



POLITECNICO
MILANO 1863

CALL FOR APPLICATIONS FOR THE SELECTION PROCEDURE FOR THE AWARD OF POST-MASTER'S RESEARCH SCHOLARSHIPS - PROCEDURE CODE: 2025_BSR_DENG_10

HAVING REGARD TO Law no. 168 of 9 May 1989, and in particular Article 6, which establishes the regulatory autonomy of Universities;

HAVING REGARD TO Law no. 537 of 24 December 1993, "Corrective Measures for Public Finance";

HAVING REGARD TO Law no. 210 of 3 July 1998, "Regulations on the Recruitment of Researchers and University Professors", and in particular Article 4;

HAVING REGARD TO Presidential Decree no. 445 of 28 December 2000 - Consolidated Act on Legislative and Regulatory Provisions on Administrative Documentation and subsequent amendments;

HAVING REGARD TO Legislative Decree no. 196 of 2003, "Personal Data Protection Code" and subsequent amendments;

HAVING REGARD TO Law no. 240 of 30 December 2010;

HAVING REGARD TO EU Regulation no. 679/2016 on the protection of natural persons with regard to the processing of personal data and the free movement of such data;

HAVING REGARD TO Ministerial Decree no. 639 of 2 May 2024, "Determination of Scientific-Disciplinary Groups and Related Descriptions, as well as the Rationalization and Updating of Scientific-Disciplinary Sectors and Their Assignment to Scientific-Disciplinary Groups", and subsequent amendments;

HAVING REGARD TO the Statute of Politecnico di Milano, adopted by Rectoral Decree no. 623/AG dated 23/02/2012, published in the Official Gazette on 02/03/2012, no. 52;

HAVING REGARD TO Rectoral Decree no. 16188 of 5 November 2024, issuing the Code of Ethics and Conduct of Politecnico di Milano;

HAVING REGARD TO Rectoral Decree no. 2073 of 30 January 2025, issuing the Regulation for the Award of Research Scholarships, pursuant to Article 4, paragraph 3, of Law no. 210 of 3 July 1998;

HAVING REGARD TO the Department resolution of 15/05/2025 approving the proposal for the public selection procedure for awarding research scholarships for postgraduate master's research activities, for the Group of Academic Disciplines 09/IIND-07, within the research program titled " Artificial intelligence techniques for the prediction of failures of components ";

HAVING VERIFIED the availability of funds,

DECREES

Article 1 – Purpose

A public selection is announced for the award of 1 scholarship for post-master's research activities.

Department: DEPARTMENT OF ENERGY

Group of Academic Disciplines: 09/IIND-07

Scholarship Duration (months): 12 months

Total Scholarship Amount: 25.200,00€ (paid to the beneficiary in monthly installments)

Research Supervisor: Piero Baraldi and Enrico Zio

Article 2 - Research program

Research program title:

Artificial intelligence techniques for the prediction of failures of components **Research program description:**

The capability of predicting component failures is fundamental for improving the safety and profitability of industrial systems. The objective of the scholarship is the development of Artificial Intelligence (AI) methods for failure prediction. The research will focus on the development of advanced artificial intelligence models based on neural networks and transformers, and transfer learning methods. A key issue for the application of AI is the trustability of the models' predictions. To this end, physics-informed neural networks and explainable artificial intelligence techniques will also be taken into consideration.

Article 3 - Eligibility requirements

To be eligible for selection, applicants must hold a Laurea Magistrale (Italian Master of Science) in one of the **following degree classes**

LM-20; LM-22; LM-25; LM-26; LM-27; LM-28; LM-29; LM-30; LM-31; LM-32; LM-33; LM-35

For the purposes of assessing the above degrees, the applicable equivalences and equipollences between Italian academic qualifications shall apply (<https://www.mur.gov.it/it/aree-tematiche/universita/equipollenze-equivalenza-ed-equiparazioni-tra-titoli-di-studio-0>).

Candidates holding a foreign degree may also apply. The degree must be an officially recognized qualification within the foreign university system, awarded by an institution accredited in the respective country. It must be deemed equivalent—solely for selection purposes—in terms of nature, level, and disciplinary scope to the corresponding Italian degree mentioned above, as determined by the Selection Committee.

Eligibility requirements must be met by the final deadline specified in Article 4, Failure to meet these requirements will result in exclusion from the selection process.

Article 4 - Application and submission deadline

To participate in the selection, candidates must complete, sign, and submit their application **by the strict deadline of 12:00 PM (Italian time) on 19/06/2025**, using the official application form available on the Department's website.

The following documents must be attached to the application:

- scientific and professional CV;
- final theses for the academic degrees awarded (if applicable);
- up to three publications or certified scientific outputs;
- a valid identification document: identity card, passport, or driver's license.

Candidates applying with a foreign degree must also attach:

- a copy of the degree
- an Italian or English translation of the degree
- one of the following: a diploma supplement, a certificate of equivalence of qualification, or a transcript of completed exams.

