



ALMA MATER STUDIORUM | PERSONNEL
UNIVERSITÀ DI BOLOGNA | DIVISION

THE DIRECTOR

Subject: Public selection procedure for the filling of 2 fixed-term Assistant Professor positions with full-time commitment under art. 24, paragraph 3, letter a) of Law No. 240 of December 30, 2010, within the Regional FSE+ Program 2021-2027 – Priority 2. Education and training, Specific Objective e)

Whereas the Regional Executive, by Resolution No. 1649 of 02/10/2023, approved the funding of 8 Assistant Professor positions a) for the University of Bologna, and the respective selection procedure was initiated with Notice rep. 6468 of 20/10/2023;

following the aforementioned procedure, the two positions in SSD ING-INF/04 (DEI) and CHIM/04 (CHIMIND) concluded without the appointment of a winner; it is deemed appropriate to re-advertise the two positions using the resources allocated by the Emilia Romagna Region within the following program,

Having seen the Regional FSE+ Program 2021/2027 – Priority 2. Education and training, Specific Objective e);

Having seen Regional Executive Resolution No. 693 of 04/05/2023 of the Emilia Romagna Region, which approved the notice for funding triennial system actions for the qualification and strengthening of the offer of degree courses with a professional orientation using PR FSE+ 2021/2027 funds - Priority 2. Education and Training – Specific Objective e);

Having seen Regional Executive Resolution No. 1649 of 02/10/2023 of the Emilia Romagna Region, which approved the funding of 8 RTD positions a) for the University of Bologna;

Recalling the notice published in the Official Gazette – 4th special series of 15/03/2024, through which the University of Bologna published selection notices for the assignment of fixed-term research contracts of type a), pursuant to art. 24, paragraph 3, letter a) (RTDA) of Law No. 240 of December 30, 2010, using resources from the Regional FSE+ Program 2021/2027;

Recalling the regulations referred to in article 13 of this notice;

Recalling the resolutions adopted by the Departments for which the positions are activated, namely the Department of Electrical, Electronic, and Information Engineering "Guglielmo Marconi" - DEI and the Department of Industrial Chemistry "Toso Montanari" - CHIMIND;

Having seen the resolution of the Board of Directors of 26/09/2023;



ORDERS

Art. 1 – Purpose

Procedures of comparative evaluation by qualifications and public discussion are called for the recruitment of 2 Assistant Professor with a full-time fixed-term employment contract for three-year pursuant to art. 24 paragraph 3 letter a) (junior) of Law no. 240/2010, Scientific Disciplinary Sectors ING-INF/04 (DEI) and CHIM/04 (CHIMIND).

The contract shall last three years. An annual gross salary equal to € 36.840,00 will be corresponded to the assistant professor. The annual increase in this amount will be calculated according to the existing procedure for non-contracted personnel.

The contracts are funded through resources from the Regional ESF+ Program 2021/2027 - Priority 2: Education and Training, Specific Objective e), CUP code n. J19J23000730002.

Assistant professors will have € 20.000,00 available for missions related to the performance of the activities stipulated in the contract over the three-year period, always subject to the same regional funding.

The specific details for each position are defined in their respective attachment. In the following articles, when there are specific elements for each selection, reference is made to the attachments.

Art. 2 – Activities to be performed

The researchers will have to carry out 350 hours of supplementary teaching and assistance to students, for each academic year covered by the contract. Within the aforementioned 350 hours, 60 hours of face-to-face teaching are scheduled to be carried out in the professional-oriented undergraduate program for which the researcher position is activated.

Starting from the second semester after taking up the position during the academic year 2023-24 and for subsequent academic years, the researchers are required to:

- Contribute to industrial research projects to be identified and conducted in collaboration with the companies involved in the activities of the Study Program, aimed at applying innovative results in the fields of study to improve processes, products o services.
- Collaborate with the Study Program Coordinator in maintaining relationships with companies to ensure a better alignment between the knowledge needs and expected competencies resulting from the courses and the training and professional requirements expressed by the companies
- Assist the Coordinator of the Degree Program in the management and planning of curricular internships, including supervisory activities in collaboration with company representatives, for some of the internship activities. This also involves collaborating with the relevant professional association for the purpose of the expected certification.



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- Provide support for activities taking place at the designated location, assisting the Study Program Coordinator in maintaining relationships with the students at that location.

Concerning the provisions of art. 10 of the Reg. regarding fixed term researchers, issued by Rectoral Decree no. 344 of March 29th 2011 and amendments, the project that each winner will have to develop and the scientific productivity objectives are explained in the relative attachment.

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 in Italy or abroad.

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

In case of a Ph.D. obtained abroad, it is necessary to attach the decree of academic recognition of the degree (so-called decree of equivalence, as provided for by Article 74 of Presidential Decree No. 382/1980). This requirement applies to those who already possess it. Alternatively, the recognition decision of the degree for the purpose of participating in competitions for researcher positions in universities and public research institutions must be provided, in accordance with Legislative Decree No. 206/2007 - amended by Legislative Decree No. 15/2016 (for EU degrees) - and Presidential Decree No. 394/99, Article 49 (for non-EU degrees). In the meantime, before the competent authorities issue the recognition decision, it is possible to submit the receipt confirming the submission of the recognition request.

For more information on the procedures for the recognition of foreign degrees, it is recommended to consult the university's web page regarding "Non-academic recognition to participate in researcher competitions" at the following address: <https://www.unibo.it/en/study/enrolment-fees-and-other-procedures/degree-programmes/foreign-degree-recognition>.

In any case, the proof of the recognition of the foreign qualification must be produced to the administration prior to beginning service and, anyhow, within 180 days from the publication of the approval decree of the procedure on the official university bulletin, otherwise the exclusion from the position of winning candidate occurs.

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

The selection is not open to any persons who are related by blood up to the fourth degree, to a professor working in the Department that proposed the activation of the single contract, or to the Rector, Director General or a member of the Board of Governors of the University.

Furthermore, the selection is not open to anyone who has had research fellowship or fixed-term researcher contracts at the University of Bologna or any other state-funded, private-funded or distance-learning Italian university pursuant to articles 22 and 24 of Italian Law 240/2010, or with

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any other body listed in paragraph 1 of Art. 22 of Italian Law 240/2010 for a period which, summed to the foreseen duration of this contract, exceeds a total of 12 years, even if not consecutive. For the purposes of the duration of the above-described periods, in compliance with the laws in force any periods of maternity or sick leave shall not be calculated.

State employees may on unpaid leave for the entire duration of the contract, thus occupying a non-tenure 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 procedure

The submission of the applications for participation in the selections must be made exclusively via electronic procedure by accessing the following link:

<https://pica.cineca.it/unibo/>

Regarding all procedures, the deadline is the following: April 12th 2024 at 12:00 (noon, Italian Time).

The application must be submitted at the same time with the insertion of all the attached documentation required.

The following documents shall be enclosed to the electronic application form (preferably files: PDF, other supported files: JPG, BMP, PNG):

1. identification document scanned (10MB max);
2. curriculum vitae with indication of the scientific-professional activity (10MB max);
3. reference letters, if any. Letters can be submitted directly by the candidate uploading it during the application, in case of possession (10MB max), or can be submitted by the referee. In this case candidates should provide the referee e-mail address. When the application is closed, the system will send an automatic request to the referee, referring to the candidate and the procedure. The referee must submit his letter through the link into the e-mail. At this address he/she will upload his/her letter by the application deadline in order to be considered as part of the candidate's application.
4. scientific publications (other supported files are TIFF and PS, 20MB max each document) which are already printed at the date of the call of application deadline, or scientific publications accepted for printed, together with the editor acceptance letter. While uploading each document will be asked to indicate the title, the authors' names, the editor, the year of publication. Optional information are the month, the ISBN code, the DOI code, the booklet number.



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Pursuant to Ministerial Decree 243/11, the PhD thesis is considered a publication, and thus if presented by the candidate it shall be included in the maximum number of publications indicated in each attachment.

While applying, applicants shall declare under their own responsibility:

1. surname and name;
2. place and date of birth;
3. citizenship;
4. residence address;
5. (if Italian citizens) registration to electoral rolls. If any, the reasons why he/she is not registered or cancelled from them;
6. that there have not been any criminal proceeding against them or current criminal proceedings; otherwise, applicants shall specify the proceedings against them (the date of the measure and the judicial authority that issued it) and pending penal proceedings. The existence of a previous criminal conviction is not in itself an impediment to hiring, unless it is a conviction for a crime that prevents the establishment of the employment relationship with the public administration as it derives from the interdiction from public office, or the inability to contract with the public administration, or the termination of the employment relationship (articles 28, 29, 32-ter, 32-quater, 32-quinquies of the Criminal Code, articles 3,4, 5, L. 97 of March 27, 2001). In other cases, the Administration will ascertain the gravity of the criminally relevant facts committed by the person concerned, for the purposes of access to public employment. This check is carried out with the aim of ascertaining the existence of the fiduciary element which constitutes the fundamental prerequisite of the relationship between employer and worker, as well as for the purpose of assessing the existence of the requisites of moral suitability and aptitude to carry out activities as a public employee;
7. to have or not to have benefited of non-voluntary leave periods due to maternity/paternity compulsory abstention or for serious health reasons, indicating the periods in case
8. possession of the qualification required pursuant to Art. 3 of this call for application and the mark obtained, if any;
9. to be fit to the employment the selection refers to;
10. that they are not, nor have been, professors, associate professors or researchers with tenure, even if not in service;
11. that they are not related by blood up to the fourth degree, to any professor working in the Department that proposed the activation of the single contract, or to the Rector, Director General or a member of the Board of Governors of the University of Bologna;
12. elected e-mail address for the purpose of the participation in this contest;



13. 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.

Any modification shall be timely communicated to the Ufficio Ricercatori a tempo determinato.

In case of technical issues, you can contact Cineca Support, available at the bottom of the call webpage on the site <https://pica.cineca.it/unibo/>.

Art. 5 – Applicants' obligations

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

- Non compliance with the terms and procedures for submitting the application form indicated in article 4 of this call for applications;
- Lack of the qualification required to participate in the selection indicated in each attachment.

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 selections; the Administration may, at any time and even after the exams, order the exclusion from the selection hereto.

Art. 6 – Selection Board

With regard to each procedure, the Selection Board will be appointed upon administration resolution and is composed of three full or associate professors belonging to the competition Scientific sector or, alternatively, to the same competition macro-sector for which the procedure is announced or of equivalent role in the case of components not coming from national universities, identified by the Department that proposed the activation of the contract.

Two of the members, external to the University, are drawn with the methods provided by the art. 8-bis of the "Regolamento per la disciplina delle chiamate dei Professori di Prima e Seconda fascia" in application of articles 18 and 24 of the Law 240/2010 issued with DR 977/2013 and s.m. A third component is identified by the Department Council among the professors inside or outside the University. As envisaged by art. 57 of Legislative Decree 165/2001, in order to guarantee equal opportunities between men and women for the access to work and work treatment, generally, at least one member is female.

The Commission appoints a president and a recording secretary between their members.

Notice of the appointment of each Commission will be published on Alma Mater Studiorum - University of Bologna website.

Art. 7 – Selection procedure

With regard to each procedure, the selection procedure is carried out by the Board after a preliminary evaluation of each candidate's qualifications, curriculum and scientific production, including the doctoral thesis, according to the criterion identified by the MIUR in D.M. 243/2011.



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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.

Any reference letters produced by the candidates will also be considered.

The discussion will take place in the language indicated in each attachment.

With regard to each procedure, the discussion with the Commission will take place starting from April 2024, 29th, and it will be carried out in public form and electronically using the audio and video teleconferencing tool via the Teams platform (the workstation from which candidates will take do the interview must be equipped with a webcam - essential for the recognition of the candidate - microphone and headphones and/or audio speakers), according with the legislative and regulatory provisions regarding the containment and management of the epidemiological emergency from COVID-19 and also considering the evolution of the health emergency.

With reference to each procedure, the notice of the day and time in which the public discussion will take place will be announced together with the publication of the list of admitted candidates on the University website at: <https://bandi.unibo.it/docenti/rtd>.

The publication on the University website will constitute official notification to all applicants, without any obligation for any further communication.

The publication will be communicated by e-mail to the address indicated by the candidates in the application.

The Alma Mater Studiorum - 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 information about selection.

Candidates attending the interview must bring a valid identification document with them.

EU citizens shall bring their passport or an identity document issued by their country of origin. Non-EU citizens shall bring their passport.

Art. 8 – Individuation of the winning candidate and recruitment

Upon completion of the assessments, the Commission selects the winner based on the candidate who has achieved the highest overall score. In case of a tie in merit, preference is determined by the younger age.



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The competition proceedings are approved by the administration and are published in the Official Bulletin of the Alma Mater Studiorum - University of Bologna.

From the date of publication of this notice, a period begins during which any legal challenges can be filed if the decision has not been otherwise brought to attention.

In the event that the winner declines, the candidate with the highest overall score after the winner will be called upon.

