



UNIVERSITÀ DI PISA

Excerpt from the Rector's decree n. 48916 May 13, 2019

Call for the selection of 36 Senior Research Fellows

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

The University of Pisa announces a call for 36 Senior Fixed-Term Research Fellows for: **(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 Senior Research Fellow is required to perform lectures for 80 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 96 hours, in order to avoid an excessive partitioning of teaching modules.

Contract duration: 3 years

Gross annual salary: € 41.877,68

Deadline for application: **July 8, 2019, 1.00 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

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

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.

Candidates are required to declare what follows:

1. To enjoy the full rights of citizenship in their home State

2. Not to have been convicted or found guilty of any criminal offence; in the event of any conviction, it is mandatory to provide the details of the relevant judgments and any pending criminal proceedings;
3. Not to have been dismissed or dispensed from employment by a Public Administration for persistent unsatisfactory performance; not to have been lapsed from State employment, in compliance with art. 127, first paragraph, point d) of the Consolidation Act of Provisions concerning the State civil servants approved by Presidential Decree no. 3 of 10 January 1957;
4. to be registered on the electoral roll;

Required qualifications:

to have been employed as a Fixed-Term Research Fellow for a three- year period already completed by the application's deadline; (Under the Italian Law 240/2010, article 24, subparagraph 3, point a)

or

to be a researcher, a scholar or a scientists holding the Italian National Certification for Full or Associate Professor (Under the Italian Law 240/2010 article 16);

or

to hold a Medical Specialty School qualification for the relevant medical fields;

or

to have had at least a three-year period of contracts, even when not consecutive and already completed by the application's deadline, performed with:

- research grants (under the Italian Law 449/97, art 51, subparagraph 6 or the Italian Law 240/2010 article 22 or comparable academic contracts abroad)
- post PhD grants (under the Italian Law 398/1989, article 4 or comparable academic contracts abroad)
- **contracts concluded in compliance with the Law no. 230 of 4 November 2005, art. 1, paragraph 14.**

Please note: the above-mentioned three-year period could aggregate: Fixed-Term Research Fellowship, post PhD research grants and fellowship in foreign Universities (under DM 662/2016).

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.

Please forward to the Rector by the submission deadline any further variation, by the Italian certified e-mail system address (P.E.C. Posta Elettronica Certificata): protocollo@pec.unipi.it or by e-mail address concorsi_ricercatori@unipi.it, (only PDF documents are allowed, dated and signed ; a candidate's valid ID card copy is required in attach).

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:

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 Department of Biology

Admission Examination Sector: 05/E1- GENERAL BIOCHEMISTRY

Disciplinary Scientific Sector: BIO/10 - BIOCHEMISTRY

Nr. of position available: 1

Focus of research:

In agreement with the declaration of the ssd BIO/10 (Biochemistry), the research will deal with functional and applied enzymology, with special attention to purification and kinetic characterization of enzymes.

Scientific productivity:

Scientific production will consist in the publication of papers on scientific international journals with IF and in the dissemination of research results by oral/poster communications at National and International Meetings, scientific collaborations with national and international institutions

Head office:

Department of Biology

Specific didactic activity of the contract

The teaching activity will be fulfilled by lecturing courses within the BIO-10 sector according to the Departmental yearly teaching plan and by performing supervision of undergraduate and PhD students and practical tutorials. Teaching activity will also include seminars for the “Biochemistry and Molecular Biology” PhD program.

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

Candidates may present a maximum number of 15 scientific publications

Selection code A_2

Department of Department of Biology

Admission Examination Sector: 05/D1 - PHYSIOLOGY

Disciplinary Scientific Sector: BIO/09 - PHYSIOLOGY

Nr. of position available: 1

Focus of research:

The scientific activity will cover issues related to the disciplinary sector BIO/09 Physiology with particular reference to the study, at the molecular, cellular and tissue level, of the response of organisms to endogenous stimuli or changes in the surrounding environment. This will be pursued through the use of experimental models with functional approaches in order to investigate the modes of communication between cells as well as the functions of specialized cells.

Scientific productivity:

Publication of papers in international scientific, peer-reviewed journals and participation to national and international meetings for dissemination of the research results. Participation to national and international research projects.

Head office:

Department of Biology

Specific didactic activity of the contract

The teaching activity will be held within the courses belonging to the disciplinary sector BIO/09 "Physiology" and will consist in frontal lectures and laboratory activities according to the yearly teaching plan of the Department of Biology and other Departments of the University of Pisa requiring competence specific of the disciplinary sector BIO/09. Other teaching activities will include undergraduate and PhD student supervision, as well as seminars in the frame of PhD courses.

