

RESEARCH CENTRE FOR IC ENGINE

Engine Research Centre primarily engages in the investigations on combustion, testing of Alternate fuel and performance of IC engines. We intend to promote the IC Engine Research in young aspirant engineers to come up with new ideas that would enhance the performance, reducing the fuel consumption and emission. DDAS plays a vital role in collecting in cylinder pressure, temp and ca degree data for analysis

Due to the stringent emission norms and the fuel depletion, it is inevitable to come up with such research works. The global warming caused by the greenhouse gases is yet another problem faced by the automotive industry as the fuel used are Hydrocarbons (HC), Carbon monoxide (CO) Carbon dioxide(CO₂), Oxides of Nitrogen and particulates are its end product.

The centre aims to promote the research activities related to the performance enhancement, Combustion and acoustic analysis of Internal Combustion engine. Currently, the research works are going on in the fields related to the flow, Combustion, Emission and Smoke Analysis to predict the engine operating parameters. Also, the research works related to the computational analysis of the flow through the engine manifolds are also under progress. The experimental facilities for studying the performance of IC engine.

Those who wish to do the theoretical and computational analysis related to Internal Combustion engine are welcome.



ENGINE CUT SECTION MODEL

IC. ENGINE TEST RIG



EMISSION TEST



DATA ACQUISITION SYSTEM



SMOKE METER



ENGINE **VCR MULTI FUEL ENGINE**

NUMBER OF CYLINDERS	<input type="text" value="1"/>	STROKE LENGTH (m)	<input type="text" value="0.11"/>
CYLINDER TYPE	<input type="text" value="4-STROKE"/>	BORE DIAMETER (m)	<input type="text" value="0.0875"/>
SPEED (IS rating at rpm)	<input type="text" value="1500"/>	LENGTH OF CONNECTING ROD (m)	<input type="text" value="0.233"/>
FUEL USED	<input type="text" value="DIESEL"/>	STROKE VOLUME (cc)	<input type="text" value="661.453"/>
POWER IN HP	<input type="text" value="5"/>	NOMINAL COMPRESSION RATIO	<input type="text" value="16.5 : 1"/>
POWER IN KW	<input type="text" value="3.728"/>	CLEARANCE VOLUME (cc)	<input type="text" value="42.6744"/>

ENGINE SPECIFICATION



Heat Release Rate(HRR)



Pressure Vs Crank angle

Coordinator

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