

CALL FOR APPLICATIONS

Master “EXA Intelligence: AI and Advanced Modeling in Energy”

2026-2027 Edition

Milan, September 24th 2026

For the 2026/2027 academic year, Politecnico di Milano will launch the 2nd Specializing Master’s Programme in “EXA Intelligence: AI and Advanced Modeling in Energy”.

ART. 1 – Characteristics of the Master

1.1 Establishment of the Master

The **Department of Electronics, Information and Bioengineering** of Politecnico di Milano establishes and activates the Second-Level University Master’s Programme in “EXA Intelligence: AI and Advanced Modeling in Energy”.

1.2 Managing Institution

The Master is managed by **Cefriel S.C.a r.l. Società Benefit**, in its role of Managing Institution of Politecnico di Milano, with the responsibility of the academic programme and its proper operation.

1.3 Reference School

School of Industrial and Information Engineering.

ART. 2 – Educational objectives and career opportunities

2.1 Educational objective

The Master aims to train young STEM graduates by developing advanced skills in Artificial Intelligence and Data Science. The programme provides multidisciplinary training combining solid theoretical foundations, advanced methods and project work, enabling participants to understand the full life cycle of an AI solution.

The Master develops the skills needed to analyse complex problems, model them using Artificial Intelligence and advanced modelling supported by high-performance computing, select suitable algorithms, assess performance and reliability, and support their evolution over time. Particular attention is given to integrating

traditional Machine Learning, Generative AI, Agentic AI, Multimodal Learning, Scientific Machine Learning, Optimization and high-performance computing (High-Performance Computing), preparing participants for technological challenges in advanced industrial settings.

The programme also develops the ability to understand business needs, translate them into technical and functional requirements, and communicate the results, impacts and value of the solutions developed effectively to different corporate stakeholders.

2.2 Career opportunities

By the end of the programme, participants will have acquired the skills of a **Data & AI Scientist**, a professional able to manage the entire life cycle of an Artificial Intelligence project, from understanding business needs to solution design, development, validation and evolutionary maintenance.

The Data & AI Scientist will be able to analyse complex problems, translate them into data-driven models and solutions, and select the most suitable Artificial Intelligence approaches by integrating Machine Learning, Deep Learning, Generative AI, Agentic AI, Multimodal Learning, Scientific Machine Learning and Optimization techniques. She will also be able to develop applications using modern technology stacks and software engineering principles, leveraging High-Performance Computing (HPC) to assess the performance, reliability and scalability of the models developed.

The programme also develops cross-functional skills such as problem solving, teamwork, critical analysis and a data-driven approach, preparing participants to tackle technological innovation in industrial settings in accordance with ethics, governance and cybersecurity principles (responsible use of AI), with a results-oriented approach. This training will enable participants to contribute to developing and adopting Artificial Intelligence solutions across the company's application areas, supporting innovation and digital transformation.

The Master provides the tools to:

- analyse complex problems;
- understand the needs of the company's different business areas;
- translate needs into technical and functional requirements;
- model problems using advanced Artificial Intelligence techniques;
- manage and analyse complex data;
- select appropriate algorithms and models;
- develop and integrate AI solutions;
- program using modern technology stacks;
- apply Software Engineering principles;
- use high-performance computing (HPC) to combine mathematical-physical models with advanced computing capabilities;
- assess model performance, reliability and scalability;
- interpret and communicate results;
- manage end-to-end AI projects;
- support the maintenance and evolution of solutions over time.

ART. 3 – Course content and teaching organisation

3.1 Duration

The Master lasts **12 months**.

3.2 Programme period

- Expected start date: 15 March 2027
- Expected completion date: 14 March 2028

3.3 Official language

The official language of the Master is **English**.

3.4 Academic credits

The programme awards **63 CFU**, divided into

- 8 courses;
- 1 final project work.

