

## REP 1438 PROT. 19880 del 06/05/2013

# THE DIRECTOR

### **WITH REFERENCE TO** the rules referred to in Article 13 of the present call for application

### ORDERS

### Art. 1 – Purpose

A procedure of comparative evaluation by qualifications and public discussion is called - pursuant to art. 24 paragraph 3 letter a) of Law no. 240/2010 (junior) - for the recruitment of one researcher with a fixed-term employment contract full-time for the three-year. Sector competition reference 09/A2 – Meccanica Applicata alle Macchine – , Scientific sector ING-IND/13 – Meccanica Applicata alle Macchine -.

The job is activated for the needs of research and study of the Department of Industrial Engineering. Serving primarily service at the Department of Industrial Engineering.

The contract shall last three years. An annual gross total amount equal to € 34.898,00.

The annual increase in this amount will be calculated according to the existing procedure for noncontracted personnel.

## Art. 2 – Activities to be performed

The contract shall schedule 1500 hours of activity on annual basis including 350 hours of supplementary teaching and assistance to students, for each of the academic years covered by the contract. The contract shall schedule 60 hours of teaching on annual basic at the Scool of Engineering and Architecture.

In reference to the by-law in art. 10 regarding temporary researcher, issued by D.R. 344 - 29/3/2011, the activities that the researcher conducts must be linked to the project entitled: "New analysis and synthesis procedures to define and study models for articular biomechanics".

The main activities of the project will focus on the kinematic and dynamic modeling of human articulations in order to devise mathematical tools useful to rehabilitation, surgical planning and design of articular prostheses and prosthetic limbs. A special focus will be devoted to the lower limb joints (knee and ankle). However, the developed tools, from the typical principles of the Mechanics of Machines, could be generalized also to different joints. The ultimate target of this research will be the application of these models to the definition of analysis and synthesis procedures of articular prostheses and prosthetic limbs, together with their experimental validation. A relevant part of the project will be devoted to the themes of the theory of mechanisms and Mechanics of Machines in general, in order to devise new solutions and new analysis and synthesis procedures useful to the core of the project.

The objectives of scientific productivity of the researcher will be finalized, over the three year period:

First year: - Definition of kinetostatic models for joint analysis. - Study of the redundancy of passive and active articular structures. Second year: - Definition of dynamic models of the lower limb. -Analysis and synthesis of articular prostheses and prosthetic limbs to define new solutions or to optimize existing ones. Third year: - Patent activity as an outcome of the research activities of the project. - Development of an experimental rig to test joints under static and dynamic loading conditions. - Validation of models and prototypes. - Comparison among results obtained from the



proposed models and prototypes with respect to existing models and prototypes (on the literature or on the market). Within the three year time of the Project, the main results will be presented at Conferences and published in referenced Journals.

## Art. 3 - Admission requirements

The selection is open to:

applicants, including those who come from non-EU countries, in possession of:

• PhD or equivalent qualification obtained either from an Italian or foreign university.

Or

• Master Degree or equivalent qualification obtained either from an Italian or foreign university, together with a scientific and professional curriculum suitable for the conduct of research. The relevance of the curriculum will be assessed by the Selection Board.

Applicants must be in possession of said qualification at the date of the deadline for the submission of applications to the present selection.

Applications from professors, associate professors, or researchers with tenure will not be accepted, even if the applicant is not in service.

Applications will not be accepted from any relatives, up to and including fourth-degree relatives, of a professor of the Department of Industrial Engineering, or of the University Rector, or of General Director, or of any member of the board of administrators of the University of Bologna.

State employees may on unpaid leave for the entire duration of the contract, thus occupying a nontenure position without pay or social security contributions, in cases where such a position is allowed by the structure of origin, likewise without pay or social security contributions.

### Art. 4 – Application

Applications for the selection shall be written on unstamped paper, using the form in annex A) and signed by the applicant.

Applications must be submitted as follows:

1. hand delivered to Alma Mater Studiorum - Università di Bologna –Area Persone e Organizzazione, Settore Didattica e Contratti, Ufficio Ricercatori a tempo determinate e CEL - Piazza Verdi n. 3, Bologna, on the following days and time:

- Monday, Tuesday, Wednesday and Friday: from 9:00 a.m. to 11:15 a.m.;

- Tuesday and Thursday: from 2:30 p.m. to 3:30 p.m.;

2. posted by registered letter with return receipt, or express delivery with return receipt to: Magnifico Rettore dell'Alma Mater Studiorum - Università di Bologna, Area Persone e Organizzazione, Settore Didattica e Contratti, Ufficio Ricercatori a tempo determinato e CEL, Piazza Verdi n. 3, 40126 Bologna.

