



## UNIVERSITÀ DI PISA

Excerpt from the Rector's decree n. 20930 - 29/03/2018

### Call for the selection of n. 5 Junior Research Fellows

(Under the Italian Law 240/2010 article 24, subparagraph 3, point a)

The University of Pisa announces a call for 5 Junior Fixed-Term Research Fellows for the Departments and the scientific areas or sectors as listed in Annex A.

The fixed-term contract is to carry out research activities, teaching, integrative teaching activities and services for students, for a 350 hours commitment, on a full-time basis.

The Junior Research Fellow is required to perform lectures for 60 hours per academic year, with a 10% variability, allocated as an institutional assignment for Bachelor's and Master's degree programmes, Specialization Schools and PhD programmes. It is possible to provide a further 10% extra derogation, up to a maximum of 72 hours, in order to avoid an excessive partitioning of teaching modules.

Contract duration: 3 years

Gross annual salary: € 34.898,06

Deadline for application: 04/06/2018 at 1, p.m.

#### Admission requirements:

PhD or equivalent academic qualification awarded in Italy or abroad and recognised as eligible for admission.

As for a qualification awarded abroad, equivalency or comparability documentation has to be provided as stated under:

D.Lgs.165/2001, article 38:

[http://www.funzionepubblica.gov.it/sites/funzionepubblica.gov.it/files/modulo\\_equivalenza\\_Titoli\\_Accademici.pdf](http://www.funzionepubblica.gov.it/sites/funzionepubblica.gov.it/files/modulo_equivalenza_Titoli_Accademici.pdf)

Or under:

D.P.R. 382/1980, article 74:

[http://www.miur.gov.it/documents/20182/0/Equipollenza\\_Dottorato\\_ricerca\\_dpr382.pdf/f5ff98ae-ddff-4166-a822-83ef1b57c7f0](http://www.miur.gov.it/documents/20182/0/Equipollenza_Dottorato_ricerca_dpr382.pdf/f5ff98ae-ddff-4166-a822-83ef1b57c7f0)

As for an equivalent or comparable academic qualification, the candidate shall be admitted within the application's deadline and shall provide the qualification equivalency or comparability before the signing of the contract.

No admission to this selection for:

- Professors or Research Fellows with permanent position at the university, currently employed or currently retired;

- Fixed-term Research Fellowship or Post PhD research grants at the University of Pisa or other Italian universities, either public, private or online, and other public institutions (Under the Italian Law Italian Law n. 240/2010, articles 22 and 24) for a period that, totalled over this contract, would exceed 12 years altogether, even when not consecutive. As for the duration of the working period mentioned above, parental leave or medical leave, are excluded (under the existing legislation).

### **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](mailto:protocollo@pec.unipi.it) or via e-mail at: [concorsi@adm.unipi.it](mailto: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](mailto:concorsi@adm.unipi.it)

For any IT malfunctioning please refer to [unipi@cinca.it](mailto:unipi@cinca.it).

Applications shall be completed with the following annexes:

1. A self-attested Curriculum of the personal didactics, teaching and scientific activities, dated and signed; the curriculum must include all the qualifications applicant considers eligible for this selection
2. The Publications applicant considers eligible for this selection;
3. The corresponding list dated and signed;
4. A complete list of all Publications, dated and signed;
5. A copy of the fiscal code (if applicable) and identification card/passport, dated and signed;

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:**

A Rector's Decree will appoint the Selection Committee, consisting of three members.

The selection will be made according to a preliminary assessment of the candidates with an accurate and evidenced analytic evaluation of the Curriculum, of qualifications and scientific results, including PhD thesis.

After the preliminary assessment, the candidates that have comparatively proven to be the most meritorious, will be admitted to an open interview; they will represent between 10 and 20 % of the total and will be not less than six. The interview will concern applicant's qualifications and scientific results. In the event the number of applicants is six or less, all candidates are admitted. All admitted candidates will be summoned by registered post at least twenty days before the interview; the failed attendance to the interview will be considered as a voluntary renunciation.

During the interview, all candidates will be furthermore tested on the foreign language skills requested by the selection.

The candidates living abroad and therefore unable to attend the interview at the University of Pisa, will be allowed to be interviewed via the web or a conference call, prior applicant's identification by approved international universities or research centres and upon the Selection Committee approval.

The Selection Committee is appointed to establish the duly examination of the candidates and shall acquire each candidate's copy of an identity card or passport.

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/ricercat/ricercator/index.htm>

(1) If applicable

**Selection code A\_1**

**Department of Civil and Industrial Engineering**

**Admission Examination Sector: 09/B1 Manufacturing technology and systems**

**Disciplinary Scientific Sector: ING-IND/16 Manufacturing technology and systems**

**Nr. of position available: 1**

**Focus of research:**

The researcher will perform typical research activities of the scientific area of Manufacturing and Production Engineering, with particular reference to the development of innovative methodologies for enhancing the efficiency of assembly processes, both manual and automated, of mechanical products. The final objective of this research activity will be the optimization of programming, management and control of the assembly system, and aspects more strictly related to the process execution and monitoring

**Scientific productivity:**

The activity involves the preparation of scientific papers for publication in international journals and presentation at national and international conferences, and the participation to international research projects and contracts funded by public or private bodies

