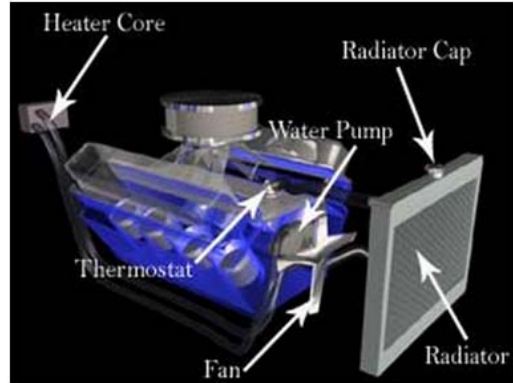


## CFD Analysis for Cooling Systems of 1500 HP Power Pack



This project is investigated by Prof. S.R. Shankapal, Mr. Parikshith and Mr. Chethan from the Directorate of Techno Centre - Engineering. This research is aimed at computational estimation of heat balance, air flow distribution and pressure loss across radiators, louvers, cooling air ducts in the given configuration.

The cooling system forms an intrinsic part of an engine. It performs multitude of functions such as removing excess heat from the engine, maintaining efficient temperature and allowing engine to perform its task within a short span of time. Ideally, cooling system keeps the engine running at an optimum temperature irrespective of the operating conditions. Vehicle Cooling System consists of components installed in vehicles for removing heat from all the moving parts so that it can work suitably without melting, seizing and overheating. This project proposes a three-dimensional flow simulation to investigate the pressure loss across radiators, louvers, cooling air duct and to optimize the cooling air duct geometry for the given two sets of configuration.