Applications must be received by the Administration department within 30 days from the day after the day of publication of this call for application on the Gazzetta Ufficiale of the Italian Republic.

Accordingly, any application delivered or received after said date, although they are sent before the deadline, will be excluded. The date of the post mark will not guarantee acceptance, but the receipt date at the University will.

The receipt date is established and verified:

- in case of hand delivery: by the date reported in the receipt undersigned and issued by the person in charge of this administration;

- in case of posting: by the date of receipt written on the return receipt by the person in charge of reception.

The Administration shall not assume any responsibility for delivery failure of communications unless otherwise caused by its employees.

Annex A contains the declarations to be made.

All applications must be accompanied by a curriculum vitae, qualifications and publications (max 12).



It specifies that, pursuant to Ministerial Decree 243/11, the PhD thesis is considered a publication, and then, if the candidate wishes to present it, will have to count it in the maximum number indicated (max. 12).

If the applicant will attach to the application form more publications of maximum allowed number, only the first twelve publications of list will be assessed by the Selection Board.

## Art. 5 – Applicants' obligations

The penalty of exclusion from the selection shall apply in the following cases:

- Lack of applicant's wet signature at the bottom of the form;
- Non compliance with the terms established for posting the application form;

• Lack of the requirement pursuant to art. 3 of the present call for application (qualification).

All applicants shall be admitted to the contest and the Administration reserves the right to check that they actually are in possession of the requirements necessary to apply for the selection; the Administration may, at any time and even after the exams, order the exclusion from the selection hereto.

### Art. 6 – Selection Board

The Selection Board will be appointed upon administration resolution and will be made consist of at least three members chosen by the Department from lecturers and researchers in the scientific sector for which this selection is made Sector competition reference 09/A2 – Meccanica Applicata alle Macchine –.

The Commission finds inside a chairperson and recording secretary. The function of secretary may also be performed by an official, specially appointed.

The appointment will be published on Alma Mater Studiorum - University of Bologna website.

## Art. 7 – Exams

Selection will be made by the commission after a preliminary evaluation of each candidate's qualifications, curriculum and scientific production, including the doctoral thesis, according to the criterion identified by the MUIR in D.M. 243/2011.

The candidates chosen in the preliminary evaluation based on their comparative merits - between 10 and 20% of the number of applicants and not less than 6 - will then be called for interview. The interview will consist of a discussion of the candidate's qualifications and scientific production and may take the form of a seminar open to the public. If the total number of candidates is 6 or less all candidates will be interviewed.

Letters of reference will be considered.

The interview will be held in Italian. In the event of discussion in Italian, the candidates shall demonstrate their adequate knowledge of the English language.

Following the interview, points will be assigned to each qualification and publication presented by the candidate.

Notice of day, date and address of public discussion and the list of candidates admitted or not admitted will be published at least 20 days before the interview on the University website page: http://www.unibo.it/Portale/Personale/Concorsi / RicercatoriTempoDeterminato / default.htm.

The publication on the web page of the University will be the official communication to all applicants of the selection, without obligation to any further communication.

The publication will be communicated by email to the address indicated by the candidates in the application.

The Alma Mater University of Bologna does not assume any responsibility for the non-receipt or the not-read of the e-mail.

It is up to candidates to keep themselves informed by consulting the University website page to find necessary informations about selection.

To undertake the interview, applicants shall be in possession of their means of identification.



EU citizens shall hold their passport or an identity document issued by their origin Country. Non-EU citizens shall hold their passport.

### Art. 8 – Final List

After the exams, the Board shall prepare the general final list based on the merits.

On equal merits, priority will be allocated according to date of birth and the youngest one shall prevail.

The list based on merits is approved pursuant to the administration resolution and will last three years. It will be published in Alma Mater Studiorum – University of Bologna Official Bulletin.

The terms to raise any appeal shall start from the date of publication of said notice, in case the resolution has not been otherwise disclosed.

The use of the final candidate list is strictly bound to study and research related to the scientific sector ING-IND/13 – Meccanica Applicata alle Macchine –.

The Department of Industrial Engineering will make the proposed recruitment by a majority vote of the professors and associate professors of the Department and approved by the Administrative Board. Furthermore, the Department will propose the date of commencement of employment contract.

### Art. 9 – Hiring

The applicant, after the conclusion of the recruitment procedure referred to in art. 8, will be asked to enter into a personal contract aimed at establishing a fixed-term employment relationship full-time.

The personal contract, the statutory laws and the community regulations shall govern said employment relationship.

