Decree n. 2290/2021  Subject: Public call for applications for admission to XXXVII-cycle research doctorate courses – scholarships
Ministerial Decree 10 August 2021, n. 1061 - 2021/22 academic year

CHANCELLOR

Considering Law 3 July 1998, n. 210, art. 4;
Considering Law 30 December 2010, n. 240, art. 19;
Considering Ministerial Decree 8 February 2013, n. 45;
Considering University of Pavia statute;
Considering University of Pavia research doctorate regulations, issued by Chancellor's Decree n. 1223 dated 24 July 2013 and subsequent modifications;
Considering Ministerial Decree 25 January 2018, n. 40;
Considering Ministerial Decree 10 August 2021, n. 1061;
Considering Chancellor's Decree dated 04/10/2021, prot. n. 141577 - repertorio n. 2253;

Given the necessity to announce a public call for applications for admission to XXXVII cycle research doctorate courses – scholarships Ministerial Decree dated 10 August 2021, n. 1061 – based at the University of Pavia

DECREE

Art. 1
Activation

1. The University of Pavia has activated a comparative selection for admission to XXXVII-cycle research doctorate courses – Ministerial Decree 10 August 2021, n. 1061, 2021/2022 academic year, listed below based on department:

MACRO-AREA OF SCIENCE AND TECHNOLOGY

|   | BIOENGINEERING, BIOINFORMATICS AND HEALTH TECHNOLOGIES |
| 2 | COMPUTATIONAL MATHEMATICS AND DECISION SCIENCES  
in cooperation with the University of Italian Switzerland (USI) |
| 3 | DESIGN, MODELING, AND SIMULATION IN ENGINEERING |
| 4 | ELECTRONICS, COMPUTER SCIENCE AND ELECTRICAL ENGINEERING |
| 5 | MICROELECTRONICS |
| 6 | CHEMICAL AND PHARMACEUTICAL SCIENCES, AND RELATED INDUSTRIAL INNOVATION |
| 7 | EARTH AND ENVIRONMENTAL SCIENCES |
|  | MACRO-AREA OF LIFE SCIENCE |
| 8 | GENETICS, MOLECULAR AND CELLULAR BIOLOGY |
| 9 | PSYCHOLOGY, NEUROSCIENCE AND DATA SCIENCE |
| 10 | BIOMEDICAL SCIENCES |
| 11 | TRANSLATIONAL MEDICINE |
|  | MACRO-AREA OF HUMANISTIC AND SOCIAL SCIENCES |
| 12 | SCIENCES OF THE LITERARY AND MUSICAL TEXT |

2. For each of the courses listed in Attachment 1 (set out on p 15 and subsequent pages) and which constitutes an integral part of the call for applications: the site, co-ordinator, research themes, places available, scholarships and other forms of finance, the name of associates/members and the eventual issue of double or joint degrees and curricula, if foreseen. Research doctorate courses have a duration of three years from 1 October 2021.

3. Finance provided by external bodies are assigned if an agreement is made between the University and the third party.
4. **This call for applications acts as notification for all intents and purposes.** Eventual modifications, updates or integrations to its content will be published, exclusively, on the [http://phd.unipv.it/bando-pon-37-ciclo/](http://phd.unipv.it/bando-pon-37-ciclo/) website.

5. The presentation of admission applications set out in Art 5 implies acceptance on the part of the candidate of the regulations established in the call. Not respecting these regulations will result in exclusion from the call.

6. The activation of doctorate projects presented is subject to approval by the Ministry for Universities and Research (MIUR) in accordance with Ministerial Decree dated 10 August 2021, n. 1061 and subsequent operational indications.

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**Art. 2**

**Admission requirements**

1. Applications can be made for admission to XXXVII-cycle research doctorates – scholarships Ministerial Decree 10 August 2021 n. 1061 – 2021/22 academic year, with limitations of age and citizenship, unless otherwise specified in Attachment 1:

   a. those holding a degree pre-dating Ministerial Decree 509/1999 (old system) or specialist/Masters degrees or second-cycle academic degrees issued by AFAM (Alta Formazione Artistica e Musicale) institutions;

   b. those holding an academic certificate awarded abroad and recognised by the Teaching Board as adequate for participation in the call for the chosen research doctorate. Academic certificates issued abroad must be compatible in terms of duration, level and disciplinary field to an Italian second-cycle degree. During the call enrolment procedure, candidates, in order for their certificates to be recognised as valid, should upload, as well as the certificate:

      i. a self-declaration, pursuant to Presidential Decree 445/2000 and subsequent modifications, all university certificates held with a list of examinations taken, the relative marks and the duration of the course; **this applies to Italian and European Union citizens**;

      ii. certificates in Italian or in English of the university degrees held, with a list of examinations taken, the relative marks and the duration of the course; **this applies to non-European Union citizens**. Certificates in a language other than Italian or English must be accompanied by a certified translation into one of the required languages.

