



Lectures of the Department of Civil Engineering

Subject Title:- Theory of Structures Class:-Third Class

	Lecture sequences	First lecture	ture Instructor No.	
Lecture Contents	The major content 1- Introduction	S:		
	The detailed contents: 1- Introduction 2-Stability and determinacy of structures 3-Statically determinate beams 4-Statically determinate trusses 5-Statically determinate rigid frames and composite stru 6-Approximate analysis for statically indeterminate stru			

	Lecture sequences	Second lecture	Instructor Dr.Od	
Lecture Contents	The major content 1- Introduction	S:		
	The detailed contents: 1- Introduction 2-Stability and determinacy of structures 3-Statically determinate beams 4-Statically determinate trusses 5-Statically determinate rigid frames and composite stru 6-Approximate analysis for statically indeterminate struc			

	Lecture sequences	Third lecture	Instructor Dr.Od	
	The major content 1- Introduction	S:		
Lecture Contents	The detailed contents: 1 - Stability and determinacy of structures • Statically determinate beams • Statically determinate trusses • Statically determinate rigid frames and composite structures • Approximate analysis for statically indeterminate structures • Elastic deformation of structures, conjugate-beam method • Method of virtual work (unite-load method) • Castigliano's first theorem • Analysis of statically indeterminate beam by the me of consistent deformations			

	Lecture sequences	Fourth lecture	Instructor Name: Dr.Oday
Lecture Contents	by the method of con	ally indeterminate riginsistent deformations	d frames and trusses
	 Analysis of staturusses by the structures by the structures by the Analysis of staturus of staturus structures without method Analysis of staturus of staturus structures of staturus structures by the structure structure structures by the structure structure structure structures of staturus structures stru	atically indeterminate method of least work atically indeterminate the method of least wo atically indeterminate to joint translation by the trically indeterminate at joint translation by the slope-deflection metiffness, distribution for	rigid frames and composite rk beams and rigid he slope-deflection rigid frames with om of joint hethod

	Lecture sequences	fifth lecture	Instructor N Dr.Oda	
Lecture Contents	The major content 1- Analysis of statical by the method of content 1 Analysis of statical least work • Analysis of stat trusses by the • Analysis of stat structures by th • Analysis of stat	ally indeterminate riginsistent deformations	n by the methorigid frames are composite rk	od of and
	 Analysis of state one, two and set translation by 	atically indeterminater everal degree of freedo the slope-deflection m stiffness, distribution f al	om of joint nethod	ith

	Lecture sequences	sixth lecture	Instructor Dr.Od		
	The major content 1- The process of loc	s: cking and unlocking :c	one joint		
Lecture Contents	 The detailed contents: 1- The process of locking and unlocking :two joint Analysis of statically indeterminate rigid frames with one degree of freedom of joint translation by momen distribution Analysis of statically indeterminate rigid frames with two degree of freedom of joint translation by momen distribution Analysis of statically indeterminate rigid frames with several degree of freedom of joint translation by mor distribution Influence line for statically determinate structures Moving concentrated loads: criteria for maxima 				

	Lecture sequences	seventh lecture	Instructor Dr.Od		
Lecture Contents					
	Maxwell's law • Influence lines Breslau princi	m bending moment for statically indeterm v, Betti's law s as deflected structure	es: the Muller	-	