





Subject: Public selection procedure for 3 positions of researcher on fixed-term and full-time basis pursuant to Article 24, paragraph 3, letter a) of Law no. 240 of December 30, 2010 (before the reform occurred with Law no. 79 of June 29, 2022), within the National Recovery and Resilience Plan (PNRR), Mission 4 "Education and Research" - Component 2 "From Research to Business", Investment 1.3 - Extended Partnerships with Universities, Research Centers, Companies

THE DIRECTOR

Considering that Regulation (EU) No. 2021/241 of 12/02/2021 established the Recovery and

Resilience Facility and that the National Recovery and Resilience Plan (PNRR), submitted to the European Commission on April 30, 2021, and approved by the ECOFIN Council decision of July 13, 2021, particularly Mission 4 Component 2 (M4C2) "From Research to Business", aims to support investments in research and development, promote innovation and the dissemination of technologies,

and strengthen skills;

Considering the projects approved under the PNRR and, in particular, the following notice:

"Public notice for the submission of proposals for the creation of 'Extended Partnerships with universities, research centers, companies for the funding of basic research projects'", issued by Directorial Decree no. 341 of 03/15/2022

(so-called Extended Partnerships Call);

Considering the regulations referred to in Article 13 of this notice;

Recalling the notice published in the Official Gazette - 4th special series of 03/01/2024,

through which the University of Bologna published a selection notice for the assignment of fixed-term research contracts pursuant to Law no. 240 of December 30, 2010, Article 24, paragraph 3, letter a) (before the reform

occurred with Law no. 79 of June 29, 2022) using PNRR resources;

Recalling the resolutions of the Councils of the relevant Departments regarding the

activation of positions and/or the definition of essential elements of the

procedure;

Recalling the resolution of the Board of Directors of 01/30/2024;







ORDERS

Art. 1 - Purpose

Procedures of comparative evaluation by qualifications and public discussion are called for the recruitment of 10 researchers 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.

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

The contracts are activated, primarily but not exclusively, with resources drawn from the allocation of the National Recovery and Resilience Plan (PNRR), specifically from project PE7 – SERICS - SEcurity and Rights in the CyberSpace (CUP J33C22002810001, proposal code PE00000014, Directorial Decree 341 of 03/15/2022).

The specific elements of each position are defined in the relative attachment. In the case of procedures for the selection of multiple positions, the specific elements of each of them will be specified in the relative attachment.

In the following articles, where there are specific elements of 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.

The hours of frontal teaching on annual basis are indicated in each attachment.

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

Candidates, including citizens of non-European Union countries, holding a PhD or equivalent degree obtained in Italy or abroad, are eligible to participate in the 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/teaching/enrolment-transfers-and-degrees/recognition-of-a-foreign-degree-1.

In any case, the proof of the equivalence 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 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 application to participate in the selection must be done exclusively through the online procedure by accessing the PICA portal: https://pica.cineca.it/unibo/

Regarding all procedures, the deadline is the following: 19th March 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):

- 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.

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, o 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 the event of technical problems, you can contact Cineca Support. Details can be found at the bottom of web page 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.

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 8th April 2024, 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).

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 winner and recruitment

With regard to each procedure, after the exams, the Board proceeds to identify the winner. On equal merits, priority will be defined according to the date of birth and the youngest one shall precede.

The procedure's acts are approved pursuant to an administration resolution and will be published in Alma Mater Studiorum – University of Bologna Official Bulletin.

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

In case of the winner's withdrawal, the candidate who obtained the highest overall score after the winner will be called.

The Department that activated the single position will propose recruitment by a majority vote of the professors and associate professors of the Department and approved by the Board of Governors. The Department will also propose the start date of the employment relationship.

Art. 9 – Employment procedures

Following the conclusion of the recruitment procedure referred to in art. 9, the candidates will be asked to sign a fixed-term contract of full-time or defined-time employment.

