



POLITECNICO
MILANO 1863

Index 1736
Registered on 27/01/2025
Ref. no. 19470 Pos. VII/1 Procedure
code: 2025_RTT_DENG_1
UOR: Academic Staff Career Unit

HAVING SEEN Law no. 22/4/1987, no. 158, "Conversion into law, with amendments, of Decree Law 02 March 1987, no. 57, containing urgent provisions for university researchers and for the implementation of art. 29, paragraph 2, of Law 29 January 1986, no. 23, on replacements of school non-professors";

HAVING SEEN Law no. 9/5/1989, no. 168 and art. 6, according to which Universities have regulatory autonomy;

HAVING SEEN Law no. 24/12/1993, no. 537, "Public finance corrective actions";

HAVING SEEN Presidential Decree 28/12/2000, no. 445 Consolidated laws and regulations on administrative documentation and subsequent amendments;

HAVING SEEN Legislative Decree no. 196 of 2003 "Code on the protection of personal data", and subsequent amendments and additions;

HAVING SEEN EU Regulation no. 679/2016 on the protection of individuals during personal data processing and its free movement;

HAVING SEEN Legislative Decree 11 April 2006, no. 198 "Code on equal opportunities for women and men, under art. 6 of Law of 28 November 2005, no. 246", as amended;

HAVING SEEN Law no. 30/12/2010, no. 240 and art. 24;

HAVING SEEN MINISTERIAL DECREE 25/5/2011, no. 243, relating to "Recognised national and international criteria for the preliminary evaluation of applicants under the contracts referred to in art. 24, paragraph 2, letter c) of Law 240/2010";

HAVING SEEN MINISTERIAL DECREE 02/05/2024, no. 639 "Determination of Groups of Academic Disciplines and their respective declarations, as well as the rationalization and updating of Academic Disciplines and their alignment with Groups of Academic Disciplines" as amended;

HAVING SEEN the Politecnico di Milano Statute adopted under Rectoral Decree no. 623/AG on 23/2/2012, published in the Official Gazette of 2/3/2012, no. 52;

HAVING SEEN Rectoral Decree no. 41/AG of 17 May 2005 - Regulation concerning the contribution for participation in in-house and public calls organised by Politecnico di Milano;

HAVING SEEN Rectoral Decree no. 117/AG of 11 January 2012, with which the Regulations governing the procedures for the recruitment of Researchers under art. 24 of Law 30/12/2010 no. 240 as amended by Rectoral Decrees no. 2472 of 02/10/2012, 728 of 05/03/2014, 3451 of 13/10/2014, 1465 of 04/04/2016, 3396 of 29/07/2016, 3325 of 15/06/2017, 9325 of 20/12/2018, 3981 of 29/05/2019, 6974 of 30/09/2019, 2665 of 01/04/2020, 9234 of 23.12.2020 and further amended by Rectoral Decree no. 5433 of 11.05.2023;

HAVING SEEN the resolution of the Department of Energy on 15.01.2025 approving the proposal for a public selection notice for 1 Tenured Researcher position (RTT) for the 09/IIND-06 - FLUID MACHINERY, ENERGY SYSTEMS AND POWER GENERATION Group of Academic Disciplines;

HAVING SEEN the Decrees of the Director General, Nos. 6089, 6090, 6093, and 6094 of 26.05.2023, and 6195, 6196 of 29.05.2023, by which the Director General delegated specific powers to Ms. Alessandra Moroni, tenured manager of the Human Resources and Organizational Development Division, for the

signing of acts and documents specified in the aforementioned decrees and related to the internal regulations of the University, and the Decree of the Director General, No. 6561 of 09.06.2023, which specified the scope of signature for decrees, provisions, and documentation by Ms. Alessandra Moroni.

HAVING VERIFIED the budget availability,

DECREES

Art. 1 - Call type

A public selection is called for the recruitment of **1 Tenured Researcher under art. 24, paragraph 3, of Law 31/12/2010, no. 240 (RTT), with FULL TIME commitment** of a six year-total duration, not renewable.

