



PREDOCTORAL CONTRACT

PROJECT SUMMARY

The Project aims to develop and apply new Artificial Intelligence techniques in the Design and Operation of RF-to-Digital Interfaces for Software-Defined Radio (SDR) transceivers intended for the Internet of Things. The goal is to employ AI to analyze the radio spectrum in the environment of the IoT device to identify the optimal frequency band for operation. Additionally, the microelectronic design of the system will also be AI-assisted; starting from high-level specs, a trained AI will provide a valid high-level block design, moreover, from these block-level specs, valid electrical designs will also be obtained by specifically trained and optimized AIs. This project is fully oriented towards the completion of the candidate's doctoral thesis and encompasses a detailed, comprehensive, and ambitious training program in both microelectronics design and AI, including two 3-months residencies at prestigious institutions.

IMPORTANT INFORMATION

Project PI: Gustavo Liñán Cembrano / Jose M. de la Rosa

Contact: gustavo.linan@csic.es / jrosa@imse-cnm.csic.es

Conditions: Predoctoral Researcher contract of 4 years' duration.

Gross annual salary: 23,871.33 €.

Start of contract: before 31 December 2024

Applications through:

https://www.bolsatrabajo.csic.es/bolsa_trabajo/

Must have: Univ. Bachelor's Degree in (and/or): Physics, Mathematics, Dual Degree Physics-Mathematics, Computer Science, Electronic Engineering, Robotics and Mechatronics Engineering, Telecommunications Engineering. Official Master Degree granting the access to the Doctoral Studies in Physical Sciences and Technologies of the University of Seville <https://doctorado.us.es/estudios/programas-de-doctorado/ciencias-y-tecnologias-fisicas>

Center: Instituto de Microelectrónica de Sevilla, CSIC-Univ. de Sevilla www.imse-cnm.csic.es



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Plan de Recuperación,
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