Open call for one MSc fellowship – Hydrological Modelling

One fellowship is open within the project CLIM2POWER (ERA4CS/0002/2016), "Translating climate data into power plants operational guidance"/ NOVA.id.FCT – Associação para a Inovação e Desenvolvimento da FCT, which is financed by national funds from FCT/MCTES (PIDDAC).

1. **Scientific area:** Environmental Sciences and Engineering
   Specific Scientific area: Water resources management, Hydrological Modelling

2. **Admission Requirements**: The candidate must have an MSc (or equivalent) in a relevant field and be able to demonstrate skills and experience relevant to the position (e.g., but not restricted to, water resources management, hydrological modelling, geographic information systems). The candidate must demonstrate experience in developing or applying quantitative modelling techniques, along with a familiarity with, or strong interest in, applying above mentioned skills in a climate mitigation context. High level analytical skills and an ability to develop and apply new concepts is required. The candidate must also demonstrate excellent English written and verbal communication skills, the ability to deal with a wide range of people from different educational and cultural backgrounds and of working both autonomously and within a team.

3. **Work Plan:** The candidate will be integrated in the water resources and Hydraulics research team, working under the supervision of Prof. Paulo Diogo. The team's research interests are focused in water resources management (quantity and quality), with particular relevance being the study and use of information systems and decision support and the application of mathematical models for simulating runoff and water quality in river basins, rivers and reservoirs. The project CLIM2POWER will develop a climate service that integrates seasonal weather forecasts into decision making in the electricity sector. It will assess the value of current and possible future seasonal forecasts for an improved management of power generation portfolios. The fellowship holder will contribute for several activities within the project but will mainly focus on the hydrological modelling of Portuguese case-study within CLIM2POWER. This case study will focus on how seasonal climate forecasts can be used to anticipate impacts of seasonal climate variations on renewable generation in the entire Portuguese power generation portfolio. For more information on the project: https://clim2power.com.

4. **Rules and Regulations:** 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

29 January; Regulation of FCT (http://www.fct.pt/apoios/bolsas/docs/RegulamentoBolsasFCT2015.pdf).

5. **Work location and supervisor**: The work is to be carried out at Department of Environmental Sciences and Engineering, Faculdade de Ciências e Tecnologia da Universidade NOVA de Lisboa (FCT-NOVA) under the scientific supervision of Prof. Paulo Diogo.

6. **Fellowship duration**: the fellowship is for 6 months, beginning in August 2018. The fellowship contract may be renewed until the end of the project (August 2020).

7. **Salary and benefits**: According to the regulations of the FCT Scientific Fellowships in Portugal (http://alfa.fct.mctes.pt/apoios/bolsas/valores) the net salary will be of 980 EUR/month, which will be paid monthly by bank transfer. The fellow will be covered by a personal accident's insurance and can contribute voluntarily to the national social security system, according to Decree-Law nº 40/89, of 1 February.

8. **Selection methods**: The candidates will be selected and ranked considering the following criteria: 1) scientific merit (30%); 2) relevant experience (e.g. hydrological modelling) (40%), 3) motivation (30%).

   In case it is needed candidates will be interviewed and the criteria will then be: 1) scientific merit (20%); 2) relevant experience (e.g. hydrological modelling) (30%), 3) motivation (10%) 4) interview (40%).

9. **Jury members**: Paulo Alexandre Marques Diogo (president), Sofia Gago da Câmara Simões (efective juror), António Pedro de Nobre Carmona Rodrigues (effective juror), Pedro Miguel Salina Ferro de Beça (substitute juror), João Maria Matos Lopes da Fonseca (substitute juror).

10. **Notification of Results**: The evaluation results will be publicized as a ranked list in a public place at the Department of Environmental Sciences and Engineering, FCT-NOVA. The selected candidate will be notified by e-mail.

11. **Application Procedure**: The call for applications is open between 9th and 20th of July 2018. Applications can be submitted by email to Prof. Paulo Diogo (pad@fct.unl.pt), indicating "CLIM2POWER Fellowship" in the subject field, and the following (four) documents attached: 1) motivation letter (1 page); 2) Full CV (with photo); 3) Details for referees; 4) a brief description of your most relevant scientific outputs.