FELLOWSHIP ANNOUNCEMENT SafePort/CC 5781

SafePort project is funded by NATO - and being developed by a national consortium led by EDISOFT, and including also FEUP and the University of Évora. This consortium reports to the Portuguese Navy.

SafePort aims to develop capabilities related to a complex issue that deals with the establishment of the best settings for the resources to be allocated to security and surveillance operations, at ports and harbors in the context of defense against terrorism.

Specifically we intend to identify, for a given scenario, a set of possible configurations, e.g. number and type of sensors and equipment, their location and "modus operandi", and also the support means to ensure maximum protection in a particular area.
The activities to ensure these objectives include the development of models of various types of sensors (radar, sonar, electro optical, both active and passive, in the visible and infrared) and algorithms for optimization and decision support.

SafePort also includes the development of a simulation environment for the modeling of relevant aspects of the scenario, including the sensors used for surveillance, platforms, threats and environmental variables that may influence the operation and performance of the system.

This announcement is open under the following conditions:

1. Scientific Area: Engineering, Physics/Instrumentation and photonic sensors, statistical modeling

2. Admission requirements: PhD in Physics Engineering / Physics Technology / Electrical Engineering and / or Computers.

Conditions of preference:

- Experience in electro optical sensors and their modeling.

- Experience in signal processing.

- Some sensitivity to modeling atmospheric channel for assessing the degradation of optical signals

- Some knowledge of GIS or for the manipulation of information in bidimensional cartographic contexts

- Programming experience in Matlab / Simulink and C / C + +

It is also a preferred condition good knowledge of English and the ability to interact with the contracting authority and other consortium members in technical and scientific matters.

Candidates with Master's degree, already completed, may be admitted in case of eventual absence of candidates possessing a PhD degree without proper profile.

3. Plan of work: - Development of generic probabilistic models for the detection of targets for various types of optical instruments, assets and liabilities, in the visible and in the infrared.

- Integration of such models in geographic information (GIS) environments, including the development of the interfaces

4. Legislation and regulations: Law no. 40/2004 of August 18 (Status of Scientific Research Fellow); Regulations for Advanced Training and Qualification of Human Resources in 2012.

5. Workplace: The work will be developed in the Laboratory of Optics, Lasers and Systems, Department of Physics, Faculty of Science, University of Lisbon, under the scientific guidance of Dr. Manuel Abreu, PhD. This laboratory is located in the FCUL Lumiar Campus (former INETI), Estrada do Paço do Lumiar in Lisbon.

6. Grant Duration: The fellowship has the initial duration of 12 months and will begin in October 2012. The grant contract may be renewed for another 12 months until a total duration of 24 months.

7. Value of monthly salary: The grant will be awarded according to the degree of the candidate, following the table of values of grants awarded directly by the FCT, IP in the country (http://www.fct.pt/apoios/bolsas/valores).

Fellowships will be awarded with a personal accident insurance, and if not covered by any social protection scheme can ensure the right to social security through adherence to voluntary social insurance scheme, pursuant to Law no. 40/89 of 1 February.

The fellowship will be paid monthly by bank transfer.

8. Selection Criteria: The selection criteria used will award to curriculum evaluation and to an interview, the same score i.e. 50/50.

9. Composition of the Selection Panel: Chairman: José Manuel Rebordão, Members: José Cabrita Freitas, Manuel Abreu, Alternate: Alexandre Cabral

10. Form of disclosure / notification of results: The final evaluation results will be publicized through the alphabetized list posted in the lobby of the Foundation of the Faculty of Science, University of Lisbon located in the Faculty of the University of Lisbon, Building C 1-3. º Piso, Campo Grande, 1749-016 Lisbon, and the candidate (a) approved (a) notified by email.

11. Application Deadline: The contest is open from July 1st to September 10th.

12. Form for submission of applications: Applications may be sent via e-mail to jose.freitas@ fc.ul.pt accompanied by the following documents: Curriculum Vitae and motivation letter.

Applications may also be sent by mail to:

FCUL / LOLS
Estrada do Paço do Lumiar, 22
1649-038 Lisboa.
Portugal