CHAPTER-5
Chapter 5

Conclusion

The effect of non-homogeneity, which is supposed to arise due to variation in Young’s moduli and density on natural frequencies of square orthotropic plate of parabolically varying thickness in x-axis and y-axis has been studied on the basis of classical plate theory. In present paper the value of frequencies increase for both the modes of vibrations for the corresponding values of taper parameter increases and frequencies decrease when thermal gradient increases. By choosing appropriate values of varying parameters, desired or required values of frequencies can be obtained. In this paper Young’s moduli, density and thickness varies parabolically in x-direction and y- direction. To obtain the value of frequencies, we can use the MATLAB software. And to find the solution of the classical plate theory and frequencies equation, we apply the Rayleigh-Ritz method. Therefore, authors suggest the industrial scientists and design engineers to go through the findings of the present paper in order to provide much better authentic structures and machines with more strength, durability and efficiency.