**Head office:**

Department of Civil and Industrial Engineering

**Specific didactic activity of the contract:**

The teaching commitment will involve in the SSD ING-IND/16 and will consist in degree and master degree courses of the Pisa School of Engineering and other Departments of the University of Pisa; it can also include the involvement in PhD and postgraduate courses

**Candidates will be required to demonstrate an adequate knowledge of English language**

**Candidates may present a maximum number of 12 scientific publications**

## Selection code A\_2

**Department of Civil and industrial engineering**

Admission Examination Sector: **08/B2 Structural Mechanics**

Disciplinary Scientific Sector: **ICAR/08 Structural Mechanics**

Nr. of position available: **1**

### **Focus of research:**

The researcher will perform both basic scientific research and oriented towards the applications of Civil and Industrial Engineering. The research activity, which will make constant reference to the proper methods of physical-mathematical modeling, will take place in the field of solid mechanics, structures and materials, with particular attention to both the classical and the frontier themes

### **Scientific productivity:**

The activity involves the preparation of scientific papers for publication in international journals and presentation at national and international conferences

### **Head office:**

Department of Civil and Industrial Engineering

### **Specific didactic activity of the contract:**

Didactic activity, integrative teaching and service to students within the didactic planning within the SSD-ICAR/08; it can also include the involvement in PhD and postgraduate course and seminar activity

Candidates will be required to demonstrate an adequate knowledge of **English language**

Candidates may present a maximum number of **12 scientific publications**

## Selection code A\_3

**Department of Energy, systems, territory, and construction engineering**

**Admission Examination Sector: 09/C2 Thermal sciences, energy technology, building physics and nuclear engineering**

**Disciplinary Scientific Sector: ING-IND/10 Thermal engineering and industrial energy systems**

Nr. of position available: 1

### **Focus of research:**

The scientific research topics are: fundamentals of Thermodynamics, Thermofluid-dynamics and Heat Transfer. In particular, the issues concerning the experimental activity, the thermofluidynamic analysis of heat transfer devices and the measurement instruments and techniques for the study of thermofluidynamic phenomena, will be object of a specific activity

### **Scientific productivity:**

The scientific activity consists in the participation to research projects funded by public or private entities and in scientific publications of papers in the national and international journals and in conferences proceedings

The scientific production must be coherent with the one typical of the SSD ING-IND/10

### **Head office:**

Department of Energy, Systems, Territory, and Construction Engineering

### **Specific didactic activity of the contract:**

The teaching, the supplementary teaching and tutoring activities will be mostly performed in the SSD ING-IND/10 sector and in the academic courses compliant with the requirements of University of Pisa and of the Department

Candidates will be required to demonstrate an adequate knowledge of **English language**

Candidates may present a maximum number of **12 scientific publications**

## Selection code A\_4

**Department of Energy, systems, territory, and construction engineering**

Admission Examination Sector: **09/E1 Electrotechnics**

Disciplinary Scientific Sector: **ING-IND/31 Electrotechnics**

Nr. of position available: 1

### **Focus of research:**

Research activities in the areas of Electrotechnics in relation to the theoretical and experimental aspects and the development of applications to analysis, synthesis, numerical modeling and automatic design of equipment, devices and electrical systems, plasma engineering, thermonuclear fusion, particle accelerators, electrothermics, electromagnetic compatibility, quality, safety and environmental impact in electrical applications, signal processing circuits, adaptive circuits and neural networks, power electronics and electricity conversion

### **Scientific productivity:**

The scientific activity involves participation in research projects financed by public or private bodies, the preparation of scientific articles for national and international publications, both in journals and scientific congresses and the filing of industrial patents. Scientific productivity must be consistent with that of the SSD ING-IND/31

### **Head office:**

Department of Energy, Systems, Territory, and Construction Engineering

### **Specific didactic activity of the contract:**

The teaching activity will be carried out within the teachings of the ING-IND / 31 sector, and will consist of lectures and exercise activities for the students, according to the needs of the teaching programs. This also includes tutoring activity in the preparation of undergraduate and doctoral theses. The total annual commitment for the activities of teaching, supplementary teaching and service to students is consistent with that provided by the University regulations

Candidates will be required to demonstrate an adequate knowledge of **English language**

Candidates may present a maximum number of **12 scientific publications**

## Selection code A\_5

### **Department of Information engineering**

Admission Examination Sector: **09/E3 Electronics**

Disciplinary Scientific Sector: **ING-INF/01 Electronics engineering**

Nr. of position available: 1

### **Focus of research:**

Design and implementation of circuits, equipment and systems for processing and transmission of information, based on specifications, regulations and costs set by applications, semiconductor devices for low and high frequency, circuits, microcircuits, microsystems devices and circuits for industrial and power applications

### **Scientific productivity:**

Participation in national and international research projects, publications on specialist journals and international conference proceedings

### **Head office:**

Department of Information Engineering

### **Specific didactic activity of the contract:**

Basic courses in Electronics and specialized courses in the fields of devices, circuits and integrated system design.

Candidates will be required to demonstrate an adequate knowledge of **English language**

Candidates may present a maximum number of **12 scientific publications**