

Project

1. Modifying the Matlab program, make a computer program for structural analysis of two- dimensional plane frames (moment frame). In the computer program, consider uniformly distributed transverse loading and hinge condition (moment release) of the elements.
2. Design two simple buildings of plane moment frame (include the distributed loading and moment release (element with a hinge)). Perform structural analysis using your computer program. To verify the validity of the computer program, compare the results with those of hand calculations or other commercial software (compare the axial force, shear force, bending moment, and displacements of the elements).
3. Submit the computer program, and a short report including the introduction of the building, the procedure and results of hand calculations, the results of numerical calculations, the comparison of the two results, and the discussion.
4. The validity of the submitted program will be evaluated by applying it to a sample structure.

Due date : Nov. 24.