3.5 Teaching methods

Activities include:

- lectures;
- hands-on laboratories;
- practical exercises;
- simulations;
- group work;
- individual study;
- business case studies;
- applied activities;
- project work at Eni;
- all online content and materials.

3.6 Curriculum

Course	Class hours	Individual study	Total hrs	CFU
<i>AI-assisted Python Programming</i>	56	105	161	6
<i>AI Models</i>	144	270	414	16
<i>Generative & Agentic AI</i>	56	105	161	6
<i>AI & HPC Infrastructure</i>	40	75	115	4
<i>Scientific Machine Learning</i>	24	45	69	2
<i>Optimization</i>	24	45	69	2
<i>Advanced AI Applications, Management & Governance</i>	44	82	126	5
<i>Management Skills</i>	24	45	69	2
<i>Project Work</i>	450	0	450	20
Total	862	772	1.634	63

The teaching activities will mainly take place at Politecnico di Milano's La Goccia Campus and may also involve the use of other Politecnico di Milano premises, Cefriel premises or other spaces dedicated to the Master's teaching and project activities, while the project work will be carried out at Eni premises.

ART. 4 – Admission requirements

4.1 Target participants

The Master is intended for young Italian and international graduates holding a Laurea Magistrale or equivalent qualification (Master of Science).

4.2 Degree qualification and final grade

- Applicants must hold the following qualifications: Laurea Magistrale or equivalent qualification;
- a final degree grade of at least **100/110** or equivalent for foreign qualifications;

Candidates who have completed all exams except the final degree examination may also take part in the selection, provided they obtain the qualification by 31 December 2026.

4.3 Eligible degree classes

- Physics – LM-17;
- Computer Science – LM-18;
- Chemical Engineering – LM-22;
- Automation Engineering – LM-25;
- Electronic Engineering – LM-29

- Energy and Nuclear Engineering – LM-30;
- Management Engineering – LM-31;
- Computer Engineering – LM-32;
- Mechanical Engineering – LM-33;
- Environmental and Land Engineering – LM-35;
- Mathematics – LM-40;
- Statistics – LM-44;
- Materials Engineering – LM-53
- Artificial Intelligence and Data Science – LM-91

4.4 Age limit

Maximum age of candidates: **under 29 years of age** as of 31 December 2026.

4.5 Language requirements

- excellent knowledge of English (assessed during the Eni selection process);
- for international candidates, good written and spoken knowledge of Italian is a preferred qualification.

4.6 Foreign qualifications

Foreign qualifications are accepted if deemed suitable by Cefriel and Politecnico di Milano.

A Committee chaired by the Scientific Director assesses the equivalence of foreign qualifications for admission purposes.

ART. 5 – Formal requirements, application and selection

5.1 PHASE 1: Pre-selection by Cefriel – Politecnico di Milano

Upon receipt of the admission applications, Cefriel will assess each candidate's formal eligibility following the requirements set out above and will send Eni Corporate University S.p.A. a list containing only the candidates deemed eligible.

Formal eligibility will be verified on the basis of:

- educational qualification;
- degree class;
- final grade;
- age;
- declared language requirements;
- completeness of the documentation;

- equivalence of foreign qualifications, where applicable.

All candidates who have duly completed their application will receive an email notification from Cefriel regarding the outcome of the eligibility requirements verification phase and, where applicable, admission to the subsequent stage of the selection process.

5.2 Phase 2: Selection under the responsibility of Eni and its companies

Upon receipt of the list referred to in Phase 1 – Pre-Selection, Eni Corporate University S.p.A. will identify, among the eligible candidates registered on the website as indicated in section 5.4 below (all data requested in the “Admission requirements” section must be completed: final degree grade, degree programme, date of birth and knowledge of English), the candidates to be admitted to Phase 2 – Selection. Eni will contact those candidates, who will be assessed and selected through different selection activities (language, aptitude and technical tests) designed to assess their level of English, as well as their aptitude, motivation and technical characteristics in relation to the field covered by the Master.