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

Candidates may present a maximum number of 14 scientific publications

Selection code A_3

Department of Chemistry and Industrial **Chemistry**

Admission Examination Sector: 03/B1 - PRINCIPLES OF CHEMISTRY AND INORGANIC SYSTEMS

Disciplinary Scientific Sector: CHIM/03 - GENERAL AND INORGANIC CHEMISTRY

Nr. of position available: 1

Focus of research:

Structural characterization, with particular reference to the techniques based on the utilization of X-ray diffraction, and study of the properties of inorganic and organometallic compounds

Scientific productivity:

Dissemination of research results to the scientific community in peer-reviewed international journals, presentation of results in national and international congresses

Head office:

Department of Chemistry and Industrial Chemistry

Specific didactic activity of the contract

Courses pertinent to the disciplines of the inorganic chemistry scientific area, within the Department of Chemistry and other departments of the University of Pisa, where the expertise of the SSD CHIM/03 is required

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

Candidates may present a maximum number of 18 scientific publications

Selection code A_4

Department of Chemistry and Industrial **Chemistry**

Admission Examination Sector: 03/A1 - ANALYTICAL CHEMISTRY

Disciplinary Scientific Sector: CHIM/01 - ANALYTICAL CHEMISTRY

Nr. of position available: 1

Focus of research:

Analytical chemistry develops theories, methodologies, techniques and instruments to determine the qualitative and quantitative composition and structure of natural and artificial chemical systems with different aggregation states and variable complexity, also in the field of bioanalytical and merceology. All the processes related to the pre-analytical stages (sampling, separation, enrichment, matrix modifications) as well as the development and use of instruments for the evaluation of the quality of the data (for example chemometry). As part of the declaration of SSD CHIM / 01, the research is aimed at the development, implementation and optimization of analytical procedures for the characterization of complex systems, based mainly on gas and liquid chromatography also interfaced with mass spectrometry and on analytical pyrolysis techniques

Scientific productivity:

A significant number of scientific publications and communications to national and international meetings

Head office:

Department of Chemistry and Industrial Chemistry

Specific didactic activity of the contract

Teaching courses that pertain to the discipline CHIM/01-Analytical Chemistry for bachelor and master degree

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

Candidates may present a maximum number of 20 scientific publications

Selection code A_5

Department of Department of Civilisations and Forms of Knowledge

Admission Examination Sector: 10/N1 - ANCIENT NEAR EASTERN, MIDDLE EASTERN AND AFRICAN CULTURES

Disciplinary Scientific Sector: L-OR/14 - IRANIAN PHILOLOGY, RELIGIONS AND HISTORY

Nr. of position available: 1

Focus of research:

Linguistic, philological, codicological and epigraphic studies of texts produced in ancient, medieval and modern Iranian languages. Historical studies on the Iranian world, including the central-Asian regions of Iranian culture, starting from the oldest evidences up to the contemporary period. Studies of religious history of the Iranian world in relation to Central Asia from antiquity to the present time

Scientific productivity:

Studies on Middle-Iranian texts accompanied by codicological, paleographic, linguistic, historical and historical-religious analyzes, aiming at a deeper understanding of the intercultural processes in Middle Ages Inner Asia.

Head office:

Department of Civilisations and Forms of Knowledge

Specific didactic activity of the contract

Course in "Philology, Religions and History of Iran" in Master Degree Program

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_6

Department of Civilisations and Forms of Knowledge

Admission Examination Sector: 10/A1 - ARCHAEOLOGY

Disciplinary Scientific Sector: L-ANT/01 - PREHISTORY AND EARLY HISTORY

Nr. of position available: 1

Focus of research:

Studies on Prehistoric Populations, analysed from an archaeological, palethnological, ethnographic and ecological point of view, both in the European area and outside Europe, both at the theoretical and methodological level and at the level of application to specific geographical areas and to determined chronological fields, as well as aspects of didactics of the Museum and the Archaeological Park applied to environments and finds from the Prehistoric Age

Scientific productivity:

Designing and coordination of national and international research projects, presentation of papers at the main national and/or international conferences, publication of papers in national/international scientific journals

Head office:

Department of Civilisations and Forms of Knowledge

Specific didactic activity of the contract:

First and higher (Bachelor, Master and Doctoral) degree courses, laboratories and workshop related to the Prehistoric Archaeology, designing and coordination of Summer School about the afore mentioned topics

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_7

Department of Economics and Management

Admission Examination Sector: 13/B1 - BUSINESS ADMINISTRATION AND ACCOUNTING STUDIES

Disciplinary Scientific Sector: SECS-P/07 - BUSINESS ADMINISTRATION AND ACCOUNTING STUDIES

Nr. of position available: 1

Focus of research:

It will concern the study of the main organization constituents and of the factors contributing to the long-term economic development of companies considering profit and no-profit organizations including public administrations.

