

No.	Information on Structure III	
1.	Unit Name: Theory of Structures III	
2.	Code: CE- 51013	
3.	Classification: Engineering Subject	
4.	Credit Hour: 3	
5.	Semester and Year Tought:1/6	
6.	Pre- requisite (if any):CE-41013	
7.	Method of Delivery: classwork, assignment& presentation	
8.	Assessment System and Breakdown of Marks	
	Tutorial / Assignment	30%
	Final Examination	70%
	Total	100%
9.	Teaching Staff	
10.	<p>Objective of Unit:</p> <p>The main aim of this subject is to understand basic concept and understanding of the influence lines for statically indetermination structures, finite elements method, and structural dynamics, force method of analysis, displacement method and analysis of shear wall structure.</p>	
11.	<p>Learning Outcome of Unit</p> <p>At the end of the unit, a student shall be able to:</p> <ol style="list-style-type: none"> 1. Describe basic concept and understanding of the behavior of structures 2. Calculate the influence lines for statically indeterminate structures 3. Compute finite element method, structural dynamics, force method and displacement method 	
12.	<p>Synopsis</p> <p>The main aim of this subject is to understand basic concept and understanding of the influence lines for statically indetermination structures, finite elements method, and structural dynamics, force method of analysis, displacement method and analysis of shear wall structure.</p>	
13.	<p>Chapter 1. Influence Line</p> <p>Influence line by successive positive position of unit load, muller-breslau's principle for obtaining influence lines</p> <p>Chapter 2. Finite element method</p> <p>Introduction, finite element procedure, choice of displacement function, derivation of the stiffness matrix for a spring element, assembling the total stiffness matrix by superposition</p>	

	<p>Chapter 3. Structural dynamics Introduction, coordinates and lumped masses, undamped free vibration of a system with one degree of freedom, response of a single-degree-of-freedom system, viscously damped vibration of a single-degree-of-freedom system, undamped free vibration of a multidegree-of-freedom system, response of structures of earthquakes</p> <p>Chapter 4. Computer Analysis Flow chart for matrix stiffness method</p> <p>Chapter 5. Statically Determinate Structure Introduction, coordinates and lumped masses, undamped free vibration of a system with one degree of freedom, response of a single-degree-of-freedom system, viscously damped vibration of a single-degree-of-freedom system, undamped free vibration of a multidegree-of-freedom system, response of structures of earthquakes</p> <p>Chapter 6. Displacement method Introduction, describe of method, deflection of continuous beam, five steps of force method</p> <p>Chapter 7. Displacement method Introduction, description of method, five steps of force method</p> <p>Chapter 8. Analysis of shear wall structure Introduction, stiffness of a shear-wall element, stiffness matrix of a beam with rigid end parts, simplified approximate analysis of a building as a plane structure, shear wall with openings</p>
14.	<p>Main References:</p> <ol style="list-style-type: none"> 1. ETABS Software 2. Structural Analysis by U Nyi Hla Nge