Centro de Investigación
en Computación
Instituto Politécnico Nacional

# Call for Admission
# 2024 A

# MCIC

## Master of Science in Computer Engineering

EDUCACIÓN
SECRETARÍA DE EDUCACIÓN PÚBLICA

Instituto Politécnico Nacional
"La Técnica al Servicio de la Patria"

ipn.mx

# Presentation

The Instituto Politécnico Nacional (IPN) and Centro de Investigación en Computación (CIC-IPN),

**CALL**

To those interested in pursuing studies in the program of Master of Science in Computer Engineering, school mode, to start in **February 2024** under the following bases:

CIC-IPN offers the of **Master of Science in Computer Engineering (MCIC)**, a full-time program whose objective is to train specialists at the master's level capable of developing scientific research and/or technology generation in the field of Information and Communication Technologies (ICT).

The MCIC program provides solid training of international quality and is registered in the National Postgraduate System (SNP) of the National Council of Humanities, Science and Technology (Conahcyt)

Complete information about the MCIC curriculum can be found at the following link: http://www.cic.ipn.mx/mcic

# Entry Profile

# Profile of graduates

The MCIC candidate is a professional with a bachelor's degree in the field of ICT with solid knowledge that allows to deal with the analysis, design, development, implementation, and administration of computer systems. In addition, he/she should be proficient in the following areas: differential and integral calculus, discrete mathematics, algebra, linear algebra, probability, as well as structured programming, data structures and abstract data types, digital systems and electronics.

Applicants should be distinguished by their creativity and ability to generate new knowledge to be applied in problem solving, and be motivated to cultivate their vocation for research, science development and technological innovation.

Typically, professionals in the area of physical and mathematical sciences with degrees in electronic engineering and communications, computer science, computer systems, robotics and mechatronics, telematics and others related to ICT apply to the program.

Likewise, they may have graduated from degrees in the physical-mathematical area who have solid programming knowledge.

The graduate of the Master of Science in Computer Engineering has the critical capacity, aptitudes and skills that will allow them to carry out basic and applied research in problem solving. As well as the ability to adapt and improve technology with an innovative approach, generating high value-added products in the field of ICT, thus contributing to national and international development.

Based on the development of leadership and collaboration skills in interdisciplinary and multidisciplinary teams, the graduate will be able to work in public and private sector organizations. Standing out for ability to communicate his or her points of view and establish the ICT sector and the so-called Industry 4.0 demand bonds of shared responsibility in work teams, aspects that, combined with the knowledge acquired in the program.

# Entry Requirements

To enter the MCIC graduate program, the applicant must comply at the time of enrollment, as indicated in the official IPN calendar, with the requirements established in the Regulations for Graduate Studies of the IPN (REP-IPN), chapter I, articles 7 (sections I, II, IV, V), 10, 11 and 12.

The requirements are as follows:

1. Possess a degree or official certificate of completion of undergraduate studies, or equivalent document for applicants who have studied abroad.

2. Pass the admission process established in this call for applications in accordance with the provisions of the corresponding section.

3. Accredit with a minimum grade of eight or equivalent, the level of knowledge of the English language, in two of the following skills: reading comprehension, listening comprehension, written expression or oral expression, or their equivalents. Taking as a base criterion level B1 of the Common European Framework of Reference for Languages or similar, endorsed by the Direction of Foreign Language Training of the IPN (DFLE-IPN).

4. Not having caused a permanent withdrawn from any postgraduate program of the IPN, by a well-founded and motivated resolution of the Academic Board, unless said collegiate body has revoked it.

5. State, through the letter of motivation and during an interview with the Admission Committee, the interest in entering the Master's program and developing research work in one of the lines promoted by the Computing Research Center.

For more information, please consult the REP at the following URL: http://www.cic.ipn.mx/REP/

# Revalidation of Credits

Those applicants interested in obtaining a revalidation of credits of postgraduate learning units previously taken, must submit the application to the faculty college in accordance with the provisions of the articles 15 and 17 of the Regulations of Postgraduate Studies of the IPN (Reglamento de Estudios de Posgrado del IPN).

# Degree Requirements

Enrolled students must abide by the provisions of Article 48 of the Regulations for Postgraduate Studies of the IPN regarding the requirements for obtaining the degree, as established by agreement of the College of Professors, as follows:

I. Be enrolled in the Master of Science in Computer Engineering

II. Comply with your definitive individual activities program.

III. Have developed a master's thesis with the characteristics indicated in the current IPN Graduate Studies Regulations.