The department that initiated the individual position will formulate the appointment proposal with the favorable vote of an absolute majority of full professors of the first and second tiers, which will be approved by the Board of Directors. Additionally, the department will propose the contract's effective start date.

Art. 9 – Employment procedures

Following the conclusion of the recruitment procedure referred to in art. 8, the candidates will be asked to sign a fixed-term contract of full-time or defined-time employment.

The contracts for the researchers must be signed by July 2024, 31st.

The employment relationship is governed by a personal contract, statutory laws and EC regulations. In the event that the research project is in the medical field and provides for the performance of medical activity, the latter is governed by the national collective agreement for medical staff and by the specific appointment conferred by the hospital facility where the researcher will carry out the activity.

The personal contract shall specify any reasons for which it might be terminated, as well as the relevant periods of notice. In any case the contract will be terminated immediately and without notice in the event of the cancellation of the recruitment procedure to which it is inalienably linked. The trial period shall last three months. At the end of the period, unless the employment relationship has been terminated by either of the parties, the employee is confirmed for service and the whole period worked from the beginning of the contract shall be calculated for seniority purposes.

Art. 10 – Documentation required for the participation in the public selection and for hiring purposes

For the purposes of participation in the public selection, documents and qualifications in English, French, German and Spanish can be produced in the language of origin. Documents and qualifications written in other languages must be presented in the original language with an Italian or English translation attached. The translation must be true and correct, written by an Italian consular, a qualified diplomatic representative, or an official translator.



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Regarding the documentation necessary for hiring purposes, 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 for each position in the relative attachment as well as to carry out the research periods in the company and abroad (the latter only where applicable).

In the event that medical assistance services are provided, the researcher will also assume rights and duties related to this activity.

These activities will be carried out in respect of the existing hierarchy and in coordination with existing programmes and research projects.

The researchers will perform the requested activities in person, substitution is not permitted.

Existing Italian laws concerning maternity, injury and illness will be applied.

The researcher undertakes to fulfill the obligations of conduct prescribed by the code of conduct, issued by DPR 62/2013.

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

Information about the processing of personal data (provided during the application process) are available at the link: www.unibo.it/privacy (Notice for participants in contests and selections published by the University).

The person in charge of the contest is Mr. Michele Menna.

For further information, please contact: Ufficio Ricercatori a tempo determinato dell'Alma Mater Studiorum - Università di Bologna – Piazza Verdi n. 3 - Tel. +39 051 2098972 – 2099980 – 2080166, Fax 051 2086163; 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;
- Leg. Decree no. 165 dated March 30th, 2001;
- D.P.R. (Decree of the President of the Republic) no. 445 dated December 28th, 2000;
- 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).

For the Director of Area del Personale
f.to digitalmente Giovanni Longo



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Attached documents:

- Att. 1 - CHIMIND - CHIM/04, 1 position
- Att. 2 - DEI - ING-INF/04, 1 position



ATTACHMENT 1

The specific elements of the current procedure are as follows:

- **Professional-oriented Degree Course Name:** Polymeric composites materials
- **Department:** Department of Industrial Chemistry "Toso Montanari" - CHIMIND
- **Main place of employment:** Bologna
- **Project Implementation Location/Location of the Degree Course:** Imola
- **Competition sector (SC):** 03/C2 - Industrial and Applied Chemistry
- **Academic Disciplinary Sector (SSD):** CHIM/04 - Industrial Chemistry
- **Number of positions:** 1
- **Theme of the Regional Smart Specialization Strategy:** The research project is related to several themes within the Smart Specialization Strategy of the Emilia-Romagna Region.
- **PNR topics and articulations:** The research training project of the RTD (Researcher Type a) position presented by the Polymeric Composites degree program is in line with the scope of the PNR 2021-2027 "Digital, Industry, Aerospace."
- **Contract type:** Full-time
- **Project title:** Advanced and sustainable polymer matrix composites
- **Project manager:** Loris Giorgini
- **Brief project description:** The RTDA researcher recruited, in addition to carrying out at least 60 hours of frontal lessons in the aforementioned CdS in the CHIM04 sector, will collaborate with the Coordinator of the Study Program in the management and planning of the CdS internships and in maintaining relations with the companies involved in the course. In particular, the research will address development, characterization and applications of novel polymer-based composite materials in substitution of traditional materials. In this context improvement of mechanical performances will be sought in order to guarantee components lightweighting and also the integration of sustainable materials and products from renewable sources (biopolymers and natural fibers).
In particular, the research activity will concern the development of polymeric composite materials for advanced applications, with a strong orientation towards industrial application. To this end, multiphase materials, with both thermoplastic and thermosetting matrix, will have to be developed, in which the synergistic interactions between the (nano)reinforcements and/or the (nano)additives and a continuous polymeric phase are maximized, in order to obtain different properties and/or or improvements compared to the individual components. In this context, innovative aspects related to environmental sustainability and energy transition will be privileged in relation to:
 - polymeric materials used, also including (bio)degradable materials and/or from renewable sources;
 - fibrous and particle reinforcements derived from renewable sources;
 - surface preparation methods for composite bonding and painting;
 - synthesis methods;
 - innovative characterization methods;



