

## PMRF-ISSS Teaching Programme

Prime Minister Research Fellowship students' teaching requirement facilitated by the Institute of Smart Structures and Systems



Module PMRF-ISSS140/2024

# Structural Reliability

Name of the PMRF student

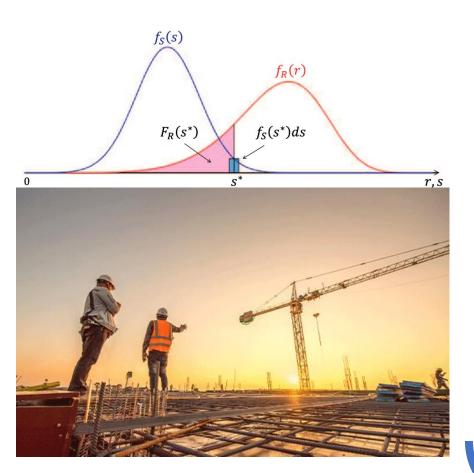
### Details of the content of the module

## Trisha Chakravorty

#### Required background of the students taught

Basic knowledge of probability and statistics required.

Application aimed at civil engineering but other students of structural engineering may also benefit.



The course will introduce the topic of reliability applied to structural engineering. Problems will be solved where required to demonstrate methods. Topics to be covered:

- 1. Review of probability theory
- 2. Defining limit state function and deriving partial safety factors
- 3. Simulation methods for studying reliability (special emphasis on Monte Carlo methods)
- 4. Second moment and transformation methods for studying reliability
- 5. System reliability

#### Schedule of the module

**Start Date:** September 18, 2024

End Date: October 3, 2024

**Total Duration:** 12 hours

Class Schedule: Wednesday and Thursday

Class Timings: 7 pm to 9 pm

Meeting link: Will be shared later

Link

Contact email ID: trishac@iisc.ac.in

Registration link:

https://forms.gle/3Ba3BblsGiFlCv2W8

