

Position Title:

Researcher in Fiber-Optic Communication Systems, specializing in Design and Performance Evaluation of Digital Signal Processing (DSP)-aided Optical Access and Short-reach Networks.

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. The candidate must be at most 37 (men) or 39 (women) years old when signing the appointment.
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 Design and performance evaluation of DSP-aided Optical Access and Short-reach Networks.
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 Design and performance evaluation of DSP-aided optical access and short-reach networks. 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 to establish outreach activities within the industry in Mexico.



**INSTITUTO
DE INGENIERÍA
UNAM**

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: ***"Proposal of a next-generation optical access network, with data rate of 200 Gbps per lambda and beyond, and able to converge with metro, local and radio networks, to increase broadband access in rural, semi-urban and urban environments, adding smartness and adaptability to optimize performance depending on the use case"***.

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 March 22nd 2024. 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”

Ciudad Universitaria, Cd. Mx., a 21 de febrero de 2024.

LA DIRECTORA

Dra. Rosa María Ramírez Zamora

***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.