If more than three scientific publications/outputs are submitted, only the first three will be considered for evaluation.

Additionally, university theses, publications, and scientific outputs must be written or translated into one of the following languages to be eligible for evaluation: Italian, English, French, German, or Spanish. Translated texts must be submitted along with a copy of the original version.

The application, complete with all required attachments, may be submitted **using the following methods:**

- **Italian certified e-mail address (PEC):** the application must be sent from the candidate's own PEC address to pecenergia@cert.polimi.it with the subject: Selection procedure for the award of research scholarships, procedure code 2025_BSR_DENG_10;
- **Standard email:** candidates may also submit their application via email to borsediricerca-deng@polimi.it using their personal email address, with the subject: Selection procedure for the award of research scholarships, procedure code 2025_BSR_DENG_10.

Candidates who submit their application after the deadline or through methods other than those indicated above will be **automatically excluded** from the selection process.

Only the documents effectively attached to the application will be considered for evaluation.

The Administration reserves the right to conduct random checks on the attached documents and the accuracy of the statements provided.

References to documents previously submitted or filed for other selection procedures at Politecnico di Milano are not permitted.

Article 5 - Exclusion and forfeiture

Candidates are admitted to the selection process with reservation. The Head of the Procedure may, at any time, order **exclusion from the selection** process for the following reasons:

- **submission of the application after the strict deadline indicated in Article 4 of the call;**
- **failure to submit the application form, which must be completed exclusively using the template available on the Department's website, or failure to sign it;**
- **absence of a scientific and professional CV written in Italian or English;**
- **absence of a valid identification document;**
- **failure to meet the eligibility requirements specified in Article 3 of the call;**
- **absence of the mandatory required attachments;**
- **any other violation of the provisions of the call.**

If the grounds for exclusion are identified after the selection process has taken place, the Head of the procedure shall **order the forfeiture of all rights related to participation in the selection process**. Similarly, forfeiture shall be ordered for candidates whose statements in the application form or declarations made pursuant to Presidential Decree No. 445/2000 are found to be untruthful.

Article 6 - Selection Committee

The Selection Committee consists of three members, selected from professors and researchers with proven expertise in the subject matter of the selection process, ensuring, as a rule, appropriate gender representation.

The appointment of the Selection Committee is formalized by a decree of the Head of the Department and published on the Department's website and the Official Register of the University.

The Selection Committee must complete its work within 60 days from the publication date of the appointment decree.

If the Committee fails to complete its work within the above-mentioned deadline, the Head of the Department shall revoke the appointment by issuing a specific decree.

The Committee shall draw up a merit ranking based on the total scores awarded to each candidate, providing a reasoned assessment.

In the event of a tie, preference shall be given to the younger candidate.

Article 7 - Online Interview

As part of the selection process, an online interview will be conducted to assess the candidates' research aptitude. Unless unforeseen circumstances prevent one or more members of the Selection Committee from proceeding, the interview will take place on **23/06/2025** at 12:00 (Italian time), via telematic means.

The link to access the interview is as follows: https://teams.microsoft.com/l/meetup-join/19%3ameeting_YiFiMWM3YTItZGYyMS00NjE5LWI5ZDgtMmlyZDU4ZiNmNDA5%40thread.v2/0?context=%7b%22Tid%22%3a%220a17712b-6df3-425d-808e-309df28a5eeb%22%2c%22Oid%22%3a%22068b1e58-cfcc-4735-bbb1-a14403008677%22%7d

This call for applications serves as a formal notification for candidates.

Candidates must ensure that the workstation from which they will attend the interview is equipped with a webcam, mandatory for identity verification, a microphone and headphones or speakers.

At the beginning of the interview, candidates must present a valid identification document, preferably the same document submitted with their application.

Failure to connect to the online interview on the specified date and time, or late connection, even if due to force majeure, will be considered as a withdrawal from the selection process.

In the event that one or more members of the Selection Committee are unable to conduct the interview at the scheduled date and time, candidates will receive a new notification at the email or certified email address designated as the sole contact for the procedure. The new interview details will also be published on the Department's website.

The Administration assumes no responsibility for failure to receive communications due to:

- incorrect contact details provided by candidates
- failure to update contact details
- technical issues, electronic transmission errors, or other disruptions caused by factors beyond their control or attributable to third parties, including unforeseen events or force majeure.

Article 8 - Selection Process

The Selection Committee carries out the selection process, awarding a maximum of **100 points** based on the evaluation of the candidate's qualifications, scientific outputs, and professional curriculum, according to the following criteria:

- a) **relevance of academic qualifications to the research program subject to selection (up to 15 points);**
- b) **consistency and alignment of the candidate's overall profile with the research program subject to selection (up to 28 points);**
- c) **relevance of publications, theses, and scientific outputs in relation to the research program subject to selection (up to 17 points);**
- d) **interview to assess the candidate's research aptitude (up to 40 points).**

The selection process is deemed successful if the candidate achieves a minimum score of 70 points.