The competencies of business administration involve theories of the firm and of business groups, strategies and business policies, analysis and design of business processes, business ethics, financial statements, business evaluation, auditing and consulting. Accounting competencies regard the evaluation, analysis and use of data to support decision and control processes, accounting and financial statements (including financial auditing and financial analysis), accounting for decision making (management accountants, planning and control), accounting history.

Scientific productivity:

A monograph, contributions in volumes and articles published in qualified national and international journals in the field of business administration

Head office:

Department of Economics and Management

Specific didactic activity of the contract:

Courses mainly related to Business Economics (SSD SECS-P/07) offered by Dipartimento di Economia e Management

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_8

Department of Economics and Management

Admission Examination Sector: 13/A1 - ECONOMICS

Disciplinary Scientific Sector: SECS-P/01 - ECONOMICS

Nr. of position available: 1

Focus of research:

The topics included in the declaratory of SSD SECS-P/01, with a particular focus on the theory of firm and markets; and the theory of international trade

Scientific productivity:

Publications in prestigious journals and participation to national and international research projects

Head office:

Department of Economics and Management

Specific didactic activity of the contract:

Courses mainly related to Economics (SSD SECS-P/01) offered by Dipartimento di Economia e Management

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_9

Department of Pharmacy

Admission Examination Sector: 03/D1 - MEDICINAL, TOXICOLOGICAL AND NUTRITIONAL CHEMISTRY AND APPLIED TECHNOLOGIES

Disciplinary Scientific Sector: CHIM/08 - PHARMACEUTICAL CHEMISTRY

Nr. of position available: 1

Focus of research:

The study of natural, biotechnological and synthetic products with biological activity, developing the design, the synthesis, the study of the properties, of the action mechanisms at the molecular level, and the relationships between chemical structure and biological activity.

Scientific productivity:

Gain full scientific independence, possibly through the supervision of BSc, and MSc theses. Acceptance during the three year period of an appropriate number of papers on international journals coherent with the examination sector. Dissemination of the obtained results in national and international meetings, and on the web

Head office:

Department of Pharmacy

Specific didactic activity of the contract

Teaching courses of BSc, and MSc of the Department Pharmacy and other Departments of the University of Pisa in which the SSD (disciplinary scientific sector CHIM/08) skills are requested.

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

Candidates may present a maximum number of 15 scientific publications

Selection code A_10

Department of Pharmacy

Admission Examination Sector: 05/D1 - PHYSIOLOGY

Disciplinary Scientific Sector: BIO/09 - PHYSIOLOGY

Nr. of position available: 1

Focus of research:

The scientific activity will cover topics specific to the disciplinary scientific field BIO/09 (Physiology) including the study of homeostatic responses of an organism at the cellular and tissue level, in the context of changes in the surrounding environment. In particular, it will focus on the study of the electrophysiological and functional mechanisms of communication systems in biological membranes as well as the specialized functions of individual cells

Scientific productivity:

Gain full scientific independence, possibly through the supervision of BSc, and MSc theses. Acceptance during the three year period of an appropriate number of papers on international journals coherent with the examination sector. Dissemination of the obtained results in national and international meetings, and on the web

Head office:

Department of Pharmacy

Specific didactic activity of the contract

Teaching courses of BSc, and MSc of the Department Pharmacy and other Departments of the University of Pisa in which the SSD (disciplinary scientific sector BIO/09) skills are requested.

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

Candidates may present a maximum number of 14 scientific publications

Selection code A_11

Department of Philology, Literature and Linguistics

Admission Examination Sector: 10/F3 ITALIAN LINGUISTICS AND PHILOLOGY

Disciplinary Scientific Sector: L-FIL-LET/12 ITALIAN LINGUISTICS

Nr. of position available: 1

Focus of research:

Research activities will cover the following areas: the studies on the Italian language and the dialects spoken in Italy, with reference to their phonetic, phonological, morphological, syntactic and lexicological structures, as well as the evolution of these systems, the history of social uses and geolinguistic structures, the textual and stylistic traditions of documents and texts written in Italian, the theoretical and applicative problems, as well as the methodological debate about the teaching of the Italian language for native and non native speakers.

Scientific productivity:

Aims and objectives and envisaged research output: publications in peer-reviewed journals at international level; publications in conference proceedings.

Head office:

Department of Philology, Literature and Linguistics

Specific didactic activity of the contract:

BA and MPhil degree courses; participation in the doctoral seminars active in the Department.

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

Candidates may present a maximum number of 15 scientific publications

Selection code A_12

Department of Philology, Literature and Linguistics

Admission Examination Sector: 10/H1 FRENCH LANGUAGE, LITERATURE AND CULTURE

Disciplinary Scientific Sector: L-LIN/04 LANGUAGE AND TRANSLATION – FRENCH

Nr. of position available: 1

Focus of research:

Research activities and output will cover the following areas: the metalinguistic analysis of the French language in its synchronic and diachronic dimensions, in its phonetic, morphological, syntactic, lexical, textual and pragmatic structures, as well as in the different levels and registers of oral and written communication; it will also include studies aimed at the practice and reflection on the translation activity, written and oral, in its multiple non-literary, generic and specialist articulations and in multimedia applications (including the translation and interpretation referred to in Article 1 of Italian law 478/84).

Scientific productivity:

Aims and objectives and envisaged research output: publications in peer-reviewed journals at international level; publications in conference proceedings.

Head office:

Department of Philology, Literature and Linguistics

Specific didactic activity of the contract:

BA and MPhil degree courses; participation in the doctoral seminars active in the Department.

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

Candidates may present a maximum number of 15 scientific publications

Selection code A_13

Department of Physics

Admission Examination Sector: 02/A2 - THEORETICAL PHYSICS OF FUNDAMENTAL INTERACTIONS

Nr. of position available: 1

Focus of research:

The topics reported in the DECLARATORIA of the “settore concorsuale 02/A2

Scientific productivity:

Publications and contributions to conferences.

Head office:

Department of Physics

Specific didactic activity of the contract:

basic courses of physics and advanced courses of theoretical physics

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

Candidates may present a maximum number of 12 scientific publications

The presentation of a report on the research activity is recommended

Selection code A_14

Department of Physics

Admission Examination Sector: 02/B1 EXPERIMENTAL PHYSICS OF MATTER

Nr. of position available: 1

Focus of research:

The topics reported in the DECLARATORIA of the settore concorsuale 02/B1

Scientific productivity:

Publications and contributions to conferences.

Head office:

Department of Physics

Specific didactic activity of the contract:

Basic courses of physics and advanced courses of matter physics

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

Candidates may present a maximum number of 12 scientific publications

The presentation of a report on the research activity is recommended

Selection code A_15

Department of Law

Admission Examination Sector: 13/A1 ECONOMICS

Disciplinary Scientific Sector: SECS-P/01 ECONOMICS

Nr. of position available: 1

Focus of research:

Research activity in economics, with special reference, according to the official definition of the s.s.d., to the interventions of economic policy and public economics and to the analysis of the evolution of the field from a historical and methodological perspective

Scientific productivity:

Publication of essays in academic journals of high international rating and in volumes published by prominent academic publishers; possible publication of a monograph with a prominent academic publisher; participation to conferences and meetings of scientific associations, both Italian and international; participation to research activities at a local, national or international level financed on a competitive basis

Head office:

Department of Law

Specific didactic activity of the contract:

Teaching of courses of the macro-area 13A (Economics) given in the degrees of the Department of Law; in view of the specific abilities and interests of the students enrolled in these degrees, the teaching will focus on the institutional and historical/methodological sides of the various subjects

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_16

Department of Law

Admission Examination Sector: 12/B1 BUSINESS LAW

Disciplinary Scientific Sector: IUS/04 BUSINESS LAW

Nr. of position available: 1

Focus of research:

Business law and company law, particularly relating to the protection tools that can be used by shareholders and other stakeholders involved in all types of business entities, including the most complex models, such as public corporations and in general limited liability corporations

Scientific productivity:

Publishing of one or more books, papers and essays in peer-reviewed journals and collective works

Head office:

Department of Law

Specific didactic activity of the contract:

Classroom teaching and student tutoring each academic year in teaching courses on business law, company law, IP and competition law, bankruptcy law, banking law and financial markets law

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_17

Department of Computer Science

Admission Examination Sector: 01/B1 INFORMATICS

Disciplinary Scientific Sector: INF/01 INFORMATICS

Nr. of position available: 1

Focus of research:

Research activities in the fields of the academic discipline INF/01 Informatics

Scientific productivity:

Contributions to the progress of the state of art in Computer Science by means of international level publications

Head office:

Department of Computer Science

Specific didactic activity of the contract:

The duties of the role include delivering teaching to all levels of students (undergraduate and graduate) of the academic discipline INF/01 - Informatics

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_18

Department of Civil and Industrial Engineering

Admission Examination Sector: 08/A3 INFRASTRUCTURAL AND TRANSPORTATION ENGINEERING, REAL ESTATE APPRAISAL AND INVESTMENT VALUATION

Disciplinary Scientific Sector: ICAR/05 TRANSPORTATION

Nr. of position available: 1

Focus of research:

The specific research activity of the researcher will concern the analysis, planning and management of transport systems, with particular reference to the following areas of research: analysis, planning, management and sustainability of transport systems for people and goods, transport logistics (maritime, intermodal, urban goods and people).