The selection will be managed by Eni and its affiliated companies, which will conduct the process in line with their internal procedures and policies (<https://www.eni.com/en-IT/careers/training/master/artificial%20intelligence.html>).

The selection activities will include tests to be taken online and/or at the premises of Eni and its affiliated companies between January and February 2027. The relevant information and instructions regarding the selection activities will be communicated to candidates by email in advance of those activities. At the end of Phase 2, Eni will communicate the selection results individually to the candidates involved.

Throughout the application period, Eni may contact candidates who meet both the mandatory requirements (Art. 4) and the company’s selection criteria.

During the selection process, Eni may provide candidates with a compliance declaration to be completed and signed and may carry out specific checks on them, in accordance with its internal policies and procedures, in order to verify that they meet integrity and ethical requirements consistent with its internal rules.

The Company may also carry out checks on candidates limited to the data and information strictly necessary for the purpose stated above, in accordance with its internal policies and procedures.

In addition, admission to the Master may be revoked at Eni’s discretion if, during the Master, the integrity and ethical requirements defined by Eni in accordance with its internal rules cease to be met.

5.3 Selection results

Upon completion of the selection process, Eni will send individual email notifications to candidates regarding the outcome of the selection process, indicating whether they have been admitted, placed on the reserve list or not admitted.

For further information about the monthly remuneration paid by Eni to each participant, together with any other details concerning the employment contract applied by Eni, reference should be made to the website of the Second-Level University Master's Programme, available at the following link:

<https://www.eni.com/en-IT/careers/training/master/artificial%20intelligence.html>

Selected participants will be called in February and March for preliminary checks and medical examinations prior to employment with Eni under a Higher Education and Research Apprenticeship contract (Apprendistato di Alta Formazione e Ricerca).

5.4 Formal requirements

Applications must be submitted from the day following the date of this Call for Applications and by 10 December 2026. Only applications from candidates who correctly follow the instructions in this Call for Applications will be considered. Failure to submit even one required document within the specified time and manner will result in automatic exclusion. To apply for the selection process, interested candidates must submit their application to Cefriel at

<https://www.cefriel.com/master-exa-intelligence-ai-and-advanced-modeling-in-energy/?lang=en>

Candidates are also invited to register online on the Eni website:

https://jobs.eni.com/en/sites/CX_1004/job/33985 referring to code **33985**.

The documents required for admission and enrolment are:

- **Italian/foreign citizens with a qualification obtained in Italy**
 - copy of a valid ID document and/or passport
 - copy of the Diploma Supplement, degree diploma or self-certification
- **Italian/EU citizens with a qualification obtained abroad**
 - copy of a valid ID document and/or passport
 - copy of the degree diploma in the original language and its Italian and/or English translation
 - copy of the Transcripts or Diploma Supplement and their Italian and/or English translation
- **Non-EU citizens with a qualification obtained abroad**
 - copy of a valid passport
 - copy of the qualification in the original language and its Italian and/or English translation
 - copy of the Transcripts listing the examinations in the original language and their Italian and/or English translation

Under Art. 75 of Presidential Decree No. 445/2000, if appropriate checks establish that a candidate's declarations are untrue, the declarant shall forfeit any benefits obtained under the measure based on the false declaration.

Art. 6 Processing of personal data

Eni S.p.A. (“**Eni**”) and Cefriel process candidates’ personal data for participation in the Specialisation Master “EXA Intelligence: AI and Advanced Modeling in Energy” (hereinafter also the “**Master**”), each acting as an independent data controller pursuant to Regulation (EU) 2016/679 (“GDPR”).

Cefriel’s Privacy Notice is available at the following link: [Privacy Policy - Cefriel](#).

Eni’s privacy notice is included in this Selection Notice (see Art. 7 below).