Department: **Department of Energy**

Location: **Department of Energy**

Group of Academic Disciplines: **09/IIND-06 - FLUID MACHINERY, ENERGY SYSTEMS AND POWER GENERATION**

Academic Discipline: **IIND-06/A - FLUID MACHINERY**

Contract duration: **Six years**

Commitment: **FULL TIME**

Foreign language required: **ENGLISH**

Maximum number of publications: **12**

Minimum number of publications produced in the last 5 years, related to the participation requirement : **15**

Art. 2 - Admission requirements

Italian or foreign applicants, who have a PhD or equivalent qualification, obtained in Italy or abroad are admitted to selection process. In addition, in the last 5 years, they must have authored, co-authored, or edited a number of publications, accepted texts, essays included in collections, and articles published in print or digital journals equal to or exceeding the minimum required number of 15, excluding internal notes or departmental reports.

For the purpose of calculating the last 5 years, consideration is given to the current calendar year up to the application deadline and the preceding five calendar years. Since participation in the selection process is not nationality-specific, foreign citizens must possess an equivalent qualification based on international agreements and current legislation. This equivalence must result from appropriate certification.

Candidates who hold a position of "Professore di I Fascia" (Italian Full Professor), "Professore di II Fascia" (Italian Associate Professor) or "Ricercatore a Tempo Indeterminato" (Researchers on an Italian permanent contract), cannot be admitted to the selection, even if they have ceased their service, as well as subjects who have already enjoyed, for at least three years, Tenured Researcher contracts (RTT) under art. 24, paragraph 3, of Law 31/12/2010, no. 240, in force from 30/06/2022.

Those who have a familial or kinship relationship, up to and including the IV degree, with a professor of the Department of Energy>, the Rector, Director General or a member of the Board of Governors may not participate in the selection procedure.

To be admitted to the selection process, requirements must be met on the deadline date for submitting applications for admission.

Art. 3 - Admission application and submission deadline

To participate in the selection process, the applicant must complete and send **the application for admission, and the related signed summary, within the peremptory term of 30 (thirty) days, under penalty of exclusion, starting from the day after the publication of this Call in the Official Gazette.**

This is done by accessing the Politecnico di Milano Online Services (<https://www.polimi.it/en/online-services/>) Competitions and selections - Competitions/selections for entrusting of assignments/positions Tenured Researcher posts (RTT), attaching anything the procedure requires

Documentation sent using different methods cannot be evaluated.

Applicants whose applications are received after the deadline will be automatically excluded from selection.

If the deadline falls on a non-working day, it is extended to the next working day.

Applicants who want to participate in several selection procedures must submit separate and complete applications for each.

Applicants are admitted to the selection subject to confirmation.

The Procedure Manager may at any time exclude applicants from the selection for the following reasons:

- the admission application was submitted after the peremptory deadline of 30 days after the day following the publication date in the Official Gazette;
- failure to sign the application form summary;
- lack of a professional scientific Curriculum Vitae;
- lack of the required attachments;
- failure to pay the participation fee by the deadline for application submission;
- failure to meet the requirements set out in article 2 of the call notice;
- any other case of violation of the requirements contained in the call notice.

If the reasons for exclusion are ascertained after the selection process has been completed, the procedure Manager shall forfeit all rights resulting from participation. Applicants who make false statements in the selection admission application form or in statements made under Presidential Decree 445/2000 shall have their applications voided.

Applicants must pay by the deadline for submitting the application, and under penalty of exclusion from the selection procedure, a contribution fee of **25,82 Euro**, without the right to a refund in the event of non-participation for any reason, through the unified system for electronic payments to the public administration **PagoPA**, following the instructions of the online application submission procedure.

Alternatively, **only for those who are unable to proceed with the aforementioned payment system** (in particular, in case of payments made abroad if the candidate is not a credit card holder, or in case the credit card is not accepted by the system), it is possible to proceed through a bank transfer on the Current Account registered to Politecnico di Milano - P.zza Leonardo da Vinci, 32 - 20133 Milan, with the following bank details:

IBAN: **IT34T0569601620000001600X69** SWIFT: **POS0IT22**

causale: "n. 1 Tenured Researcher (RTT) position at Department DENG, procedure code: 2025_RTT_DENG_1"

Applicants with disabilities may request the necessary aid to do the interview, under Law no. 104/92.

