

1.	Title of the course	Earthquake and Wind Engineering
2.	Course number	CE520L
3.	Structure of credits	3-0-0-3
4.	Offered to	PG
5.	New course/modification to	Modification To CE5028/8
6.	To be offered by	Department of Civil and Environmental Engineering
7.	To take effect from	July 2022
8.	Prerequisite	CoT
9.	Course Objective(s): This course will introduce the aspects of structural design with regard to earthquake and wind loads. The course will cover various design strategies such as force and displacement based design, capacity based design and performance based design. The course will also provide an overview of the nonlinear static and dynamic analysis of structures.	
10.	Course Content: This course will introduce the aspects of structural design with regard to earthquake and wind loads. The course will cover various design strategies such as force and displacement based design, capacity based design and performance based design. The course will also provide an overview of the nonlinear static and dynamic analysis of structures.	
11.	Textbook(s): 1. Ghosh S K and Fanella D A, <i>Seismic and Wind Design of Concrete Building</i> , International Code Council-New York (2004). 2. Taranath B S, <i>Wind and Earthquake Resistant Buildings: Structural Analysis and Design</i> , Marcel Dekker, New York (2004).	
12.	Reference(s): 1. Datta T K, <i>Seismic Analysis of Structures</i> , John Wiley & Sons, New York (2010). 2. IS 1893-Part-I, <i>Criteria for Earthquake Resistant Design of Structures: General Provisions and Buildings</i> , Bureau of Indian Standards, New Delhi (2016).	