
AIR POLLUTION CONTROL (Elective-I)

Course Code: 13CH2107

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Course Educational Objectives:

This course helps the student in understanding the following aspects

- 1) Sources and Classification and Air Pollutants
- 2) Effects of different air pollutants on environment.
- 3) Air sampling measurement and controlling techniques of air pollutants.

Course Outcomes:

After completion of this course the student would be able to

- 1) Understand the need to control air pollutants
- 2) Apply different methods of pollution control and reduce the level of pollutant intensity in atmosphere.
- 3) Measure and analyze the air pollutants concentration in the atmosphere.

UNIT-I

Air Pollution: Introduction, Sources and Classification of Air Pollutants, Meteorology and Air Pollution, Industrial Plant Location and City Planning.

UNIT-II

Effects of Air Pollution on Human Health, Effects of Air Pollution on Animals, Effects of Air Pollution on Plants, Economic Effects of Air Pollution.

UNIT-III

Air Pollution Sampling and Measurement: Types of Pollutant Sampling and Measurement, Ambient Air Sampling, Stack Sampling, Analysis of Air Pollutants.

UNIT-IV

Air Pollution Control Methods and Equipment: Control Methods, Source Correction Methods, Cleaning of Gaseous Effluents, Particulate Emission Control, Selection of a Particulate Collector, Control of Gaseous Emissions.

UNIT-V

Control of Specific Gaseous Pollutants: Control of Sulphur Dioxide Emission, Control of Nitrogen Oxides, Carbon Monoxide Control, Control of Hydrocarbons, Mobile Sources, Air Quality and Emission Standards.

TEXT BOOKS :

1. M.N.Rao, H.V.N. Rao, "*Air Pollution*" Tata McGraw Hill Education Private Ltd., New Delhi, 2003.
2. C.S. Rao, "*Environmental Pollution Control Engineering*", 2nd Edition, New Age International Publishers, New Delhi, 2006.

REFERENCES:

1. Mahajan S.P, "*Pollution Control in Process Industries*", Tata McGraw Hill Education Private Ltd., New Delhi, 2004.
2. Murali Krishna K.V.S.G., "*Air Pollution and Control*", Kaushal Co, Environmental Protection Society, Kakinada, India, 1995.
