



UNIVERSITÀ DEGLI STUDI DI NAPOLI FEDERICO II

Application procedure for national Ph.D. Programme in Artificial Intelligence A.Y. 2021/2022 (37th cycle)¹

Article 1

CALL FOR APPLICATIONS TO PHD PROGRAMME

1. For the academic year 2021/2022 (37 cycle) the University of Naples Federico II is accepting applications for the admission to National PhD Programme in Artificial Intelligence – **Agrifood and Environment Area** – with administrative headquarters at the University of Naples Federico II. Selection procedures and available PhD grants are available in the annexed form, being an integral part of this Call.
2. The National PhD Programme in Artificial Intelligence is carried out, under the coordination of the National Research Council (Consiglio Nazionale Ricerche – CNR) and the University of Pisa, through **five Joint PhD Programmes**. Each of the 5 PhD Programmes includes a leading university, as well as a large consortium of universities and research institutions. **The 5 doctorates will focus on the foundational aspects of artificial intelligence**. Specifically, five specialization areas are included in the national PhD programme in Artificial Intelligence, referring to as many doctorates with administrative headquarters at the following universities:
 - Health and life sciences, Università Campus Bio-Medico di Roma
 - Agriculture (agrifood) and environment, Università degli Studi di Napoli Federico II
 - Security and cybersecurity, Sapienza Università di Roma
 - Industry 4.0, Politecnico di Torino
 - Society, Università di Pisa
3. For **Agrifood and Environment area**, the following institutions / universities participate in the PhD:
 - *University of Naples Federico II*
 - *University of Perugia*
 - *University of Udine*
 - *Campus Bio-Medico University of Rome*National Research Council (Consiglio Nazionale Ricerche – CNR)
4. The University of Naples Federico II is committed to achieve and promote equality of opportunity between men and women.

Article 2

ORGANIZATION OF THE PhD ACTIVITIES

1. PhD students are involved in a unique, joint and shared didactic-scientific project; they can carry out their research and training activities in the different venues of the universities / institutions involved in the national PhD programme. These PhD students are ensured the actual sharing of the facilities needed for their teaching and research activities aimed at performing their PhD project.

¹ : **The official version of this call is in Italian and is available on the UNINA website. This version cannot be used for legal purposes and it is only meant to provide information in English on the call for applications**

2. At the end of the Programme, after passing the final exam, the diploma of "National PhD Programme in Artificial Intelligence" is jointly issued by each administrative headquarters university, with the universities of the other four administrative headquarters, along with their respective logo and that of the National Research Council (CNR). Moreover, the diploma will show the logos of the participating universities / institutions.
3. The educational activity of the Doctoral Programmes starts on the 1st of November of its first year and ends on the 31st of October of its third year.

Article 2

APPLICATION FOR ADMISSION

1. The application form to participate in the selection process may only be submitted using the dedicated online procedure, available at: <https://pica.cineca.it/unina/dottorato37-phd-ai>
Application forms must be submitted no later than 1 pm (CEST) on the announcement deadline date (July 23rd 2021). In order to apply for the call, candidates should pay, under penalty of exclusion, the application fee of € 30,00. The application fee has to be paid in the manner described in the procedure.

The fee paid for participation in the selection will not be refundable under any circumstances. **Candidates, who are not resident in Italy and do not possess Italian citizenship, are exempted from the payment of the examination fee.**

2. Once the application form has been completed, it must be printed, signed and re-uploaded following the instructions described in the online procedure, and copy of a valid identity document must be attached. A missing signature and/or missing identity document could lead to exclusion from the selection process. After closing the application, the candidate can request reference letters by completing the appropriate section on the application form. The candidate can request reference letters before the same closing date for applications, i.e. July 23rd 2021 at 1 pm (CEST). A notification for completion of the letter will be sent to the referee only after the application has been fully submitted. The referee will be automatically notified by the system and will have to personally complete the reference letter section in the online procedure and submit it by the deadline of July 26th 2021 at 1 pm (CEST).
3. The list of the candidates admitted to the programme will be published at the following address <http://www.unina.it/didattica/post-laurea/dottorati-di-ricerca/bandi-di-ammissione> at least five days before the interview; before that deadline the selection committee will have to establish the evaluation criteria for the curriculum and for the interview.
4. Candidates with disabilities declaring in the procedure to request support during the entrance examination should submit a request made pursuant to the existing Law (Law n. 104/1992 as integrated and amended by Laws no. 17/1999 and no. 53/2000 and subsequent amendments and additions) and a medical certificate. Full details regarding this request are given to candidates with specific needs in the procedure.