The employment relationship is governed by a personal contract, statutory laws and EC regulations. 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 purpose of participating in the public selection, documents, publications and qualifications in English, French, German, and Spanish may be submitted in their original language.

However, scientific publications related to the subject area of the competition, in the case of selection procedures in language-related fields, may also be submitted in their original language. Documents and qualifications in other languages must be presented in their original language, accompanied by a certified translation in Italian or English.







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).

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 regarding the processing of personal data provided to participate in the selection procedure is available by visiting the website www.unibo.it/privacy (Information for participants in competitions and selections announced by the University).

The responsible person for the competition procedure is Dr. Michele Menna, Manager of the Personnel Area of the University of Bologna. For any information regarding the selection, you can contact the Fixed-Term Researchers Office of the University of Bologna – Piazza Verdi No. 3, 40127, Responsible Dr. Gianfranco Raffaeli - Tel. +39 051 2098972 – 2099980 – 2098958, Fax 051 2086163; email: 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).

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







Attached documents:

- Summary table of activated positions;
- Attachments:
- 1. SSD ING-INF/01 Electronic Engineering, 1 position, Department of Electrical, Electronic and Information Engineering "Guglielmo Marconi" DEI
- 2. SSD MAT/09 Operations Research , 1 position, Department of Electrical, Electronic and Information Engineering "Guglielmo Marconi" DEI
- 3. SSD IUS/20 Philosophy of Law, 1 position, Department of Legal Studies DSG

Departiment	Call	Project	CUP	Proposal Code	Competitve Sector	Scientific Disciplinary Sector	N. positions	Campus
Electrical, Electronic and Information Engineering "Guglielmo Marconi" - DEI	PE	PE7-SERICS	J33C22002810001	PE0000001	09/E3 - Electronics	ING-INF/01 - Electronic Engineering	1	Bologna
Electrical, Electronic and Information Engineering "Guglielmo Marconi" - DEI	PE	PE7-SERICS	J33C22002810001	PE000001	01/A6 - Operations Research	MAT/09 - Operations Research	1	Cesena
Legal Studies - DSG	PE	PE7-SERICS	J33C22002810001	PE0000001	12/H3 - Philosophy of Law	IUS/20 - Philosophy of Law	1	Bologna







ATTACHMENT 1

The specific elements of this procedure are as follows:

Department: Department of Electrical, Electronic and Information Engineering "Guglielmo Marconi" - DEI

SC: 09/E3 - Electronics

SSD: ING-INF/01 - Electronic Engineering

- Number of positions: 1

- Main place of employment: Bologna

Number of hours of frontal teaching per year: 60

- Duration of contract: 36 months

- Costs indication: 36.840,00 gross euros per year

- Financial coverage:

1. PNRR funds — Call PE — Project PE7 — SERICS - SEcurity and Rights in the CyberSpace — CUP J33C22002810001, Code PE00000014, D.D. 341 del 15/03/2022;

2. Department funds (BIR 2026 e 2027);

- Project manager: Riccardo Rovatti

- **Project title:** Systems and methods for adapted and secure data compression

- Brief description of the project: The planned activities primarily focus on defining methods, algorithms, and systems for signal and data compression adapted to class of signals to be compressed, with compression factors designed to allow, for an acceptable level of signal distortion, high compression rate. Adaptation may be achieved using machine learning processing techniques or processing blocks based on artificial intelligence. The developed techniques must anticipate the possibility of optimizing the system not only with respect to the minimal distortion between the initial and compressed signals but also considering other aspects such as the security of compressed data. Furthermore, the methodological framework of the problem should be expansible to optimize the compression method for additional requirements, such as preserving the ability to identify anomalous events in the compressed data.
- **Objective of the research project:** Objective of the research project, during the period of the contract, will be the production of at least one article in high-impact international scientific journals in the ISI Electrical Electronic Engineering category and at least three presentations at international conferences.

