SUMMER TRAINING
On
MACHINE LEARNING & ITS APPLICATIONS

Machine learning is the science of getting computers to act without being explicitly programmed. In the past decade, machine learning has given us self-driving cars, practical speech recognition, effective web search, and a vastly improved understanding of the human genome. Machine learning is so pervasive today that you probably use it dozens of times a day without knowing it. Many researchers also think it is the best way to make progress towards human-level AI. In this class, you will learn about the most effective machine learning techniques, and gain practice implementing them and getting them to work for yourself. More importantly, you'll learn about not only the theoretical underpinnings of learning, but also gain the practical know-how needed to quickly and powerfully apply these techniques to new problems

This course provides a broad introduction to machine learning, data mining, and statistical pattern recognition. Topics include: (i) Supervised learning (parametric/non-parametric algorithms, support vector machines, kernels, neural networks). (ii) Unsupervised learning (clustering, recommender systems). (iii) Best practices in machine learning (bias/variance theory; innovation process in machine learning and AI). The course will also draw from numerous case studies and applications, so that you'll also learn how to apply learning algorithms to real world problems like computer vision, audio, database mining, and other areas. At the end of the course, candidate should be able to conceptualize & design the approach for the data analysis problems.

DURATION: 6 WEEKS (3 hrs a day, 1 hr Theory Class followed by 2 hrs practical session)

FEE: RS. 7360/- Normal Fee, BYOD Fee(Bring Your Own Device): Rs.6860/- can be paid in cash/debit card at CDAC, Mohali during office hours or through Demand Draft drawn in favour of "Director CDAC", payable at Mohali

ELIGIBILITY: B.E / B.TECH. 2nd OR 3rd YEAR STUDENTS

COURSE CONTENTS

1. Introduction to Machine Learning
2. Linear Algebra
3. Introduction to R
4. Regression
5. Applying Machine Learning and performance measures
6. Classification
7. Classification : Neural Networks
8. Regularization
9. Classification : Support Vector Machines
10. Clustering
11. Application Example: Photo OCR

HOW TO APPLY: For Admission, submit your College reference/training letter, admission form (download from www.cdac.in) along with full fee at CDAC, A-34, Phase 8, Industrial Area, Mohali .

NOTE:

- **Seats are limited and admission is on first come first serve basis.**
- **75% attendance is must for award of certificate.**