Department : **Mechanical**

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Group No: **11**

Guided By

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Project Title

DEVELOPMENT AND DESIGN OF RADIAL AIR ENGINE

Abstract:

A compressed air engine is primarily an engine that uses the energy stored compressed air to do work. Here the expansion of compressed air stored at high pressure in a storage tank occurs in the engine cylinder to move a piston doing mechanical work. The main application of this engine is in automobile industry where the potential energy of the compressed air is converted into kinetic energy of the linear motion of piston and rotary motion of the crank and the crank shaft. This motion is transferred to the wheels using usual transfer mechanisms .As the working fluid is compressed air there is no requirement of any other fuel other than some amount of electrical energy for compression of air in an electric compressor .The engine is free of emissions at the tailpipe as the only exhaust is air and is environmental friendly. Even though it is below its counterparts in power, comfort and performance, its supporters believe that altered versions of this engine are to dominate the automobile industry in future.

The Radial Air Engine is an eco-friendly engine which operates with compressed air. An Radial Air Engine uses the expansion of compressed air to drive the pistons of an engine An Radial Air Engine is a pneumatic actuator that creates useful work by expanding compressed air. There is no mixing of fuel with air as there is no combustion.

An Radial Air Engine makes use of Compressed Air Technology for its operation The Compressed Air Technology is quite simple. If we compress normal air into a cylinder the air would hold some energy within it. This energy can be utilized for useful purposes. When this compressed air expands, the energy is released to do work. So this energy in compressed air can also be utilized to displace a piston.

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