

Institute of Microelectronics of Barcelona IMB-CNM (CSIC)

## Design of a DC-DC converter

The IMB-CNM is the largest institute in Spain dedicated to the research and development of Micro and Nano Technology and microsystems and with unique capabilities in silicon technology. It belongs to CSIC since its foundation in 1985 and is distinguished with the AEI María de Maeztu Unit of Excellence accreditation.

The main activities of IMB-CNM are basic and applied research and development, education and training in micro and nanotechnologies, components and systems. Its mission is to improve knowledge and contribute to the implementation of solutions based on these technologies in new products to solve societal challenges.

The candidate will design a DC to DC converter to use in an integrated circuit based on a flexible technology. This converter will need to regulate the voltage coming from an energy harvesting circuit or a battery to power the rest of the integrated circuit. The candidate will have to explore different topologies for the converter. When the topology is selected, the circuit will be designed and simulated to validate its performance.

### Key Responsibilities

- Researching topologies for different DC to DC converters
- Designing the circuit for the converter
- Simulate the final circuit and extract the performance

### Required skills

- Knowledge of electronics
- Electronic design

### Experience

- Microelectronic design subject

### Job conditions

- TFG or work placement internship
- Flexible hours

### How to apply

Applications should be submitted to [rrhh@imb-cnm.csic.es](mailto:rrhh@imb-cnm.csic.es) and [roger.sole@csic.es](mailto:roger.sole@csic.es) stating the job title as the Subject of the message. The mail should include a cover letter and an updated CV.

Sending CVs to the above address implies consent to the Legal Advice | IMB CNM (csic.es). This offer can be found on:

<https://www.imb-cnm.csic.es/en/about-center/careers/open-positions>.

More information on IMB-CNM: <https://www.imb-cnm.csic.es/en/>