Article 3

ADMISSION REQUIREMENTS

1. To apply to the above PhD Programme candidates (with no restriction about age and citizenship) should have obtained one of the following degrees:
 - master degree, equivalent to "laurea specialistica" or "laurea magistrale"

(as defined in the Italian Ministerial Decree nr. 509/1999 and its subsequent modifications and integrations);

- academic degree, equivalent to the "laurea vecchio ordinamento" Degree, of a total minimum duration of 4 years;
- an equivalent degree obtained from a foreign university.

Candidates who will graduate by October 31st, 2021 can also apply. In such a case, candidates will be admitted conditionally.

2. The equivalence of the degree of the candidates graduated abroad will be evaluated on the basis of the documents attached by the candidate to the application form. Candidates with a master degree conferred from a foreign University (and which was not yet declared equivalent - by virtue of agreements between the foreign Country and Italy - to the Italian master/specialist degree), requiring - for the sole purpose of admission to the PhD programme – that this equivalency be declared, must deliver the certificate of the master degree issued from their University, with the corresponding final grade, the list of the passed examinations and their marks and syllabi, and any other related useful document. Should the certificate be written in a language other than Italian, English, French, Spanish or German, the candidate must also submit its translation into one of the aforesaid languages: this translation must be certified for conformity to the original by the cognizant Italian representative bodies.

3. The foreign academic title and the supporting documents should be uploaded in the application procedure.
4. Candidates will be admitted conditionally. The University of Naples Federico II has the right to exclude at any time those candidates who do not fulfil the necessary requisites.

Article 4 **ADMISSION EXAMS**

1. Admission to the PhD Programme is based on the assessment of:
 - the curriculum vitae and a research project. An overall motivated score should be assigned according to the criteria established by the Selection Committees during the preliminary meeting. For some PhD Programmes, the annexed form provides a minimum score for the curriculum to access to the next text.
 - an interview
2. The exam schedule and venue will be published on July 15th, 2021 at the following <http://www.unina.it/didattica/post-laurea/dottorati-di-ricerca/bandi-di-ammissione>
The publication of the exam schedule is to be considered as official notification for all intents and purposes. No personal communication will be sent to the candidates regarding the exam dates. **Any amendments to the exam schedule will be published in the PhD webpage of the University. PhD applicants therefore are encouraged to check the PhD webpage constantly.**
3. The curriculum vitae, signed and provided with a copy of a valid ID, and the research project must be only uploaded during the online application submission, both written in Italian and /or English.
4. To take the interview (also via videoconference) and avoid disqualification, candidates must compulsorily hold a valid identification document
5. A candidate's failure to attend the exams or videoconference will be considered equivalent to resigning from the application process.

6. The Selection Committee will be published at the following link <http://www.unina.it/didattica/post-laurea/dottorati-di-ricerca/bandi-di-ammissione>. The Selection Committee is appointed with Rectoral Decree and it is composed by three or five effective members, selected among ordinary professors or associates or researchers. Two experts, regardless the nationality, selected among private or public research institutions can be added to the Selection Committee. Moreover, depending the number of the effective members, are appointed two or three substitute members.
7. The meetings of the Selection Committees may be held in-presence, entirely or in part, pursuant to the anti-contagion safety protocol.
8. The videoconference interviews of candidates will be held as follows:
 - a) via video meeting platforms, ensuring the simultaneous connection among the committee members and each candidate, in accordance with the regulation on personal data protection and confidentiality. This shall be written in the session's minute.
 - b) audio and video recording of remotely held interviews is forbidden.
 - c) the interview shall be held publicly, forwarding to all candidates the event's link and ensuring to any third party the possibility to attend using the link available at <http://www.unina.it/didattica/post-laurea/dottorati-di-ricerca/bandi-di-ammissione>

