

DUNCAN FRASER AWARD 2026



The 2026 Duncan Fraser Prize Committee is pleased to announce Dr. Laura Eugenia Romero Robles as the 2026 recipient.

Dr. Laura Eugenia Romero Robles, PhD, Director of the Division of Engineering and Sciences (EIC), Full Professor at the School of Engineering and Sciences of Tecnológico de Monterrey, and National Leader of Ingenia, was awarded **the 2026 Duncan Fraser International Prize**, one of the most prestigious recognitions in engineering education worldwide.

Dr. Laura Eugenia Romero Robles, PhD, was nominated by LACCEI for her long and distinguished career in global engineering.

She is a distinguished researcher and academic leader with over 27 years of experience in higher education, consulting, and advanced materials development using nanotechnology.

This award, granted by the International Federation of Engineering Education Societies (IFEES) and the Global Engineering Deans Council (GEDC), recognizes individuals whose careers have had a significant and lasting impact on the education of engineers, promoting innovation, academic excellence, and inclusion.

Dr. Romero Robles received this distinction for her leadership in initiatives that promote gender equality in engineering, her contribution to research projects in semiconductors and nanotechnology, and her commitment to the training of new generations of professionals inside and outside of Mexico.

Dr. Romero Robles has been a key figure in promoting gender equality and strengthening STEM careers. She has designed and led innovative programs that inspire and prepare students, especially women, to enter these important fields.

Her international leadership in organizations such as LACCEI and CAL MATILDA has been fundamental to the globalization of engineering education, the organization of conferences and webinars, and intercontinental collaborations. She is also the national leader of **INGENIA** Women in Engineering at **Tec de Monterrey**.

The award will be presented to Dr. Romero Robles at a special ceremony during WEEF 2026, which will be held from September 22 to 25 in Cartagena de Indias, Colombia.

LACCEI K-12 COMPETITION / 2026

Three Inspiring Initiatives Transforming Engineering Education

The LACCEI competition for **K-12 initiatives: Engineering for the Americas Challenge 2026** recognized three extraordinary initiatives that are changing the way elementary and high school students discover and become passionate about engineering.

First Place: Ladies Can Code

Polytechnic University of Puerto Rico

Dr. Miriam Pabón-González leads a transformative initiative for girls. Through an intensive week-long experience, more than 200 girls have discovered cybersecurity and engineering in a creative, accessible, and fun way.

The result is impressive: 80% of the participants enjoy the activities, and more than 50% increase their interest in STEM.

Second Place: Early Engagement Program in Engineering: Internet of Things Applications Workshop

University of La Frontera, Chile

In one of Chile's most vulnerable regions, Dr. Ramiro Donoso designed an agile response to an urgent problem: after the pandemic, engineering enrollments plummeted from 15 to just 3. **His solution:** an-Internet of Things workshop that combines online theory with in-person practice.

In less than three years, the impact has been extraordinary:

- Enrollments: 24 admitted + 27 on the waiting list (2026)
- Outcome: 70% of the engineering student cohort comes directly from the workshop
- Impact: Democratized access, social mobility, and a highly replicable model for universities across the continent.

Third Place: Bootcamp STEM UC

Pontifical Catholic University of Chile

A different but powerful strategy: instead of working solely with students, Gabriela García Méndez invests in teachers as multipliers. Bootcamp STEM UC provides free training to teachers through intensive workshops on STEM and pedagogy.

The result is a multiplier effect:

- Approximately 300 teachers trained per year
- Around 30,000 students indirectly impacted
- 195% increase in 4 years (from 55 to 162 participants)
- Territorial expansion to rural regions with less access to STEM education
- Impact: Systemic change, transformed narratives about "who can be an engineer," and massive reach at low cost.

What These Three Initiatives Have in Common

- **Explicit Equity:** All prioritize the most vulnerable students, such as girls, migrants, first-generation students, and those from rural areas
- **Proven Impact:** Measurable results in enrollment, confidence, and aspirations
- **Sustainability:** Low-cost, scalable, and replicable models
- **Committed Leadership:** Academics and educators passionate about changing lives

What's Next?

The winners will join a collaborative working group of LACCEI pre-university initiatives to:

- Share strategies and lessons learned
- Identify opportunities for regional collaboration
- Explore how to expand these models throughout the Americas
- The prizes will be used to strengthen and expand these initiatives, enabling them to reach more students and consolidating partnerships that ensure their continuity.



Inspiration for All

These three initiatives demonstrate that **engineering is for everyone**. No matter where you live, your gender, or your socioeconomic background, with committed educators, innovative teaching methods, and strategic resources, young people in the Americas can discover and pursue a career in engineering.

¿Do you have an impactful K-12 initiative? **The next call for applications for LACCEI 2027 will be open soon.**

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LACCEI STUDENT COMPETITION 2026

During the LACCEI 2026 Multiconference, held in Santiago, Chile, the Student Research Competition for full articles was held in person, and the Student Poster Competition was held in a hybrid format.

The objectives of these student competitions are:

- To motivate engineering students to use and demonstrate their creativity, knowledge, and problem-solving skills.
- To promote academic exchange among students from different universities and countries.
- To provide research professors with the opportunity to recruit potential graduate students.

The winners in their respective categories were:

Student Papers.

First Place: Physics-Informed 3D Simulation and Data Architecture for AI-Driven Magnetic Micro-robots in Endovascular Navigation, Amelia Fernández Seguel, Pontifical Catholic University of Chile

Second Place: Vitalia: Development and Preliminary Validation of a Scalable Gamified Educational Model for Pediatric Oncology Support, María Mercedes Álvarez Acosta, Vicente Josué Peláez Yadaicela, Jonathan Sebastián Guerrero Solano, Mercy Nicole Fajardo Sandoval, Omar Gustavo Bravo Quezada, Salesian Polytechnic University of Ecuador

Third Place: The Design of an Autonomous VTOL Fixed-Wing Aircraft for Delivering Medical Supplies, Ryan Kurkela, Zaheer Haniff, Ajward Wahid, Vaughn College of Aeronautics and Technology.

Jury: Dr. Zaida Aguila, Dr. Vicente Becerra Sablon, and Dr. Manuel Bermúdez



Student Posters

First Place: Optimizing Coastal School Tsunami Evacuation through Dynamic Logistics and Graph Theory: A Case Study in Cartagena, Chile. Esteban Valladares Gamboa, IPG Professional Institute, Chile

Second Place: Twin5G: Intelligent digital twin for heterogeneous 5G networks. Ana María Pardo Rodríguez, Camilo Andrés Ladrino Morales, Cooperative University of Colombia

Third Place: Release kinetics of antioxidant compounds from a pectin film extracted from Carica pentagona residues. Genesis Rafaela Yáñez Allauca, Higher Polytechnic School of Chimborazo - ESPOCH, Ecuador

Judges: Dr. Marta Robles, Dr. Edwin Marte, and Dr. Christian Vera

