BCE-034	Air and Noise Pollution Control	3L:0T:0P	3 credits

Pre-requisites: Industrial Pollution Control.

Course Objectives:

CO1	To understand and evaluate the behaviour of air and noise pollutants.
CO2	Strategies to control their presence in the ambient atmosphere.

Air and Noise Pollution Control

Air pollutants, Sources, classification, Combustion Processes and pollutant emission, Effects on Health, vegetation, materials and atmosphere, Reactions of pollutants in the atmosphere and their effects-Smoke, smog and ozone layerdisturbance, Greenhouse effect. Air sampling and pollution measurement methods, principles and instruments, Ambient air quality and emission standards, Air pollution indices, Air Act, legislation and regulations, control principles, Removal of gaseous pollutants by adsorption, absorption, reaction and other methods. Particulate emission control, settling chambers, cyclone separation, Wet collectors, fabric filters, electrostatic precipitators and other removal methods like absorption, adsorption, precipitation etc. Biological air pollution control technologies, Indoor air quality. Noise pollution: Basics of acoustics and specification of sound; sound power, sound intensity and sound pressure levels; plane, point and line sources, multiple sources; outdoor and indoor noise propagation; psychoacoustics and noise criteria, effects of noise on health, annoyance rating schemes; special noise environments: Infrasound, ultrasound, impulsive sound and sonic boom; noise standards and limit values; noise instrumentation and monitoring procedure. Noise indices. Noisecontrolmethods

Course Outcomes: After the completion of the course the student will be able to:

CO1	Brief on the behaviour of air pollutants in atmosphere.
CO2	Design different types of control equipment's for the abatement of air and noise.
CO3	Evaluate the engineering solutions for industrial and vehicular air pollution problems.

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