



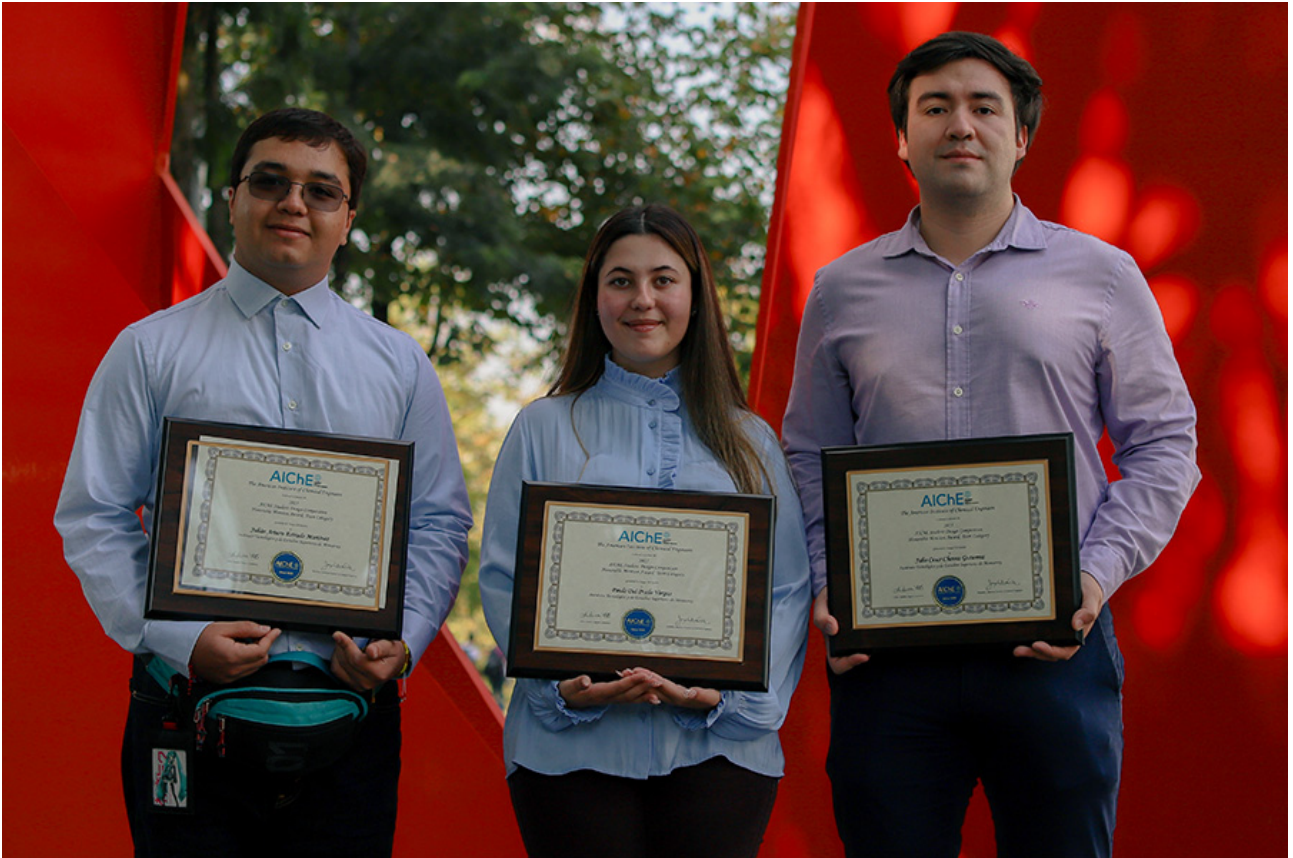
## Pure ingenuity! Tec students in chemical engineering world finals

**Paula** del Prado, **Julián** Estrada, **Julio** Chávez, and **Roberto** Arellano are the students from the [Tec's State of Mexico campus](#) who won an honorable mention in the *Student Design Competition - Team*.

The award is given to **finalist teams** in the *Overall Design Competition* category, in which they compete against **universities from around the world**.

This is a **global** chemical engineering **competition** that has been organized annually **since 1932** by the [American Institute of Chemical Engineers](#) (AIChE), a professional organization for **chemical engineers** with a presence in more than **110 countries**.

It is the **second year** that the **Tec's State of Mexico** student chapter has participated in the competition, making it the **only university in Latin America** to win an award in two consecutive years.



*“It’s very motivating to know that our work meets **international standards**, and receiving this recognition is **very rewarding**.”*

*“You realize that **you can** achieve what you want, and that if you just **commit yourself** and have the desire to do so, you are very likely to succeed”, **Julio** said.*

## **Coordination as the key to the project**

These **seventh-semester** students became one of the **finalist teams** in the 93rd edition of the **international competition**, with a challenge called *Blue Hydrogen to Improve the Atmosphere*.

The proposal consisted of a **chemical plant** that would produce **blue hydrogen**, where emissions associated with the hydrogen production process, mainly CO<sub>2</sub> and greenhouse gases, would be **captured at the plant**.

“Our goal was to **reduce the environmental impact** of the plant, turning it into a **blue plant**”, said Julián.

It was a **comprehensive challenge**, in which students had to **analyze** the design, sustainability, safety, and costs of the plant.

“I believe we won because **we valued** all sections equally. We didn’t just focus on doing one part very well; we were **very thorough** with all the variables”, said Paula.

The team acknowledges that they **worked well** together. Julio sums it up: “We had to **coordinate and manage** our time really well, because while we were working on this project, we also had to go to class and work on **other projects**”.

“**Winning is very rewarding; it makes you realize that you can achieve what you want, and if you work at it, you can do it**”.- Julio Chávez.

Dumar Camacho, Director of the **Chemical Engineering Program** at the Tec’s State of Mexico campus, acknowledges that “the team did a remarkable job, demonstrating their commitment, dedication, and effort”.

“Now, they realize that when work is done in an organized manner, with communication and respect, many things can be achieved beyond just scoring good grades in a subject”, he said.

## Approaching the industry

“We’re applying **scaling** and design **principles**—alongside core chemical engineering concepts from our degree program and **cross-cutting skills**—to tackle economic, safety, and environmental challenges”, said Julián.

In just **60 days**, the team had to develop their proposal **without the intervention of professors** or external entities, simulating as closely as possible what they would **encounter in the industry**.

*“This challenge focuses specifically on **chemical process design**, which is highly technical, conceptual, **academic**, and industrial”, Camacho said.*



Thanks to these types of challenges, students **strengthen their educational skills** and competencies, as **Paulina** shares: *“The Tec provides us with the resources and space to **develop** inside and outside the classroom, which is very important”.*

After **two consecutive distinctions**, the **Tec’s State of Mexico campus** plans to continue participating in this competition in the coming years. This is how **María Elena Olvera**, Director of the Academic Department of **Sustainable and Civil Technologies**, explained it.

*“It’s a strategy we have as a department to continue **promoting the degree** because it also helps us **enrich our programs** and gain a **global perspective** on what is happening elsewhere.*

*“It’s extremely valuable for our institution to have these types of **students** who enhance the reputation of the **Tec’s State of Mexico campus** and, in particular, the **Chemical***

***Engineering program***", she concluded.

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