



UNIVERSITÀ DI PISA

Call for the selection of no. 4 temporary research associate positions:

The University of Pisa announces the public selections, based on qualifications and interview, for the assignment of n. 4 grant for research activities (hereinafter referred as research grants) indicated in the Annex A, that contains tabs for each project with an indication of the reference structure, the object of research, the scientific field, the contract duration and information relating to the interview

Research grants are financed 50% by the resources of FSE POR 2014-2020 and fall within the scope of Giovanisi (www.giovanisi.it), Tuscany Region's project for the autonomy of young people.

Contract duration: 24 or 36 months, as indicated in each project tab

Gross annual salary: € 27.000,00

Admission requirements:

Holder of a doctoral degree (or equivalent foreign qualification) or a specialization degree in the medical field, otherwise holder of master degree with at least three years of documented research experience with universities and public research centers or privates at the time of submission of the application;

Not be aged 36 years at the time of submission of the application;

To be domiciled in Tuscany at the time of submission of the application;

The successful candidates of the selections that they already holders of other fellowships or research grants, must give out them before the acceptance of the research grants referred in this notice, subject to the exceptions provided by art. 22, paragraph III of the Law 30/12/2010 n. 240 (exception for the scholarships awarded by national or foreign institutions turned to integrate the research with stays abroad).

The selection does not allow nationality limitations and takes place in accordance with the cross-cutting priorities of gender equality and equal opportunities.

Applications:

Applications are to be submitted online only, using the following link: <https://pica.cineca.it/unipi/>

or shall be invalid. It is necessary to have an email address to login and complete the application.

Applicants should fill in all the required data and upload all documents in PDF format.

The system allows saving a draft of the application within the application deadline. The system will register the online application date and send a receipt with an automatic e-mail reply. After deadline, the system will not allow login nor application submission.

In order to be valid, application shall include all the required data, applicant's signature and a valid identification document.

Each application will be assigned a tracking number to be cited in all subsequent communications, together with the selection code provided by the application form.

Applicants undertake to communicate in writing any variations of what declared in the application form.

The communication shall be edited in PDF format, signed and forwarded to the University of Pisa Rector via the Italian certified e-mail system address (P.E.C. Posta Elettronica Certificata): protocollo@pec.unipi.it or via e-mail at: concorsi@adm.unipi.it. Applicant's valid identification document shall be annexed.

For further information on application submission, please refer to concorsi@adm.unipi.it

For any IT malfunctioning please refer to unipi@cineca.it.

Applications shall be completed with the following annexes:

- a) a project of training-learning-research in which specify in detail the acquisitions and the professional growth that the candidate intends to achieve through the participation in the research project subject of this notice;
- b) curriculum vitae, with documented details of studies path, research experiences and outcomes achieved (publications, patents, etc..) self-certified with the statement in Annex C;
- c) documents and certificates that the applicant believes are relevant for the selection process. They should be either the originals, authenticated copies or a photocopies by utilising the declaration in substitution of a notarised act (see Appendix C), or with auto-certification by attaching the declaration in substitution of certification (see Appendix D).
- d) publications considered relevant to this selection procedure. These can be presented either in their original version or as a photocopy. If presented as photocopies applicants must declare the conformity of them to their originals by utilising Appendix C. The declaration can be singular for all the publications presented and must be accompanied by a photocopy of the candidate's identity document.
- e) a list of educational qualifications and publications;
- f) a photocopy of the applicant's fiscal code (if any) and an identity document.

All publications should not exceed 30 megabyte and are to be submitted in PDF format only, using the specific section of the application form.

Selection procedure:

For each selection procedure a committee is appointed by the Director of the University Department concerned, consisting of three members.

The selection is based on qualifications and interview.

For the selection the committee will evaluate:

- a) the consistency between the project of training-learning-research proposed by the candidate and the specific research project;

b) the coherence between the curriculum vitae, the course of study and the research experiences made and the requested project profile;

c) the academic qualifications and the number and quality of research results achieved (publications, patents, etc.);

d) the score of the interview, that is be designed to assess the attitude, the motivation and the background of the candidate to participate in the project.

The score assigned to the candidates according to the items b) and c) above shall not be less than 60% of the total score achievable.

The interviews related with the research programs will be held according to the timetable set out in tabs for each research grants attached to this notice.

The candidates of the present selection must consult the University website (<https://www.unipi.it/ateneo/bandi/assegni/index.htm>) two days before the date set for the interview.

Failure to appear for the interview will be deemed an explicit expression of the candidate's non willingness to take part in the selection procedure.

Candidates committed abroad and therefore unable, in the opinion of the Commission, for the interview at the University, can do the interview electronically subject to their identification at foreign universities recognized internationally. The declaration of the validity of the procedure is done through the acquisition of a declaration by the Commission that acquires copy of the identity document of the applicant.

As the agreement between the University of Pisa and the Tuscany Region for the implementation of the intervention program called "FSE research grants - Tuscany Region" was signed on 11th December 2017, the research grants will have to start by the 90th day after at the date of signature of the agreement.

Please note that the English version is given as a matter of courtesy, for the only purpose of information. It cannot be legally used in the event of a dispute or a claim arising from the interpretation of this translation and concerning the contents, a possible uncertainty, contradiction or discrepancy. Should this occur, the Italian version of the call shall prevail as the only valid. For full Italian text see: <https://www.unipi.it/ateneo/bandi/assegni/index.htm>.

Code A1

Department of Information Engineering

“PAC-MAN”

Research title:

Analysis, design, engineering and industrial development of novel high and moderate gain conformal antennas with steering beamwidth and variable tuning. Analysis of such antennas in operating environment

Project:

The correct positioning of radiating antennas both on small dimensions mobile terminals, as well as complex platforms, such as vehicles, airplanes, satellites, drones, is a critical and challenging design requirement for several reasons. In particular, the effect of the platform and the simultaneous presence of radiating systems placed on the same mobile unit, may produce unacceptable degradation of performance due to the unwanted coupling of systems. This aspect is even worsened if conformal and compact radiating elements are used.

In recent times, a very promising theory is being used to this aim, i.e., Characteristic Modes (CMs) Theory, which is able to provide a physical insight on the radiation phenomena in the presence of the surrounding structures, taking into account, at the same time, the geometry and physical properties of the platform.

Candidates applying for the positions, in order to attain a solid scientific background on the subject, should perform their activity by studying at first theoretical aspect of Characteristic Mode Analysis, as well as conventional analysis methods for applied electromagnetics and RF circuit design, to design passive and active antennas, and matching networks. The aforementioned competences should therefore be applied to investigate novel solutions of low profile radiating systems to be integrated on different platforms. Part of the activity will be focused on prototype fabrication, test and measurements.

Due to the complexity of the problem at hand, preliminary competences of the candidates are considerably diversified, including, but not restricted to, applied electromagnetics, RF and microwaves circuits and electronics, telecommunications systems.

Scientific discipline sectors: ING-INF/02 Electromagnetic fields
ING-INF/01 Electronics
ING-INF/03 Telecommunications
ING-INF/06 Electronic and informatics bioengineering
ING-INF/07 Electric and electronic measurements
FIS/01 Experimental physics
FIS/07 Applied physics

Number of grants: 2

Duration: 24 months

Date, time and place of the interview:

3rd May 2018 at 10.30 am at the Department of Information Engineering - Via G. Caruso, 16 - Pisa

Code A2

Department of Clinical and Experimental Medicine

“ROB-BIO-POP”

Research title:

New technologies for the treatment of complex prolapse

Project:

Reconstructive surgery for pelvic organ prolapse (POP) needs to be tailored in a patient specific manner, basing on symptoms, anatomical support defect, age and women's' needs; thus, explain the need to find new surgical technique and biocompatible materials. After the FDA warning published in 2011, which evidenced high incidence of surgical complications after placement of transvaginal mesh for POP and stress urinary incontinence reparation; the most relevant scientific societies in the field of urogynecology suggested laparoscopic abdominal suspension of the apex to the sacral promontory for these patients. The two main robotic procedures for severe POP correction are vaginal vault or cervix suspension to the sacral promontory using “Y” shaped polypropylene mesh and lateral suspension of the uterus and the bladder using “T” shaped polypropylene mesh, which is a sure and effective alternative procedure avoiding complex presacral anatomy. The purpose of this research project is to analyze the use of existing and innovative biocompatible materials for mesh and to evidence possible post-operative adverse events as well as complications due to mesh utilization during follow-up. Moreover, we aim to compare efficacy and safety of traditional laparoscopic technique and robotic approach for the treatment of POP.

Scientific discipline sector: MED/40 Obstetrics and gynaecology

Number of grants: 1

Duration: 24 months

Date, time and place of the interview:

7th May at 9.00 am at Santa Chiara Hospital - Building no. 2 - Via Roma, 67 - Pisa

The winner of this selection will perform care activities, which is essential to the conduct of research, up to a maximum of ten hours a week.

Code A3

Department of Computer Science

“SoBigData”

Research title:

Societal Debates

Project:

Design and implementation of a Big Data Analytics Framework for to analyze the dynamics of conversations on social networks and the diffusive processes of news with Big Data collected from online media and social networks, with a focus on models to monitor and detect breaking news and topics, estimation of “sentiment” and evaluation of the phenomenon of “hate speech”.

Scientific discipline sector: INF/01 Informatics

Number of grants: 1

Duration: 36 months

Date, time and place of the interview:

7th May 2018 at 3.00 pm at the Department of Computer Science - Largo Bruno Pontecorvo, 3 - Pisa