PMRF-ISSS Teaching Programme

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

Module PMRF-ISSS027

Probability Theory

Name of the PMRF student

Vamshi Kumar Kurva

Required background of the students taught

EC, EE, CS

Online session coordinator

Will be chosen from the list of registrants

Details of the content of the module

1. Pre-requisites, Sets, functions, push forward and push back maps, sample and event spaces
2. Sigma algebra, Probability function, axioms, properties
3. Independence, Law of total probability, Bayes theorem
4. Random variable, distribution, discrete and continuous random variables
5. Statistics of random variables, expectation, variance, moments, transformation of Random variables
6. Various standard distributions and their statistics
7. Random vectors, Joint, Marginal and conditional distributions
8. Conditional expectation
9. Generating functions
10. Markov, Chebyshev inequalities, convex function and Jensen inequality

Schedule of the module

Start date: 17th August 2022

Class time: Wednesday, 6.00-7:30pm (IST)

Last date: 26th October 2002 (Tentative)

Number of hours: 15

Meeting link : Will be shared later

Link

Contact email ID: isss.forum@gmail.com

Registration link:
https://forms.gle/33GYGdXerxdyjQNT7