Article 5

RANKING OF CANDIDATES AND ENROLMENT

1. The Rectoral Decree approving the ranking of the PhD programme will be published by September 30th 2021, at the following link: <http://www.unina.it/didattica/post-laurea/dottorati-di-ricerca/bandi-di-ammissione>.
This publication will formally notify the winners of the competition results. No further personal communication will be sent to the candidates.
The ranking list of the candidates will be ordered by following the decreasing order of the sum of their marks, which will include the research proposal and curriculum evaluation and the interview.
2. The winners, by October 7th 2021 at 1.00 pm CET, must enroll in the PhD programme.
After that date, should any places will become available, the following in the ranking may enroll for such vacant places. To that end, at the following link <http://www.unina.it/didattica/post-laurea/dottorati-di-ricerca/bandi-di-ammissione>, from October 12th 2021, at least each week, will be published the list of the candidates entitled to the enrollment.
This publication will formally notify the candidates entitled to enroll in the PhD Programme. No further communication will be sent to the candidates.
3. **Should candidates fail to enroll in the PhD programme by the deadline indicated in the above mentioned notice, they will be considered tacitly renunciative and they will lose any right to enroll.**
4. Here following the documents to submit for the enrollment, owing the instructions that will be indicated at the following address: <http://www.unina.it/didattica/post-laurea/dottorati-di-ricerca/bandi-di-ammissione> by September 30th, 2021:
 - a) the Regional tax receipt;
 - b) enrolment form that will be available at the above mentioned address;

- c) Candidates who at the time of enrollment have not yet obtained the degree required for access to the PhD Call, are required to submit, by November 5th, 2021, a substitutive declaration of certification concerning the achievement of the qualification
5. Candidates are required to provide correct e-mail address for any personal communication. The University is not held responsible for any loss of correspondence due to erroneous contact information, to any delay in notifying a change of address or to any disruption due to third party action.
6. The attendance to the PhD programme requires an exclusive and fulltime participation.
7. For the PhD students obligations, the incompatibilities and the suspension of the participation to the PhD programme, reference is made to the article 15 of the University Regulation of the PhD programmes, published at the address: <http://www.unina.it/didattica/post-laurea/dottorati-di-ricerca/informazioni-generalis>.

Article 6 STUDY GRANT ALLOCATION

1. PhD grants are detailed in the annexed document, being an integral part of this application call. In the event of specific-topic related grants, PhD grant holders are required to carry out the doctoral activity on the specific research topic at a specific venue, as set out in the annexed document (Annex A). **To this aim, when applying, candidates are allowed to express their own preferences regarding the venue and any specific research topic; these preferences will not be binding for the purpose of the PhD grants allocation.**
2. In compliance with the ranking order, taking note of the preferences expressed and after assessing the suitability of the candidate's training and profile, the Selection Committee decides on the assignment of the grants to the entitled candidates and these grants will then be conferred, by rectoral decree, at the end of the ranking scrolling procedures.
3. In the event of waiver or non-enrolment of the successful candidate with grant, the available PhD grant will be reallocated following the candidates' ranking as set in the above Art. 5. The Committee's failure to award specific-topic grants will result in a reduction of the number of positions envisaged by the application call.
4. If a grant is financed by an external entity, the commitments provided for in the agreement for the PhD student are to be fulfilled.
5. Those who have already benefited, even partially, from a PhD grant or equivalent programme at University of Naples Federico II or at any other Italian university cannot receive another PhD grant.
6. For the academic year 2021/2022, the total gross annual recipient amount of the PhD grant is € 15,343.28. The grant is allocated only in the event of non-existence of incompatibility, as provided for by applicable laws. Since the grant allocation starts from November 1st, 2021, the non-existence of incompatibility must remain in force from that date (November 1st, 2021), also in the event of subsequent allocation after ranking scroll.
7. It is only possible to enrol in the PhD with a scholarship, except in the event that the winner renounces the same as the holder of a research grant (on November 1st, 2021) or public employee with maintenance of salary.