The applicant must indicate in their application an e-mail address, or Italian certified e-mail address (PEC), to be elected as the sole address for the procedure.

The University must be promptly notified of any changes.

The Administration is not responsible for any inaccurate information provided by the applicant or for any postal issues.

The applicant must enclose the following with the application:

- professional scientific Curriculum Vitae;
- as a possible supplement to the curriculum, any additional document deemed useful for the purpose of assessing qualifications;
- **maximum number** of publications **12** (any further publications will not be subject to evaluation);
- photocopy of a valid identification document: identity card, passport or driving licence;
- participation fee payment receipt.

For selection purposes:

- The PhD or equivalent qualification, obtained in Italy is declared directly in the application form;
- The PhD or equivalent qualification, obtained abroad must be produced in original or adequately certified.

To guarantee the widest possible participation in the procedure, applicants must attach a photocopy of these qualifications accompanied by a translation into Italian or English. Should they be selected, they must submit their qualifications in original or adequately certified no later than the contract stipulation date.

Non-EU citizens, legally residing in Italy, must attach a copy of a valid residence permit or EU long-term residence permit (residence card for foreign citizens), legally issued by the relevant Administration or its request receipt. If the applicant is selected, an original of the residence permit or the EU long-term residence permit (residence card for foreign citizens) or their request receipt must be submitted to the Visiting Professor Welcome Office no later than the contract stipulation date. Any failure to submit the document involves the automatic forfeiture of the right to enter into the contract.

If citizens of non-European Union countries residing in their country of origin at the time of participation in the selection process are selected, they must necessarily submit the entry visa to the Visiting Professor Welcome Office. The visa is the result of the prefecture issuing the authorisation by the presumed activity start date. Failure to submit the document will make it impossible to start the activity.

Only what is actually attached to the application form will be evaluated.

The Administration reserves the right to carry out random checks on the attachments to the application form, and statement truthfulness.

Referenced to documents already submitted for other selection procedures at this Politecnico are forbidden.

Art. 4 - Publications

Only publications or texts accepted for publication under current regulations may be evaluated, and essays included in collective works and articles published in hard copy or digital magazines with the exclusion of internal notes or departmental reports. The doctoral thesis or equivalent qualifications are taken into consideration even without the above conditions.

Publications must be produced in the original language and translated into one of the following languages: Italian, French, English, German and Spanish, if written in a language other than those previously indicated.

Regarding texts accepted for publication, candidates must adequately document the actual acceptance status (for example, through acceptance communications from the publisher).

The administration reserves the right to check the statements on submitted publications.

In case candidates submit a number of publications exceeding the maximum limit of 12, they will be evaluated in the order listed in the summary attached to the application until the established limit is reached.

Art. 5 - Selection Committee

The Selection Committee is composed, ensuring adequate gender representation, of three full or associate professors belonging to the Group of Academic Disciplines of the competition, one of which is appointed by the Department Board that requested the position to be filled, and two externals to the University, appointed by drawing lots from a list of five professors identified by the same Department Board. The Committee may also include professors from foreign universities in the same scientific field as the competition, provided they hold an academic position equivalent to a full or associate professor, based on the correspondence tables defined by the relevant Ministry.

The committee member appointed by the Department Board may be replaced in case of recusal, resignation, or withdrawal, and a new member shall be designated. In case of acceptance of recusal, resignation or withdrawal of a member of the committee identified by drawing lots, a new draw shall be made from the list of names provided by the Department Board and not selected in the previous draw.

If the list of professors available for draw becomes less than three due to recusals, resignations or withdrawals, the Department Board must integrate it in order to ensure a draw from at least five names.

The appointment is made by Rectoral decree and published in the Official University Register and the University's website.

The Committee must complete its work within four months from the appointment decree issue. An extension of three months may be granted by the Rector on the President's reasoned request. If the Committee fails to complete its work within the above-mentioned deadlines, the Rector will revoke the appointment by decree.

The term of 30 (thirty) days, provided for by art. 9 of the decree - law 21.04.1995, n. 120, converted with modifications by law 21.06.1995 n. 236, for the presentation to the Rector, of any petitions for recusal of the Committee members by the candidates runs from the date of publication in the Official University Register of the decree appointing the Committee. After this deadline, and the Committee has taken office, no objection may be made. If the circumstance of the objection is prior to the date of the Committee taking office, the deadline starts from its onset. The objection's rejection cannot be a reason for a subsequent recusal.

