



Centro de Investigación  
en Computación

Instituto Politécnico Nacional

# Convocation 2022 B

## MCC Master's Degree in Computer Science

ESTE PROGRAMA ES PÚBLICO, AJENO A CUALQUIER PARTIDO POLÍTICO. QUEDA PROHIBIDO EL USO PARA FINES DISTINTOS A LOS ESTABLECIDOS EN EL PROGRAMA.



**EDUCACIÓN**  
SECRETARÍA DE EDUCACIÓN PÚBLICA



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



# Presentation

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The Instituto Politécnico Nacional (IPN), through the Computing Research Center (CIC-IPN), presents the following,

## CONVOCATION

those interested in pursuing studies in the program of **Master's Degree in Computer Science**, School mode, to begin the school year in **August of 2022** on the following basis:

CIC-IPN offers the **Master's** program in **Computer Science (MCC)**, 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 MCC program provides solid training of international quality recognized and endorsed by the National Program of Quality Postgraduate Programs (PNPC) of the **National Council of Science and Technology (CONACyT)**.

Complete information about the MCC curriculum can be found at the following link:

<http://www.cic.ipn.mx/mcc>

## Entry Profile

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The MCC candidate is a professional with a bachelor's degree in the field of ICT with solid knowledge that allows him/her 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.

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.

## Profile of graduates

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The graduate of the Master's Degree in Computer Science has the critical capacity, aptitudes and skills that will allow him/her 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 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 his or her ability to communicate his or her points of view and establish bonds of shared responsibility in work teams, aspects that, combined with the knowledge acquired in the program, are demanded by the ICT sector.

## Entry requirements

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To enter the **MCC 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. For more information, please consult the REP at the following URL: <http://www.cic.ipn.mx/REP/>

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. Accredited 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 Directorate of Foreign Language Training of the IPN (DFLE-IPN).
4. Not have been definitively withdrawn from any of the Institute's postgraduate programs by a resolution of the Academic College, unless such resolution has been revoked by said collegiate body.
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.

## 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's program in Computer Science.
- II. Comply with your definitive individual program of activities.
- III. To have developed a master's thesis with the characteristics indicated in the Regulations for Postgraduate Studies of the IPN in force.
- IV. Pass the degree exam.

## Admission Process

The Admission Process begins with the applicant's online registration. Subsequently, academic and accreditation records must be submitted, and finally, attendance to interviews with the Admissions Commission for technical-academic and psychometric aspects is required. The complete process is described in the following steps:

### Step 1: Registration of application for admission and submission of Identity File

a. The applicant must apply to start the admission process, through the web application available at the following link: <http://www.cic.ipn.mx/registroB22/>

Once the application has been made, the applicant will obtain a registration identifier (**FOLIO**), which will be used subsequently to register on the platform and the subsequent sending of files, as well as the monitoring of the progress of the admission process.

b. After registering, the applicant must send the **Identity File**, in the form of a **PDF file**, which must contain a compilation of the digitized versions of the following documents:

1. Admission application form with child-size photograph and applicant's signature. This form is generated through section **A** of this step.
2. Unique Population Registry Code (CURP)\*, or passport in the case of foreign applicants.
3. Birth certificate.
4. Applicant's Curriculum Vitae.

The submission of the **Identity File** will be done through the following link:

Registration platform:	<a href="https://forms.gle/MTYGqtk3YPSJKZ3A8">https://forms.gle/MTYGqtk3YPSJKZ3A8</a>
Dossier platform:	<a href="https://forms.gle/k5fB7gdpSH2sJHmT8">https://forms.gle/k5fB7gdpSH2sJHmT8</a>

File to send::	PDF file with the name <b>MCC01-FOLIO.pdf</b> , which shall contain the <b>Identity File</b> .
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Where **FOLIO** corresponds to the identifier obtained from the online registration process. In response to the mail, acknowledgement of receipt and feedback on the information received in the file will be provided.

\*The submission of the CURP is not mandatory for foreign applicants, who, if admitted, will receive this code at the time of regularizing their immigration status once they are admitted to Mexico.