Article 7
FEES AND CONTRIBUTIONS

1. Students enrolled at PhD Programme are required to pay, for each year of course, the regional tax for education.

Article 8
RESPONSIBLE PERSON FOR THE ADMISSION PROCESS AND HANDLING OF PERSONAL DATA

1. The Office Head of the PhD, Research grants and Study Scholarship of the University of Naples Federico II is responsible **responsible for the procedure referred to in this call.**
2. Personal data of the applicants will be handled according to the General Data Protection Regulation (GDPR) n.679/2016 of April 27th, 2016, concerning the protection of individuals and other subjects with respect to the processing of personal data, the Personal Data Protection Code, (Law Decree no. 196/2003 supplemented and amended by the Legislative Decree no. 101/2018). The data collected are treated for the purposes of the procedure for which they are issued and will be used exclusively for this purpose and, in any case, in the context of the institutional activities of the University of Naples Federico II. The interested party has the rights pursuant to art. 15-22 of the EU Regulation.

Article 9
ADVERTISEMENT OF THE CALL

1. This PhD call will be published in the webpage of the University of Naples Federico II, in the webpage Euraxess and in the webpage of the Ministry of University and Research.
2. The PhD call and the final ranking list will be published in the Official Notice Board of the University of Naples Federico II, available at the following address www.unina.it

THE RECTOR
Matteo Lorito



PhD Programme in Artificial Intelligence

ACADEMIC YEAR 2021/2022 (37TH CYCLE)

Agrifood and Environment area

Coordinator Prof. Francesco Loreto

Administrative Headquarter Department of Biology

Positions:

No. 17 with scholarship

Scholarships details:

no. 4 co-financed by University of Naples Federico II and by National Research Council (CNR) through FOE funds

no. 1 co-financed by **CNR-STIIMA** e and **CNR** through FOE funds, for the project: Study and development of techniques of Artificial Intelligence for agricultural robotics – **Bari**

no. 1 co-financed by **CNR-ISAC** e and **CNR** through FOE funds , for the project: AI for precipitation monitoring from satellite – **Rome**

no. 1 co-financed by **CNR-IIA** e and **CNR** through FOE funds, for the project:
AI algorithm application to issues related to air pollution – **Rome** .

no. 2 co-financed by University of **Perugia** e and **CNR** through FOE funds

no. 1 co-financed by University of **Udine** and University of **Pisa** through FFO funds, for the project: Applications of robotic systems to agriculture - **Udine**

no. 1 co-financed by University of **Udine** and University of **Pisa** through FFO funds, for the project: Neural networks based on graphs and precision agriculture - **Udine**

no. 1 financed by University Campus Bio-Medico of Rome

no. 1 financed by University Campus Bio-Medico of Rome through funds of the Italian Institute of Technology (IIT) from the Project H2020 ERC CoG GA no. 101003304 "I-Wood" and assigned to Prof. Mazzolai

no. 1 co-financed by University of **Florence** and University of **Pisa** through FFO funds, for the project: Analysis and management of the Water-Energy-Food and Ecosystems Nexus with Artificial Intelligence techniques - **Florence**.

no. 1 co-financed by University of **Bologna** through European Project:H2020 Food Systems in European Cities" FoodE (Grant