2. Candidates may be asked, at any time, to provide further documentation in order to verify the admissibility of the certificate held.

   c. those awarded a specialist/Masters degree or equivalent academic certificate by 31 October 2021. **Failure to be awarded the certificate by 31 October 2021 will result in the withdrawal of any eventual benefit.** Should the candidate win the call for applications, s/he will be conditionally admitted and **will have to present, by 31 October 2021**, via e-mail to [concorso-dottorati@unipv.it](mailto:concorso-dottorati@unipv.it), the following documentation:
- **if the certificate was awarded in Italy**: a self-declaration regarding the award of the certificate. The dedicated form is available at: [http://phd.unipv.it/bando-pon-37-ciclo/](http://phd.unipv.it/bando-pon-37-ciclo/), attaching a copy of a valid identity document;

- **if the certificate was awarded abroad**:
  - **for Italian and European Union citizens**: a self-declaration regarding the award of the certificate. The relevant form is available at: [http://phd.unipv.it/bando-pon-37-ciclo/](http://phd.unipv.it/bando-pon-37-ciclo/), attaching a valid identity document;
  - **for non-European Union citizens**: A certificate in Italian or English. Certificates in a language other than Italian or English must be accompanied by a certified translation into one of the required languages.

### Art. 3

**Applications**

1. Those intending to apply for a research doctorate place at the University of Pavia must present their application, electronically, **by the deadline of 17.00 (CET) on 2 November 2021** via, exclusively, the procedure available at [http://studentionline.unipv.it/esse3/Home.do](http://studentionline.unipv.it/esse3/Home.do) (Reserved Area).

Applications made in other ways will not be taken into consideration.

Candidates are responsible for checking that the procedure has been concluded correctly; complaints will not be accepted for the malfunctioning of the IT system. Candidates are encouraged to complete their application well in advance of the deadline date.

Candidates should make the **selection procedure fee of €35.00 by 2 November 2021**; those who do not make the payment will be excluded from the procedure. The selection procedure fee will not be refunded under any circumstances.

Candidates who have already participated in the XXXVII-cycle call for applications at the University of Pavia for the 2021/22 academic year will be exempt from making the selection procedure payment. To claim the exemption, candidates must present a self-declaration and/or payment receipt.

2. Candidates must register at [https://studentionline.unipv.it/AddressBook/ABStartProcessoRegAction.do](https://studentionline.unipv.it/AddressBook/ABStartProcessoRegAction.do) before accessing the online procedure. Candidates who have not yet registered with the University of Pavia should select 'REGISTRAZIONE’ from the right-hand drop-down menu and enter their personal data. Once this information has been entered onto the system, candidates can click 'LOGIN' on the menu and, entering their credentials, access their Reserved Area.

Candidates who have already registered with the University of Pavia should only select LOGIN from the menu and access the Reserved Area by entering the credentials they
already hold. Candidates are invited to update their personal data, especially their place of residence and the email address to which all selection procedure correspondence will be sent.

Once logged-in, candidates should then select ‘SEGRETARIA’ from the right-hand menu and then, from the same menu, ‘TEST DI AMMISSIONE’ and then the relevant course.

**During the completion of the form, candidates should:**

− enter details of their qualification and identity document; this document should be attached and uploaded;
− select the desired course, as well as foreign language of those included in the call for applications. Language skills will be verified during the oral test;
− upload the required qualification certificates and the identity document whose details have already been entered.

Qualifications and documents should be attached as PDFs and must not exceed 5MB, each, in size. The name of the file should include the candidate's surname and the type of document (e.g., rossi_curriculumvitae).

Candidates must prove that they hold the qualifications\(^1\) issued by public authorities using a **self-declaration**, in adherence with art. 46 of Presidential Decree 445/2000, that should be **signed and dated**. The self-declaration related to examinations taken can be edited using the copy available at: [http://phd.unipv.it/bando-pon-37-ciclo/](http://phd.unipv.it/bando-pon-37-ciclo/) or, if available, it can be downloaded from the website of the university that awarded the qualification; **the self-certification must include all of the information listed on the information sheet relative to the doctorate programme to which the candidate is applying** (see Attachment 1). Non-European Union candidates, if they hold qualifications awarded abroad, cannot use the self-certification; they should attach the certificates held.

**In order to be considered valid**, and, therefore, able to be evaluated by the admission commissioners for research doctorate courses, **uploaded self-certifications should be signed in one of the following ways:**

− digital signature (in a format recognised by CAD)
− a signature on paper that is then scanned

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\(^1\) Pursuant to Presidential Decree dated 28 December 2000, n. 445 and succ. modifications, Italian and European Union citizens are requested to present only a self-certification for the following situations and facts, attested by public bodies:

- a) enrolment on professional organisations on lists held by public bodies;
- b) membership of professional associations;
- c) qualifications and examinations taken;
- d) professional qualifications held, specialist, training and scientific qualifications;
- e) as a student.
and accompanied by a scan of a valid identity document. The absence of one of these elements will affect validity.

Research doctorate admission commissioners cannot evaluate unsigned curriculum vitae; self-declarations that are not valid or certificates, copies of diplomas or diploma supplements issued by public bodies. Certificates issued by private institutions are considered valid.