- Admission requirement: PhD

- Maximum number of publications: 12

- Language in which the interview will take place: English

Foreign language: /







ATTACHMENT 2

The specific elements of this procedure are as follows:

- Department: Department of Electrical, Electronic and Information Engineering "Guglielmo Marconi" - DEI

- **SC:** 01/A6 - Operations Research

- SSD: MAT/09 - Operations Research

- Number of positions: 1

- Main place of employment: Cesena

- Number of hours of frontal teaching per year: 60

- Duration of contract: 36 months

- Costs indication: 36.840,00 gross euros per year

- Financial coverage:

1. PNRR funds — Call PE — Project PE7 — SERICS - SEcurity and Rights in the CyberSpace — CUP J33C22002810001, Code PE00000014, D.D. 341 del 15/03/2022;

2. Departments funds (BIR 2026 and 2027);

- **Project manager:** Michele Monaci

- Project title: Optimization algorithms for network analysis, robustness and security

- **Brief description of the project:** Research activities require advanced knowledge of the main methodologies used in the Operations Research area. The activities will focus on the development of data analysis techniques, as well as on the design and implementation of exact and heuristic optimization algorithms for network and graph problems, with particular emphasis to applications arising in cybersecurity. The researcher will carry out the teaching activity within official courses (in Italian and/or English) provided in the SSD MAT/09 Operations Research field (SC 01/A6). In addition, teaching duties will include lectures, integrative teaching and teaching service to students, and practical or laboratory exercises.
- **Objective of the research project:** The project is aimed at advancing the scientific knowledge in the field of optimization algorithms for network and graph problems, with particular attention to applications in the cybersecurity field. This advancement includes scientific publications, attendance to conferences and workshops, as well as technology transfer activities.\

- Admission requirement: PhD

- Maximum number of publications: 12

Language in which the interview will take place: Italian

- Foreign language: English







ATTACHMENT 3

The specific elements of this procedure are as follows:

- **Department:** Department of Legal Studies - DSG

- SC: 12/H3 - Philosophy of Law

SSD: IUS/20 - Philosophy of Law

- Number of positions: 1

- Main place of employment: Bologna

Number of hours of frontal teaching per year: 60

Duration of contract: 36 months

- Costs indication: 36.840,00 gross euros per year

- **Financial coverage:** PNRR funds – Call PE – Project PE7 – SERICS - SEcurity and Rights in the CyberSpace – CUP J33C22002810001, Code PE00000014, D.D. 341 del 15/03/2022;

Project manager: Raffaella Brighi

- **Project title:** The technical and regulatory (ethical, legal and social) challenges in cybersecurity governance: risk management in cyber-physical systems
- Brief description of the project: The research activity, conducted according to legal-information methodologies, will focus on the analysis of the communitarian regulatory frameworks of cybersecurity of the cyber-physical systems of the future, of the guidelines and technical standards, risk based. In particular: the proposal of the so-called Cyber Resilience Act (CRA), as well as the interaction and connection with other relevant regulatory frameworks on cybersecurity, such as the so-called NIS2 directive the so-called Cybersecurity Act and other sectoral legal instruments relating to product security. Furthermore, the researcher will have to carry out a preliminary technical mapping of the international and/or harmonized standards already available on the market, with a view to future standardization work for compliance. On the other hand, the activity will focus on the impacts in terms of fundamental rights of a holistic conception of cybersecurity, as outlined by the Commission's new Cybersecurity Strategy (2020).
- Objective of the research project: The researcher will produce a minimum of 3 papers or essays. At the end of three years, the articles must be published or accepted for publication in scientific journals, two of which must be at least in class A journals or in prestigious and relevant journals, in Italian or English; or, alternatively 1 book concerning the research activity carried out in the scientific-disciplinary sector covered by the research project. The researcher is also required to participate in national and/or international conferences and other academic events to disseminate the results of the concerned research.

- Admission requirement: PhD

Maximum number of publications: 12

Language in which the interview will take place: Italian

- Foreign language: English