Finite element analysis (FEA) is a modern engineering tool vital to analyzing the structural properties of all elements. However, no finite element analysis has been done on an automated transit network yet (ATN).

**Introduction**

Finite element analysis (FEA) is a modern engineering tool vital to analyzing the structural properties of all elements. However, no finite element analysis has been done on an automated transit network yet (ATN).

**Objective:**

Determine the deflection of the guideway at mid-span as a result of wind, passenger, and bogie loading, the peak stress as a result of wind, passenger, and bogie loading, the Max von mises stress as a result of wind, passenger, and bogie loading, the bending stresses of the guideway as a result of wind, passenger, and bogie loading.

**Work in progress**