Except for the admission qualification established in the preceding art.2 paragraph 1, other qualifications must be presented by the call for applications deadline date.

The admissions commission will evaluate only the specific qualifications detailed in art.6 paragraph 2 of this call for applications.

In completing the application, candidates with a disability (pursuant to Law dated 5 February 1991, n. 104 and integrated by Law 28 dated 28 January 1999 n.17) or with a Specific Learning Impediment (DSA) (pursuant to Law dated 8 October 2010 n.170) must present an explicit request for any assistance needed, as well as any additional time required, to sit the examination. Candidates with a disability must present a medical certificate issued by the competent health authorities. Candidates with a Specific Learning Impediment must present a clinical certification issued not more than three years ago by the national health service. Diagnosis may be carried out by specialists and accredited centres in the regions in which it is not possible to effect a diagnosis as part of specialist treatment performed by the national health service, within the human and financial resources available under current legislation. Documentation attesting to a disability or Specific Learning Impediment must be presented to the Centro Servizio di Ateneo Servizio di Assistenza e Integrazione per gli Studenti Disabili e con DSA (SAISD) at least 15 days before the admissions test in one of the following ways:

− at the counter, during opening hours (available at https://saisd.unipv.it/index.php/contatti/);
− by email to disabili@unipv.it with a scan of the documents;
− by fax to n. 0382/984954;
− by registered post to Centro Servizio di Ateneo Servizio di Assistenza e Integrazione per gli Studenti Disabili e con DSA "SAISD" - P.zza Leonardo Da Vinci 16 – 27100 Pavia.

Based on the documents received, the Chancellor's Delegate for Disabilities and Special Needs, together with the Applications Commission, will make a decision as to the means and added time allowed for the sitting of the test.

Once the application has been completed, candidates may, by the call for applications deadline date (2 November 2021, 17.00 - CET):

− modify any data previously entered, which will be definitively saved by the system only when the application is once again concluded. Candidates should print the call application if any modifications are made to it;
- **add, delete or modify the attached documents** (qualifications and identity documents) using the “inserisci/modifica titoli valutabili” (enter/modify assessable qualifications) tab.

**Modifications will be definitively saved by the system only when the application is concluded again**

After the call for applications deadline date, any documentation and data entered cannot be modified or added to.

**Once the application has been completed, candidates should print it and, by 2 November 2021, make the payment of €35,00; failure to do so will result in the candidate being excluded from the call.** The fee can be made via the PagoPA system, selecting one of the following options:

- **direct payment** (credit card or bank transfer using an associate bank), accessing the "Pagamenti" section of the Area Riservata and clicking on the invoice number, then on "Paga con PagoPA"

- **differed payment**, at bank and post office counters, SISAL and Lottomatica points, using the notice that can be downloaded from the "Pagamenti" section of the Area Riservata, clicking on the invoice number and then on "Stampa avviso per PagoPA".

3. Candidates should **send the signed application form, together with a valid identity document, to concorso-dottorati@unipv.it** by the date of the oral examination.

4. After the call deadline date, the administration office will evaluate the validity of applications, as well as checking that the €35,00 payment was made on time (if due). **If applications are found to be invalid or the payment was made late, the candidate will be excluded from the call.** The [http://phd.unipv.it/bando-pon-37-ciclo/](http://phd.unipv.it/bando-pon-37-ciclo/) website will publish a list of candidates admitted for selection, for each course.

Candidates who have already participated in the XXXVII-cycle call for applications at the University of Pavia for the 2021/22 academic year will be exempt from making the selection procedure payment. To claim the exemption, candidates must present a self-declaration and/or payment receipt.

5. Candidates who intend to participate in more than one call for applications must make a separate application for each course, complete with the required documentation and certificates and must make a payment for each of the chosen courses.

6. All candidates are admitted to the call for applications subject to an evaluation that they meet the call's admission requirements; the evaluation will be carried out in adherence with articles 43 and 71 of Presidential Decree 445/2000. The Administration Office reserves the right to exclude candidates from the selection procedure at any time. Further, the Administration Office, will check the veracity of self-certifications presented by candidates: those who present false declarations may be prosecuted under criminal law and specific laws pursuant to art 76 of Presidential Decree 445/2000.
Art. 4

**EDiSU benefits**

1. PhD students, pursuant to D.P.C.M. of April 9, 2001, are entitled to enjoy, under the same conditions of the other students, the benefits offered by the University of Pavia’s EDiSU (Institution for the Right to Study).

2. Candidates who wish to enjoy these benefits (scholarships, accommodation, reduced meal prices at canteens etc.) must consult the [http://www.edisu.pv.it/](http://www.edisu.pv.it/) website where the call for applications for the above-mentioned benefits will be advertised. Candidates are allowed to apply for the EDiSU benefits before the PhD competition and before their possible enrolment in the PhD course.

Art. 5

**Examining Committee**

1. The Committees in charge of the PhD competitions are appointed by the Rector in accordance with the University of Pavia’s "Regulations for PhD courses".