Scientific productivity:

The research activity involves the participation and coordination of research projects and contracts financed by public or private bodies, participation in national and international meetings and conferences, as well as the drafting of scientific articles for the dissemination of the results obtained and the methodologies developed in indexed international journals and conference proceedings

Head office:

Department of Civil and Industrial Engineering

Specific didactic activity of the contract:

The researcher will be available to meet the needs of frontal and integrative teaching that will be presented in the context of educational programming, in relation to the scientific disciplinary sector ICAR / 05

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

Candidates may present a maximum number of 15 scientific publications

Selection code A_19

Department of Civil and Industrial Engineering

Admission Examination Sector: 09/A3 INDUSTRIAL DESIGN, MACHINE CONSTRUCTION AND METALLURGY

Disciplinary Scientific Sector: ING-IND/15 DESIGN METHODS FOR INDUSTRIAL ENGINEERING

Nr. of position available: 1

Focus of research:

The research activities will cover the typical aspects of Design and Methods of Industrial Engineering, with particular reference to artificial vision applied to the 3D reconstruction of free-form surfaces and to the modeling of individual biomedical systems. The research activity will also cover the characterization of 3D printing processes and the study of design methodologies oriented to additive manufacturing.

Scientific productivity:

The research activity involves the participation and coordination of research projects and contracts financed by public or private bodies, participation in national and international meetings and conferences, as well as the drafting of scientific articles for the dissemination of the results obtained and the methodologies developed in indexed international journals and conference proceedings

Head office:

Department of Civil and Industrial Engineering

Specific didactic activity of the contract:

The researcher will be available to meet the needs of frontal and integrative teaching that will be presented in the context of educational programming, in relation to the scientific disciplinary sector ING-IND / 15

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

Candidates may present a maximum number of 15 scientific publications

Selection code A_20

Department of Civil and Industrial Engineering

Admission Examination Sector: 09/D1 MATERIALS SCIENCE AND TECHNOLOGY

Disciplinary Scientific Sector: ING-IND/22 MATERIALS SCIENCE AND TECHNOLOGY

Nr. of position available: 1

Focus of research:

The researcher's activity will concern the study and development of natural and synthetic materials for applications in biomedical engineering and in the fields of application of materials in Medicine and Surgery (materials for deafness, for bone regeneration, for skin contact), investigating the relationships between structure, formulation and process, performance and biochemical-physical properties of the same.

Scientific productivity:

The candidate must be able to form multidisciplinary research teams and make relevant international collaborations, propose research projects, demonstrate the ability to carry them out independently with the production of scientific data that allow the dissemination of results achieved or the filing of patents. Disclosure must be made through the publication of articles in high quality peer reviewed scientific journals, book chapters and other editorial material, and participation in major national and international congresses in the field.

Head office:

Department of Civil and Industrial Engineering

Specific didactic activity of the contract:

The researcher will be available to meet the needs of frontal and integrative teaching that will be presented in the context of educational programming, in relation to the scientific disciplinary sector ING-IND / 22

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

Candidates may present a maximum number of 15 scientific publications

Selection code A_21

Department of Civil and Industrial Engineering 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/11 BUILDING PHYSICS AND BUILDINGENERGY SYSTEMS

Nr. of position available: 1

Focus of research:

Specific areas of Building Physics, with special reference to methodological analysis and experimental activities related to: physics of buildings and confined environments, energy performance of buildings and building services, hygro-thermal behaviour of buildings envelope, thermo-fluid dynamics applied to building systems, daylighting and artificial lighting of indoor and outdoor environments, unsteady-state acoustics of closed environments and building acoustics, health and wellbeing in workplaces for thermal, acoustic and visual aspects

Scientific productivity:

Direction or participation in research projects financed by public or private bodies, the preparation of scientific articles for prevalently international publications, both in journals and scientific conferences and the possible filing of industrial patents

Scientific productivity must be consistent with that of the SSD ING-IND/11

Head office:

Department of Civil and Industrial Engineering Department of Energy, Systems, Territory, and Construction Engineering

Specific didactic activity of the contract:

Teaching activity will be carried out within the teachings of the SSD ING-IND/11, and will consist of lectures and exercise activities for 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 must be consistent with that provided by the current legislation (as reported in the University of Pisa regulation).