Art. 6 - Selection methods

The selection is made by evaluating the applicants with a reasoned analytical judgement on their qualifications, curriculum vitae and scientific production, including the doctoral thesis, according to national and international criteria and parameters, identified by Ministerial Decree 25/5/2011, no. 243.

The judging board may use telematic tools for collective work and may carry out remote sessions.

The criteria and parameters with which the preliminary evaluation and subsequent evaluation of qualifications and scientific production will be carried out, as well as the maximum and minimum score, below which eligibility is not achieved, are attached to this call (annex 1) and form an integral part of it.

Following the preliminary evaluation, the most comparatively deserving applicants - between 10 and 20 per cent and not less than six, shall be admitted to the public discussion of qualifications and scientific production with the judging board.

All applicants are admitted to the discussion if the number is equal to or less than six.

The Committee discusses the qualifications and scientific production with the applicants. The applicant may choose to hold the discussion in Italian or English. This is not subject to evaluation but is aimed at assigning scores on qualifications and scientific production.

During the discussion of qualifications and scientific production, the Committee will carry out an oral test to verify the applicants' knowledge of the ENGLISH language.

After the discussion, a score will be awarded to qualifications and each of the publications submitted by the applicants.

Based on the criteria and parameters established in the Call, the Committee will draw up a merit ranking taking into account the scores achieved in the evaluation of qualifications and scientific production of each applicant.

If there is an equal score, preference will be given to the younger applicant.

The date, time and **method** of conducting the public discussion of qualifications and scientific production and the foreign language assessment are published on the University website and notified to each candidate, with at least 20 days' notice, through the e-mail or Italian certified e-mail address (PEC), elected as exclusive address for the purposes of the procedure, as indicated in the application form.

Candidates admitted to the public discussion, if the latter will be carried out by teleconference meeting, will receive an invitation containing the access link through their e-mail address, prior to the discussion. The link will also be published on the University website, in order to guarantee due publicity. **Candidates must ensure that the location from which they will take the interview is equipped with a webcam, which is essential for their recognition, as well as equipped with a microphone and headphones / audio speakers.**

At the beginning of the interview, candidates must show the judging board a valid identity document, preferably the same document attached to the application.

The Administration assumes no responsibility for the dispersion of communications, caused by any incorrect indication of the delivery address by the candidate or failure of/late communication of any change of address indicated in the application, nor for any postal or telegraphic mistake or any mistake attributable to third parties, either caused by chance or force majeure.

The event of a candidate failure to attend the public discussion, on the date and time set and with the method established in the communication, even if due to force majeure, will be considered as a waiver of participation in the selection.

After procedure completion, the Committee will deliver the selection documents to the procedure Manager, consisting of the minutes of individual meetings and a final report.

Art. 7 - Documentation compliance verification

Within 60 days from the delivery of the documentation drawn up by the Committee, the Director General

shall verify documentation formal compliance with a decree.

If any irregularities are found, the Director General will send the documentation back to the Commission for changes showing the reasons and setting the deadline.

The decree approving the documentation and final report (or alternatively, in the case of a single session, only the minutes) are published on the University's website and sent to the relevant institute that requested the call.

Publication on the website is the equivalent of a legal notice to applicants.

The deadlines for lodging any appeals begin from the decree's publication date.

The relevant Department Board shall formulate the proposal for the call of the applicant who is first in the ranking with an absolute majority of full and associate professors' favourable votes or decides not to call, giving appropriate reasons for the decision. The proposal is submitted to the Board of Governors for approval.

According to Article 24, Paragraph 2, Letter d) of Law 240 of 2010, if the call is not made, the Department cannot, for the following three years, announce new selection procedures for the same group of academic disciplines.

In case of withdrawal by the interested party, the Department formulates a new proposal for call based on merit ranking, using the same procedures as before.

The selection process concludes with the evaluation of the proposal for call by the Board of Governors.