Art. 7 Eni Privacy Notice

Pursuant to Regulation (EU) 2016/679 (“GDPR”), Eni S.p.A. (hereinafter the “Company” or the “Data Controller”) provides you (the “Data Subject”) with information on the processing of your personal data (“Personal Data”) carried out in connection with your application to the 2nd level Specializing Master’s programme in “EXA Intelligence: AI and Advanced Modeling in Energy”, as well as your possible admission to it.

In particular, if Cefriel has deemed you an eligible candidate, Eni will process your Personal Data as part of the second phase of the selection procedure (including registration on Eni’s dedicated candidate website, eni.com/careers, hereinafter the “Site”, submission of the application through the Site, completion of the selection tests and assessment of the related results) in compliance with the privacy notice available on the Site at the bottom of the application form for the 2nd level Specializing Master’s programme in “EXA Intelligence: AI and Advanced Modeling in Energy”.

For the above selection purpose, and in addition to the personal data collected directly by Eni through the Site, Eni also receives certain Personal Data concerning you from Cefriel in order to verify that you meet the admission requirements and to establish whether you have already submitted your application through the Site and, if not, to inform you about the next phase of the selection procedure.

With regard to the processing of your Personal Data carried out in connection with the conclusion and performance of the apprenticeship contract with the Company, such processing will take place in accordance with the privacy notice provided when the apprenticeship contract is signed.

With regard to the processing of Personal Data where you are involved, as a reported person or as a third party, in a report of wrongdoing (so-called “Whistleblowing”), please refer to the privacy notice available at the following link, which we invite you to review.

The information below concerns the processing of your Personal Data in connection with your possible participation in the 2nd level Specializing Master's programme in "EXA Intelligence: AI and Advanced Modeling in Energy".

Data Controller

The Data Controller is Eni S.p.A., with registered office in Rome, Piazzale Enrico Mattei 1, 00144, VAT No. 00905811006.

Data Protection Officer

For any information concerning the processing of your Personal Data, you may contact the Data Protection Officer ("DPO") appointed by the Company at the following email address: dpo@eni.com

Categories of Personal Data

The processing concerns your ordinary personal data, provided by you or collected by the Data Controller, for example during the selection tests and during your possible participation in the 2nd level Specializing Master's programme in "EXA Intelligence: AI and Advanced Modeling in Energy", including through Cefriel.

Purposes of processing

Personal Data are processed:

- a) to comply with legal obligations and requests from public authorities;
- b) to manage your admission to and possible participation in the Master, as provided for in the admission notice,
- c) in connection with extraordinary transactions involving mergers, disposals or transfers of business units, in order to allow due diligence activities to be carried out.
- d) to establish, exercise or defend a right of the Data Controller and/or third parties, both in court and out of court.

Legal basis

The processing of Personal Data for the purposes indicated in paragraph 4(a) is required, pursuant to Art. 6(1)(c) of the GDPR, by the legal provisions governing the relationship in question or may be required by public authorities.

The processing of Personal Data for the purposes indicated in paragraph 4(b) is necessary, pursuant to Art. 6(1)(b) of the GDPR, for the implementation of the admission notice for the 2nd level Specializing Master's programme in "EXA Intelligence: AI and Advanced Modeling in Energy".

The processing of Personal Data for the purposes indicated in paragraph 4(c) and (d) is based, pursuant to Art. 6(1)(f) of the GDPR, on the Company's legitimate interest in pursuing its business activities and protecting its rights.

Any refusal to provide Personal Data for the purposes indicated in paragraph 4 will make it impossible to participate in the Master.

Processing methods

Personal Data may be processed with the aid of electronic or automated systems, managed through tools that ensure security and confidentiality, and may include any operation or set of operations necessary for the processing.

Persons authorised to process and recipients of Personal Data

Personal Data are processed by personnel appointed by the Data Controller to pursue the purposes described in paragraph 4, in their capacity as persons authorised to process the data.

