Experiment Project Documentation

Introduction

This document captures the technical details related to the experiment development.

Project

Domain Name : Computer Science & Engineering
Lab Name : Basic Structural Analysis
Experiment Name : Plates

A plate is a flat structural element for which the thickness is small compared with the surface dimensions. The thickness is usually constant but may be variable and is measured normal to the middle surface of the plate.

Plates subjected only to in-plane loading can be solved using two-dimensional plane stress theory. On the other hand, plate theory is concerned mainly with lateral loading. One of the differences between plane stress and plate theory is that in the plate theory the stress components are allowed to vary through the thickness of the plate, so that there can be bending moments.

Purpose of the project

The purpose of the project is to convert the **Plates** experiment simulation to **Javascript**.

Project Developers Details

S.NO	Name	Year of Study	Role	Email-ID	github handles
1.	Shubham Agarwal	2019	Intern	agarwalpshubham1998@gmail.com	shubhamagarwal1998

Technologies and Libraries

Technologies :
1. HTML
2. CSS
3. Javascript

Libraries :

None used

Development Environment

OS : <<Windows, LINUX so on...>>
Bandwidth: <<100Mbps>>

Documents :

S.NO	Link to Document	Role
1.	Procedure	This document captures the instructions to run the simulations
2.	Test Cases	This document captures the functional test cases of the experiment simulation
3.	Code Documentation	This document captures the details related to code

Process followed to convert the experiment

1. Understand the assigned experiment Java simulation
2. Understanding the experiment concept
3. Re-implement the same in javascript

Value Added by our Project

1. It would be beneficial for engineering students
2. Highly beneficial for students who can use this to learn the concept behind structure of plates when subjected to stress and strain.