Plastic Design and Analysis of Steel Structures

2019 Spring

철골소성학

강의 개요:

강구조의 소성설계를 위한 하한계 및 상한계 기법을 소개한다. 소성힌지 개념을 소개하고 골조의 하한계 및 상한계의 해를 위해 가상일법을 이용한다. equilibrium system과 displacement system의 이해가 강의 주요 개념에 기초가 된다.

This course provides the basic concepts of the limit theorem for plastic design of steel structures. The virtual work method is a primary tool/concept to deal with these solutions. This technique covers the understanding of equilibrium systems and displacement systems to estimate the ultimate load at the limit state of steel frames.

Text book: Plastic Design and second-order Analysis of Steel Structures by W. F. Chen and I. Sohal

week	date	content	homework
1	3/4, 3/6	introduction	HW #1
2	3/11-3/13	Plastic hinges	HW #2
3	3/18-3/20	Plastic hinges	HW #3
4	3/25-3/27	Virtual work method	HW #4
5	4/1-4/3	Equilibrium	HW #5
6	4/8-4/10	Equilibrium	HW #6
7	4/15-4/17	Equilibrium	HW #7
8	4/22-4/24	**Midterm**	
9	4/29-5/1	Work method	HW #8
10	5/8	Work method	HW #9
11	5/13-5/15	Work method	HW #10
12	5/20-5/22	deflection	HW #11
13	6/3-6/5	deflection	HW #12
14	6/10-6/12	Matrix	HW #13
15	6/17	**final**	