



Module PMRF-ISSS035/2025

Basic Concepts in Structural Dynamics: A Focus on SDOF Systems

Name of the PMRF student

Sukanya Karmakar

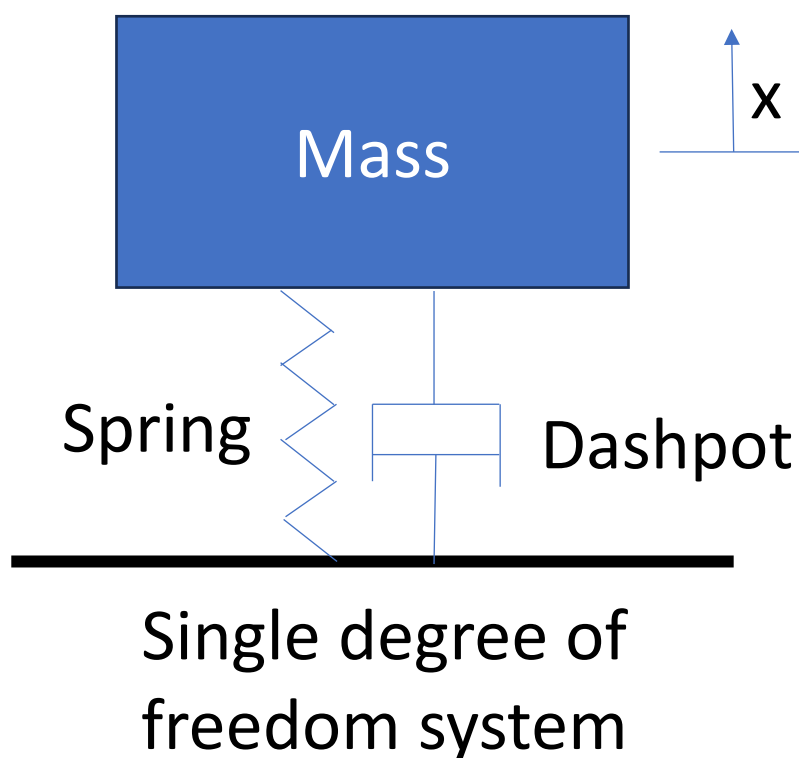
Required background of the students taught

Civil Engineering
Mechanical Engineering
Aerospace Engineering

Details of the content of the module

1. What is structural dynamics ?
2. Free vibration: Undamped and damped
3. Forced Vibration: Response to harmonic excitation
4. Response to arbitrary, step and pulse excitation
5. Numerical evaluation of dynamic response

This short course offers a foundational understanding of structural dynamics through the lens of single degree of freedom (SDOF) systems. The course features structured, recorded video lectures where key concepts are clearly explained, fundamental equations are derived step by step, and coding is introduced to evaluate dynamic response of SDOF system.



Schedule of the module

Start Date: 24 April 2025

End Date: 29 April 2025 (Tentative)

Schedule: Recorded videos of 2 hours everyday

Number of lectures: 6

Duration: Total ~12 hours

Meeting link : Will be shared later

[Link](#)

Contact email ID: issf.forum@gmail.com

Registration link:

<https://forms.gle/nKkTEXBTftVy2UsN9>