

## CALL FOR FELLOWSHIPS

Reference: BI-BL/60001/EPSO\_USE

INESC PORTO is accepting applications to grant fellowships to graduates, to work in the under-mentioned Research project, in the framework of Scientific Research and Technological Development Projects, managed by FCT - Fundação para a Ciência e a Tecnologia (Science & Technology Foundation), included in the Community Support Framework 2000-2006, supported by ERDF, ESF and the Portuguese State Budget.

The agreement shall be submitted to the legislation concerning the **Research Fellow Statute**, approved by Law nº 40/2004, dated 18 August, as well as by [INESC Porto Fellowship Regulation](#), approved by FCT in 9 March 2005.

**Project:** EPSO - Enxame de partículas evolutivas, nova meta-heurística com aplicações em energia

**Funding Entity:** FCT (POSC/EEA-ESE/60980/2004)

**Project duration:** from 2005-07-31 to 2007-08-31 (25 months)

**Work Area:** Computational intelligence, optimization, power systems

**Description of the work to be carried out:** Study of meta-heuristics, especially EPSO - Evolutionary Particle Swarm Optimization.  
Development of mathematical models.  
Computer programming.  
Application to real problems, in particular in power systems.

**Objectives to be accomplished by the Fellow:** Effective improvement in the performance of EPSO algorithms, with the proposal of model explaining their working mechanisms.

**Scientific Advisor:** Prof. Vladimiro Miranda

**Type of Fellowship:** Researcher Fellowship (BI-BL)

**Duration of the Fellowship:** from 2006-02-13 to 2007-02-12 (12 months / renewable)

**Terms and conditions of renewal** (if applicable): Clause 11 of INESC Porto Fellowship Regulation

**Financial conditions, payment scheme and schedule:** Clauses 12 e 13 of INESC Porto Fellowship Regulation and Annex II

**Fellowship Contract Model:** [Annex III](#)

**Model Reports to be written by the Fellow and the Scientific Advisor:** Annexes IV, V and VI

**Academic Degree:** BSc. or MSc. in Engineering, Economy, Mathematic, Physics or Computing, or other at the same level that may be considered adequate

**Minimum Profile required:** Knowledge and practice of computer programming

**Preferred Profile:** English - preference also given to candidates speaking French, Spanish, Italian or Portuguese.  
Knowledge and practice of C++, JAVA and MATLAB.  
Ability to work in a team.  
Knowledge about power systems.

**Selection Criteria:** selection of applicants will be made according to the criteria defined in Clause 7 of [INESC Porto Fellowship Regulation](#)

**Application period:** from 2006-01-17 to 2006-01-31

**Required documents:** **Letter of application** (clearly stating the reference of the Call), **Curriculum Vitae** (stating the course average) and **Copy of the Diploma** (it can be sent later)

All applications must be sent to:

INESC PORTO – Instituto de Engenharia de Sistemas e Computadores do Porto  
DIL- Human Resources (For the att: Margarida Gonçalves)  
Campus da FEUP, Rua Dr. Roberto Frias, nº. 378 4200-465 Porto  
Or by email: [dil-rh@inescporto.pt](mailto:dil-rh@inescporto.pt)