HASLab - High-Assurance Software Laboratory

Open Call for Five Post-Doctoral Research Fellowships
Under the ON.2 SR & TD Integrated Program (N-01-07-01-24-01-26)

The HASLab Research Group – High-Assurance Software Laboratory, a member of INESC TEC – Associate Laboratory, opens a cal for five research fellowships (for PhD holders) under the framework of the ON.2 SR&TD Integrated Program "BEST CASE – Better Science Through Cooperative Advanced Synergetic Efforts", supported by the *Programa Operacional Regional do Norte (ON.2)*, as described and established in article 46th of DL 312/2007 of 17/09- point r) n. 2, modified and republished by DL 74/2008 of 22/04; article n. 19 from FEDER and Cohesion Fund General Regulations; the Specific Regulation of "Sistema de Apoio a Entidades do Sistema Científico e Tecnológico Nacional" and the respective Opening Announcement – SAESCTN - PIIC&DT/1/2011 – IC&DT Integrated Programs. These fellowships are co-funded by FEDER (*Fundo Europeu de Desenvolvimento Regional*) through CCDR-N under the framework of the ON.2 program "O Novo Norte (Programa Operacional Regional do Norte 2007/2013)".

The fellowships will be attributed under the following conditions:

1. **Scientific Area:** Computer Science

2. **Legal regulamentation:** Law n. 40/2004, of August, 18th (Research fellowship regulamentation), modified by DL 202/2012, of August 27th and by law n. 12/2013 of January, 29th; terms and conditions established by the Cience and Technology Foundation– 2012 (http://www.fct.pt/apoios/bolsas/regulamento.phtml.pt).

3. **Facilities:** The research activities will be carried on at HASLab – High-Assurance Software Laboratory in University of Minho, at the Gualtar Campus in Braga.

4. **Duration:** The fellowships are full time, and have a duration of six months each, starting on July, 1st, 2013 according to FCT's fellowship. These fellowships can be extended upto the maximum legally allowed, and not beyond the projects time limit (June, 30th, 2015).

5. **Research Lines and Positions available:**

   <u>**Research Line RL3 (Ref.: NORTE-01-0124-FEDER-000058):**</u> Network Sensing for Critical Systems Monitoring:

   BPD-2013_BestCase_RL3.1_UMINHO – Objective: Definition of theory, models and specific programming language for eventual consistent data management.

   <u>**Research Line RL4 (Ref.: NORTE-01-0124-FEDER-000060):**</u> Cooperation and Perception for Augmented Autonomy:

   BPD-2013_BestCase_RL4.1_UMINHO – Objective: Definition of models, calculi and tools for the verification of critical software for robotic applications.

   <u>**Research Line RL5 (Ref.: NORTE-01-0124-FEDER-000056):**</u> SmartGrids:

   BPD-2013_BestCase_RL5.1_UMINHO – Objective: Design and implementation of programming languages and tools for the development of secure software for smartgrids.

   <u>**Research Line RL8 (Ref.: NORTE-01-0124-FEDER-000062):**</u> Languages and Tools for Critical Real Time Systems:

   BPD-2013_BestCase_RL8.1_UMINHO – Objective: Development of tools for the formal verification of critical interactive systems through model checking and theorem proving.

   BPD-2013_BestCase_RL8.2_UMINHO – Objective: To explore the role of different verification tools – software model checkers, timed model checkers, theorem provers – in the verification of real time software applied to critical systems.

6. **Monthly payement**: the monthly payement associated with each fellowship is 1.495€, and corresponds to the amount payed by FCT – *Fundação para a Ciência e a Tecnologia, I.P.* (http://www.fct.pt/apoios/bolsas/valores).

7. **Selection methods**: Curriculum Evaluation and Interview. The evaluation criteria for each method is as follows:

    i. Curriculum Evaluation (Weight: 50%)
        i.1. Academic qualifications
        i.2. Professional history
        i.3. Research Experience under the project scope
    ii. Interview (Weight: 25% or 50%)
        ii.1. Professional and behavioral skills.
    iii. Eventual oral presentation about previous or ongoing research projects, if the number of candidates selected for the interview is not significant. (Weigh: 25% or 0%).

The candidates will be classified with a scale of 1 to 20 for each criterion, and candidates classified with a score below 15 in the Curriculum Evaluation will not be admitted to the Interview and to the oral presentation.

8. Jury Panel: Prof. Rui Carlos Oliveira (President), Prof. José Creissac Campos, Prof. Carlos Baquero Moreno and Prof. Luís Soares Barbosa.

9. Form of advertising /notification of results: The final evaluation will be published through the list ordered according to final score. It will be posted in a public location of the HASLab/Informatics Department/Universidade do Minho. The successful candidate will be notified by e-mail.

10. Format and Period of application: This call is open from <u>June, 12th to June, 26th, 2013</u>. Applications should be sent by e-mail (<u>sec@di.uminho.pt</u>) or handed at Department of Informatics, and should include the following documents; detailed CV, degree transcript, personnal identification document copy (passport, CC, or BI), telephone/mobile number, e-mail address, and address, and other documents that the candidate feels relevant for the application. It should also include the reference of the relevant position (**BPD-2013_BestCase_RL#.#_UMINHO**).

11. Applications should be sent to:

Universidade do Minho
Departamento de Informática
A/c Professor Rui Carlos Oliveira
Campus de Gualtar
4710-057 Braga