## **TUTORIAL 2**

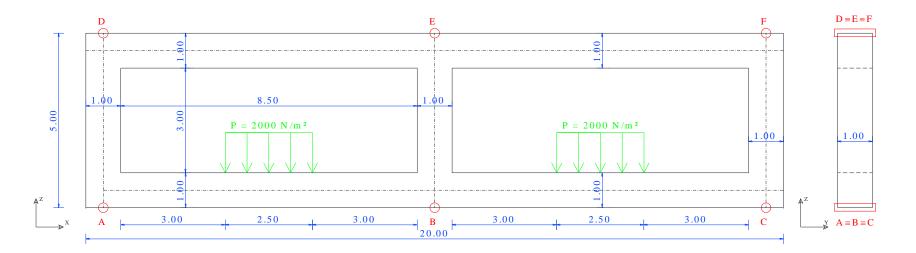
Elastic analysis of a structure performed by NOSA-ITACA code

## Mechanics of Materials and Structures Laboratory

Let's consider the structure sketched in the following figure, made of a linear elastic material having the following properties:

E = 30 GPa Young's modulus v = 0.2 Poisson's module  $\rho = 2500 \text{ kg/m}^3$  mass density

We perform a linear analysis supposing the structure subjected to self- weight, and to the distributed load P. We assume the structure clamped at the points belonging to the alignment A, B and C while we fix the displacements in Y direction of the points belonging to the alignment D, E and F.





- In this example we will learn how to import an existing mesh contained in a file .crd
- We will see how to apply different type of loads to the structure.
- We will see how to use the subroutine plotv.f to define as output results, the eigenvalues of the stress and strain tensor.
- Watch the video.