The personal contract shall specify any reasons for which it might be terminated, as well as the relevant periods of notice. Should the recruitment procedure be made void, the contract shall terminate without prior notice, since said procedure is a prerequisite.

The trial period shall last three months. If no party terminates the contract after said period of time, the service shall be intended as confirmed and the employee will be recognize a length of service from the hiring day for all purposes.

### Art. 10 – Required documents

All the documents written in any foreign language shall be accompanied by a true and correct translation into Italian, written by an Italian consular, a qualified diplomatic representative, or an official translator.

### Art. 11 Rights and duties of a researcher with a fixed-term contract of employment

In accordance with the rights and duties of public employees prescribed by the Italian civil code, on signing the contract the researcher will be expected to perform all those activities mentioned in Art 2. These activities will be carried out in respect of the existing hierarchy and in coordination with existing programmes and research projects.

The researcher will perform the requested activities in person, substitution is not permitted. Existing Italian laws concerning maternity, injury and illness will apply.

### Art. 12 Processing of personal data and person in charge for the contest

Personal data sent by applicants through their application form for the purposes of the contest, under Leg. Decree no. 196/2003, will be treated for the purposes of the contest and any hiring procedure.

The person in charge of the contest is Mrs. Giuseppina Caliendo Responsabile del Settore Didattica e Contratti - Piazza Verdi n. 3 - 40126 Bologna.



For further information, please contact: Ufficio Contratti di Ricerca e CEL dell'Alma Mater Studiorum - Università di Bologna – Piazza Verdi n. 3 - Tel. +39 051 2098972 - 2098958 - 2098950, Fax 051 2099617; e-mail:apos.ricercatoritempodeterminato@unibo.it.

## Art. 13 – Reference Regulations

The present notice is issued based on the following regulations:

- Art. 24 of Law no. 240 dated December 30th, 2010;
- D.P.R. (Decree of the President of the Republic) no. 445 dated December 28th, 2000;
- Leg. Decree no. 165 dated March 30th, 2001;
- Law 241/1990;

• Regulation for fixed-term researchers of Alma Mater Studiorum – University of Bologna, (link:

http://www.normateneo.unibo.it/NormAteneo/Regolamento\_ricercatori\_a\_tempo\_determinato.htm).

Bologna, 06/05/2013

#### Il Dirigente dell'Area f.to Michele Menna

While applying, applicants shall declare under their own responsibility:

1. surname and name;

2. place and date of birth;

3. citizenship;

4. (if Italian citizens) registration to electoral rolls, specifying in which Municipality and indentifying, if any, the reasons why he/she is not registered or cancelled from them;

5. that there have not been any criminal proceeding against them or current criminal proceedings; otherwise, applicants shall specify the proceedings against them and the judgment date of the regulatory bodies which gave rise to them (in addition, specify if, remission, pardon or expungement etc. were granted) and pending penal proceedings;

6. possession of the qualification required pursuant to Art. 3 of this call for application and the mark obtained;

7. to be fit to the employment the selection refers to;

8 that they are not, nor have been, professors, associate professors or researchers with tenure, even if not in service;

9 that they are not relatives, up to and including fourth-degree relatives, of a professor of the Department of Industrial Engineering, or of the Rector, or of General Director, or of any member of the board of administrators of the University of Bologna;

10. elected domicile in Italy for the purpose of the participation in this contest, as well as a telephone number and an e-mail address;

11. applicants shall enclose their curriculum vitae containing date and signature, as well as a photocopy of a personal means of identification.

Foreign citizens shall also declare to have a proper knowledge of Italian and to enjoy civil and political rights also in their origin countries or the reasons for loss of enjoyment.

The signature shall be put at the bottom of the form. Said signature does not require any authentication pursuant to Art.38 of DPR 445 dated 2000.

Any modification shall be timely communicated to the Ufficio Ricercatori a tempo determinate e CEL.

The following documents shall be enclosed to the application form:

1. photocopy of a means of identification;

2. curriculum of the scientific-professional activity with date and signature;



3. any qualification considered useful for the purposes of the selection with relevant dated and signed list;

4. reference letters, if any;

5. scientific publications (max 12) which are already printed at the date of the call of application deadline or scientific publications accepted for printed, with relevant numbered, dated and signed list as well as the authors' names, titles, date and place of publication, number of collection or volume and reference year.

The qualifications applicants intend to submit shall be either original or, for EU citizens, an authenticated copy, or shall be certified by the applicant, pursuant to Art. 46 and Art. 47 of D.P.R. no. 445 dated 28.12.2000, by way of self-executed certifications (Annex B) or self-executed affidavit (Annex B).