

"The solidarity among women has been fundamental"

ENRIQUE SOTO

At the Politécnico we, the working women, have found an opportunity to grow and develop; we are proudly PAAE (Support and Assistance Personnel for Education), and solidarity has been essential in continuing to pave the way for new generations in academic and administrative spaces."

This is the belief of María del Carmen Olivares Morales, who fulfilled her dream of studying at the Instituto Politécnico Nacional (IPN) and recently celebrated 25 years as a staff member at the Escuela Nacional de Ciencias Biológicas (ENCB), a stronghold of the Politécnico in the fields of biology and chemistry, with international recognition.



Behind her kind personality and cordial demeanor, María del Carmen considers herself a determined woman who has forged her path through hard work, in a Mexico where many spaces were still reserved for men.

Reflecting on the extreme expressions of feminism in today's society, she emphasized: "Feminism that manifests through the destruction of urban infrastructure as a form of protest is misunderstood; women's rights and aspirations should be upheld through civilized means."

For Olivares Morales, an analyst at the Biochemical Engineering Laboratory in the Department of Technological Projects, Studies, and Services at ENCB, the struggle to create opportunities for women when she began her studies at the then Vocational School 15 "Diódoro Antúnez Echegaray" was different from what her two daughters experience today.

Walking through the halls of the institution she loves so much—where she earned her degrees as a Biochemical Engineer and a Master of Science in Chemical and Biological Sciences, and which she has seen become a benchmark in education and scientific research—María del Carmen stressed: "In the equation of life, both men and women must develop fully and equitably."

She acknowledged that throughout her academic and professional career, she has been fortunate to meet remarkable women and men from whom she has learned that dreams can come true only through dedication and a desire for self-improvement. "We, the PAAE, are committed; we do our jobs well, and we also put "La Técnica al Servicio de la Patria", from our workplaces."

In the Mathematics undergraduate program and the Automotive Systems Engineering program, the presence of women is almost nonexistent. However, it is noteworthy that a woman currently leads the coordination of the Automotive Innovation Expert Network (Reinva). That woman is Ilse Cervantes Camacho, a faculty member at the Centro de Investigación en Ciencia Aplicada y Tecnología Avanzada (CICATA), Querétaro Unit.

Castro Bibiano explained that the fields where women are more established and greater in number include the Medical and Biological Sciences. In Engineering and Physical-Mathematical Sciences, women stand out in Pharmaceutical Engineering and Textile Engineering.

Additionally, in Social and Administrative Sciences, programs such as the Tourism degree are prominent because they are associated with caregiving roles and the traditional expectations of women.

For this reason, she explained, "We work with junior mentors, meaning undergraduate students who support high school students in the process of deconstructing preconceived notions that they are incapable or unfit for certain disciplines."

She added that "we also highlight female scientists from the Politécnico so that students can learn about them and see themselves reflected in their achievements, providing role models. We must start in vocational schools to encourage female students to enter these fields," emphasized the specialist from UPGPG.

In this regard, Dr. Patricia Maldonado stated that "with the support of higher education institutions such as the Politécnico, it is possible to create initiatives that foster a culture of respect by integrating a gender perspective across all areas. This will help society recognize the importance of diverse forms of women's participation."

The specialist from Ciecás pointed out that as society increasingly understands the importance of equal participation between men and women in all aspects of life, a more balanced society can be achieved. This, in turn, will contribute to addressing real-world challenges while breaking gender stereotypes.

"The ideal scenario is for these changes, this new culture, to permeate from basic education levels to higher education to accelerate the process of cultural transformation," she added.

In this context, Ciecás professor and researcher Gabriela María Luisa Riquelme Alcantar emphasized the need for stronger policies regarding women's participation in science and greater dissemination efforts to show how young girls can access knowledge in this field.

A Woman President: An Achievement for Society

To develop better policies and initiatives that promote equality and equity between men and women, Ciecás specialists Norma Patricia Maldonado and Gabriela Riquelme Alcantar described as a major milestone the fact that, for the first time, the presidency of Mexico is held by a woman, Dra. Claudia Sheinbaum Pardo.

"We have reached a significant milestone by accepting a female president. It is a remarkable achievement for women to have reached the highest level of political participation in Mexico," they noted.

They also acknowledged that women have entered other traditionally male-dominated sectors, such as the Armed Forces and Air Force.

"This opens doors, especially for young girls and teenagers, who now realize they can achieve great things," added Riquelme Alcantar, a member of the National System of Researchers (SNII), Level I.

"A Polytechnic Student is Defined by Resilience, Pride, and Capability"

KARLA NANDO

Regina Castillo Jiménez is 20 years old and is studying Industrial Chemical Engineering at the Instituto Politécnico Nacional (IPN). She believes that being a woman in a traditionally male-dominated field is a challenge, yet the outlook for women in specialized areas of engineering and technology continues to improve in our country.

"My father and my brother are chemical engineers. I chose this career because of them and because I am truly interested in the field of quality production," said the student from the Escuela Superior de Ingeniería Química e Industrias Extractivas (ESIQIE).

She shared that, for her, an inspiring scientist is Marie Curie, a pioneer in radioactivity research and a two-time Nobel Prize winner, as she excelled in a field traditionally dominated by men. "I believe it is important to commemorate women because, throughout history, many changes have allowed us to advance both academically and professionally," she added.

She acknowledged that she has faced challenges as a woman in engineering. Her initial concern was the demanding academic environment, followed by the physical and mental preparation required for working in laboratories. In her view, a student's routine is demanding, making proper nutrition and sufficient sleep essential for performing well throughout the semester.

For her, women play a crucial role in STEM fields (Science, Technology, Engineering, and Mathematics), yet very few reach advanced academic levels such as master's or doctoral degrees.

She advised women who have experienced gender discrimination to be resilient and to develop the ability to take sexist remarks from classmates or professors and turn them into a stepping stone rather than a setback.

She pointed out that, in engineering, women face both opportunities and challenges due to the gender gap. As an engineering student, she believes it is important to reflect on future conditions for the women who are about to graduate from universities, as they will become part of the technological and innovation workforce in Mexico and abroad.

"In the next 10 years, I would like to see greater support for the scientific industry for both women and men. The Politécnico prepares very capable male and female engineers to excel in research," she concluded.

