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RENEWABLE TECHNOLOGY CHALLENGE

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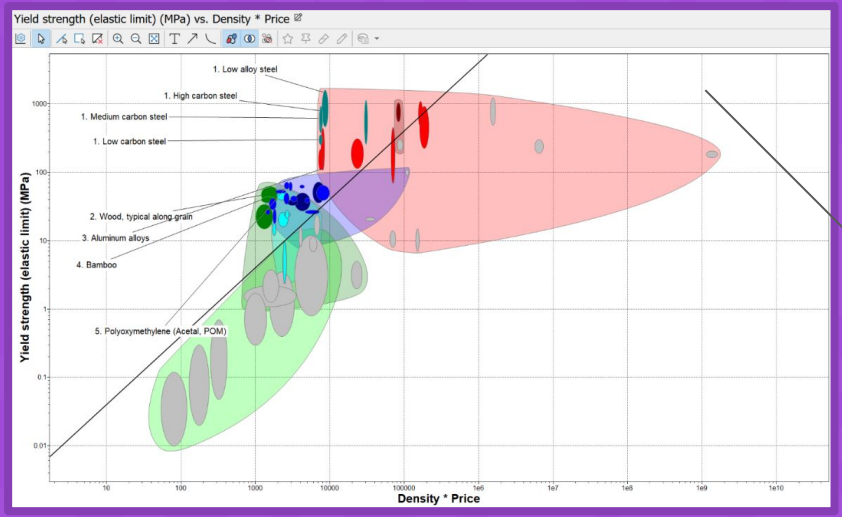
Mechanical design of turbine blades in renewable wind technology

- Developed a strategy to determine the best suited material for a wind turbine in a particular scenario using tools such as GRANTA EduPack, Autodesk Inventor deflection simulations, and decision matrix charts.

- The scenario involved the Guatemalan city of Quetzaltenango requiring the energy to power simple electricals,, such as LED devices, while being cost-efficient and resistant to the city’s intense weather.



GRANTA EduPack was used to determine the best suited material based on the most important attributes required for the turbine.

Deflection simulation using AutoDesk Inventor to calculate the maximum deflection of the turbine when given a certain amount of pressure.