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_22

Department of Civil and Industrial Engineering Department of Energy, Systems, Territory, and Construction Engineering

Admission Examination Sector: 08/C1 - DESIGN AND TECHNOLOGICAL PLANNING OF ARCHITECTURE

Disciplinary Scientific Sector: ICAR/10 – ARCHITECTURAL ENGINEERING

Nr. of position available: 1

Focus of research:

Analysis of buildings, with reference to their structural, functional, typological and morphological aspects as well as to their systems hierarchy, addressed to the project feasibility. Critical assessment of traditional and innovative building techniques, and their translation in terms of project and production processes. Issues concerning new buildings at different scale, as well as conservation, rehabilitation and restoration of existing ones

Scientific productivity:

Monographs and papers in national and international scientific journals; attendance and organization of scientific conferences

Head office:

Department of Civil and Industrial Engineering Department of Energy, Systems, Territory, and Construction Engineering

Specific didactic activity of the contract:

Educational and teaching activity in the courses of Building Engineering Architecture and Civil Engineering

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

Candidates may present a maximum number of 15 scientific publications

Selection code A_23

Department of Information Engineering

Admission Examination Sector: 09/G1 SYSTEMS AND CONTROL ENGINEERING

Disciplinary Scientific Sector: ING-INF/04 SYSTEMS AND CONTROL ENGINEERING

Nr. of position available: 1

Focus of research:

Methods and technologies for the treatment of signals and data for automation (i.e., planning, management and control of interactions of intelligent systems and machines with the environment and with people) as applied to plants, processes and in general to dynamic systems, with specific reference to robotics and automation engineering

Scientific productivity:

Advances in the state of the art in the topics within the scientific area (09/G1), documented by high quality publications in peer reviewed journals; capability of acquiring funds for scientific and technological research and development at the local, national, and international level

Head office:

Department of Information Engineering

Specific didactic activity of the contract:

Basic and advanced courses within area 09/G1, in particular as referred to robotics and automation engineering

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_24

Department of Information Engineering

Admission Examination Sector: 09/G2 BIOENGINEERING

Disciplinary Scientific Sector: ING-INF/06 ELECTRONIC AND INFORMATICS BIOENGINEERING

Nr. of position available: 1

Focus of research:

Research activity on topics related to the “Electronic and Information Bioengineering” (ING-INF/06) area, including biomedical technologies, fabrication of biomedical devices, and application of advanced technologies for cell and tissue engineering

Scientific productivity:

Publication of papers in qualified and high-impact international scientific journals; participation in international conferences; involvement in national and international research projects

Head office:

Department of Information Engineering

Specific didactic activity of the contract:

Teaching activity in courses of the “Electronic and Information Bioengineering” (ING-INF/06) area, with special regard to advanced biomedical technologies. Management of teaching activities and projects

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_25

Department of Mathematics

Admission Examination Sector: 01/A3 MATHEMATICAL ANALYSIS, PROBABILITY AND STATISTICS

Disciplinary Scientific Sector: MAT/06 - PROBABILITY AND STATISTICS

Nr. of position available: 1

Focus of research:

Study, from both a theoretical and an applied viewpoint, of the calculus of probability and of the stochastic techniques related to it, of mathematical statistics and of the stochastic aspects of the theories of reliability, queuing, decision and games

Scientific productivity:

Publishing papers of interest in the realm of probability and mathematical statistics in generalist or specialized journals at a national or international level. Seminars in Universities, Research Institutes and international or national Conferences

Head office:

Department of Mathematics

Specific didactic activity of the contract:

Teaching (both as a main and as a secondary lecturer) of courses (including exercises) having as a topic the basics of mathematics, in any degree program of the university, and of advanced courses of probability or mathematical statistics topic in the first degree, master and PhD programs in mathematics

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_26

Department of Mathematics

Admission Examination Sector: 01/A2 GEOMETRY AND ALGEBRA

Disciplinary Scientific Sector: MAT/03 - GEOMETRY

Nr. of position available: 1

Focus of research:

Properties and classification of geometric structures (topological, differential, real analytic and complex manifolds, algebraic varieties), including the combinatorial and computational techniques that can be applied to their study, as well as (general, algebraic and differential) topology, complex analysis and geometry, and the algebraic and geometric properties of dynamical systems

Scientific productivity:

Publishing papers of geometric interest in generalist or specialized journals at a national or international level. Seminars in Universities, Research Institutes and international or national Conferences

Head office:

Department of Mathematics

Specific didactic activity of the contract:

Teaching (both as a main and as a secondary lecturer) of courses (including exercises) having as a topic the basics of mathematics, in any degree program of the university, and of advanced courses of geometric topic in the first degree, master and PhD programs in mathematics

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_27

Department of Mathematics

Admission Examination Sector: 01/A2 GEOMETRY AND ALGEBRA

Disciplinary Scientific Sector: MAT/02 - ALGEBRA

Nr. of position available: 1

Focus of research:

Interest and relevance at an international level having Algebra as its main topic, and particularly the study of the properties and the classification of algebraic structures, both commutative and noncommutative, including the computational aspects and techniques instrumental to their treatment, as well as algebraic number theory

