



BHASKARACHARYA
PRATISHTHANA PUNE

Centre for Industrial Mathematics

A two-day workshop on “Solving Complex Problems Using Machine Learning and Optimization”

Dates 24 & 25 Jan 2025 (Fri & Sat)

Background: Industry problems could be addressed using industrial and computational mathematics. Today it is data science, Machine learning and Optimization which can address almost any complex problem. Machine Learning and Optimization have been deployed in many industry applications. Artificial intelligence (AI) is the key driving factor to solve many such problems effectively. Therefore, a two-day workshop is organised by the Centre for Industrial Mathematics (CIM), Bhaskaracharya Pratishthana, Pune.

About Bhaskaracharya Pratishthana: Bhaskaracharya Pratishthana is an Educational and Research Institute in Mathematics, established in 1976. It is located off Law College Road, Pune 411004. For more details, please visit www.bprim.org. The Centre for Industrial Mathematics was established in 2021, in order to address industry problems using mathematics and data science.

Eligibility: A graduate degree in Science, Technology, or Engineering with a basic background in mathematics. Participants could be from Industry or universities/colleges.

REGISTRATION: Registration shall be using the Google form

<https://forms.gle/4haBKAYVaKAk5Q6EA>

Registration Fees INR 2000/- (Rs. Two thousand only)

and the fees shall be paid at the Bhaskaracharya Pratishthana, website ONLINE at the link

<https://www.bprim.org/index.php/bank-details>

Tentative schedule:

Day 1 (January 24, 2025)	Time	Speaker
Mathematical Preliminaries	10:00 am to 11:00 am	Prof. S. A. Katre
Basics of Machine Learning	11:00 am to 12:00 noon	
Basics of Optimization	12:15 pm to 01:30 pm	Vaishali Kolhatkar
Hands-on for Machine Learning using Python	02:30 pm to 05:00 pm	Pavan Dodya
Hands-on for Optimization using Python		
Day 2 (January 25, 2025)		
Cost Reduction	10:00 am to 11:00 am	Ajay Deshmukh and Pavan Dodya Parineeta Kelkar
Product Differentiation	11:00 am to 12:00 noon	
Optimal Production	12:15 pm to 01:15 pm	
Work Flow Management	02:00 pm to 03:00 pm	
Examples from Manufacturing and Process Industries	03:30 pm to 05:00 pm	
Venue: AV Hall, Bhaskaracharya Pratishthana Pune.		