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ME 284(JAN) 3:0 Applied Combustion

Instructor(s): R V Ravikrishna

Course description:

Thermodynamics and Thermochemistry, Chemical equilibrium, adiabatic flame temperature, Chemical kinetics, Constant pressure and constant volume fixed-mass reactors, well-stirred reactor, Pug-flow reactor, Conservation Equations, Laminar Premixed and Diffusion Flames, Droplet Combustion, Introduction to Turbulent Combustion, Combustion in Gasoline and Diesel Engines, Combustion Chamber Design, Pollutant Formation, Exhaust after-treatment, Advanced Engine Concepts, Gas Turbine Combustors – design requirements, stability and emissions.

Prerequisites:

Resources:

Outcomes:

Additional information:

Course website: