



Module PMRF-ISSS021/2022

Optimization Methods

Name of the PMRF student

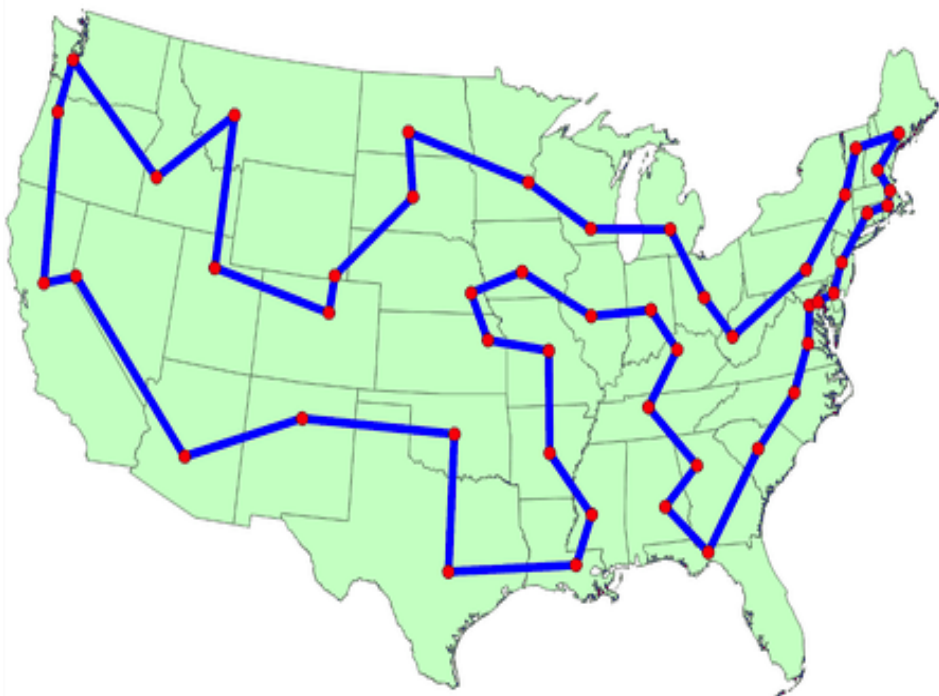
Rito Brata Nath

Required background of the students taught

All Engineering Streams
Basic level course for UG and PG students
interested in pursuing a research career in
Optimization
Prerequisites: Basics of Linear Algebra and
Calculus

Online session coordinator

Will be chosen from the list of registrants



Schedule of the module

Start date: August 4, 2022

Lecture days: Every Thursday, 7:00pm-8:30pm (IST)

Total duration of the course: 16 weeks

Total number of hours: 24

End date: November 17, 2022 (tentatively)

Details of the content of the module

Week 1: Introduction, Motivation, Challenges

Week 2 & 3: Linear Programming

Week 4: Single-variable Optimization

Week 5 & 6: Mixed Integer Programming

Week 7: The Knapsack Problem

Week 8: Problem solving, discussions and
doubt-clearing

Week 9 & 10: Constraint Programming

Week 11 & 12: Local Search

Week 13 & 14: Genetic Algorithms

Week 15: Advanced Topics/ Doubt-clearing

Week 16: Applications, Discussions, Summary

In addition to the dedicated 1-2 problem-solving sessions, the lectures will be interactive and dedicated time will be kept for doubt-clearing in every class.

Meeting link : Will be shared later

Contact email ID: iss.forum@gmail.com

Registration link:

<https://forms.gle/9sWVWPngFSQJeKm1A>