

## **PhD student position available at the CITIUS on**

# **Scaling and Variability of 3D Tunneling Field Effect Transistor Nanowires Using Si, Ge and III-V Materials**

### **INTRODUCTION**

The CITIUS (<http://citus.usc.es/>) is a multidisciplinary research centre, located at the University of Santiago de Santiago de Compostela, Spain. The research on modelling and simulation of advanced electronic devices, using different numerical techniques implemented in one, two and three dimensions, is being held in our group (<http://proxectos.citus.usc.es/semiconductorSimulation/>) for more than 15 years. Specifically, the study of fluctuations and material variations using drift-diffusion and Monte Carlo simulators for semiconductor devices and the implementation and optimisation of our simulators for use in new computational infrastructures is our main area of expertise.

### **SCOPE**

The work proposed will be engaged within an Spanish national project involving the multi-dimensional modelling of next-generation semiconductor nanodevices, the optimisation of numerical algorithms and the development of tools for the efficient handling of simulation data

### **REQUIREMENTS**

- A degree/master in Physics, Electronic Engineering, Telecommunication Engineering, Materials Science or another relevant scientific subject
- Basic knowledge on semiconductor physics, device physics and characterisation techniques
- Good academic record
- Good computational skills
- Very good English level

### **GENERAL CONDITIONS**

- The selected candidate would start the PhD in our group with a contract according to University regulations and will also apply for public funding
- The contract will be for 1 year, including a 3 month trial period, renewable for up to 2 additional years
- Attendance to scientific conferences worldwide
- Research stays in partner groups in Europe
- The salary will be commensurate with the successful applicant's qualifications and experience (minimum 22.750 euros/year).

### **APPLICATIONS**

Interested candidates should send their CV before 30<sup>th</sup> June 2017 and a motivation letter to Dr. Natalia Seoane. Email: [natalia.seoane@usc.es](mailto:natalia.seoane@usc.es)