Scientific productivity:

Publishing papers of algebraic interest in generalist or specialized journals at a national or international level. Seminars in Universities, Research Institutes and international or national Conferences

Head office:

Department of Mathematics

Specific didactic activity of the contract:

Teaching (both as a main and as a secondary lecturer) of courses (including exercises) having as a topic the basics of mathematics, in any degree program of the university, and of advanced courses of algebraic topic in the first degree, master and PhD programs in mathematics

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_28

Department of Translational Research and of New Surgical and Medical Technologies

Admission Examination Sector: 05/G1 PHARMACOLOGY, CLINICAL PHARMACOLOGY AND PHARMACOGNOSY

Disciplinary Scientific Sector: BIO/16 HUMAN ANATOMY

Nr. of position available: 1

Focus of research:

The research activity will be carried out in the contest of the scientific-disciplinary sector BIO/16, Human Anatomy. The research will be carried out by using those methods which typically belong to the scientific-disciplinary sector BIO/16. The research will be focused on the anatomy of different organs as well as organogenesis in connection specific areas of motor and biomedical sciences such as the central nervous and endocrine systems. The classic anatomical approach is expected to provide significant outcomes applying to clinical neuroanatomy

Scientific productivity:

Publishing papers on national and international peer-reviewed journals, data presentation at national and international meetings

Head office:

Department of Translational Research and of New Surgical and Medical Technologies

Specific didactic activity of the contract:

Teaching activity for the scientific-disciplinary sector Human Anatomy (BIO/16) will include lecturing human anatomy courses as well as gross anatomy and microscopy labs both at Master and Bachelor level including the teaching course in Medicine and Motor Sciences. The teaching activity will include tutoring gross anatomy through cadaver dissection and anatomy in vivo through imaging techniques including echography. Supervising activities of under graduates, graduates and PhD students

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_29

Department of Agricultural, Food and Agro-Environmental Sciences

Admission Examination Sector: 07/A1 AGRICULTURAL ECONOMICS AND APPRAISAL

Disciplinary Scientific Sector: AGR/01 AGRICULTURAL ECONOMICS AND RURAL

APPRAISAL Nr. of position available: 1

Focus of research:

The research will focus on the economic, policy, and management aspects of production, processing, distribution, marketing and consumption of the primary products (agriculture, silviculture and fishery), on its relationship with other components of socioeconomic and environmental system.

Scientific productivity:

Scientific articles in national and international journals; participation to national and international congresses; participation to national and international projects

Head office:

Department of Agricultural, Food and Agro-Environmental Sciences

Specific didactic activity of the contract:

Teaching activities concerning the disciplines related to the SSD AGR/01

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_30

Department of Agricultural, Food and Agro-Environmental Sciences

Admission Examination Sector: 07/B2 ARBORICULTURE AND FOREST SYSTEMS

Disciplinary Scientific Sector: AGR/03 ARBORICULTURE AND FRUITCULTURE

APPRAISAL Nr. of position available: 1

Focus of research:

The research will focus on the biology and ecophysiology of fruit tree species, the design and sustainable management of the orchard, the vineyard and the olive grove, and the evaluation of the quality of fruits and fruit-derived products

Scientific productivity:

Publications in national and international journals; participation to national and international symposia and meetings

Head office:

Department of Agricultural, Food and Agro-Environmental Sciences

Specific didactic activity of the contract:

Teaching within Fruit Tree Science (Arboricoltura Generale e Coltivazioni Arboree AGR/03)

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_31

Department of Geosciences

Admission Examination Sector: 04/A2 STRUCTURAL GEOLOGY, STRATIGRAPHY, SEDIMENTOLOGY AND PALEONTOLOGY

Disciplinary Scientific Sector: GEO/03 STRUCTURAL GEOLOGY APPRAISAL

Nr. of position available: 1

Focus of research:

The study of the processes governing the internal dynamics of the Earth, and the modifications induced in the superficial and deep geological units, the estimate of the boundary conditions in the relation between stress fields and the types of elastic and inelastic deformation. The research will involve the field mapping and tridimensional reconstruction of complex geological structures at various scales and their evolution, through the integration with data provided by other disciplines of the Earth Sciences. The research will be also devoted to the analysis, with various physical methods, of the deformation processes and to the construction of numerical and analogical models for the representation, also cartographic, and for the interpretation of deformation processes at various scales and at different depths

Scientific productivity:

the study of the processes governing the internal dynamics of the Earth, and the modifications induced in the superficial and deep geological units, the estimate of the boundary conditions in the relation between stress fields and the types of elastic and inelastic deformation. The research will involve the field mapping and tridimensional reconstruction of complex geological structures at various scales and their evolution, through the integration with data provided by other disciplines of the Earth Sciences. The research will be also devoted to the analysis, with various physical methods, of the deformation processes and to the construction of numerical and analogical models for the representation, also cartographic, and for the interpretation of deformation processes at various scales and at different depths

Head office:

Department of Geosciences

Specific didactic activity of the contract:

Teachings of Basic Knowledge of Geology, Geology, Geological Survey, Structural Geology, Tectonics and Geology of Crystalline Basements inside Undergraduate and Master courses.

