

**INDIAN INSTITUTE OF TECHNOLOGY TIRUPATI**  
**PROFORMA FOR NEW COURSE**

1.	Title of the Course	Air Pollution Control Engineering
2.	Course Number	CE5105
3.	Status of the Course	Core
4.	Structure of Credits	3-0-0-3
5.	Offered To	PG
6.	New Course/Modification to	New
7.	To be Offered by	Department of Civil & Environmental Engineering
8.	To take effect from	July 2019
9.	Prerequisite	Nil
10.	Whether approved by the Department	Yes
11.	<b>Course Objective:</b> The objectives of the course are: To learn sources of air pollution, pathways (air pollutants transformation and transport) and receptors and its control. To learn the transport mechanisms and dispersion of air pollutants in the atmosphere. To identify the pollutants and their sources and then the followed by its impact and their control mechanisms.	
12.	<b>Course Content:</b> Air-pollution-definition, sources — Introduction to air pollution, types, sources & classification of air pollutants and air pollution effects; Air pollution monitoring, standards and regulations— ambient air quality monitoring techniques, air pollution indices, standards, norms, rules and regulations and air quality management plan; Air pollution meteorology; Dynamics of pollutant dispersion and disposal — chemical and physical processes that transform and transport pollutants in the atmosphere, Gaussian plume models; Air pollution control and removal— Engineering control concepts and process of pollutants' removal and disposal, control devices and systems; Indoor air pollution — indoor air pollution, types of pollutants, sources & classification and their effects.	
13.	Text book(s): 1. Work K, Warner C F and Davis W T, <i>Air Pollution: Its Origin and Control</i> , Pearson (1998). 2. de Nevers N, <i>Air Pollution Control Engineering</i> , McGraw Hill (2000).	
14.	Reference(s): 1. Seinfeld J H and Pandis S N, <i>Atmospheric Chemistry and Physics: From Air Pollution to Climate Change</i> , Wiley (1998). 2. Turner D B, <i>Workbook of Atmospheric Dispersion Estimates</i> , CRC Press (1994). 3. Lodge J P, <i>Methods of Air Sampling and Analysis</i> , CRC Press (1988).	