Article 9 - Approval of proceedings and ranking

The Head of the Department confirms the formal correctness of the documents prepared by the Selection Committee and approves them through a specific decree.

If any irregularities are found, the Head of the Department, through a reasoned decision, returns the documents to the Committee for regularization, establishing a deadline for their correction.

The decree approving the proceedings, along with the ranking list of successful and eligible candidates, will be published on the Official Register of Politecnico di Milano and on the Department's website.

Publication on the website serves as official notification to candidates in accordance with applicable laws.

The deadline for filing any appeals begins to run from the date of publication of the aforementioned decree.

Within a maximum period of 90 days from the date of approval of the Selection Committee's proceedings, if there are justified additional scientific needs, the Research Supervisor may propose to the Department Council the allocation of additional research scholarships to candidates ranked in a suitable position, provided that the necessary financial coverage is available. After this period, the ranking list will no longer be valid.

Article 10 - Awarding of scholarships and duties of scholarship holders

Scholarships are awarded within **30 days** from the date of approval of the proceedings.

The Department Administration, in accordance with the Research Supervisor, sends scholarship recipients a scholarship acceptance document.

The document must be signed within the mandatory deadline specified in the communication. Failure to sign within this deadline results in forfeiture of the scholarship.

Scholarship holders must commence their activities according to the procedures indicated in the Scholarship Acceptance Document. Failure to start the activity as specified constitutes a serious breach.

Article 11 - Incompatibility

Research scholarships may not be combined with other scholarships except for:

- scholarships awarded by national or international institutions intended to supplement the research activity of the scholarship holders with study periods abroad;
- university study grants, including those for master's degree students, provided they do not interfere with the research activity funded by the scholarship.

Scholarship holders may not engage in activities that could create a conflict of interest with the activities of Politecnico di Milano.

Individuals who have a family or kinship relationship, up to the fourth degree, with a Full or Associate Professor affiliated with the Department, or with the Rector, the General Director, or a member of the University's Board of Governors, are not eligible to participate in the selection process.

Research scholarships are incompatible with employment contracts, except when the recipient has been granted unpaid leave by their employer.

Article 12 - Processing of personal data

Pursuant to EU Regulation No. 679/2016, candidates are informed that their personal data will be processed, both in paper and electronic format, solely for the purposes of this selection procedure, awarding and disbursement of the scholarship and any related administrative activities.

Data processing will be carried out by authorized personnel and the Selection Committee, using both automated and non-automated procedures, only to the extent necessary for the above-mentioned purposes, including any required disclosures to third parties.

Providing the requested data is mandatory for verifying eligibility and qualifications. Failure to provide this information may result in exclusion from the selection process, for the sole cases mentioned in this call.

Additional data may be requested solely for the above-mentioned purposes.

Collected data may be disclosed to entitled parties under Law No. 241/1990, Legislative Decree No. 33/2013, and subsequent amendments.

Data will be stored, in compliance with current regulations, only for the time necessary to fulfill the stated purposes.

In compliance with GDPR 2016/679, Politecnico di Milano may publish the Curriculum Vitae submitted by selected candidates on its institutional website for institutional purposes, in accordance with Legislative Decree No. 33/2013 (Transparency Decree), as amended by Legislative Decree No. 97/ 2016.

Candidates may provide a redacted version of their CV, excluding personal data, for publication.

Candidates have the rights outlined in Chapter III of EU Regulation No. 679/2016, including access to their personal data, request of rectification, updating, or deletion of incomplete, incorrect, or unlawfully collected data, and the right to object to the processing of their data for legitimate reasons. Further information is available at www.polimi.it/privacy.

For complaints, candidates may contact the Data Protection Officer at privacy@polimi.it.

The Data Controller of Politecnico di Milano is the General Director, by delegation of the Rector pro tempore - contact: dirgen@polimi.it.

The Data Processor is the Department Manager of the Department of Energy

Article 13 - Head of the procedure

Pursuant to Article 5 of Law No. 241 of August 7, 1990, and subsequent amendments, the Head of the procedure for this call is appointed as Andrea Papoff, Department of Energy, Tel: +39 02 23996571 - E-Mail: borsediricerca-deng@polimi.it Certified Email (PEC): pecenergia@cert.polimi.it

Article 14 - Notice

This call is published in the Official Register of Politecnico di Milano and on the website of the Department of Energy.

Article 15 - Final provisions

For all matters not expressly covered in this call, the provisions referenced in the preamble of this decree, along with applicable laws and regulations in force, shall apply.

The Head of the Department
(Prof. Giovanni Gustavo Lozza)
Signed Prof. Giovanni Gustavo Lozza

Digitally signed pursuant to the Digital Administration Code (CAD) - Legislative Decree No. 82/2005 and subsequent amendments.