



Module PMRF-ISSS050/2023

A First course in Optimization

Name of the PMRF student

Yashvanth L.

Required background of the students taught

Any Engineering discipline is welcome!

The relevant prerequisites will be introduced as and when required.

Details of the content of the module

1. Basics of Unconstrained and Constrained Optimization (10 hours)
2. Convex Optimization Theory (4 hours)
3. Optimization Algorithms – Line Search, Gradient descent, Conjugate gradient, Newton's methods, etc. (5 hours)
4. Applications of optimization: Statistics and Estimation Theory, Radar Applications, Communication Systems, Machine Learning (6 hours)

Each module above will cover the basics, theory, and problem-solving sessions. The applications module will discuss problems in cutting-edge technologies and solutions to them via optimization theory.

Schedule of the module

Starting Date: October 10, 2023

End Date: November 25, 2023

Lectures hours:

Every Tuesday and Friday: 18:00 – 20:00 hrs (2 hours)

Total Lecture hours: 25 hours

Meeting link : Will be shared later

[Link](#)

Contact email ID: issf.forum@gmail.com

Registration link:

<https://forms.gle/X4jZdMEmfZWfkGnK9>

