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Announcement of One Tenure Track Research Position in the Computer Science Department of the *Instituto Nacional de Astrofísica Óptica y Electrónica (INAOE)*, Tonantzintla, Puebla, Mexico

The *Instituto Nacional de Astrofísica, Óptica y Electrónica (INAOE)*¹ is a federally funded public research center in the state of Puebla, Mexico, dedicated to basic and applied research. It offers graduate programs in Astrophysics, Optics, Electronics, Computer Science, Space Science and Technology and Biomedical Technology, accredited by the “*Sistema Nacional de Posgrados (SNP)*”² of the CONACyT³. INAOE provides an intellectually stimulating work environment, undertaking state-of-the-art research as well as high quality technological development and certified quality graduate courses.

INAOE is one of the most recognized Public Research Centers in Mexico and its Department of Computer Science (CCC) is among the most prominent leaders in computer research in Mexico, with 30 full-time researchers, all members of the National System of Researchers. The CCC offers Master's and PhD studies included in the SNP in the category of Internationally Competent, for which our students have the benefit of scholarships for postgraduate studies. This announcement offers the opportunity to join the research group in the Department of Computer Science of INAOE to one researcher highly motivated and with demonstrable experience in the area of Biosignal Processing and Medical Computing.

Based on INAOE's General Director's attributes, established in Article 20, Section I, of the “Decree by which the *Instituto Nacional de Astrofísica, Óptica y Electrónica* is Restructured”, and aiming at finding the best candidates to fill these positions, while efficiently contributing to meet institutional goals, the INAOE hereby invites all those professionals, Mexican or foreign, who would like to earn the position of Senior Researcher for an initial one year period, as stated in Article 24, Section I, of the Faculty Statute of the INAOE, to undertake scientific and technological research, as well as technological innovation associated to the needs of different social sectors, and prepare high quality human resources through graduate studies, to apply for one of these positions according to the following

Terms

I. Academic Background

A doctoral degree or equivalent in Computer Science or related areas and a successful research career with publications in the best international conferences and journals in their area of specialty, with a focus on research and development in the area of Bio-signal Processing and Medical Computing.

¹ National Institute for Research on Astrophysics, Optics and Electronics

² A registry of accredited graduate programs issued by CONACyT

³ The National Council for Science and Technology



II. Candidate's Profile

The selected candidate must contribute to the advancement of INAOE's Computer Science Department developing research projects with external funding, contributing to the activities of our graduate programs, establishing academic and research collaborations with other researchers of the department and of other areas at INAOE. The CCC is especially interested in candidates that can contribute, through research and training of human resources, to the diversity and excellence of our academic community. They must also have excellent teamwork and communication skills. It is equally desirable that the candidate belongs to the National System of Researchers (SNI) or has an academic profile that allows them to enter the SNI in a short time. Experience in projects with the industry is a plus. Candidates must have the following specific knowledge according to their specialty area:

- 1) *Bio Signals Processing and Medical Computing*: expertise in the modern techniques for signal and image processing, in particular deep learning, and its application to bio signals and medical images. Knowledge of affective computing, cognitive science, computational neuroscience, *e-Health*, telemedicine, BCI, linguistic signals, and neuroimage analysis, will be also appreciated. Of particular interest is knowledge in the use of EEG and fNIRS.

III. Job Description

The selected candidate must:

- Perform high quality, original research in his/her area of expertise, working in a team;
- Publish the results of their research activities in top-of-the-line conferences and the highest ranked refereed journals in their field;
- Collaborate with all the other members of the faculty, as well as other researchers in the INAOE;
- Teach high quality and high-level graduate courses, especially those of the programs of the Computer Science Department and the Graduate Program in Biomedical Science and Technologies;
- Supervise master's theses and doctoral dissertations;
- Serve as a reviewer of theses and dissertations directed by colleagues;
- Fulfill the administrative tasks related to the position;
- Participate in the different activities of the Institute.

IV. Additional considerations

- Availability to live in or nearby the city of Puebla, Mexico.
- A positive attitude when confronted with challenges, and to work in general.
- A high sense of responsibility.
- Willingness to work in a team.
- Foreign nationals should be in possession of required legal documents to allow them to work and perform the duties herein established.



V. Deadline for application and procedure

The candidates aspiring to obtain the position of Tenure Track Researcher under this announcement, must present:

- A letter stating their motivation to work in INAOE.
- A research project proposal for the middle run (3 years), in less than five pages, including personal professional development goals, academic, and scientific and technological development aims, highlighting the main foreseen scientific contributions, and indicating how they will integrate with the existing faculty of the Electronics Department.
- A résumé with evidential documents.
- Copies of their three most relevant publications.
- Contact information of three researchers of worldwide prestige that could be asked to provide a letter of recommendation of the candidate in digital form.

All the documents must be delivered or sent by **October 15, 2022**, to:

Dirección de Investigación y Desarrollo Tecnológico

Instituto Nacional de Astrofísica Óptica y Electrónica (INAOE)

Calle Luis Enrique Erro 1,

Tonantzintla, Puebla, México

C.P. 72840

Tel/Fax +52 (222) 266 3100 ext. 3206

direccion_investigacion@inaoep.mx

For questions related to this call, please contact Dr. Jesús Ariel Carrasco Ochoa, Head of the Computer Science Department, at the following e-mail address: ariel@inaoep.mx.

All applications will be reviewed by a committee consisting of personnel from the Computer Science Department, who will program interviews with them through the Research and Development Directorate. The opinion of this committee will be considered by the General Director of the INAOE, who will, in case all the requirements established in Article 24, Section I, of the Faculty Statute of the INAOE are fulfilled, grant the position to the selected candidate. These positions will remain open until they are satisfactorily filled.



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VI. Additional Information

Let it be known that the appointment, permanence, promotion and tenure of the selected candidate, will be determined based on the Faculty Statute of the INAOE and all the other pertinent regulations. All offered positions are full-time, with a position and salary in accordance with the academic trajectory of each candidate. The selected candidate can also apply to become part of the National System of Researchers (SNI), and receive a monthly fellowship in case of meeting the requirements.