Personal Data may be disclosed by the Data Controller not only to public authorities, at their request or where required by law, but also to the following categories of recipients, solely for the purposes indicated in paragraph 4 above:

- Cefriel;
- other companies controlled by Eni S.p.A., including ECU - Eni Corporate University S.p.A. and EIRL - Eni International Resources Ltd (Italian Branch), which provide the Data Controller, respectively, with training, candidate selection and monitoring services during the course of study of the 2nd level Specializing Master's programme in "EXA Intelligence: AI and Advanced Modeling in Energy";
- professional firms and consulting companies involved in ordinary activities and litigation;
- supervisory and oversight bodies;
- IT service providers;
- audit firms;
- public authorities, where they request such data or where required by law.

Personal Data will not be disseminated, except where required by law.

With regard to the Personal Data disclosed to them, recipients belonging to the categories listed above may act, as applicable, as data processors (in which case they will receive appropriate instructions from the Data Controller) or as independent data controllers.

The Company ensures that the utmost care is taken so that disclosure of Personal Data to the recipients listed above is limited to the information necessary to pursue the specific purposes for which such data are required.

Transfer of Personal Data outside the European Economic Area

Where necessary for the purposes described in paragraph 4, Personal Data may be transferred abroad to companies established outside the European Economic Area (EEA).

Some countries outside the EEA may not guarantee the same level of Personal Data protection as that provided within the EEA.

In such cases, the Data Controller undertakes to regulate the transfer and subsequent processing of Personal Data through the use of the Standard Contractual Clauses adopted by the European Commission and to implement any other safeguard provided for by Art. 46 of the GDPR, where it is not possible to rely on one of the derogations provided for by Art. 49 of the GDPR.

Retention of Personal Data

Personal Data will be stored in the Data Controller's archives, including automated archives, and protected by appropriate security measures until the purposes described in paragraph 4 above have been achieved, after which they will be deleted.

In particular, your Personal Data will be retained for the entire duration of the 2nd level Specializing Master's programme in "EXA Intelligence: AI and Advanced Modeling in Energy" and, thereafter, for a maximum period of 1 year or in any event for the time necessary to carry out the activities related to it.

Personal Data may be retained for longer periods in the event of litigation, requests from competent authorities or where required by applicable law.

Rights of Data Subjects

Where applicable and within the limits laid down by the GDPR, Data Subjects have the right to:

- obtain from the Data Controller confirmation as to whether or not their Personal Data are being processed and, where that is the case, access the information provided for in Art. 15 of the GDPR;
- obtain from the Data Controller the rectification of inaccurate Personal Data or, taking into account the purposes of the processing, completion of incomplete Personal Data pursuant to Art. 16 of the GDPR;
- obtain from the Data Controller the erasure of Personal Data where one of the conditions laid down in Art. 17 of the GDPR applies;
- obtain from the Data Controller restriction of the processing of Personal Data in the cases provided for in Art. 18 of the GDPR;
- receive the Personal Data provided to the Data Controller in a structured, commonly used and machine-readable format, in order to transmit them to another controller without hindrance, pursuant to Art. 20 of the GDPR;
- object to the processing of their Personal Data on grounds relating to their particular situation, unless there are compelling legitimate grounds for the processing which override the interests, rights and freedoms of the Data Subject, or for the establishment, exercise or defence of legal claims, pursuant to Art. 21 of the GDPR.

You also have the right to withdraw any consent given at any time. Such withdrawal will not affect the lawfulness of processing carried out on the basis of consent before its withdrawal.

These rights may be exercised by contacting the Data Protection Officer (DPO) at the following email address: dpo@eni.com.

Without prejudice to the right to pursue any other administrative or judicial remedy, Data Subjects also have the right to lodge a complaint with the competent supervisory authority (in Italy: Garante per la Protezione dei Dati Personali) if they consider that their rights relating to the protection of Personal Data have been infringed.