committee marks the end of the administrative proceedings. Interested parties may file an appeal to the contentious-administrative courts within two months from the day following the notification, without prejudice to the possibility of filing an optional motion for reconsideration to the body that issued it within one month from the day following notification, in accordance with Article 6.4 of Organic Law 6/2001, of 21 December, on Universities (LOU), modified by Organic Law 4/2007, of 12 April, Article 54 of the UPC Statutes (Decision GOV/43/2012, of 29 May), Article 8.3 of Law 29/1998, of 13 July, regulating administrative litigation jurisdiction, and Article 115 of Law 39/2015, of 1 October, on the Common Administrative Procedure of Public Administrations.

11. Incorporation

The selected applicants must state whether they accept or reject the grant within five calendar days from the final decision on the awards. Subsequently, the UASLR-SP will ask them in person to present any other additional documents that are necessary to proceed with their recruitment, including admission to the doctoral programme and later a copy of the enrolment for academic supervision on the doctoral programme at the UPC for the 2024-2025 academic year, before 30 October or the signing of the contract.

If the selected applicants fail to submit the required documents within the established period, it will be understood that they have relinquished the grant.

If the analysis of the documents presented reveals that there is a falsehood or omission in any of the data entered in the candidate's application, in their identity or in their enrolment in the doctoral programme, the candidate will lose the right to the grant, which will be awarded to the next person on the reserve list.

Beneficiaries of the grant will join their programmes from 17 July 2024 onwards.

12. Teaching

Trainee researchers can teach up to 180 hours (60 hours per year) during the predoctoral contract. They may not be responsible for the subject or for its programming, and the inclusion of their teaching in their CV must be certified by the academic units.

13. Intellectual and industrial property rights

When the results of thesis research could be protected via patents, software registration or other industrial property rights, the doctoral student will be listed as an inventor. The thesis supervisor(s) and the researchers will be considered co-inventors, as long as they have participated actively in obtaining the results to be protected. The distribution of authorship corresponds to the authors in the proportion that they determine.

The UPC owns the rights, in accordance with the provisions of Article 12.h of Royal Decree 103/2019, of 1 March, on the Statute of Predoctoral Trainee Researchers, subject to the framework of Law 24/2015, of 24 July, on Patents and the UPC regulations on intellectual and industrial property rights (Decision CG/2022/05/23). In no case do the aforementioned rights have the nature of a salary, and they are established in accordance with the provisions of Article 14.1.i) of Law 14/2011, of 1 June.

14. Processing of personal data

In accordance with the provisions of Regulation (EU) 2016/679, of the European Parliament and of the Council, of 27 April 2016, on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, which repeals Directive 95/46/EC (General Data Protection Regulation), and Organic Law 3/2018, of 5 December, on

personal data protection and the safeguarding of digital rights, we inform you that the Universitat Politècnica de Catalunya (UPC) is responsible for processing the personal data contained in the application.

The purpose of the processing of the personal data is to manage this call for applications and its legal basis is the fulfilment of a public-interest mission.

The Universitat Politècnica de Catalunya will not transfer or communicate your personal data, except in the cases provided for by law or when it is necessary for the purpose of processing the data.

The personal data provided will be conserved as long as is needed to fulfil the purpose for which they were collected and to determine any liabilities stemming from them.

Interested parties may exercise the right to data access, rectification, erasure and portability and to restrict or object to processing, as provided for in the prevailing legislation, through the e-services portal: <https://seuelectronica.upc.edu/ca/Tramits> or by writing to the data controller at the postal address C/ Jordi Girona, 31, 08034 Barcelona. If you consider that your rights have not been adequately respected, you may notify the data protection officer at the postal address Plaça Eusebi Güell, 6, Edifici Vèrtex - 08034 Barcelona or by e-mail at proteccio.dades@upc.edu. Data subjects may also file a complaint with the Catalan Data Protection Authority (APDCAT) on its website.

The Universitat Politècnica de Catalunya will carry out any necessary actions to comply with the principles and duties established in the regulations on the protection of personal data that apply to it. To this end, and in accordance with the aforementioned regulations and laws on administrative procedures, we hereby inform you that identifying details may be published in the call's web portal.

In compliance with current regulations, the Universitat Politècnica de Catalunya guarantees that it has adopted the technical and organisational measures necessary to maintain the required level of security, taking into account the nature of the personal data processed.