2. The composition of the examining Committees will be published, after the announcement deadline has passed, on the [http://phd.unipv.it/bando-pon-37-ciclo/](http://phd.unipv.it/bando-pon-37-ciclo/) website.

Art. 6

**Selection procedure**

1. Admission to doctorate courses is subject to the candidate passing a selection procedure designed to test their knowledge, capacity and aptitude. The date and site of the tests, the selection procedure and the details for each doctorate course are included on the relative course information sheet.

2. The selection procedure is related to qualifications and the oral test. For the evaluation of qualifications presented by candidates, the Application commission will assign 10 points, to be subdivided as follows:
   - up to 5 points for the Masters degree mark (or equivalent qualification);
   - up to 5 points for research projects presented by the candidate (max. 5000 characters, including the bibliography, titles and spaces).

Candidates will be informed of the results before the oral test.

The oral test consists of an interview, in Italian or in English (depending on the candidate’s choice) and will last a maximum of 15 minutes. It will include a test of English language if the interview is conducted in Italian. The interview will be based on
In evaluating the oral test, the commission will assign 30 points. Candidates must reach a minimum of 21 points to pass the test.

3. The evaluation of qualifications will be published by **12 November 2021**. The oral tests will take place online from 9.30 on **15 November 2021**. The interview calendar and instructions for connecting to the online video-conference will be published at the [http://phd.unipv.it/bando-pon-37-ciclo/](http://phd.unipv.it/bando-pon-37-ciclo/) webpage.

4. The commission will draw up specific reports. Each final ranking list will be in descending order, totalling the marks awarded to each candidate for the oral test to the points attributed for qualifications held.

5. If candidates have the same ranking list score for scholarship places, places will be awarded based on an assessment of candidates' economic situation, pursuant to Prime Ministerial Decree dated 9 April 2001 and successive modifications and integrations; for the awarding of places without a scholarship, an assessment will be made based on age with younger candidates prioritised.

6. The regulations related to the selection procedure will be sent from the Application Commission to the Administration Office.

7. **The Admission test calendar, reported on the information sheet for each doctorate course, is considered as notification to the interested parties. Any eventual variations to the date and place of the tests will be published on the [http://phd.unipv.it/bando-pon-37-ciclo/](http://phd.unipv.it/bando-pon-37-ciclo/) website; the interested parties will not receive any other correspondence from the university's Administration Office.**

8. **Candidates who fail to attend the admission test will be considered to have withdrawn from the call for applications.**

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**Art. 7**

**Admission to the PhD courses**

1. The Rector, by Rectoral Decree, acts to verify the validity of the competition records and approves the ranking lists. Candidates who have placed highly on each ranking list are declared winners, provided they meet the admission requirements for access to the PhD competition and enrolment onto a PhD course.

2. Candidates are admitted to the PhD courses in the ranking list order until all positions for the given PhD course are taken. Should a candidate decide not to take up his/her place before the start of the course, their place may be taken by other candidates following the ranking list order. Should a candidate win more than one competition, he/she will have to choose only one PhD course and communicate this choice in writing.
3. Before the beginning of the educational activity of the PhD course, additional students already selected by specific committees in the framework of international programs involving the University of Pavia can be admitted to the course.

Art. 8

Public Administration employees

1. Prevailing laws regarding time off work or special leave will apply to any public administration employees admitted onto a PhD course.

Art. 9

Enrolment

1. The ranking lists will be published on the University's official noticeboard http://www-5.unipv.it/alboufficiale/ and on the https://studentionline.unipv.it/esse3/Home.do?cod_lingua=eng website. In order to check their results, candidates have to login by entering the username and password provided at the end of the registration procedure, click on “Admissions” from the top right menu and then on “Admission test”. Candidates will not be informed personally: the publication of the ranking list is equivalent to an official notice to applicants.

2. Candidates can appeal against the approval of the ranking list to the TAR (Regional Administrative Tribunal) within 60 days from the publication of the results on the University's official noticeboard, or make a special appeal to the President of the Republic within 120 days; in the absence of an appeal, the provision shall be incontrovertible.

3. Successful applicants must enrol in the PhD course by following the instructions provided at http://phd.unipv.it/bando-pon-37-ciclo.

4. Successful applicants who do not yet hold the second-level degree necessary to enrol onto a PhD course will be conditionally admitted. By the deadline of October 31, 2021 they will have to provide the University Administration office with proof of graduation by following the procedure described in Art. 2, para. 1.

5. Candidates in possession of an academic degree obtained in a non-EU country, if successful, will have to provide the University administration, within a deadline agreed with the office, the following documents:
   a. legalized degree certificates, bearing the list of the exams taken during their academic career and the marks obtained;
   b. the original "Dichiarazione di Valore in Loco", issued by the competent italian diplomatic representative in the country where the academic qualification has been attained.

In case of documents in a language different from Italian or English candidates will have to submit, together with the original documents, their sworn and legalized translation into Italian or English. The University administration reserves the right to ask students to provide additional documents if necessary to carry out the appropriate checks on the degree. The Administration office also reserves the right to ask students holding a foreign
6. Upon enrolment, non-EU citizens resident abroad must submit to the Administration office, within a deadline agreed with the office, a photocopy of their residence permit or application for the residence permit.

7. Competition winners will have to pay, through the payment notice provided at the end of the application procedure, the enrollment fee, amounting to € 156.00.

8. Successful candidates with scholarship, who do not enrol and pay the enrolment fee by the deadline of 5 days from the day following the publication online (https://studentionline.unipv.it/esse3/Home.do?cod_lingua=eng) of the ranking list, will be considered as having forsaken their position. Successful candidates without scholarship, who do not enrol and pay the enrolment fee by the deadline of 7 days from the day following the publication online (https://studentionline.unipv.it/esse3/Home.do?cod_lingua=eng) of the ranking list, will be considered as having forsaken their position.

9. The University Administration reserves the right to check the validity of winners’ declarations. Any applicants found to have made false statements will lose the benefits deriving from these declarations.

**Art. 10**

**Scholarships**

1. Unless otherwise specified on the information sheet for each doctorate course, the annual scholarship is € 15,343.28 before I.N.P.S. national insurance contributions to be borne by the scholar are deducted. Scholarships for attending doctorate courses are subject to, for tax matters, article 4 of Law dated 13 August 1984, n. 476.

2. The Chancellor, through a decree, assigns scholarships to winning candidates based on ranking list order and up to the number of scholarships available.

3. Scholarships last one year and are renewed subject to the student being admitted to the successive course year by the Teaching Board.

4. **Scholarship payments are made in deferred monthly instalments.**

5. The scholarship amount may be increased by a maximum of 50%, for a duration that will not exceed 18 months, in cases in which research is conducted abroad; a period that must be receive the prior authorisation of the Teaching Board.

6. Doctorate scholarships cannot be cumulated with apprenticeship contracts, research grants or other scholarships awarded for any qualifications held, aside from those awarded by national or foreign institutions to help with periods of study abroad, training and research.
7. Candidates who have previously used a scholarship for a doctorate course, even partially, cannot benefit from one for a second time.

8. From the second year, each doctorate student is guaranteed a budget for research activities, in Italy or abroad, that is equivalent to 10% of the scholarship, pursuant to article 9 of Ministerial Decree 45/2013.

9. Scholarships will be revoked if:
   a. the minimum period of workplace study and research, pursuant to article 11, paragraph 2 of this call for applications is not reached (total revocation);
   b. the required admission qualification or a positive evaluation for the purpose of scholarship renewal, or a withdrawal of it, are not attained (partial revocation). In such cases, finance will be partially revoked with the obligation for the student to repay any sums disbursed following the last annual finance round.

Art. 11
Doctorate students’ obligations

1. Admission to doctorate courses means an exclusive, full-time commitment. Attendance of training activities is obligatory, adhering to the procedures established by individual Teaching Boards.

2. Doctorate students accepting a scholarship must:
   a. formally commit to undertaking the envisaged period of research (minimum of 6 months; maximum of 12 months) in a company or abroad (not compulsory); at the same time declaring an awareness that failure to respect the minimum periods of workplace study and research will result in the revocation of the scholarship;
   b. declare an awareness that an eventual negative opinion by the Teaching Board and the consequent failure to be admitted to the successive year of the doctorate course will result in the revocation of any sums awarded during the year in progress and that the failure to be awarded the required qualification will result in the revocation of any sums disbursed for the last year of the course.
   c. declare that they are not currently benefitting and will not benefit from other scholarships for any qualifications held, for the entire duration of the scholarship, and declare that they are not be benefitting from other scholarships awarded for any qualification held, aside from those admissible and in accordance with national laws currently in force.

Art. 12
PhD students’ teaching activity
1. The PhD student, if authorised by the Academic Board, may act as a tutor as well as fill a supplementary teaching role up to a maximum of 40 hours per academic year. PhD students in the medical area can take part in clinical and assistance activities.

Art. 13
Joint attendance with medical specialisation schools

1. Final-year students of the University of Pavia's medical specialisation school, who have successfully passed the PhD competition, can enrol onto a PhD course provided that the joint attendance has been approved by the specialisation school Committee.

2. The joint attendance must be requested to the University Administration at the same time as the enrolment onto the PhD course, enclosing the following documents:
   a. written authorization issued by the specialisation school Committee, testifying that the attendance to the PhD course is compatible with the activity and the commitment requested by the specialisation school;
   b. list of the publications and self-declaration on the research activity carried out during the specialisation school.

3. During the year of joint attendance, the student is not entitled to receive a PhD scholarship.

Art. 16
Incompatibility

1. Enrolment onto a PhD course is incompatible with a simultaneous enrolment on a degree course, Italian "Master" course, non-medical specialisation school, TFA (Tirocinio Formativo Attivo - Active Educational Training) or other PhD course (except in cases of joint-supervision agreements with a foreign institution) both in Italy and abroad.

Art. 17
Ethical Code

1. PhD students will have to abide by the provisions of the University of Pavia Code of Ethics, available at the following link: https://web.unipv.it/ateneo/statuto-regolamenti/.

Art. 18
Final exam and attainment of the PhD degree

1. The title of PhD ("Dottore di ricerca") is attained following a positive assessment of a research thesis which contributes to the progress of knowledge or methodology in the research field chosen by the PhD student. The thesis is publicly discussed in front of a
1. Pursuant to art. 13 of the General Data Protection Regulation (EU) 2016/679, the information supplied by candidates will be gathered by the University of Pavia's Research and Third Mission Unit and used for the management of the admission competitions and of the possible candidates’ academic career. Granting consent for the handling of personal data is therefore obligatory and failure to do so will result candidates’ exclusion from the competition.

2. The information provided by the candidates will be communicated to the University of Pavia’s administrative offices and to the departments directly concerned with the legal and financial positions of the successful candidates.

3. Candidates are entitled to the rights stated in art. 13 of the General Data Protection Regulation (EU) 2016/679, including access to their personal data, its modification, updating, integration, cancellation etc., and likewise reserve the right to oppose any use of the data other than the institutional purposes stated above.

Art. 20
Head of Administrative Procedures

1. The Manager of Administrative Procedures, under Law no. 241 of 7 August 1990 and subsequent modifications and additions, is Ms Sofia Baggini, Head of the Research and Third Mission Unit. For information please contact the Research and Third Mission Unit – Via Ferrata n. 5 – Pavia (Italy), tel. +39 (0)382 985021 or 985937/84, e-mail concorso-dottorati@unipv.it.

Art. 21
Final regulations

1. In relation to any issues not explicitly specified in this announcement, the provisions of existing Italian legislation on PhD courses and of the University of Pavia’s “Regulations for PhD courses” n. 1223 of July 24, 2013 apply.

2. Only the Italian version of this call for applications will be binding in case of controversies.
Pavia, October 6th 2021

ALLEGATO 1

ELENCO DEI CORSI DI DOTTORATO DI RICERCA – XXXVII CICLO – BANDO PON DM 1061

MACROAREA DI SCIENZE E TECNOLOGIE

DOTTORATO DI RICERCA IN

BIOINGEGNERIA, BIOINFORMATICA e TECNOLOGIE PER LA SALUTE

SEDE: DIPARTIMENTO DI INGEGNERIA INDUSTRIALE E DELL’INFORMAZIONE;

COORDINATORE: Prof.ssa SILVANA QUAGLINI;

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<th>TITOLO BORSA TEMATICA</th>
<th>TEMATICA</th>
<th>Numero borse</th>
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<tr>
<td>“High Performance Computing for Human Sensible Applications”</td>
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<td>“Facing and harnessing effects of climate change on the arboviral vector Aedes albopictus”</td>
<td>Green</td>
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INFORMAZIONI: [http://phdbb.unipv.eu/](http://phdbb.unipv.eu/)

L’elenco delle aziende che si sono rese disponibili ad ospitare i dottorandi nel loro percorso di Dottorato è disponibile alla pagina: [http://phd.unipv.it/bando-pon-37-ciclo/](http://phd.unipv.it/bando-pon-37-ciclo/)
DOTTORATO DI RICERCA IN

COMPUTATIONAL MATHEMATICS AND DECISION SCIENCES

SEDE: DIPARTIMENTO DI MATEMATICA "FELICE CASORATI",

COORDINATORE: Prof. LUCA FRANCO PAVARINO;

SEDE CONVENZIONATA: UNIVERSITÀ DELLA SVIZZERA ITALIANA; Il titolo di dottore di ricerca sarà rilasciato congiuntamente dal Rettore dell'Università degli Studi di Pavia e dal Rettore dell'Università della Svizzera Italiana.

Ai vincitori sarà richiesto un periodo di permanenza presso l'Università della Svizzera Italiana di almeno sei mesi nel corso del triennio.

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<th>TITOLO BORSA TEMATICA</th>
<th>TEMATICA</th>
<th>Numero borse</th>
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<tbody>
<tr>
<td>“Deep Learning e High Performance Computing (HPC) methods for Computational Cardiology with parallel pre-exascale and Green computing architectures”</td>
<td>Innovazione</td>
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<tr>
<td>“Optimization models and algorithms for Security-Constrained Optimal Power Flow problems”</td>
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INFORMAZIONI: http://compmat.unipv.it/