Within a maximum of ninety days from the date of approval of the proposal for call by the Board of Governors, in the presence of motivated additional scientific needs, the Department Board may propose to the Board of Governors, with a resolution adopted by an absolute majority of full and associate professors, the call of additional candidates who are suitably ranked, provided that the availability of the related financial coverage has been ascertained.

Art. 8 - Documents - contract stipulation

Within 30 days from the Board of Governors resolution approving the proposal for employment, the candidate is invited to sign in written form the employment contract, which must be concluded within 90 days from the end of the selection process. The candidate must provide the required documentation under current legislation for the establishment of a fixed-term employment relationship.

The contract covers:

- a. the employment relationship start and end date;
- b. the services required;
- c. the remuneration.

The probationary period is three months and the Head of the Department is responsible for the evaluation.

The probationary period is suspended if there is an absence due to illness. In this case the employee has the right to keep the position for a maximum of six months, after which the relationship is terminated.

After the probationary period without the employment relationship having been terminated by the parties, the contract holder is confirmed and granted seniority from the day of recruitment.

If the contract is terminated, remuneration is paid until the last day of service.

Under current legislation, non-EU citizens may use substitute declarations, limited to cases where there is a need to prove status, facts and personal qualities which can be certified or attested by Italian public or private entities.

Art. 9 - Contract duration

The contract has a six year-total duration and is not renewable.

Until the deadline established in Article 14, paragraph 6-duodevices, of the Decree-Law of 30/04/2022, no. 36, currently set for 31/12/2026, researchers who have held fixed-term contracts as "Junior" Researchers, as defined in art. 24, paragraph 3, letter a) of Law 30/12/2010 No. 240, in force as of 29/06/2022, for at least three years, will be granted, upon request, a service period of three years for the purpose of classification.

Until the deadline established in Article 14, paragraph 6-duodevices, of the Decree-Law 30/04/2022, no. 36, currently set for 31/12/2026, researchers who have held research grants, according to Law 30/12/2010 No. 240, in force as of 29/06/2022, for a period of no less than three years, will be granted, upon request, a service period of two years for the purpose of classification.

Art. 10 - Tasks, employment relationship method and hourly commitment

Research Programme: Development and application of computational methods and optimization techniques for the design and analysis of non-conventional turbomachinery.

The research will be carried out in the field of turbomachinery mainly by means of numerical methodologies based on CFD techniques. In addition to the classical fields of application, particular attention will be paid to the design, optimization and flow analysis in thermal turbomachinery operating with non-conventional working fluids even in non-ideal conditions and conceived for heat recovery, power production and energy storage plants. Examples of some activities are: - development and application of numerical models for the study of two-phase flows of non-ideal compressible fluids in thermodynamic equilibrium and non-equilibrium conditions- development and application of optimization techniques for the design of turbomachinery also operating with unconventional non-ideal fluids, such as CO₂ in supercritical conditions, organic fluids, refrigerants, etc.

The annual commitment for teaching, supplementary teaching and student services is 350 hours.

The contract holder is required to carry out teaching according to the methods defined during teaching planning by the Department requesting the contract, under Regulations for the teaching commitment of Politecnico di Milano professors and researchers under art. 6 of Law 30/12/2010 no. 240.

Art. 11 - Employment termination

Employment termination is when the term expires or the parties withdraw and any other reason under current legislation.

During the first three months the contracting parties may terminate the contract, without notice or compensation in lieu of notice. Withdrawal shall be effective from the moment the other party has been informed.

After this period and until the expiry of the term, contract withdrawal may take place if, under art. 2119 of the Civil Code, there is a reason which makes the relationship continuation impossible. If there is a withdrawal, the contract holder is required to give at least 30 days' notice. The notice period begins on the first or 16th day of each month. If there is a failure to send the notice, the administration can retain an amount equal to the remuneration for the unworked notice period.

Art. 12 - Incompatibility and further assignments

The contract referred to in this call notice is incompatible with:

- any other employment relationship, including part-time or fixed-term employment, with public and private entities;
- Entitlement to contracts and research grants also held at other universities or public research institutions;
- doctoral and post-doctoral scholarships and in general with any scholarship conferred by national or foreign institutions, except in the case where it is aimed at international mobility for research purposes.

