

CALL FPI92-CVC
PRE-DOCTORAL FELLOWSHIP

Object	The object of this call is the selection of a candidate to work as pre-doctoral researcher in the CVC.
Application period	From 18 October to 30 November 2024 Resolution: 18 December 2024
Summary of the research project	<p>The field of Document Understanding encompasses the techniques and methods that allow machines to analyse and interpret documents through vision. As such, it stands at the frontier between computer vision and natural language processing.</p> <p>For the past 40 years, the document analysis field has focused on information extraction techniques basically converting document images to machine readable content. In the last 4 years, the field has experienced a revolution, moving from information extraction to generic document understanding models, that aim to perform conditional analysis of documents, based on a text prompt. The research team proposing this project has played a pivotal role in this shift, by bringing the techniques of Visual Question Answering (VQA) to the document analysis field for the first time (2020) and proposing the first large-scale benchmarks for Document VQA . This has created a significant research following, boosted by the subsequent introduction of LLMs and multimodal LLMs.</p> <p>This project aims to capitalize on our research background, to advance holistic Document Understanding (DU) and push research forward in specific directions that are not adequately addressed by current multimodal LLMs. These directions are (i) enabling models to deal with large-scale input (multi-page, multi-document, high-resolution large-scale documents); (ii) creating interpretable / explainable DU models; and (iii) developing models that provide privacy guarantees with respect to sensitive information in their training data.</p>
Description of the job	<p>The candidate will develop a doctoral thesis on a topic related to the project, with the aim of advancing current state-of-the-art in end-to-end document understanding models, taking into account interpretability and privacy guarantees.</p> <p>It is expected that the candidate will also collaborate in tasks related to the development of the research project and will present and publish the research results in top international conferences and journals.</p>

<p>Requirements of the candidates</p>	<ul style="list-style-type: none"> - Candidates should not have benefitted, prior to the submission of the application, of a pre-doctoral contract for more than 12 months. - Candidates will have to comply with all the accession requirements to a PhD program at the Universitat Autònoma de Barcelona (UAB) when accepting the grant. - The candidate should possess a MSc degree in computer vision, artificial intelligence, computer science, computer engineering or related subject. - We will positively consider previous background in computer vision, deep learning and/or document image analysis, as well as previous experience in research activities. - Applicants are expected to be fluent in both oral and written communication in English. They should work well in a team while demonstrating initiative and autonomy.
<p>Funding</p>	<p>The salary offered is established by the Royal Decree 103/2019, of March 1, on the Statute of Research Personnel in Training. These remunerations for 2024 (they could change for 2025) are as follows:</p> <p>1st year (12 months): at least 60% of Group 1 of €32.465,02 = €19.479,01 gross per year.</p> <p>2nd, 3rd and 4th years (36 months): 75% of €32.465,02= €24.348,76 gross per year (each year)</p>
<p>Duration</p>	<p>4 years.</p> <p>The expected start date of the fellowship will be between 1 January to 1 March 2025.</p>
<p>Documents to be submitted</p>	<ul style="list-style-type: none"> • Cover letter • Updated Curriculum Vitae • Academic record (with grades) • If not in Catalan, Spanish or English, documents should be translated in one of the said languages. <p>* There are evaluation criteria, please read the Call in order to know how applications will be evaluated.</p> <p>** You can only upload one pdf document, please combine all the required documents into one single file.</p>
<p>Complete Call and online application submission</p>	<p>Please read the complete call before applying.</p> <p>CALL FPI92-CVC PRE-DOCTORAL FELLOWSHIP</p>