15. Compatibility

The condition of beneficiaries of the grant is incompatible with other contractual or statutory relationships that may detract from exclusive dedication to teaching and research. The provisions of Law 21/1987, of 26 November, on incompatibilities for staff working for the Administration of the Government of Catalonia must be complied with at all times.

16. Resources

The decision to approve the call for grants for trainee research staff (FPI-UPC PERTE Chip 2024) exhausts administrative remedies. Interested parties may file an appeal to the contentious-administrative courts within two months from the day following the notification, without prejudice to the possibility of filing an optional motion for reconsideration to the body that issued it within one month from the day following the notification, in accordance with Article 6.4 of Organic Law 6/2001, of 21 December, on Universities (LOU), modified by Organic Law 4/2007, of 12 April, Article 54 of the UPC Statutes (Decision GOV/43/2012, of 29 May), Article 8.3 of Law 29/1998, of 13 July, regulating administrative litigation jurisdiction, and Article 115 of Law 39/2015, of 1 October, on the Common Administrative Procedure of Public Administrations.

PROVISIONAL CALENDAR OF ACTIONS

| Action | Dates |
|---|-----------------------|
| Announcement of the call | 15/05/2024 |
| Period for submitting applications | 16/05/2024-30/05/2024 |
| Publication of the provisional list of admitted and excluded candidates | 06/06/2024 |
| Period for submitting amendments | 07/06/2024-13/06/2024 |
| Publication of the final list of admitted and excluded candidates | 18/06/2024 |
| Publication of the provisional prioritisation list | 26/06/2024 |
| Period for presenting claims. Hearing procedure | 27/06/2024-03/07/2024 |
| Extraordinary research committee meeting (asynchronous) | 09/07/2024 |
| Resolution | 10/07/2024 |
| Incorporation | From 17/07/2024 |

Appendix 1: ASSESSMENT CRITERIA FOR THE FPI-UPC PERTE Chip 2024 CALL

Below are the assessment and prioritisation criteria for FPI-UPC PERTE Chip 2024 grant applications for the recruitment of trainee research staff to undertake a doctoral thesis at the UPC.

A. Academic record of candidates (50%)

To calculate the weighted average grade of a candidate's academic record, the following are considered:

- The weighted average grade of the bachelor's degree/pre-EHEA degree/engineering degree/diploma that will be worth 60% of the total grade for this section.
- The weighted average grade for the master's degree that will be worth 40%. The grade for the master's degree shall only be considered if the average grade for the academic record is available on the deadline for submitting amendments.
- If the candidate can access the doctoral programme without taking a master's degree or the master's degree has not been completed on the date of submitting the amendments, only the average grade for the academic record of the bachelor's degree/pre-EHEA degree/engineering degree shall be considered.

To calculate the weighted average grade, the candidates must submit an official document that indicates the average grade of the graduates in their cohort. If they do not submit this document, the weighted average shall correspond to the average grade for the academic record.

If the candidate's degree was issued by the UPC, they do not need to submit this document, as it will be requested from the corresponding UPC service. To calculate the weighted average grade, the average grade of graduates of the same year in which the candidate completed the bachelor's degree or master's degree shall be taken into account.

For degrees issued by universities outside of Spain, candidates must submit the personal academic certification and the equivalency of the average grades issued according to the website of the Ministry of Universities (<http://www.educacionyfp.gob.es/mecd/servicios-al-ciudadano-mecd/catalogo/general/educacion/203615/ficha.html>).

The formula for obtaining the weighted average grade is as follows:

$$NPond(N) = NMax + (NMed(N) - NMedTit(N)) * (10 - NMax) / (10 - NMedTit(N))$$

NPond(N): Weighted average grade of the candidate N

NMax: Maximum average grade of graduates in the cohort

NMedTit(N): Average grade of the candidate's degree

N NMed(N): Average grade of the candidate N

B. Research and transfer activity of candidates in relation to the company's line of research (50%)

In the assessment of candidates, the suitability of their profile shall be considered regarding the proposed line of research, considering the feedback provided by companies associated with this line. In addition, the merits of the candidate reflected in their CV shall be considered, including publications, participation in projects and other relevant contributions.

Final score

The prioritisation of candidates is established according to the score obtained in the sum of the two sections above:

section a) + section b) = final score

The final score is expressed on a scale of 1 to 10.