

## PhD Researcher Open Position – Call for Applications

The Campus Vida's Research Centre in Information Technology of the University of Santiago de Compostela (CiTIUS-USC) offers a position for a new PhD researcher in modelling and simulation of advanced electronic devices (including a 6 month trial period). The USC hosts more than 3,000 PhD students and has been awarded the "HR Excellence in Research" by the EC under the HRS4R process. Currently, the CiTIUS hosts 30 senior researchers, which have been selected by an external scientific advisory board, and a total of 100 researchers. During the period 2016-2018, CiTIUS researchers have published more than 120 JCR journal papers and obtained 6,5 M€ from competitive R&D funds, most of them in collaboration with the industry sector. CiTIUS researchers have also promoted 3 new spin-offs.

### DESCRIPTION AND RESEARCH OBJECTIVES

The work proposed will be engaged within a 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, under supervision of [Natalia Seoane](#) and [Antonio García Loureiro](#).

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](#) for more than 20 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.

### QUALIFICATIONS AND SKILLS

#### Required qualifications and skills:

The call seeks outstanding and highly motivated candidates, with initiative, creativity and team-working ability, including working in interdisciplinary research groups. Candidates should fulfill the following eligibility criteria:

- Candidates must have obtained a University Degree (Bsc) in Physics, Electronic Engineering, Telecommunication Engineering, Materials Science, Computer Sciences or in another related area within the European Higher Education System or an equivalent University Degree.
- Excellent academic record.
- Good computational skills.
- Very good English level.

#### Desirable qualifications and skills:

The following desirable skills are not required but will be positively valued:

- Basic knowledge on semiconductor physics, device physics and characterisation techniques.
- A Master Degree in Physics, Electronic Engineering, Telecommunication Engineering, Materials Science, Computer Sciences or in another related area within the European Higher Education System or an equivalent University Degree.

## CONDITIONS

- The position will be located at CiTIUS, University of Santiago de Compostela.
- We offer a full-time contract with a gross salary of 1518 €/month, according to candidate's qualification and experience. It includes medical care coverage and work accident insurance through the Spanish Health Care System, providing access to the Spanish public health care system for candidates, as well as pension and unemployment benefits.
- Duration: temporary contract for a period of 3 years with a 6 month trial period.
- Developing a project in a stimulating scientific environment, having access to state-of-the-art research facilities and a number of training and career development opportunities.
- Training program in transversal skills: intellectual and property rights, technology transfer, entrepreneurship, communication, management, etc.
- The estimated starting date is June-July 2019.

## SELECTION COMMITTEE

The selection of candidates will be done safeguarding the constitutional principles of equality, merit and ability.

The selection committee in charge of resolving this call will be made up of:

- President: the Head of the R&D Activities Management Service or person in whom he/she delegates
- Secretary: the Head of the R&D Calls and Programmes Service or person in whom he/she delegates
- Members: the Head of the R&D Calls and Programmes Section

Members of the committee shall refrain from intervening, notifying the Rector of the University, when there are circumstances foreseen in article 23 of Law 40/2015 of 1 October, related to regulations of the public sector, or when some of them carried out tasks of preparation of candidates for selective tests in the five years prior to the publication of this selection process.

Applicants may also refuse members of the committee when any of the aforementioned circumstances occur. After the call of the president, the committee will be constituted. In this session, the committee will agree on all the decisions that apply for the proper development of the procedure. The committee will settle all doubts that may arise in the implementation of these rules and what shall be done in cases not provided for.

## EVALUATION AND SELECTION PROCEDURE

The selection of candidates will be in two phases according to the following procedure:

### PHASE I

The researcher who proposes the position will evaluate the applications and the documentation submitted via the [Application Form](#). The applications will be scored according to the following evaluation criteria:

- Academic record (up to 40 points).
- Scientific achievements: previous research experience and skills, scientific results, publications, awards, etc. (up to 15 points).
- Adequacy of the scientific background of the candidate to the project (up to 10 points).
- Reference Letter of the candidate (up to 5 points).
- Motivation letter (up to 5 points).

- Online Interview, only for candidates achieving a minimum of 50 points (25 points).

The researcher shall submit to the selection committee a reasoned report evaluating and prioritizing the applications submitted.

## PHASE II

The selection committee, taking into account the reasoned report of the proposing researcher, the curricula presented and the published assessment criteria, will prepare the award proposal, which will be submitted to the rector.

The selection committee, if the merits of the applicants are evidenced to be inadequate to the profile object of the call, may declare the reasoned non-awarding of the summoned position.

An award resolution will be published and available on the website: [citius.usc.es](http://citius.usc.es)

## APPLICATIONS AND REQUIRED DOCUMENTS

Candidates should fill out the [Application Form](#), attaching the following documents:

- Scanned copy (1 PDF file) of the academic record issued by the corresponding University (in English or Spanish).
- A detailed CV in English (1 PDF file limited to 3 pages) including personal contact information, education, list of publications and any other relevant information (projects, awards...).
- A reference letter (academic or scientific) (1 PDF file limited to 2 pages).
- A motivation letter (1 PDF file limited to 1 page).

Incomplete or improperly filled out applications will be discarded.

**Closing date for applications:** 30.04.19 at 23h59 CEST (UTC + 02:00).

**Contact information:** [citius.kmt@usc.es](mailto:citius.kmt@usc.es)