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DOTTORATO DI RICERCA IN

DESIGN, MODELING, AND SIMULATION IN ENGINEERING

SEDE: DIPARTIMENTO DI INGEGNERIA CIVILE E ARCHITETTURA

COORDINATORE: Prof. ALESSANDRO REALI
<table>
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<th>TITOLO BORSA TEMATICA</th>
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<tr>
<td>&quot;LiPo Batteries &quot;</td>
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<td>&quot; Green Mobile Homes for Sustainable Tourism &quot;</td>
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<tr>
<td>&quot;The use of very high resolution and high frequency satellite images as a support for smart weeding for a sustainable agriculture&quot;.</td>
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<tr>
<td>&quot; Digital technologies and sustainable mobility &quot;</td>
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<tr>
<td>&quot;Technical models, decision making process and organizational structures for the implementation of integrated programs, building actions, landscape plans for ecological and energetic transitions &quot;</td>
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<tr>
<td>&quot;Innovating co-design practices within housing retrofit and neighbourhood-scale post-Covid transformations: e-partecipation and post-occupancy evaluations&quot;.</td>
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<tr>
<td>&quot;New models for Colleges and University Housing: sustainability, well-being and safety &quot;</td>
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<td>&quot;Energy and environmental sustainability of HVAC systems (Heating, Ventilation and Air Conditioning): equipment optimization of for the reduction of energy consumption, for the condensed water recovery and for the renewable energy use&quot;</td>
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<td>&quot;Integrated management of wooden and anthropogenic fluvial debris&quot;</td>
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<td>&quot;New paradigm for an innovative and green design of next generation loudspeakers based on surface sound technology&quot;</td>
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**INFORMAZIONI:** [http://phd.unipv.it/phd-program-in-design-modeling-and-simulation-in-engineering/](http://phd.unipv.it/phd-program-in-design-modeling-and-simulation-in-engineering/)

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**DOTTORATO DI RICERCA IN**

**INGEGNERIA ELETTRONICA, INFORMATICA ED ELETTRICA**

**SEDE:** DIPARTIMENTO DI INGEGNERIA INDUSTRIALE E DELL’INFORMAZIONE;

**COORDINATORE:** Prof. PAOLO DI BARBA

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<tr>
<td>&quot;Integrazione di sorgenti e chip ottici nonlineari per sensoristica ambientale nel medio IR&quot;</td>
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<tr>
<td>&quot;Gestione dell'energia: l'intelligenza artificiale come strumento di perfezionamento per gli studi energetico-ambientali 4.0, finalizzati alla carbon reduction&quot;</td>
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<tr>
<td>&quot;Osservazione della Terra da satelliti con sensori ottici e radar per l’assistenza all’agricoltura sostenibile ed alla tracciabilità nella produzione agroalimentare&quot;</td>
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<tr>
<td>&quot;Integration of sMart Multi-eNErgy NeTworks (IMMINENT)&quot;</td>
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**INFORMAZIONI:** [http://www.unipv.it/dottEIE](http://www.unipv.it/dottEIE)

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**DOTTORATO DI RICERCA IN**

**MICROELETTRONICA**

**SEDE:** DIPARTIMENTO DI INGEGNERIA INDUSTRIALE E DELL'INFORMAZIONE;

**COORDINATORE:** Prof. PIERO MALCOVATI

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<tr>
<td>&quot;Digital Controlled Oscillator for 80-GHz Radar&quot;</td>
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INFORMAZIONI: http://www.unipv.it/dottMICR

L’elenco delle aziende che si sono rese disponibili ad ospitare i dottorandi nel loro percorso di Dottorato è disponibile alla pagina: http://phd.unipv.it/bando-pon-37-ciclo/

DOTTORATO DI RICERCA IN

SCIENZE CHIMICHE E FARMACEUTICHE E INNOVAZIONE INDUSTRIALE

SEDE: DIPARTIMENTO DI CHIMICA;

COORDINATORE: Prof. GIORGIO COLOMBO

<table>
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<tr>
<td>“Innovative recycling of critical raw materials from RAEE”</td>
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<tr>
<td>“Synthesis of nano and submicrometric materials for the preparation of ceramic inks with low environmental impact and use of raw and secondary materials in the manufacture of semi-finished ceramic products i”</td>
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<tr>
<td>“Study of reaction mechanisms in electrochemistry: evolution of oxygen on nickel and nickel /iron electrodes”</td>
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<tr>
<td>“Unveiling NanoStructure – Function Relationship to push Perovskite Photovoltaics for Green Solar Energy”</td>
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<tr>
<td>&quot;Design and Engineering of Nanosponges for Water Capture as Innovative Coatings for Sustainable and Green flexible devices&quot;</td>
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<tr>
<td>&quot;Metal alloy based anodes for sustainable post-lithium batteries&quot;</td>
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<tr>
<td>&quot;Modification of biopolymers from renewable sources to make them compatible with Downstream products such as lubricants, fuels and bitumen&quot;</td>
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<tr>
<td>&quot;Biocatalytic &quot;green transition&quot; of industrial processes for the production of Cephalosporin and Carbapenem antibiotics.&quot;</td>
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<td>&quot;Development of innovative photocatalysts based on lead-free, water-stable metal halide perovskites&quot;</td>
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<td>“Development of innovative materials and devices for water-splitting”</td>
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<tr>
<td>“Valorization of waste biomass for the preparation of new materials for photoreforming and preconcentration of emerging pollutants”</td>
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<td>“Photocatalysis for the exploitation of fish and agri-food waste and the synthesis of advanced polymers and carbon nanomaterials &quot;</td>
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<td>“Green and sustainable processes of recycling and regeneration of materials from exhausted lithium-ion batteries”</td>
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### TITOLI BORSA TEMATICA

