

Mexican given Scottish award for designing submersible drilling rig



The project was recognized as the best of the 100 submitted for its cost reduction and ease of transportation.

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Mexican **Elsa Ramírez** has been recognized at the [Young Professionals Green Energy Awards](#) in **Scotland** for her **design** of a **drilling rig** to help with the installation of **marine infrastructure**.

The project by this **Mechanical Engineering** graduate from Tec de Monterrey's **Chihuahua campus** was chosen as the best out of **100 participating projects** because it was **the first of its type** and for the advantages it brings.

The awards were given by the organization "[Scottish Renewables](#)" to recognize **young professionals** who are putting innovative ideas into practice within **the Scottish renewable energy industry**.

Elsa was nominated by **Leask Marine**, the company where she works, which offers **marine** construction, maintenance, and **infrastructure services**.

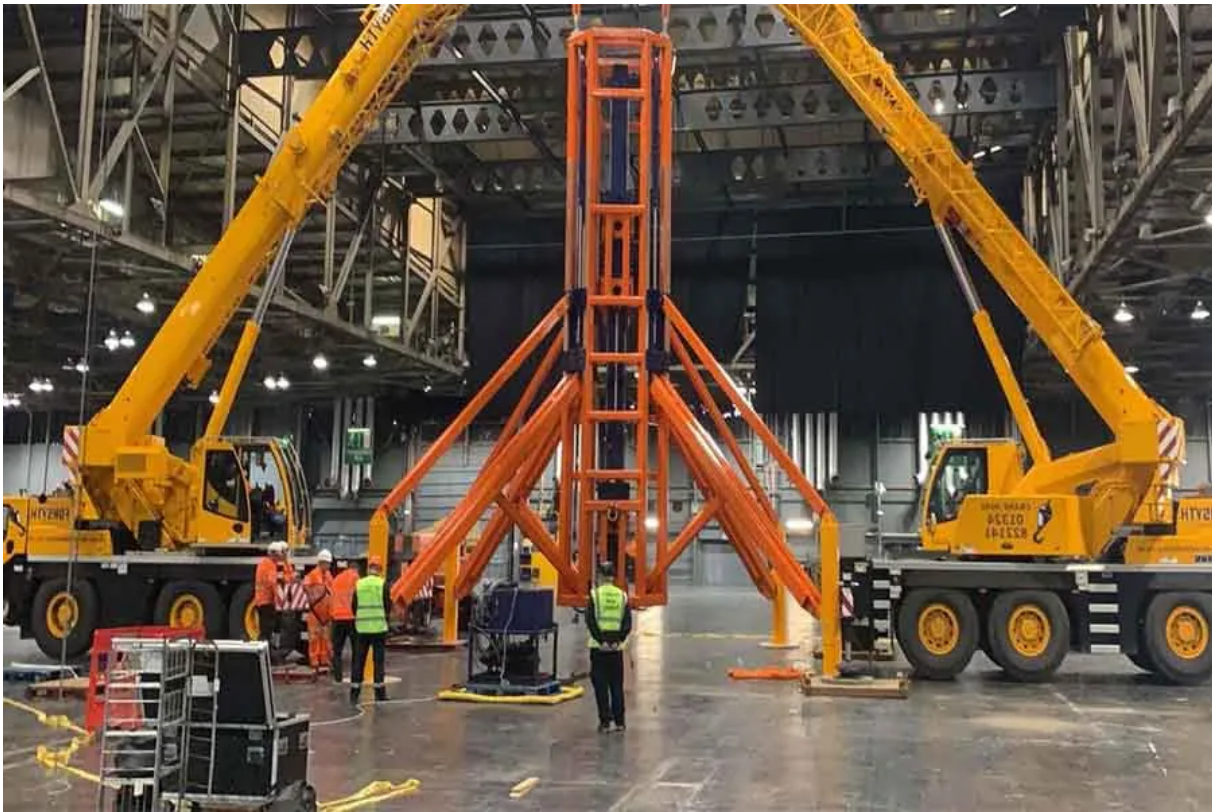


Elsa Ramírez, a Mechanical Engineering graduate from the Chihuahua campus

THE PROJECT

The drilling rig is used to **replace the concrete blocks**, weighing 300 tons, which are **currently used to** anchor **platforms** and **vessels**.

This drilling rig **reduces costs** by weighing less than 20 tons and taking up **less space**.



Drilling rig designed by the Mexican Tec graduate

*“(The drilling rig) **works like a screw**: it both drills and **supports** the same weight as the enormous **20 x 16 meter** blocks that are used, reducing the area to a diameter of 800 millimeters.*

*“What’s more, the **drilling rig** has retractable legs which allow it to be transported in a 40-foot container, greatly reducing the cost of any freight,” Elsa told CONECTA.*



The drilling rig reduces costs and is easy to transport.

"It works like a screw: it both drills and supports the same weight as the enormous 20 x 16 meter blocks that are used, reducing the area to a diameter of 800 millimeters."

In the next few days, the drilling rig will be completely assembled, and testing will begin.

*"I learned everything about **engineering at the Tec**. The workshop practicals on how to weld gave me a different perspective. I think it's the equal of any university in the world,"* said the Mexico City native.

On completing her degree in 2016, Elsa **moved** to the northern Scottish island of **Stromness**, where she studied for a Master's in **Marine Renewable Energy** at [Heriot-Watt University's Orkney campus](#).



Much of her studying was done on the Orkney sea, which has cold temperatures and 20-meter waves.

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In October 2017, after completing her master's degree and doing professional internships for 4 months, she was hired by **Leask Marine** as a project engineer.

She was in charge of digitizing machine work processes, as well as taking charge of the **project for which she won the award**.

Her plans include continuing to work at the company to develop new projects and make a name for herself in the **marine renewable energy** industry.

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