### Step 2: Send the Academic Record.

The applicant must integrate and send the **Academic Record** in the form of a PDF file, which must contain the compilation of the digitized versions of the following documents:

- a. Certificate of undergraduate studies, specifying the overall grade point average, as well as the completion of these.
- b. Bachelor's degree or proof of current application.
- c. Professional license or proof of current processing.
- d. Letter of motivation to enter the program, addressed to the Admission Committee and signed by the applicant.
- e. Letter stating that the applicant has not withdrawn from any IPN graduate program, addressed to the Admission Committee and signed by the applicant.

The **Academic Record** can be sent through the following link:

Dossier platform:	<a href="https://forms.gle/k5fB7gdpSH2sJHmT8">https://forms.gle/k5fB7gdpSH2sJHmT8</a>
File to send:	PDF file with the name <b>MCC02-FOLIO.pdf</b> , which should contain the <b>Academic Record</b>

Where **FOLIO** corresponds to the identifier obtained from the online registration process. In response, an email will be sent with acknowledgement of receipt and feedback about the information received in the file.

### Notes for foreign applicants:

a) **Translation:** Proof of studies abroad such as bachelor's degree, certificate of studies, as well as birth certificate, must be submitted with their Spanish translation at the time of registration to the graduate program. In case they are in a language other than English or Spanish, a simple translation into one of those two languages must be submitted at the time of submitting the documents.

b) **Professional license:** The submission of the professional license does not apply to foreign applicants. For more information on procedures and formalities for foreign applicants, please visit the following link:  
<http://www.cic.ipn.mx/aspirantesExtranjeros/>

### Step 3: Submit the Accreditation File

The applicant must integrate and send the **Accreditation File** in the form of a PDF file, which must contain the compilation of the digitalized versions of the following documents:

i. Proof of compliance with one of the following criteria:

a. The result of the Graduate Record Examination General Test (GRE-General Test), EXANI-III, or Graduate Admission Test (EXADEP)\*. GRE, EXADEP and EXANI-III exam vouchers that are no older than a few years<sup>5</sup> as of the closing date of the call for applications are valid.

\*The EXADEP has been discontinued, but we still accept applicants who have previously taken this test. See the section "**Guide to GRE/EXADEP Accreditation**".

b. To have equivalent research products in the judgment of the Admission Committee: patents or publications in WoS or Scopus (except publications in CIC journals).

c. Completion and approval of the preparation course given by CIC in accordance with the guidelines described in the annex "**Preparation course**".

ii. Document accrediting the mastery of at least two English language skills with reference to level B1. See the "**Guide for English Language Accreditation**".

iii. Apostille of proof of bachelor's degree and certificate of studies (only for studies accredited abroad). To be presented at the time of enrollment in the program.

iv. Apostille of birth certificate (Only for foreign applicants). To be presented at the time of enrollment in the program.

The Accreditation File must be integrated in a PDF file with the compilation of the digitalized versions of the following documents and must be sent through the following link:

Dossier platform:	<a href="https://forms.gle/k5fB7gdpSH2sJHmT8">https://forms.gle/k5fB7gdpSH2sJHmT8</a>
File to send:	PDF file with name MCC03-FOLIO.pdf, which shall contain the Accreditation Record.

Where FOLIO corresponds to the identifier obtained from the online registration process.

In order to schedule the interviews in the next step, the applicant must send the identity, academic and accreditation files, indicating in the latter the accreditation option chosen, and if applicable, a simple letter indicating the missing documents, the reason for this, as well as a tentative date to obtain them. In the case of exams or preparation courses, it is preferable to present proof of payment and/or reservation of the application date. It is important to note that the applicant will not be admitted until all the requirements indicated in this call have been fulfilled.

#### Step 4: Technical-academic interviews with the Admissions Committee.

As part of the admission process, the applicant must hold an interview with the Admission Committee, which will be conducted online through a videoconference platform.

The interview is of a technical-academic nature and will be conducted with the participation of professors who are members of the Admission Committee of the program. The purpose of this interview is to know in detail the applicant's background and previous knowledge, as well as aspects of his/her professional and school practice, in order to evaluate his/her compatibility with the Master's program in Computer Science.

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 his or her identity, academic and accreditation records, even if they are incomplete. The interview will be scheduled within the dates indicated in the "Important dates" section of this announcement.

The admission process will be carried out virtually while the COVID19 contingency remains in place.