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<tr>
<td>&quot;Innovative ceramics from industrial waste and by-products&quot;</td>
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<td>&quot;Plant Microbial Fuel Cell: a green energy harvesting technology for the sustainable power supply of low-power electrical devices&quot;</td>
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<tr>
<td>&quot;Consolidation of unstable slopes through organic polymers&quot;</td>
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<td>&quot;Construction of a 3D model of the Po Plain subsoil for the protection of groundwater and its sustainable exploitation by low-enthalpy geothermal energy”</td>
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<tr>
<td>&quot;Coupling 3D geological modelling and groundwater flow groundwater modelling: an integrated and seamless approach to improve the environmental sustainability of hydraulic barrier systems”</td>
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<tr>
<td>&quot;Quantitative assessment of sediment dynamics on catchment scale using advanced modelling and scenario analysis to adapt Mediterranean agroecosystems to global change”</td>
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<td>&quot;Low-cost methods for monitoring shallow landslide occurrence along infrastructures”</td>
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<td>&quot;From taxonomy to plant nursery: an integrated approach for conservation of rare plant species &quot;</td>
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<td>&quot;Geothermal energy: an under-exploited tool to improve and support the green transition. Development evaluation in the Southern Apennines (Italy)”</td>
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<tr>
<td>&quot; Bioprospecting of fungi for low-impact technique development aimed to metal recovery of industrial interest&quot;</td>
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INFORMAZIONI: [http://phd-dsta.unipv.it](http://phd-dsta.unipv.it)

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MACROAREA DI SCIENZE DELLA VITA

DOTTORATO DI RICERCA IN

GENETICA, BIOLOGIA MOLECOLARE E CELLULARE

SEDE: DIPARTIMENTO DI BIOLOGIA E BIOTECNOLOGIE “LAZZARO SPALLANZANI”;

COORDINATORE: Prof. DAVIDE SASSERA

<table>
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<tr>
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<tr>
<td>&quot;PIAntigen: produzione in piante di antigeni per test diagnostici”</td>
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<td>&quot;Sviluppo di protocollo sostenibili di seed priming in lattuga (Lactuca sativa L.)&quot;</td>
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<td>&quot;Studio delle proprietà nutrizionali e dei benefici del Peperone di Voghera sull’invecchiamento e sulle patologie correlate&quot;</td>
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<tr>
<td>Caratterizzazione della comunità microbica di specie invasive di zanzare per lo sviluppo di strategie innovative ed ecocompatibili per il controllo”</td>
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Indirizzo email: phdprogram.gmcb@unipv.it

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**DOTTORATO DI RICERCA IN**

**PSYCHOLOGY, NEUROSCIENCE AND DATA SCIENCE**

**SEDE:** DIPARTIMENTO DI SCIENZE DEL SISTEMA NERVOSO E DEL COMPORTAMENTO

**COORDINATORE:** Prof.ssa GABRIELLA BOTTINI

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<tbody>
<tr>
<td>&quot;Digital and vision technologies in therapeutic and diagnostic protocols for autism spectrum disorder research&quot;</td>
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<tr>
<td>“Pedelecs as a green mode of transport – Mental, physical benefits and psychophysiological responses to active transportation though electric bicycle (e-bike) and conventional bicycle.”</td>
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Indirizzo email: gabriella.bottini@unipv.it

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**DOTTORATO DI RICERCA IN**

**SCIENZE BIOMEDICHE**

**SEDE:** DIPARTIMENTO DI SCIENZE DEL SISTEMA NERVOSO E DEL COMPORTAMENTO;
**COORDINATORE:** Prof. ANTONIO PISANI

<table>
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<tr>
<td>&quot;Fostering academia-industry synergy for TECHnological innovation in the REHABilitation of Neurocovid (TEC-REHAB)&quot;</td>
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<td>&quot;Iron homeostasis, magnetic susceptibility imaging and COVID-19: searching for mechanisms that can be targeted to solve persistent symptoms&quot;</td>
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**INFORMAZIONI:** [http://drsbm.unipv.it/admission](http://drsbm.unipv.it/admission)

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**DOTTORATO DI RICERCA IN TRANSLATIONAL MEDICINE**

**SEDE:** DIPARTIMENTO DI MEDICINA MOLECOLARE

**COORDINATORE:** Prof.ssa ENZA MARIA VALENTE

<table>
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<tr>
<td>&quot;Effects of inactivity and potential countermeasures: from ex-vivo molecular mechanisms to inn-vivo physiological adaptations&quot;</td>
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**INFORMAZIONI:** [http://molecularmedicine.unipv.it/phd-programme/](http://molecularmedicine.unipv.it/phd-programme/)
indirizzo email: translationalmedicine.phd@unipv.it

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MACROAREA DI SCIENZE UMANISTICHE E SOCIALI

DOTTORATO DI RICERCA IN

SCIENZE DEL TESTO LETTERARIO E MUSICALE

SEDE: DIPARTIMENTO DI STUDI UMANISTICI

COORDINATORE: Prof. GIUSEPPE ANTONELLI

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INFORMAZIONI: http://phdfm.unipv.eu/site/home.html

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