



## Erasmus Student Mobility for Placements

**Host Organisation:** Universidad de Zaragoza

**Venue:** Departamento de Física Teórica, Facultad de Ciencias, Universidad de Zaragoza, C/Pedro Cerbuna 12. 50009 Zaragoza (SPAIN)

**Field of activities:**

The Group of Nuclear and Astroparticle Physics of the University of Zaragoza has a long trajectory in the research of particle physics, participating in experiments with international collaborations at places like CERN, Geneva, but also in underground laboratories, such as the Laboratorio Subterráneo de Canfranc in the Spanish Pyrenees. The group is very active in the development of novel particle detectors for their application in the field. It counts with 11 researchers, several doctoral and master's students as well as technical engineering support personnel.

More information in:

<http://gifna.unizar.es/trex/>,  
<http://gifna.unizar.es/cast/> and  
[www.unizar.es](http://www.unizar.es)

**Planned dates of the placement period:**

from September 2015 until June 2016 for a 3, 6 or 9 month-period (approx.)

**Coordinator's name:** Dr. Igor García Irastorza (e-mail: [irastorz@unizar.es](mailto:irastorz@unizar.es))

**Contact:** Applicants must send CV and motivation letter to: Dr. Theopisti Dafni (email: [tdafni@unizar.es](mailto:tdafni@unizar.es))

### Details of the proposed training programme abroad

We are looking for a graduate, or an undergraduate in their last year of Electronics engineering (or similar), in order to work as part of the technical team supporting the research of the host group, with a focus on the electronics activities (design, use, assembly and programming of specialized electronic modules) needed as part of the development of new particle detectors.

Good knowledge of English is mandatory and knowledge of Spanish will be appreciated.

**Knowledge, skills and competence to be acquired:**

- Working experience with specific design software
- Team-working skills and experience in a research environment.
- Communication skills in foreign language
- Presentation and analytical skills incl. the ability to search and process information and communicate it effectively



### **Detailed programme of the training period:**

The trainee will work for 37.5h/week from Monday to Friday. A detailed programme will be determined when the candidate will be here.

### **Tasks of the trainee:**

- Design of simple printed circuit-like structures needed for innovative sensors for particle detectors, under the supervision of senior designers of the group
- Assist in the assembly of custom and commercial electronics modules for the data acquisition of particle detectors developed by the research group
- Assist in the development of low level C software to control electronics modules
- Assist in the conception, design and construction of different small electronics modules, for the control and monitoring of electrical signals ("slow control") of the experiments of the research group, as well as the control of some of its physics variables (voltages, etc.)
- Participate in the regular meetings of the research group, discussions, presentations of work, etc...

### **Monitoring and evaluation plan:**

During the placement a continuous evaluation plan will be carried out in order to identify any circumstances related with personal matters or the learning process that could affect the trainee or the organization.

Meetings between the trainee and the mentor will be developed on a regular basis.