IV. Pass the degree exam.

# Admission Process

To enter the Master's Program you must meet one of the following criteria:

a.      Take the Graduate Record Examination General Test (GRE-General Test), EXANI-III, or Postgraduate Studies Admission Examination (EXADEP)* knowledge test. Proof of the GRE, EXADEP and EXANI-III exam no older than 5 years as of the closing date of the call are valid. *The EXADEP has been discontinued, but it is accepted for those applicants who had previously taken this exam.

b.      Have research products that will be evaluated at the discretion of the Admission Commission. a) Patents where the applicant participates will be accepted; b) Scientific articles accepted in JCR or Scopus journals where at least one of the following three conditions are met: 1. The applicant is the first author, 2. The applicant is a corresponding author, 3. The publication has a DOI identifier. The journals published by the CIC will not be taken into account as research products for this call.

c.      Compliance and approval of the course for admission to the master's degrees taught by the CIC, in accordance with the guidelines described in the annex "Curso de selección para ingreso a las maestrías"

The Admission Process begins with the online registration of the applicant, and then the necessary documentation must be sent. If the applicant's file is complete and one of the three admission criteria has been accredited, the interview of the applicant with the Admission Commission to address technical-academic and psychometric aspects. Complete process is described below:

Step 1: Registration of application and compliance with the necessary documentation
A. The applicant must make their request to begin the admission process and send files, through the web application available in the following link:
http://www.cic.ipn.mx/registroA24/

Once your application has made, the applicant will obtain a registration identifier (FOLIO), which will subsequently be used to register on the platform and for the subsequent sending of their documents, as well as to monitor the progress of the admission process.

B.  After registering, the applicant must send through the application the digitized and readable version in .PDF format (LOW QUALITY IMAGES WILL NOT BE ACCEPTED) of the following documents:

1. Signed admission application form with a child-sized photograph. This format is generated through section A above.

2.  Unique Population Registry Code (CURP) or passport in the case of foreign applicants.

3.  Aspirant Currículum Vitae.

4. Official Certificate of bachelor's studies, specifying the overall grade average, as well as the conclusion of these.

5.  Bachelor's degree, or professional exam record, or proof of ongoing procedure..

6.  Letter of motivation to enter the program, addressed to the Admission Committee and signed by the applicant.

7. Proof of compliance with the admission criteria: (one of the following documents)
   - Official GRE, EXANI-III or EXADEP exam results
   - Research products
   - Proof of registration to the course for admission to the master´s degrees

8. Document that certifies mastery of at least two English language skills with reference to level B1. See the "Guía para la Acreditación del idioma inglés".

## Notes for foreign applicants:

a) All documents such as the bachelor's degree and the certificate of studies must be presented with their translation into Spanish and with the corresponding apostille. If it is in a language other than English or Spanish, a simple translation into one of those two languages must be presented at the time of sending the documents.

b) b) For more information on procedures and procedures for foreign applicants, consult the following link:
https://www.ipn.mx/assets/files/posgrado/docs/buenas-practicas/guia-buenas-practicas-posgrado.pdf

In order to schedule interviews, the applicant must send all complete documents through the system and have met one of the three-accreditation criteria. Documents are not received by any other means.

It is important to mention that the applicant will not be admitted until he or she has met all the requirements indicated in this call.

## Step 2: Technical-academic interviews with the Admissions Committee.
As part of the admission process, the person who aspires to enter must hold an interview with the Admission Commission, which will be carried out in person at the facilities of the Computing Research Center.

The interview is of a technical-academic nature and will be carried out with the participation of professors who are members of the program's Admission Commission. This aims to know in detail the training and previous knowledge of the person, who wishes to enter, as well as aspects of their professional and school practice, in order to evaluate their compatibility with Master of Science in Computer Engineering. The duration of this interview is approximately 15 minutes.

It is important to emphasize that, in order to schedule the interview; the applicant must have submitted complete documentation. The interview will be scheduled within the range of dates indicated in the "Important dates" section of this call.

# Results publication

The Admission Commission will evaluate each of the applicants' files and determine those who will be admitted to the Master of Science in Computer Engineering. The list of admitted people will be published on the official CIC IPN portal. The ruling will be final.

Accepted persons must attend the induction sessions according to the schedule published in the "Admission Process" section of the official CIC IPN portal and must submit the following original documents for comparison at the time of registration:

- Official ID
- Bachelor's degree certificate or equivalent
- Birth certificate
- Bachelor's degree
- Proof of English language proficiency.

In the case of foreigners, all documents must have a translation and the corresponding apostille, they must also submit their CURP, which is processed once they have the document of legal stay in the country as students (FM3).

**INCOMPLETE FILES WILL NOT BE RECEIVED.**
**If the applicant does not comply with the requirement of collating the documents and submitting them in full, it will be considered that they voluntarily renounce the admission process and, therefore, their registration will not proceed.**

# Selection Criteria

In the applicant selection process, the following will be considered:

- The score obtained in any of the following: (a) quantitative reasoning ability on the GRE, EXADEP, or EXANI-III exam; (b) its equivalent in passing the preparation course given by the CIC-IPN; or (c) its equivalent in publications or patents as established by the Admissions Commission.

- Compliance with the English language proficiency level requirement.

- The result of the technical-academic interview with the Admissions Commission.

- The delivery of academic and accreditation records in due time and form.

# Fees/Costs

The Computing Research Center of the National Polytechnic Institute is a public education institution of the Mexican state, so there are no mandatory donations or tuition fees in our graduate programs.