The contract holder is allowed to carry out further teaching assignments, in addition to those in art. 10 with the methods under University General Regulations.

The provisions contained in the Regulations governing assignments outside the University for professors and researchers apply to contract holders.

The provisions of Article 6, paragraphs 11 and 12 of Law no. 240/2010 apply to the contract holder.

The contract referred to in this call notice does not give rise to any rights to access university positions.

The performance of the contract referred to in this call notice is an advantage in selection procedures for public administrations.

Art. 13 - Remuneration, social security and insurance conditions

The contract holder is entitled, for the entire duration of the contract, to an all-inclusive gross annual economic remuneration equal to the initial remuneration that a "Ricercatore a Tempo Indeterminato" (Researcher on an Italian permanent contract) would receive for a FULL TIME contract, increased by up to a maximum of 30 percent.

The employment relationship established between Politecnico di Milano and the contract holder is governed by relevant regulations, including social security and insurance conditions for employee income.

The University also provides insurance coverage for work-related accidents and occupational diseases, as well as civil liability.

The contract holder is entitled to what is under Legislative Decree 26/03/2001, no. 151 on the protection and support of maternity and paternity, by Law 05/02/1992, no. 104 for the assistance, social integration and rights of persons with disabilities, articles 37, 40 and 68 of Presidential Decree 10/01/1957, no. 3 and subsequent amendments, on extraordinary and sick leave. Sick leave cannot be extended for more than 18 months, the first 12 of which are paid in full and the remaining 6 at 50 percent.

For the purposes of the employment relationship with the contract holder, periods of maternity, paternity, or sick leave under current regulations shall not be considered, at the request of the contract holder.

The contract holder is entitled to the special leave and personal leave provided for by articles 69 and 70 of Presidential Decree 10/01/1957 no. 3, and subsequent amendments. Special leave for personal reasons shall not exceed 12 months, during which the applicant shall not receive any allowance or social security contributions.

The contract holder is also entitled to study leave, up to a maximum of 12 months for each employment contract, as provided for by art. 8 of Law 18/03/1958 no. 349.

Art. 14 - Intellectual property

The possible implementation of an innovation, which may be patented by the contract holder in the performance of their duties, is subject to current and University General Regulations and any relevant contractual clauses.

Art. 15 - Personal data processing

Under EU Regulation no. 679/2016, applicants are informed that the processing of their personal data will take place, on paper or electronically, for the sole purposes of this procedure and establishment and management of any employment relationship.

The processing will be carried out by the persons in charge of the procedure, the selection committee, using electronic means, in the ways and within the limits necessary to pursue the above purposes, including any communication to third parties.

The provision of data is necessary for the assessment and verification of the participation requirements and possession of the declared qualifications. Any failure to provide data may prevent those fulfilments and, in the cases provided by the call, may result in the exclusion from the selection procedure.

Additional data may be requested from applicants for the purposes indicated above.

The data collected may be disclosed to any entitled parties under Law no. 241/1990, Legislative Decree 33/2013 as amended and supplemented.

The data will be stored, under current regulations for a period which does not exceed that necessary to achieve the purposes for which it was processed.

Applicants are granted the rights indicated in the third chapter of Regulation EU no. 679/2016, including the right to access their personal data, request its rectification, update and deletion, if incomplete, inaccurate or collected unlawfully, and oppose data processing for legitimate reasons. Further information is available on the university website www.polimi.it/privacy.

A complaint may be lodged by making a request to the Data Protection Officer, contact point: privacy@polimi.it.

The Politecnico di Milano Data Controller is the Director General delegated by the Pro-tempore Rector - contact: dirgen@polimi.it.

Data processor: The Head of HR and Organizational Development Division.

Art. 16 - Head of The Procedure

Pursuant to art. 5 of the law of 7 August 1990, no. 241, Eftimiadi Enrico, Human Resources and Organizational Development Division - Academic Staff Career Unit - is appointed Head of this procedure - tel. 02.2399.2156 - 02.2399.2582 - E-Mail: concorsi@polimi.it - Italian certified email address (PEC) pecateneo@cert.polimi.it.

Art. 17 - Publication

This call is promoted on the Official Gazette of the Italian Republic, on the Politecnico di Milano website, on

the Ministry of University and Research website and the European Union Portal, and published on the Politecnico di Milano website.

