

Id 3464 - CALL: MODELLING OF CONJUNCTIVE USE OF SURFACE AND GROUNDWATER IN THE CONTEXT OF THE WATER - ENERGY - FOOD – ENVIRONMENT NEXUS

Position and grant

Scuola Superiore Sant'Anna announces a call to assign one Research Fellowship to perform research activities related to the scientific field AGR/02 – Agronomy and Field Crops, at the Crop Science Research Center. The gross amount of the fellowship is €23.097 per year. The present fellowship cannot be cumulated with other fellowships and grants except those aimed at financing a period of stay abroad necessary within the research activity. The duration of the research fellowship is 12 months, renewable in case of positive evaluation of the research activities performed.

Research Activity

- Research title “Modelling of conjunctive use of surface and groundwater in the context of the Water - Energy- Food – Environment NEXUS.”
- Research description “The research activities imply the application of hydrological modelling tools integrated into GIS systems (FREEWAT platform and USGS MODFLOW and OWHM codes) to case studies within the H2020 PRIMA NEXUS-NESS project (<https://prima-nexus-ness.org/>; Work Package 4). In particular, the simulation tools will be applied to the case studies of the Duero Basin (Spain), the Cornia River plain (Italy), Wadi Jir (Tunisia), and Wadi Nagamish (Egypt). The research activities will concern the joint use of surface and groundwater with particular reference to agricultural water use. Data analyses, conceptual model building, and model implementation will be at the core of the research work. Simulations of dedicated scenarios will conclude the modelling work along with report drafting and scientific paper writing. Participation to field activities in Italy will be required (groundwater and surface water monitoring and other experimental activities; Work Package 3). The implemented tools will then be transferred after a training period (WP3) to the partners of the H2020 PRIMA NEXUS-NESS project. Advanced skills in spatial data management through GIS applications and numerical modelling of groundwater and relationship with surface waters are required. Research activities include the preparation of technical reports and scientific publications. The research fellow will participate in project meetings and conferences and congresses on the topics of research activities.”

Admission Requirements

- Applicants must hold a MSc in Earth Sciences, Environmental Sciences, Agricultural Engineering, MSc/MEng Hydrology.

Application and attachments

The candidate is requested to apply online at: <https://www.santannapisa.it/it/assegni-di-ricerca-e-selezioni-incarichi-esterni/istituto-di-scienze-della-vita-modellazione> by writing his/her email address in the field “Procedi alla selezione”; the candidate will be redirected to the registration page and have the possibility to apply following an English form after selecting “Read this page in English”.

In case of difficulties, please contact the Administration Office (Tel. +39-050-883.254/575, e-mail assegniricerca@santannapisa.it).

Attachments (pdf format):

- copy of a valid identity document (Passport)
- copy of the scientific-professional Curriculum Vitae, signed and dated (please use the EU format)
- copy of all academic titles (MSc/MA Degree, PhD ...) and copy of the MSc and or PhD thesis and of all publications and other elements which can be useful for the evaluation (these documents must be saved in a zip folder);
- Substitute declarations (attachment B and C) to be downloaded during online application, filled, signed and uploaded
- a list of all the attached documents, signed and dated

The candidate must indicate his/her status, personal information and qualities in the curriculum vitae. Particularly, he/she must also analytically indicate studies completed, qualifications earned, publications and/or patents, services provided, functions performed, the positions held and any other scientific, professional and educational activities that may have been performed, listing exact references for each qualification indicated.

Academic and professional qualifications must be self-certified by the form at Attachment B or submitted in copy accompanied by a declaration of conformity to the original, pursuant to Presidential Decree no. 445 of 28 December 2000, using the form at Attachment C. Other qualifications, theses and/or publications may be submitted in their original form or in copy accompanied by the declaration in lieu of notarized affidavit using the form at Attachment C.

Selection method and ranking list

The selection is based on the assessment of qualifications and an interview for a total of 100 points, of which 50 points are for the assessment of qualifications and 50 points are for the interview.

Assessment of qualifications:

- 1) Academic qualifications: 20 points
- 2) Scientific publications: 20 points
- 3) Research activity related to the topic of this Call in public or private organizations: 10 points

The candidate will be admitted to the interview if he/she obtains at least 35 points in the evaluation of the titles and will pass the interview by obtaining at least 35 points.

A ranking list of eligible candidates will be drawn up by the examination committee at the end of the selection.

Deadline for applications: **30/09/2022, 12:00 p.m. CET.**

Interview: **10/10/2022.**

Resident abroad applicants may also ask to hold their interview in their country of residence via conference call. In this case the candidate is asked to contact Italian Embassies or his/her local University, arranging the interview for the date scheduled and considering that he/she will be previously identified by an employee or a Professor.

Formalization of the fellowship and contract termination

Scuola Superiore Sant'Anna will contact the winner at the email address provided for the selection, offering him/her the fellowship and asking to reply before the beginning of the fellowship.

In case you need information or help in submitting your application, please contact the Personnel Office, +39.050.883.254/258, email assegniricerca@santannapisa.it.

The official version of this Call is available only on the Italian page.