PMRF-ISSS Teaching Programme

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

Module PMRF-ISSS016/II/2023

Detection and Estimation Theory

Name of the PMRF student

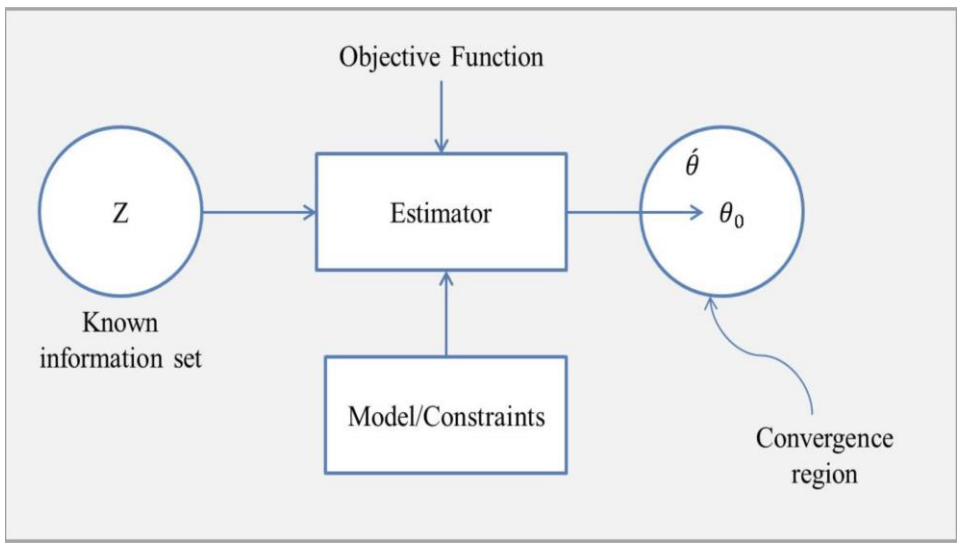
Jashaswini Bhuyan, IISc Bangalore

Required background of the students taught

4th year UG and PG students from Electronics and Communication Engineering Background

Online session coordinator

Will be chosen from the list of registrants



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Details of the content of the module

1. Probability Theory Basics
2. Binary Hypothesis Testing
3. Multiple Hypothesis Testing
4. Composite Hypothesis Testing
5. Sequential Detection
6. Bayesian Parameter Estimation
7. Minimum Variance Unbiased Estimation
8. Cramer Rao Lower Bound
9. Maximum Likelihood Estimation
10. Linear Least Square Estimation
11. Kalman Filter (tentative)

Schedule of the module

Start Date: 10.09.23. End Date: 25.02.24. (tentative)

Timings: Sunday: 3.00 pm- 5.00 pm

Recorded lectures will be uploaded regularly. (40 hrs)

Live problem solving sessions will be taken. (10 hrs)

Number of hours: 50 hours

Meeting link : Will be shared later

Link

Contact email ID: isss.forum@gmail.com

Registration link: here

https://forms.gle/mYmjbECSb6u28u54A