Architecture students from Tec win water competition

Students from the School of Architecture, Art, and Design at the Tec's Querétaro campus have won the **Next Generation Water Action Prize** and will take part in the **International Water Association (IWA) Congress** in Copenhagen in September 2022.

10th semester Architecture students **Daniela Cruz, Angélica García, and Diego Montoya** combined their skills to participate in this global initiative by the **Technical University of Denmark** (DTU) and businesses to develop ideas focused on solving **sustainable water** challenges.

The basis of the project lies mainly in the use of **chinampas**, a method of cultivation used by the Mexica people to expand the territory of lakes and lagoons in the Valley of Mexico where they **cultivated flowers and vegetables.**

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This group of students was mentored by **Diana Cejudo and Rodrigo Pantoja**, from the campus' Department of Architecture, who encouraged them to focus the project on chinampas.

*"We take great pride in it because basically the premise is that the water solution cannot be merely technical, it also has to be a **holistic solution**,"* said Diana García.

“Many of the solutions are often based on engineering, and we’re focused on a biological process, something much more natural,” said Rodrigo Pantoja, a professor from the Department of Architecture.

The team was the winner of HUB-Mexico, which allowed them to **represent Mexico** at the **IWA**. They also won the **Ramboll Challenge**, for which they were awarded a cash prize to help accelerate their startup.

There were also **two other teams** present **from the Tec**: the **B.MX1** team from the **Guadalajara campus**, which won the **Grundfos Challenge**, and the **B.MX2** team from the **Puebla campus**, which came in the Top 10 for that challenge.

https://www.youtube.com/watch?v=A6sHiL09H10 **Architecture and solving water issues**

These students used a chinampa-based design to develop a **holistic solution for urban and environmental regeneration in Brooklyn** to meet the **challenges of the climate crisis.**

The team came up with a holistic idea aimed at solving **four main issues**: **flooding, water pollution, water scarcity, and a need to change the intrinsic value** people give this resource.

“We did all this with a much more natural and biological philosophy. When we started proposing different ideas, they all had a similar approach,” said Angélica.

“The proposal is also based on understanding the community and the challenges it’s facing, not just what the government wants.”

Chinampas: the star of the project

According to the students**,** the project came about during a brainstorming session, with the idea of chinampas emerging as a possible solution taken from local culture applied to another context.

“The competition was looking for people from different countries with different perspectives and contexts that could enrich the competition’s ***proposals and the experience****,”* said Angélica.

“It’s somewhat rooted in our culture, but we’re sharing it and transforming it with the local community,” added Daniela.

However, despite calling **chinampas the star of the project**, the students recognize their proposal’s success was the creation of a holistic system that covers all the economic, social, and environmental aspects of the problem.

“It’s not just about collecting water and giving it to the community, but also about ***generating an ecosystem*** *where people can understand, educate themselves, and live.* ***We need the project to be tangible,”*** said Diego.

“Part of the beauty of the proposal is that it’s an evolutionary system, a process beginning with the chinampa and then developing until it arrives at the system we’re proposing, growing with the community,” he added.

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Challenges and support: the road to the proposal

The students **pointed out** that they encountered several obstacles when they were generating the proposal, such as time and contacting people in the community.

“It was a bit of a challenge to try to come up with such a big proposal in such short time,” Diego said.

“For me, it was challenging to find a way to connect with, get to know, and understand the people we wanted to design the project with,” added Angélica.

However, the team had the constant support and professional advice of their professors and experts on the topic who contributed various perspectives to help flesh out the final proposal.

“We had very diverse judges on the panel. We had many points of view that enabled us to understand that the proposal was technically and socially sound,” explained Daniela.

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What’s next for the project?

The team currently has a project acceleration fund and mentoring from experts to follow up on the proposal, which will be **presented in Copenhagen in September of this year.**

The IWA **World Water Congress** is the global event for water professionals covering the entire water cycle. It attracts more than 10,000 leading professionals and companies from across the water sector, including opinion leaders from within and outside the water sector.

“The project can have different approaches. There are many possibilities for using the money, depending on what we’re looking for. We haven’t decided yet,” said Angélica.

“We’re very excited to go and share a little of what we’ve done, get to know the community, and bounce more ideas off others around water,” said Daniela.

According to Professor Rodrigo, the congress that the students will attend is a global event for water professionals, an opportunity to network, pursue a master’s degree, develop technology, and other options to help support their professional growth.

“It’s incredible that they’re graduating with a project on a global scale,” said Rodrigo.

https://twitter.com/IWAHQ/status/1531902822379397121

International participation with results

This is the **third consecutive year** that **Tec students** have participated in **Next Generation Water Action,** an undertaking made possible thanks to the **Tec's liaison office in Copenhagen,** run by **Ana Soriano**.

More than **100 students from 6 countries** participated in the event, organized by the **Technical University of Denmark's DTU Skylab**, including teams from South Korea, India, Kenya, Denmark, and Mexico.

Students from the Tec's **Querétaro, Guadalajara, and Puebla** campuses participated, who were guided on their way to the competition by Professor Pabel Cervantes, from the Puebla campus' School of Engineering and Sciences.

*"Without a doubt, the joint effort between the Center-South Region's EIC and the Tec office in Denmark **made it possible** for our students and professors to **get results**,"* said Cervantes.

The Puebla campus team **(B.MX2), with its Pure Panel project,** and the team from Querétaro finished in **the competition's Top 10.**

Students from the **Guadalajara campus (B.MX1)**, with their **holistic water treatment** proposal, also won an **acceleration prize worth 1,000 euros**, awarded by the Grundfos company.

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