

Ph.D. Programs in Microelectronics



The Instituto de Microelectrónica de Sevilla, IMSE, CNM (CSIC, Universidad de Sevilla), in collaboration with and co-funded by the industry leader in image sensors **Teledyne AnaFocus**, offer 4 Ph.D. grants to carry out the following doctoral theses in architectures and design of chips for high performance image sensors.

4 PhD Theses

- **Thesis 1:** Low Noise & High Dynamic Range Image Sensors with Adaptive Global Adjustment
- **Thesis 2:** Image Sensors based on SPADs for 2D/3D Image Capture
- **Thesis 3:** Vision Sensor Architectures with Embedded AI Algorithms for Adaptive Feature Extraction
- **Thesis 4:** Architectures and Circuits for High-Speed Analog-to-Digital and Time-to-Analog Converters for Image Sensors

Pre-requisites

Degrees:

- **Master's or Bachelor's Degree** in Physics; or in Electronic Engineering; or in Electronic and Automatic Engineering; or in Electronic Engineering, Robotics and Mechatronics; or in Industrial Electronic Engineering; or in Telecommunications Engineering.
- In the case of Bachelor Degrees, it will be necessary to have completed or be carrying out **Master's** studies related to the discipline of Electronics.

Skills: Knowledge in circuit design, computer-aided design tools (e.g., Cadence, Synopsis, Mentor), and technical computing languages (e.g., MATLAB).

Offer

Study center: Institute of Microelectronics of Seville (US-CSIC) with periodic stays at Teledyne AnaFocus. The stays at Teledyne AnaFocus will be within the CMOS image sensor design team, a multidisciplinary team with more than 20 years' experience in the design of microelectronics and image sensors.

Location: Seville

Start date: October 2024

Funding: €2.300, monthly gross salary

Contact:

If you are interested, please submit your application to the Director of the theses:

Prof. Ángel Rodríguez Vázquez. Please visit his CV at: <https://tinyurl.com/pxn6w5b6>

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