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ME 218 (JAN) 3:0
Internal Combustion Engines

Instructor: Dr.R.Thirumaleswara Naik

Course Description:

Overview on IC Engines, Engine Classifications, Basic Engine Components, Engines Nomenclature, Four Stroke Engines, Two Stroke Engines, Detail Working Principles of Engines, Thermodynamic Cycles, Energy Conversion, Performance Tests in Engines, Emission Tests in Engines, Dual Fuel Engines, Bharat Emission Norms, Euro Emission Norms, Combustion Process in Petro-Diesel Engines, Combustion Chambers, Phenomenon of Knock, Ignition, Spray Process, Bio-Fuels in IC Engines, Multi Point Fuel Electronic Injection System, Cooling, Lubrication Process, Flame Propagation, Emissions Control, Carburetion, Supercharging, Turbo Charging, Some Aspects of Engine Electronics, Artificial Intelligence and Machine Learning Application in Engine Combustion.

Prerequisites:

Resources:

1. Heywood. JB, Internal Engine Fundamentals Combustion, MIT-USA**,** McGraw-Hill, 1998.

2. Ehsani M, Yimin G, Emadi A, Modern Electric, Hybrid Electric and Fuel Cell Vehicles, TAMU-USA**,** CRC Press, 2010.

3. Ganesan.V, Internal Combustion Engines**,** IIT-IND**,** Tata McGraw Hill, 1999.

Outcomes:

To Understand the Fundamental Aspects of Internal Combustion Engines.

Additional Information:

This Course is Open for Master's and Doctoral Students Interested in Internal Combustion Engines. Undergraduate Students with Sufficient Background can Approach the Instructor for the Permission.

Assessment:
Course Website: