



INSTITUTO
DE INGENIERÍA
UNAM

Position Title:

Researcher in Mechanical Engineering, specializing in Advanced dynamics of electric and hybrid vehicles for the development of propulsion systems and optimization of the powertrain.

Job Group:

Professional & Scientific.

Required Minimum Qualifications:

Doctoral degree and 4 years of related experience.

Preferred Qualifications:

1. Doctoral degree in Engineering or a related and relevant discipline (subject to the Admissions Committee approval).
2. Because this position is part of the UNAM Subprogram for the Incorporation of Young Academics (SIJA), it is a requirement to be under 39 years of age for women and 37 for men on the date of incorporation authorized by the Consejo Técnico de la Investigación Científica (CTIC).
3. At least four years of experience in the requested research area.
4. At least two years of postdoctoral experience.
5. Scientific productivity in international high-impact journals (JCRs).
6. Experience in research projects on real problems of *Advanced dynamics of electric and hybrid vehicles for the development of propulsion systems and optimization of the powertrain*.
7. Preferably, demonstrable experience in teaching and training of students.
8. Interest in pursuing an academic career at Instituto de Ingeniería, Universidad Nacional Autónoma de México (IIUNAM).
9. Soft skills such as teamwork disposition and excellent oral and written expression skills are an asset.
10. Proficiency in technical English.
11. Proficiency in Spanish. When the candidate is not a native Spanish speaker, it is expected that proficiency be achieved within two years of his/her appointment.

Job description:

The selected candidate will be responsible for basic and applied research of outstanding quality, for executing projects aimed at developing technical solutions to national problems in the field of *Advanced dynamics of electric and hybrid vehicles for the development of propulsion systems and optimization of the powertrain*. Her/His duties will be to elaborate and conduct research proposals, publish his/her results in national and international high-impact scientific journals, participate in national and international conferences, and train technical human resources under her/his supervision through the direction of thesis (degree, master's, and doctorate) and teaching courses at a university level. It is expected that the candidate will participate in national and technical committees and technical societies, as well as establish outreach activities within the industry in Mexico.



Appointment Type:

Regular with Term Appointment (Fixed Term).

Time Type:

Full time

Application Instructions:

To apply for this position, please be prepared to submit the following documents in PDF format:

1. Personal cover letter, detailing the reasons why you wish to be considered for the position.
2. Extended resumé with supporting documentation.
3. A one-page summary, emphasizing the activities that fit the position's profile.
4. Doctoral thesis cover page and copy of the doctoral degree.
5. Work plan for three years with expected products and results.
6. List of most relevant publications within the scope of the current appointment.
7. Copy of official ID indicating place and date of birth.
8. Three recommendation letters of academic referees, with contact information, including email addresses.
9. Research project (maximum 25 pages, Times New Roman 12, 1.15 line spacing) on the topic: *"Affordable and sustainable mobility: Maximizing the mechanical and energy performance of a hybrid vehicle, car or shared transport, which is economically viable, through the improvement of mechanical transmission, suspension, regenerative brakes, and control system."*.
10. *Theoretical and practical exam to demonstrate the candidate's ability in advanced computer-assisted manufacturing.*

Interested candidates must send the requested documents to Dr. Norma Patricia López-Acosta, Secretary for Academic Affairs of IIUNAM (NlopezA@iingen.unam.mx; SAcademica@iingen.unam.mx), by **July 21st, 2025**. Promising candidates will be notified and might be invited to an interview, during which they are expected to present their research project.

For further information on the IIUNAM and the UNAM, you might visit www.iingen.unam.mx and www.unam.mx, respectively.

“POR MI RAZA HABLARÁ EL ESPÍRITU”
University City, Mexico City, June 17th, 2025.
DIRECTOR

Dra. Rosa María Ramírez Zamora



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***Note:** This invitation corresponds to a place per specific work with a duration of one year, renewable according to academic performance. As a consequence, the decision of the Evaluation Committee of the Instituto de Ingeniería is final with respect to the candidate selected for the position in question.