NiT

Beyond Curriculum Training
On

" Convex Optimization "

Date: 01/02/2021 to 12/02/2021

Organized by

Narula Institute of Technology

81, Nilgunj Road, Agarpara,

Kolkata – 700 109

Training Overview

This course includes convex sets, convex functions, optimization problems, least-squares, linear and quadratic programs, semidefinite programming, optimality conditions, and duality theory.

Training Objective

To provide the tools and training to recognize convex optimization problems that arise in scientific and engineering applications, presenting the basic theory, and concentrating on modeling aspects and results that are useful in applications.

Course Content

Introduction
Convex sets
Convex functions
Convex optimization problems
Duality
Approximation and fitting
Statistical estimation
Geometric problems
Filter design
Convex optimization examples

Course Outcomes

After completion of this course students will be able to
  1. Recognize formulate problems as convex optimization problems
  2. Develop code for problems of moderate size
  3. Characterize optimal solutions, give limits of performance, etc.

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