**Design and Analysis of an Excavator Bucket**

**ABSTRACT**

An excavator is a typical hydraulic heavy-duty human operated machine used in general versatile construction operations, such as digging, ground leveling, carrying loads, dumping loads and straight traction. After doing such operation, there is possibility of breaking of pin in tooth adapter assembly as well as bending of tooth point. The objective of this paper is to design an excavator bucket by using CREO-parametric software. Model is exported through IGES file format for meshing in analysis software Boundary conditions and the forces are applied at the tip of teeth of excavator bucket. Static analysis is done in ANSYS analysis software. In this paper the stresses developed at the tip of excavator bucket teeth are calculated. Percentage error between stress Analytical result and stress ANSYS result are calculated.