Art. 18 - Final provisions

For anything not expressly provided for under this call, the regulations mentioned in this decree introduction and the legislation, shall apply.

THE AREA MANAGER
(Ms. Alessandra Moroni)
Signed by Alessandra Moroni

Digitally signed under CAD - Legislative Decree 82/2005 as amended and supplemented

ATTACHMENT 1 to I MINUTES (EVALUATION CRITERIA)

PRELIMINARY ASSESSMENT CRITERIA

1. The judging committee will conduct a reasoned evaluation followed by a comparative assessment, referring to the specific group of academic disciplines 09/IIND-06 - FLUID MACHINERY, ENERGY SYSTEMS AND POWER GENERATION and the profile defined exclusively by the academic-discipline of the call IIND-06/A - FLUID MACHINERY, of the curriculum vitae and the following duly documented qualifications of the candidates:

- PhD or equivalent, or, for relevant fields, a medical specialization diploma or equivalent, obtained in Italy or abroad;
- Any teaching activity at university level in Italy or abroad
- Documented training or research activities at qualified Italian or foreign institutions
- Organization, management and coordination of national and international research groups, or participation in them
- Ownership of patents related to the academic fields where applicable
- Speaker at national and international conferences and conventions
- National and international awards and recognitions for research activities

2. The evaluation of each qualification indicated in paragraph 1 will be carried out considering specifically the significance it assumes in relation to the quality and quantity of the research activity carried out by each candidate.

Evaluation of scientific production

1. The judging committee, in carrying out the preliminary comparative evaluation of the candidates, will consider only publications or texts accepted for publication according to current regulations, as well as essays included in collective works and articles published in print or digital journals, excluding internal notes or departmental reports. The doctoral thesis or equivalent qualifications will also be taken into consideration even in the absence of the conditions referred to in this paragraph.

2. The judging committee will conduct the comparative evaluation of the publications referred to in paragraph 1 based on the following criteria:

- a. originality, innovativeness, methodological rigor and relevance of each scientific publication;
- b. congruence of each publication with the group of academic disciplines 09/IIND-06 - FLUID MACHINERY, ENERGY SYSTEMS AND POWER GENERATION and with the profile, defined exclusively by the academic-discipline of the call IIND-06/A - FLUID MACHINERY, or with related interdisciplinary topics;
- c. Scientific relevance of the editorial placement of each publication and its dissemination within the scientific community;
- d. analytical determination, also on the basis of criteria recognized by the international scientific community of reference, of the individual contribution of the candidate in case of their participation in collaborative work.

With regard to the collaborative work in order to identify the individual contribution of the candidates, the judging board will evaluate the following:

- any declarations made by the candidates and / or by the other authors of the publication aimed at clarifying the part and / or the activities carried out and attributable to them in the scientific work will be evaluated;
- where expressly stated in the publication, the part attributable to the candidate will be acknowledged;

- in the other cases, the judging board will evaluate the individual contribution of a candidate to the publication on the basis of the consistency, also in terms of continuity, with the scientific activity carried out by the same as a whole, of the specific competence of the candidate with respect to that of the co-authors; if this is not possible, it will be assumed that the contribution of each author is equal and proportionate to the number of co-authors.

3. The judging committee will evaluate the overall consistency of the candidate's scientific output, the intensity and temporal continuity thereof, also considering documented periods of involuntary interruption of research activities, particularly with regard to parental responsibilities.

4. When evaluating publications, the judging committee will also consider the following indicators, referring to the application deadline:

- a. total number of citations;
- b. average number of citations per publication;
- c. total "impact factor";
- d. average "impact factor" per publication;
- e. combinations of the above parameters aimed at enhancing the impact of the candidate's scientific output (Hirsch index or similar measures).