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| | <p>Agreement n.862663) and University of Pisa through FFO funds – for the project: Strategies for the application of artificial intelligence and diagnostic sensors for the production of plants with high nutritional value in vertical farming systems - Bologna.</p> <p>no. 1 co-financed by University of Parma and University of Pisa through FFO funds, for the project: Artificial intelligence for the quality analysis and sensomic of the wine – Parma</p> <p>no 1. co-financed by the Department of Science and Technology of the University of Naples “Parthenope” and the University of Pisa through FFO funds – Napoli</p> |
| <p>Admission requirements: (should candidates have not obtained the academic title for the admission to the call, please upload the transcript of records)</p> | <ul style="list-style-type: none"> - “laurea specialistica” or “laurea magistrale”: no specific academic requirements - Foreign academic title equivalent |
| <p>Selection criteria: Evaluation of curriculum and research project; interview</p> | |
| <p>Curriculum:</p> | <p>The curriculum, signed and accompanied by a copy of a valid identification document, must be uploaded only during the application process. The curriculum must provide information about the candidate’s academic education as well as his/her professional and research experience. The candidate must attach any document useful for the assessment of his/her curriculum</p> <p>Applicants can provide reference letters, as described in the application procedure.</p> <p>Minimum grade: 36 out of 60</p> |
| <p>Interview:</p> | <p>The interview will assess the candidate’s knowledge, her/his aptitude for research, openness to academic experiences in Italy and abroad, and an interest in scientific deepening.</p> <p>Minimum grade: 24 out of 40</p> <p>The exam schedule and venue will be published on July 15th, 2021 at the following address http://www.unina.it/didattica/post-laurea/dottorati-di-ricerca/bandi-di-ammissione</p> <p>The oral exam will take place remotely</p> |
| <p>Research project:</p> | <p>The research project is on a subject freely chosen by the candidate as long as it falls within the scientific interests of the PhD programme, it must be produced via upload when submitting the application for participation in the competition and it will be evaluated together with the curriculum so as to bring out the design skills of the candidate.</p> <p>In addition to reporting the candidate's personal data, data and being duly signed, the project must be structured as follows: TITLE (MAX 300 characters including spaces), INTRODUCTION (MAX 3,500 characters including spaces), RESEARCH OBJECTIVES (max 1,000 characters including spaces), PROPOSED RESEARCH ACTIVITIES, METHODS AND CONTENTS (MAX 4,000 characters including spaces), EXPECTED RESULTS AND DEGREE OF INNOVATION OF THE PROPOSED RESEARCH (MAX 2,000 characters including spaces), CONCLUSIONS AND POSSIBLE TRANSLATIONAL EFFECTS (MAX 1,000 characters including spaces), BIBLIOGRAPHY (MAX 3,000 characters) characters including spaces).</p> |
| <p>Exam schedule:</p> | <p>The exam schedule and venue will be published on July 15th, 2021 at the following address http://www.unina.it/didattica/post-laurea/dottorati-di-ricerca/bandi-di-ammissione</p> |

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| | <p>The list of the candidates admitted to the interview will be published at the following address http://www.unina.it/didattica/post-laurea/dottorati-di-ricerca/bandi-di-ammissione at least 5 days before the interview</p> |
| <p>Information on the academic activities:</p> | <p>Information on the teaching description and objectives of the course:</p> <p>The National PhD Programme in Artificial Intelligence is carried out, under the coordination of the National Research Council (Consiglio Nazionale Ricerche – CNR) and the University of Pisa, through five Joint PhD Programmes. Each of the 5 PhD Programmes includes a leading university, as well as a large consortium of universities and research institutions. The 5 doctorates will focus on the foundational aspects of artificial intelligence. Specifically, five specialization areas are included in the national PhD programme in Artificial Intelligence, referring to as many doctorates with administrative headquarters at the following universities:</p> <ul style="list-style-type: none"> • Health and life sciences, Università Campus Bio-Medico di Roma • Agriculture (agrifood) and environment, Università degli Studi di Napoli Federico II • Security and cybersecurity, Sapienza Università di Roma • Industria 4.0, Politecnico di Torino • Society, Università di Pisa <p>Thanks to the coordinated horizontal/vertical structure, the national PhD in AI will train researchers, innovators and professionals with specialisations in the cuttingedge topics of AI and in high-impact application sectors, but also endowed with an integrated and "complex" vision of the ecosystem of AI technologies and solutions, capable of tackling problems with a systemic, multi-disciplinary approach.</p> <p>https://www.phd-ai.it/</p> |