**Design And Analysis Of Friction Clutch Plate By Changing Circle Diameter**

**ABSTRACT**

The clutch is one of the main components in automobiles. The engine power transmitted to the system through the clutch. The failure of such a critical component during service can stall the whole application. The driven main plate failed normally during its operation due to cyclic loading. In design of the friction clutches of automobiles, knowledge on the thermo-elasticity a priori is very informative in the initial design stage. Especially, the precise prediction technique of maximum structural stress should be requested in design of mechanical clutches for their durability and compactness. This project explains the Static structural analysis and Modal analysis of the clutch plate by changing circle diameter and applying two types of materials. This project finds the stresses, deformations and frequencies in failure region during operation. It also suggests design modifications to improve the life time of the clutch plate.