



Example 2: write a program to analysis the structure below if you know

Structure dimensions ( 6 \* 3\* 8) m

Cross section: rectangle 30 cm \* 50 cm (beam) and circle 50 cm (column)

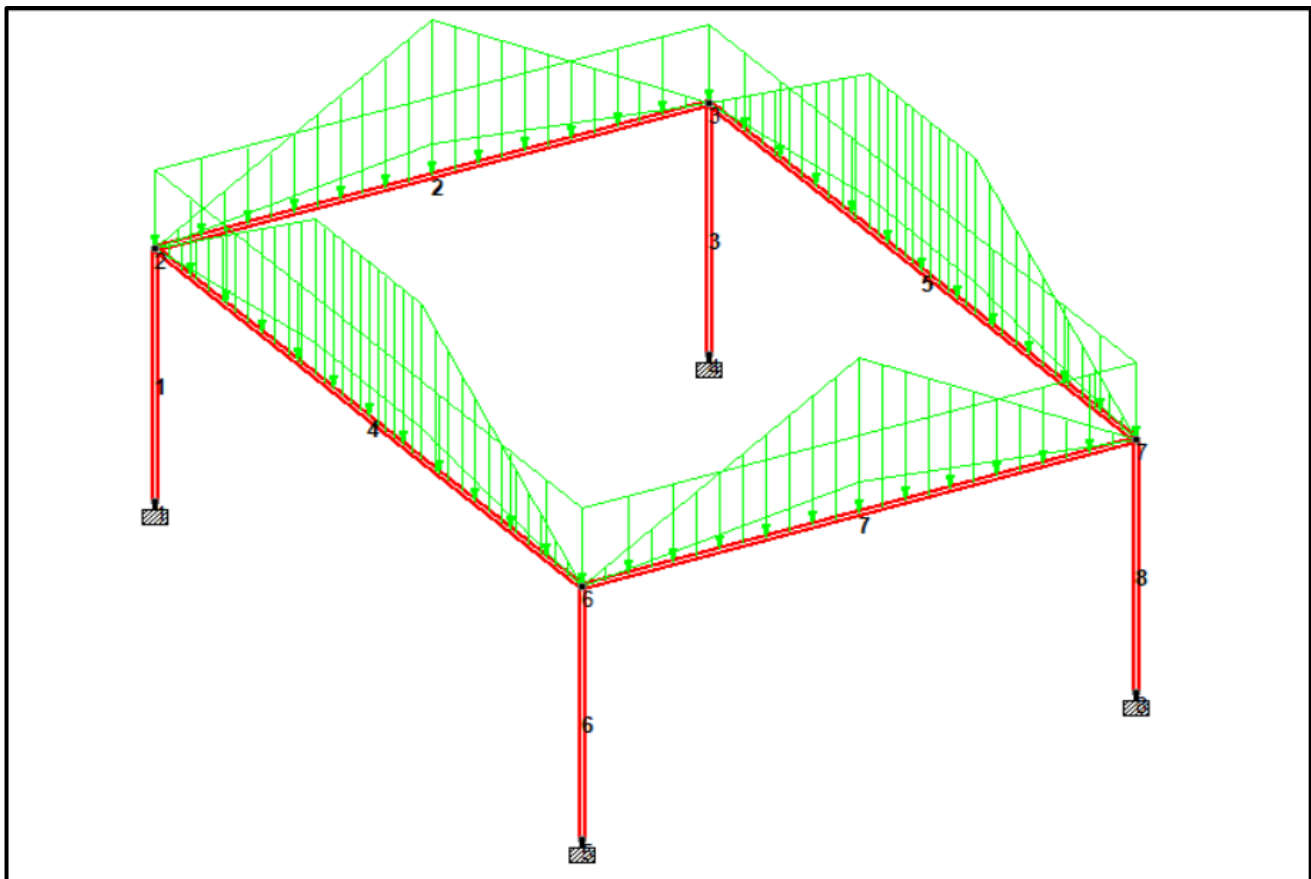
Load: dead load (floor load 10 KN/m<sup>2</sup>)

Live load (floor load 2 KN/m<sup>2</sup>)

Wall load (uniform force 15 KN/m)

Material: concrete

E 2.17185e + 007 , ALPHA 1e-005 , DAMP 0.05



**Solution :**

STAAD SPACE

INPUT WIDTH 79

UNIT METER KN



JOINT COORDINATES

1 0 0 0; 2 0 3 0; 3 6 3 0; 4 6 0 0; 5 0 0 8; 6 0 3 8; 7 6 3 8; 8 6 0 8;

MEMBER INCIDENCES

1 1 2; 2 2 3; 3 3 4; 4 2 6; 5 3 7; 6 5 6; 7 6 7; 8 7 8;

DEFINE MATERIAL START

ISOTROPIC CONCRETE

E 2.17185e+007

POISSON 0.17

DENSITY 23.5616

ALPHA 1e-005

DAMP 0.05

TYPE CONCRETE

STRENGTH FCU 27579

END DEFINE MATERIAL

MEMBER PROPERTY

2 7 5 4 PRIS YD 0.5 ZD 0.3

MEMBER PROPERTY

1 8 6 3 PRIS YD 0.5

CONSTANTS

MATERIAL CONCRETE ALL

SUPPORTS

1 8 5 4 FIXED



LOAD 1 LOADTYPE Dead TITLE DL

SELFWEIGHT Y -1

FLOOR LOAD

YRANGE 0 3 FLOAD -10 GY

LOAD 2 LOADTYPE Live TITLE LL

FLOOR LOAD

YRANGE 0 3 FLOAD -2 GY

LOAD 3 LOADTYPE Dead TITLE WL

MEMBER LOAD

2 7 5 4 UNI GY -15

LOAD COMB 4 COMBINATION LOAD CASE 4

1 1.0 2 1.0 3 1.0

PERFORM ANALYSIS

FINISH