EVALUATION CRITERIA (following the public discussion)

1. The judging board will carry out a justified evaluation followed by a comparative evaluation, referring to the specific group of academic disciplines 09/IIND-06 - FLUID MACHINERY, ENERGY SYSTEMS AND POWER GENERATION and the scientific profile characteristics defined exclusively by the academic-discipline of the call IIND-06/A - FLUID MACHINERY, the curriculum and the following duly documented qualifications of the candidates:

PhD or equivalent, or, for relevant fields, a medical specialization diploma or equivalent, obtained in Italy or abroad;	max points: 5
Any teaching activity at university level in Italy or abroad	max points: 8
Documented training or research activities at qualified Italian or foreign institutions	max points: 8
Organization, management and coordination of national and international research groups, or participation in them	max points: 7
Ownership of patents related to the academic fields where applicable	max points: 1
Speaker at national and international conferences and conventions	max points: 6
National and international awards and recognitions for research activities	max points: 5

2. The evaluation of each qualification indicated in paragraph 1 will be carried out considering specifically the significance it assumes in relation to the quality and quantity of the research activity carried out by each candidate.

Evaluation of scientific production

1. The judging committee, in carrying out the preliminary comparative evaluation of the candidates, will consider only publications or texts accepted for publication according to current regulations, as well as essays included in collective works and articles published in print or digital journals, excluding internal notes or departmental reports. The doctoral thesis or equivalent qualifications will also be taken into consideration even in the absence of the conditions referred to in this paragraph.

2. The judging committee will conduct the comparative evaluation of the publications referred to in paragraph 1 based on the following criteria:

- a. originality, innovativeness, methodological rigor and relevance of each scientific publication;
- b. congruence of each publication with the group of academic disciplines 09/IIND-06 - FLUID

MACHINERY, ENERGY SYSTEMS AND POWER GENERATION and with the profile, defined exclusively by the academic-discipline of the call IIND-06/A - FLUID MACHINERY, or with related interdisciplinary topics;

- c. Scientific relevance of the editorial placement of each publication and its dissemination within the scientific community;
- d. analytical determination, also on the basis of criteria recognized by the international scientific community of reference, of the individual contribution of the candidate in case of their participation in collaborative work.

With regard to the collaborative work in order to identify the individual contribution of the candidates, the judging board will evaluate the following:

- any declarations made by the candidates and / or by the other authors of the publication aimed at clarifying the part and / or the activities carried out and attributable to them in the scientific work will be evaluated;
- where expressly stated in the publication, the part attributable to the candidate will be acknowledged;
- in the other cases, the judging board will evaluate the individual contribution of a candidate to the publication on the basis of the consistency, also in terms of continuity, with the scientific activity carried out by the same as a whole, of the specific competence of the candidate with respect to that of the co-authors; if this is not possible, it will be assumed that the contribution of each author is equal and proportionate to the number of co-authors.

The judging board establishes that each individual publication will be assigned up to 5 points, using the formula $(a + c + d) * b$, calculated based on the scores indicated in the table below.

The overall maximum score, related to the publications attached for evaluation purposes (in the maximum number of 12, as stated in the call), will therefore be 60 points.

a) originality, innovativeness, methodological rigor and relevance of each scientific publication;	fino a punti: 2
c) Scientific relevance of the editorial placement of each publication and its dissemination within the scientific community;	fino a punti: 2
d) analytical determination, also on the basis of criteria recognized by the international scientific community of reference, of the individual contribution of the candidate in case of their participation in collaborative work.	fino a punti: 1
b) congruence of each publication with the group of academic disciplines 09/IIND-06 - FLUID MACHINERY, ENERGY SYSTEMS AND POWER GENERATION and with the profile, defined exclusively by the academic-discipline of the call IIND-06/A - FLUID MACHINERY, or with related interdisciplinary topics;	fino a punti: 1

3. The judging committee will evaluate the overall consistency of the candidate's scientific output, the intensity and temporal continuity thereof, also considering documented periods of involuntary interruption of research activities, particularly with regard to parental responsibilities.

The committee will assign up to 10 points for the evaluation of the overall consistency, intensity, and temporal continuity of the candidate's scientific output.

4. When evaluating publications, the judging committee will also consider the following indicators, referring to the application deadline:

- a. total number of citations;
- b. average number of citations per publication;
- c. total "impact factor";
- d. average "impact factor" per publication;
- e. combinations of the above parameters aimed at enhancing the impact of the candidate's scientific

output (Hirsch index or similar measures).

The judging committee establishes that the minimum threshold for eligibility is equal to 70 points out of a maximum of 110 .