

# Tec de Monterrey & Fresh Consulting team up for technology innovation



[Tec de Monterrey](#) and leading emerging technology solutions company [Fresh Consulting](#) have joined forces to explore joint **education and technology** projects.

The partnership was formed through **the Tec's Department of Innovation with Emerging Technologies** when the **international consultancy firm** approached the institution with the idea of working together.

Over its 80 years of existence, Tec de Monterrey has continued to promote technological innovation in education.

The institution has been a pioneer in topics such as **TV classes, computer science** degrees, the use of the **Internet**, and more recently with the "**Professor Hologram**" distance learning classes and the Tec's **educational metaverse** or **Virtual Campus**.

Meanwhile, Fresh Consulting is a **software, hardware, and robot design** innovation company offering holistic **technology solution services to businesses**.



## Two institutions convinced of the need for technological innovation

Irving Hidrogo, Director of Innovation with Emerging Technologies at the Tec, explained to CONECTA that the approach came about as a result of the shared interests of both institutions.

They each frequently explore and develop technology-oriented solutions, such as **blockchain**, **augmented reality**, and **artificial intelligence**.

*“We’re compatible because we work with the same technological trends. The difference is that we do so for **academic processes** and for innovating on **student learning**,”* he said.

*“As we share this philosophy, we’re convinced that we’ll **create projects together** involving our students and faculty (...) so that the projects have **greater impact**,”* he added.

## Bringing state-of-the-art technology to students and teachers

Hidrogo gave one example of one of the benefits of this collaboration, which is that students will be able to learn more about **artificial intelligence systems** and **understand the principles of smart control**.

For example, he mentioned that Fresh Consulting has provided the Tec with a **robotic device** with an **artificial intelligence-based** control system to be used and tested by students and teachers.

## Project Moab:

This **device, which uses machine learning**, was developed in collaboration with **Microsoft**. Called **Project Moab**, it's the only one available to the public in the whole of Latin America.

It has **three robotic arms, a camera, and a transparent plate**. Using artificial intelligence, it can **recognize a ping pong ball** and make it balance, no matter where the ball lands.

It also has a manual operating mode so that you can compare a human attempt to the **agile virtual learning it has already had through Machine Learning**.

*“Moab encourages curiosity and creativity in its pursuit of cutting-edge technologies,”* said **Johnny Rodriguez**, Director of Innovation at Fresh.

*“Fresh Consulting and Microsoft decided to give it to the Tec so that it can be available to students and teachers at Mostla,”* explained Hidrogo.



**The artificial intelligence behind it...**

More important than the device itself is the AI technology that makes it work and how it can be useful for learning.

*“In addition to having fun during this interaction with Moab, they’re going to learn more about how artificial intelligence works,”* said Hidrogo.

*“This device is didactic and makes a technological trend as abstract as artificial intelligence tangible; it’s a gateway for students to use the framework that was used in their own projects.”*

The artificial intelligence it is based on was trained with the [Bonsai platform, created by Microsoft](#), which offers a service to **create and train algorithms and install them on robots** to be tested and compared.

Students and teachers can use it to create projects.

**“Developing projects with Bonsai is easy to carry out. It doesn’t require advanced programming knowledge. Students from the different Tec schools could get to do projects with this platform.”**

The device, which was also the winner of the 2022 **Red Dot Design Award**, is located on the ground floor of the Rector’s Building at the Tec’s Monterrey campus so that it can be used by the Tec community.

**“We’re convinced that we’ll be able to create projects together involving our students and faculty.” - Irving Hidrogo**

[https://www.instagram.com/p/Cvyk\\_JigyMK/](https://www.instagram.com/p/Cvyk_JigyMK/)

**Inteligencia Artificial**

**Machine Learning**

El aprendizaje automático, o Machine Learning, es un componente clave de la Inteligencia Artificial que permite a las computadoras aprender de los datos y mejorar su rendimiento con el tiempo.

En lugar de ser programadas con instrucciones específicas, las máquinas aprenden a tomar decisiones basadas en los patrones que detectan en los datos.

Esta capacidad impulsa la mayoría de las aplicaciones de Inteligencia Artificial que vemos hoy en día.

**Project Moab**

Un dispositivo creado por Fresh Consulting en conjunto con Microsoft para mostrar las capacidades del machine learning aplicado a un sistema físico programado con Bonsai.

El dispositivo tiene una meta: mantener la pelota de ping-pong estabilizada en su placa utilizando sus sensores, cámaras y motores para lograrlo lo más eficiente posible.

**Fresh**

Aliado estratégico de Mostla que se dedica a crear soluciones creativas e innovadoras utilizando tecnologías emergentes en diversas industrias como el diseño de productos, marketing, ingeniería, workshops y mucho más.

**mostla**

**CASOS DE USO**

**EDUCACIÓN**

**PRUEBALO**

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## Other joint collaborations

Stemming from this alliance, other innovation projects are being developed, such as [a workshop given by the Director of Innovation at Fresh Consulting](#) to Tec students.

This workshop took place in the [Tec’s educational metaverse](#) and focused mainly on students learning about and implementing the use of **generative artificial intelligence** tools to create

content.

The **workshop** was organized by Mostla and included **generative artificial intelligence platforms** for text, images, audio, video, and programming code, where students were also able to **create applications** with this type of technology.

*“We’re going to be carrying out these types of activities on an ongoing basis. They have **experts** who are generating the newest **technology products** in the world,”* Hidrogo said.

Similarly, he said that there is also talk of **placing Tec students in jobs** and internships at the international consultancy firm.

*“The idea is for them to offer Tec students both **jobs within Fresh**, as well as the possibility of doing **internships**,”* he added.

Likewise, Hidrogo said that projects carried out at the institution will be able to count on the **support and expertise** of Fresh Consulting, in the same way that it offers consulting to organizations in the industry.

*“For Fresh, it’s truly an honor to be part of this incredible **collaboration with Tec de Monterrey**,”* said Jacob Rodríguez, innovation consultant at Fresh.

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