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

Candidates may present a maximum number of 15 scientific publications

Selection code A_32

Department of Political Sciences

Admission Examination Sector: 11/A3 CONTEMPORARY HISTORY

Disciplinary Scientific Sector: M-STO/04 - CONTEMPORARY HISTORY

Nr. of position available: 1

Focus of research:

Political, institutional and cultural history of the contemporary age, with particular focus on the history of Italy and Europe in the 20th century

Scientific productivity:

Qualified scientific production related to the historical processes of the contemporary age, studied from an interconnected variety of perspectives (political, institutional, cultural)

Head office:

Department of Political Sciences

Specific didactic activity of the contract:

Teaching activity in the field of SSD M-STO/04, "Contemporary History", in the bachelor and master degree courses of the Department of Political Studies

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_33

Department of Political Sciences

Admission Examination Sector: 14/C2 SOCIOLOGY OF CULTURE AND COMMUNICATION

Disciplinary Scientific Sector: SPS/08 SOCIOLOGY OF CULTURE AND COMMUNICATION

Nr. of position available: 1

Focus of research:

Sociological reading of cultural processes, from the axiological and communication ones to those of socialization and training, with special reference to the analysis of cultural and educational processes and the sociology of family and gender

Scientific productivity:

Qualified scientific production at national and international level in the fields relevant to the sector in general and concerning cultural and educational processes and the sociology of family and gender

Head office:

Department of Political Sciences

Specific didactic activity of the contract:

Teaching activities in courses in Sociology of Education and in Culture, Gender and Society; tutoring of undergraduate and graduate students, evaluation processes concerning the sociological disciplines within the degree programs 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_34

Department of Political Sciences

Admission Examination Sector: 14/C1 GENERAL SOCIOLOGY

Disciplinary Scientific Sector: SPS/07 GENERAL SOCIOLOGY

Nr. of position available: 1

Focus of research:

Theoretical perspectives of sociology, methodology of social research and problems related to the relationship between theory and empirical research; social policy connected to different types of welfare systems, analysis of social work services and methods, sociology of health

Scientific productivity:

Monographs and publications in the best national and international scientific journals on issues that are relevant for general sociology and sociology of health

Head office:

Department of Political Sciences

Specific didactic activity of the contract:

Teaching general sociology and sociology of health; tutoring of students and undergraduates; being part of students' evaluation processes in the sociological disciplines within the Degree Programs

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_35

Department of Veterinary Sciences

Admission Examination Sector: 07/H3 INFECTIOUS AND PARASITIC ANIMAL DISEASES

Disciplinary Scientific Sector: VET/05 INFECTIOUS DISEASES OF DOMESTIC ANIMALS

Nr. of position available: 1

Focus of research:

Microbiology applied to animal production, veterinary microbiology and immunology. In particular, the following subjects will be investigated: the intestinal microbiota of production animals and the use of probiotics, antibiotic resistance in bacteria isolated from animals and food of animal origin and the antibacterial activity of natural substances

Scientific productivity:

Publication of scientific papers in national and international journals and presentations at national and international conferences

Head office:

Department of Veterinary Sciences

Specific didactic activity of the contract:

Theoretical and practical teaching activity for the students of the following courses: Degree Course in Science and Technology of Animal Productions, Master's Degree Course in Biosafety and Food Quality

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_36

Department of Veterinary Sciences

Admission Examination Sector: 07/H4 VETERINARY CLINICAL MEDICINE AND VETERINARYPHARMACOLOGY

Disciplinary Scientific Sector: VET/08 VETERINARY CLINICAL MEDICINE

Nr. of position available: 1

Focus of research:

Veterinary internal medicine in large animals and equids focussed on: etiopathogenesis, epidemiology, symptoms, diagnosis and treatment of animal diseases, clinical exam, clinical pathology and diagnostic imaging, veterinary legislation and forensic medicine, professional ethics and behaviour

Scientific productivity:

Publications on national and international papers and presentations of scientific reports in national and international congresses

Head office:

Department of Veterinary Sciences

Specific didactic activity of the contract:

Internal medicine in large animal and equids, Veterinary Medicine degree; Veterinary legislation and forensic medicine in animal husbandry, Animal husbandry and productions degree

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

Candidates may present a maximum number of 12 scientific publications