## Publication of results

The Admissions Commission will evaluate each of the applicants' files and will determine those who will be admitted to the Master's Degree in Computer Science. The list of admitted applicants will be published in the "Admission Process" section of the official CIC IPN website. The decision will be final.

Accepted applicants must attend the induction sessions according to the schedule published in the "Admission Process" section of the official CIC IPN website.

For foreign applicants. In order to expedite the immigration procedures for foreign applicants, the Admission Committee will notify the applicant in a timely manner of the outcome of the admission process once the results have been published.

## 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.

## Donations

Admitted applicants must formalize their enrollment in the program without any mandatory payment, but with the possibility of making a voluntary contribution as a donation to the account indicated by the corresponding academic unit. The accounts for donations must correspond to the National Polytechnic Institute authorized for this purpose.

## Maximum enrollment

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

Income	Maximum enrollment
August 15	20 students

## Scholarships and grants

The Master's Degree in Computer Science is part of CONACyT's National Program of Quality Graduate Studies, within which it has the highest level of quality as a **Program of International Competence**.

Students enrolled in the Master's program in Computer Science (MCC) at CIC-IPN may apply for a monthly maintenance scholarship corresponding to 4.5 Unidades de Medida y Actualización (UMA), provided they meet the requirements established by the CONACyT Scholarship Regulations.

CONACyT grants this scholarship for a maximum period of 4 semesters to those students with **exclusive dedication** within the graduate program, in accordance with CONACyT's own regulations.

CIC-IPN will nominate all students applying for a CONACyT scholarship according to an order of priority based on the score of the knowledge exam (or its equivalent) reported in the Accreditation File. In the event of a tie, the CIC Faculty College will analyze the additional elements to be considered to determine and resolve the order of priority in the scholarship applications. The number of scholarships assigned by CONACyT will depend on budget availability.

For further information, please visit:  
<http://www.cic.ipn.mx/becasCONACYT/>

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

## Important dates

In order to expedite the admission process, two cut-off dates are established. In the early cut-off, a maximum of 50% of the maximum enrollment indicated in this call will be accepted. Those who are not admitted at this cutoff will be considered in the final cutoff.

Please register as soon as possible in the system. **Students who have not registered in the system will not be considered in this process.**

### Early cutting

Description	Period/Date (GMT-6)
Information Session	February 21, 2022 10:00 am.
Sending the Identity file	From March 1 to March 18, 2022
Sending the Academic Record	Until March 31, 2022
Sending the Accreditation File	Until March 31, 2022
Admission Committee Interview	Through April 8, 2022, scheduled by the Program Coordinator
Publication of results	April 29, 2022

### Final cut

Description	Period/Date(GMT-6)
Information Session	April 25 2022 10:00 am.
Sending the Identity file	From May 1 to May 20, 2022
Sending the Academic Record	Until June 10, 2022
Sending the Accreditation File	Until June 10, 2022
Admissions Committee Interviews	Through June 24, 2022, scheduled by the Program Coordinator
Publication of results	July 1st, 2022

### For admitted students:

Description	Period/Date (GMT-6)
Induction sessions for admitted students Induction sessions for admitted students	August 8, 9 and 10, 2022
Registration	August 11 and 12, 2022
Beginning of the semester	August 15, 2022



## Reports

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For information related to academic aspects:

**Dra. Ana María Magdalena Saldaña Pérez**

MCC Academic Coordination  
Tel. +52 55 57296000 ext. 56586  
E-mail: [mcc@cic.ipn.mx](mailto:mcc@cic.ipn.mx)

For information related to administrative issues:

**Lic. Margarita Cedeño Mateos**

Department of Educational Technologies  
Teléfono +52 55 5729 6000 ext. 56501  
E-mail: [admision@cic.ipn.mx](mailto:admision@cic.ipn.mx)  
Facebook Messenger: [@admisionCIC](https://www.facebook.com/@admisionCIC)

### Important

The academic and administrative processes related to this call and to the pursuit of graduate studies at the National Polytechnic Institute are carried out without any distinction whatsoever, whether for reasons of gender, race, color, language, religion, political or other opinions, national, ethnic or social origin, fortune, birth or any other situation. All this in order to ensure equity, equality and non-discrimination. This is an English translation for this convocation provided for convenience of the applicants. Any situation regarding this call will be resolved in terms of the official Spanish version.

### Unforeseen situations

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