# Maximum Enrollment

The maximum enrollment of students projected for admission to Master of Science in Computer Engineering is as follows, which will be covered only by those applicants who meet the requirements established in the admission process.

| Income | Maximum Enrollment |
|---|---|
| February 13, 2024 | 20 students |



# Scholarships and Grants

The Master of Science in Computer Engineering is registered in the National Postgraduate System of Conahcyt.
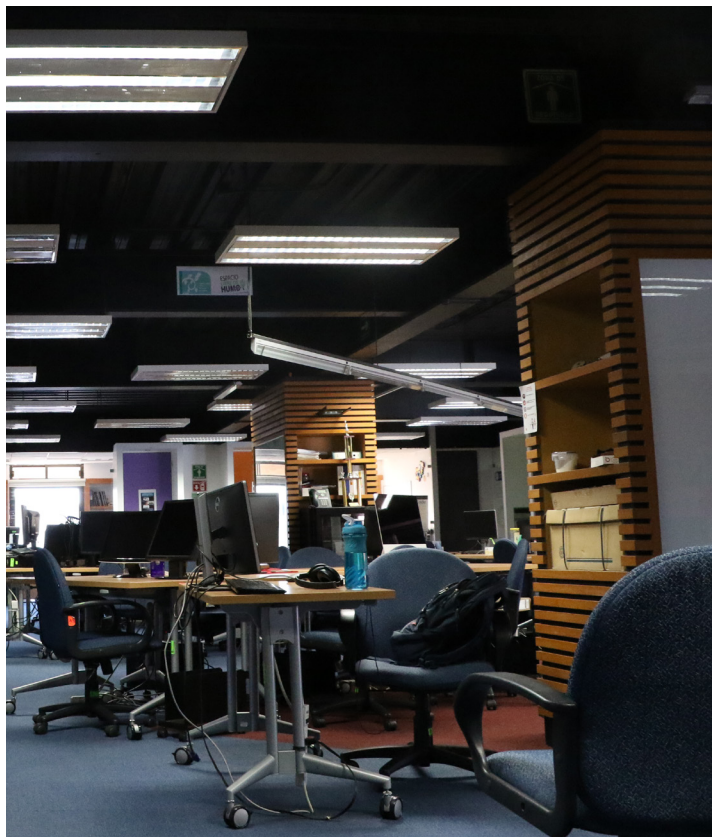
Las People enrolled in the CIC-IPN Master of Science in Computer Engineering (MCIC) may request a monthly maintenance scholarship corresponding to 4.5 Measurement and Update Units (UMA), in accordance with the provisions of the current scholarship call.

Conahcyt grants this scholarship for a maximum period of four semesters to those students who comply with the regulations and regulations of the National Polytechnic Institute. In case of non-compliance, the Computing Research Center will have the rights to request the suspension or cancellation of the scholarship, in accordance with the current regulations of Conahcyt itself.

Once the person is registered, they will be responsible for requesting the scholarship directly from Conahcyt, in accordance with the corresponding call. THE SCHOLARSHIPS AWARDED BY CONAHCyT ARE SUBJECT TO THE FEDERAL BUDGET GRANTED.

For more information consult the link:
http://www.cic.ipn.mx/becasCONACYT/

In addition to the Conahcyt scholarship, the IPN manages medical service coverage trought the Mexican Social Security Institute (IMSS) during the period of postgraduate studies, with the corresponding permanent social security number.

# Information

Information related to academic aspects:
**Dr. Víctor Hugo Ponce Ponce**
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Information related to administrative issues:
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Departament of Educational Technologies
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# Important Dates

In order to speed up the Admission Process, two cut-off dates are established. In the early cut-off, 50% of the maximum enrollment indicated in this call will be accepted. Those who are not admitted to this court will be considered in the final court.

| Early Cutting | |
|---|---|
| Description | Period/Date (GMT-6) |
| Information Session | September 27, 2023 10:00 am. |
| Register of admission application and documents sending | From the publication of the call and until October 16, 2023 |
| Admission Commission Interview | From October 23 to 25, scheduled by the Program Coordinator |
| Publication of the results | October 31, 2023 |

| Final Cut | |
|---|---|
| Description | Period/Date (GMT-6) |
| Information Session | November 6, 2023 10:00 am. |
| Register of admission application and documents sending | From the publication of the call and until January 7, 2024 |
| Admission Commission Interview | From January 10 to 12, 2023, scheduled by the Program Coordinator |
| Publication of the results | January 19, 2024 |

**For admitted students:**

| Description | Period/Date (GMT-6) |
|---|---|
| Induction sessions | From February 6 to 8, 2024 |
| Registrations | February 9 and 12, 2024 |
| Start of the semester | February 13, 2024 |

# Equity, equality and non-discrimination

The academic and administrative processes related to this call and to the completion of postgraduate studies at the Instituto Politécnico Nacional are carried out without any distinction, whether for reasons of gender, ethnic origin, color, language, religion, political opinions or others. All this to ensure fairness, equality and non-discrimination.

# Unforeseen Situations

Any situation arising during the admission process not contemplated in this call will be resolved in full compliance with the Regulations for Postgraduate Studies by the competent authority as appropriate.

This is an English translation for this call, provided for convenience of the applicants. Any situation regarding this call will be resolved in terms of the official Spanish version.