

## CALL FOR AWARDING RESEARCH FELLOWSHIPS WITHIN PROJECT GRANTS AND R&D INSTITUTIONS

### 1 Research Grant (Bolsa de Investigação)

1 Research Fellowship is opened at the **Fundação da Faculdade de Ciências da Universidade de Lisboa**, in the the project/ R&D institution *ERA-CLIM2/IDL, FP7 – contract nr. 607029*, co-financed by the European Commission under the Seventh Framework Programme, under the following conditions:

1. **Scientific Area:** Meteorology – Geophysical Sciences.....

2. **Requirements for admission:** Master Degree in Geophysical Sciences (priority given to Meteorology), Environmental Sciences, Physics, Physical Geography or Computing.

Above average capability to program in Fortran, Matlab or C, this being an essential condition to perform the proposed work. Previous ability to program in R and use of LINUX is also required.

Previous experience in dealing with meteorological observations datasets (quality control, homogenisation tests) is an advantageous asset.

Good knowledge of written and spoken English is also an important asset.

Availability to remain until the end of the project ERA-CLIM2 (31<sup>st</sup> December 2016) is a priority.

3. **Work plan:** The ERA-CLIM2 project (2014-2016), the continuation of the ERA-CLIM project (2011-2013), coordinated by the European Centre for Medium-Range Weather Forecasts (ECMWF), and financed by EU's Program FP7 aims to build a new global reanalysis for the 20<sup>th</sup> century. The Instituto Dom Luiz (IDL), one of the project partners, possesses in its library a vast set of meteorological historical data in hardcopy format since 1853, for the IDL station of Lisboa/Geofísico (the oldest Portuguese station operating continuously) and for several other posts in Portugal, adjacent Isles (Madeira, Azores) and former colonies. During the project, IDL is responsible for supplying ERA-CLIM2 with these datasets from 1900 onwards, already digitised, formatted and submitted to quality control tests. In ERA-CLIM2, IDL expands its activities by being also responsible for supplying digitised data for Chile (1950-1958). During the project's duration, the data should be re-supplied after the application of homogeneity tests and homogenisation procedures.

The work to be developed by the grant researcher includes the management and analysis of the meteorological historical data already digitised in ERA-CLIM and still to be digitised in ERA-CLIM2 for the period 1900-2012 by IDL. The selected researcher will continue the development of quality control tests and homogeneity tests (RhtestsV3, AnClim and HOMER) started in ERA-CLIM and is due to apply them to the IDL digitised datasets. It is also an objective of this work to build homogenisation methodologies and/or apply already existing techniques.

The researcher will also be trained as an observer to join a team of 4 people that perform observations at the meteorological classical surface station of Lisbon/Geofísico, where the work will take place. During ERA-CLIM it was concluded that a training in meteorological observations helps to develop the recovery work of historical data, not only for Portuguese stations, but also for other foreign stations. This is the main reason for giving priority to applicants that want to remain for 3 full years.

4. **Legislation framework:** A fellowship contract will be celebrated according to the regulations defined by FCT "Regulations for Advanced Training and Qualification of Human Resources", in accordance with Law 40/2004, of 18 August, as amended and republished by Decree-Law No. 202/2012 of 27 August, and as amended by Decree-Law No. 233/2012 of 29 October and by Law No. 12/2013, of January 29, and Decree-Law No. 89/2013 of 9 July. And also by the

## CALL FOR AWARDING RESEARCH FELLOWSHIPS WITHIN PROJECT GRANTS AND R&D INSTITUTIONS

FCT, I.P. Fellowships Regulation of 2013 approved by Regulation No. 234/2012, of June 25, as amended by Regulation No 326/2013 of 27 August 2013.

5. **Place of work:** The work will be developed at *Instituto Dom Luiz* da Universidade de Lisboa under the scientific guidance of Doctor Maria Antónia Valente .

6. **Fellowship duration:** This position is initially opened for 12 months and will begin on february of 2014. The grant contract may be renewed to more 23 months, until one total duration of 35 months or eventually until the end date of the project.

7. **Monthly allowance:** The fellowship amounts to € 980 .

The grant holder will have a personal accident insurance and, if not covered by any social protection scheme can ensure the right to social security through adherence to the voluntary social insurance scheme, pursuant to Código dos Regimes Contributivos do Sistema Previdencial de Segurança Social.

The fellowship will be paid monthly by bank transfer

8. **Selection method:** Candidates will be assessed by the quality of their CV (60%) and possibly also an interview (40%) .

The Selection Committee reserves itself the right not to award the grant if none of the candidates presents an adequate profile for the job.

Applications will be evaluated according to the following criteria:

		Weight to apply to marks from 0 to 20
Curricular Evaluation	Academic evaluation	0.35
	Professional evaluation	0.25
	Programming and computing knowledge	0.3
	Spoken and written English capabilities	0.1
Total		1
Interview	Motivation to work on the proposed subject	0.4
	Team Integration capabilities	0.2
	Availability to develop the proposed work	0.4
Total		1

9. **Selection Committee:** .....

President: Maria Antónia Valente, Instituto Dom Luiz

1st Secretary: Ricardo Trigo, Instituto Dom Luiz

2nd Secretary: Célia Gouveia, Instituto Dom Luiz

*Substitute Secretaries: Carlos Pires, Instituto Dom Luiz, Departamento de Engenharia Geográfica, Geofísica e Energia, e Carlos da Câmara, Instituto Dom Luiz, Departamento de Engenharia Geográfica, Geofísica e Energia.*

## CALL FOR AWARDING RESEARCH FELLOWSHIPS WITHIN PROJECT GRANTS AND R&D INSTITUTIONS

10. **Publication/notification of results:** The final results of the evaluation will become public, through classification ordered list which will be posted at the entrance hall of the **Fundação da Faculdade de Ciências da Universidade de Lisboa**, located at the Faculdade de Ciências da Universidade de Lisboa, C1 bldg – 3<sup>rd</sup> floor, Campo Grande, 1749-016 Lisboa, and the selected candidate will be notified by e-mail.
11. **Deadlines:** This call for applications is open from 6 January 2014 to 19 January 2014.
12. **Application:** Applications may be sent via e-mail to *mavalente@fc.ul.pt*, by attaching the following documents:  
Letter stating the motivation for applying to the grant;  
Curriculum Vitae;  
Copies of First Degree and Master degree Certificates;  
Copies of certificates with the academic subject courses and respective marks;  
Two recommendation letters and/or reference contacts;  
Other certificates with additional training in computing, English or other courses relevant to the proposed work.

Applications may also be sent by mail to

Maria Antónia Valente  
Instituto Geofísico do Infante D. Luiz  
Rua da Escola Politécnica, 58  
1250-102 Lisboa  
Portugal .....