



Universidad  
de Alcalá



## DEFINITION AND DESIGN OF EFFICIENT ARCHITECTURES FOR ADVANCED ELECTRONIC SYSTEMS

### TECHNOLOGY OFFER

#### Code

TIC\_UAH\_11\_C

#### Application areas

- Information and Communication Technologies
- Industrial Manufacture, Material and Transport technologies
- Other Industrial Technologies

#### Type of collaboration

- Acquisition Agreement
- Commercial Agency Agreement with cooperation

#### Main researches

Prof. Álvaro Hernández Alonso

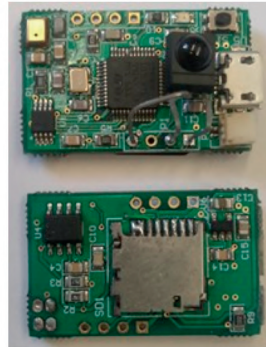
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### ABSTRACT

The GEINTRA research group from the Department of Electronics of the University of Alcalá presents a wide experience in the definition and design of embedded electronic systems, with high complexity and requirements, for the implementation of efficient architectures in different fields of application: communications, transport, energy, control and power, sensory systems, etc.

This type of solutions, based on SoC (System-on-Chip), FPGA devices (Field-Programmable Gate Array) and/or processors, represent an effective alternative, with competitive advantages when dealing with high operation frequencies, demanding response times, complex experimental tests, safety approvals, etc.

### ADVANTAGES AND INNOVATIONS

The GEINTRA group can proceed with the design of advanced architectures (including SoC) for the implementation of digital signal processing, control algorithms and any other application, which are analysed in detail to be able to deal with the definition of the most suitable proposal for its implementation in last generation devices. This type of development and expertise represents an important advance when it comes to developing successful solutions for the electronic product market, available to be incorporated into any application area where an electronic system for high-performance information processing is necessary, with possible mixed hardware/software solutions.

In most cases, the partner sought will be interested in know-how and transversal knowledge from the research group in the design of electronic systems, efficient architectures and SoCs, for its application in any of the fields already addressed in the group, as well as in new areas and domains, of interest to both parties. For this, a collaboration will be established within a specific legal framework, such as a research contract.

GEINTRA seeks to reach technical cooperation agreements with companies in the ICT and industrial sectors in general, but also particularly in areas such as communications, sensory and positioning systems or transportation.