- recycling and reuse of reinforcing fibers and polymer composites.

To this end, all the polymeric materials obtained will be characterized by various instrumental techniques in order to verify their chemical-physical, thermal, mechanical, rheological, morphological and structural properties and to study their structure-property correlations in order to evaluate their industrial application. in collaboration with companies in the supply chain and using their industrial plants.

The researcher will also evaluate recycling and recovery of the end-of-life composites in order to upscale their products as secondary raw materials in the production of new composites with high added value. Thus, strategies and processes able to efficiently closing composites life cycle in the frame of circular economy prescriptions, such as thermal processes (pyrolysis and pyrogassification for recovering carbon fibers).

- **Objective of the research project:** The requirements of scientific productivity will be the publication of at least 6 papers on international peerreviewed journals on the topics of the research activity and fully coherent with the scientific sector CHIM/04. The presentation of contributions to at least 3 (national or international) conferences is also required.
- **Annual number of hours of face-to-Face teaching:** 60
- **Admission requirement:** Ph.D. (Doctorate)
- **Maximum number of publications to be presented:** 12
- **Language for the interview:** Italian with verification of the adequate knowledge of the English language



ATTACHMENT 2

The specific elements of the current procedure are as follows:

- **Professional-oriented Degree Course Name:** Mechatronics
- **Department:** Department of Electrical, Electronic and Information Engineering "Guglielmo Marconi" - DEI
- **Main place of employment:** Bologna
- **Project Implementation Location/Location of the Degree Course:** Imola
- **Competition sector (SC):** 09/G1 - Systems and Control Engineering
- **Academic Disciplinary Sector (SSD):** ING-INF/04 - Systems and Control Engineering
- **Number of positions:** 1
- **Theme of the Regional Smart Specialization Strategy:** The research project is related to several themes within the Smart Specialization Strategy of the Emilia-Romagna Region.
- **PNR topics and articulations:** The research training project of the RTD (Researcher Type a) position presented by the Mechatronics degree program is in line with the scope of the PNR 2021-2027 "Digital, Industry, Aerospace."
- **Contract type:** Full-time
- **Project title:** Design and development of autonomous and cooperative mobile manipulation systems for the industry of the future
- **Project manager:** Gianluca Palli
- **Brief project description:** The research project focuses on the applications of mobile manipulation, i.e. carried out using collaborative industrial manipulators installed on a mobile base, and on how these solutions can support manufacturing activities, with particular attention to companies that support the Mechatronics degree. The research activity will be characterized by the study of sensor and vision systems and the related processing systems, also based on the exploitation of artificial intelligence techniques, which are necessary to make it possible to adapt the robot's behavior to changing working conditions. The aspects relating to the interface between the machine and the workers will also be studied, also through the use of wearable interfaces and augmented reality systems. The planned teaching activity consists of 60 hours of institutional assignment to be carried out as part of the courses of the degree in Mechatronics, mainly by the Imola teaching hub.
- **Objective of the research project:** The Candidate is required to publish at least one article per year in international journals with a high Impact Factor in the sector (such as IEEE Transactions on Robotics, IEEE Transactions on Automation Science and Engineering, IEEE Control Systems Technology, IEEE/ASME Transactions on Mechatronics, IEEE Robotics and Automation Letters) and at least three on international conference proceedings relevant to the sector (such as



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IEEE/RSJ International Conference on Intelligent Robots and Systems, IEEE International Conference on Robotics and Automation, IFAC World Congress)..

- **Annual number of hours of face-to-Face teaching:** 60
- **Admission requirement:** Ph.D. (Doctorate)
- **Maximum number of publications to be presented:** 12
- **Language for the interview:** Italian with verification of the adequate knowledge of the English language.