GURU NANAK DEV ENGINEERING COLLEGE, LUDHIANA
Departmentof ComputerScience and Engineering

Ref. No.: CSE/1024   Dated: 18/01/24

<u>NOTICE</u>

A "Value Added Course" is being organized for B.Tech (CSE) students from 20th January, 2024 onwards.

Details are as follows:

Title: "Data-Driven Intelligence: Techniques and Applications"

Session: Jan-June 2024

Mode: Online

Contents to be covered: Annexure Attached

Link for Registration: https://forms.gle/7iTvWxnoEthJJ3YR7

Expert: Mr. Shivam Gupta, IIT Ropar

For more information students may contact Prof. Supreet Kaur Assistant Professor, CSE Department

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HOD (CSE)

CC: Department Website
Office Copy
Department Notice Board
Prof. Supreet Kaur

Annexure

Data-Driven Intelligence: Techniques and Applications Course Layout

Duration: 1.5-hour lecture per week
Instructor: Shivam Gupta, Ph.D. Research Scholar, IIT Ropar, Punjab, India.
https://web2geeks.in

Week	Topic	Lecture/ Lab
1	Types of Learning: What and Why?	Lecture
2	Confusion Matrix and related concepts	Lecture
3	Bias and Variance Trade-off	Lecture
4	Decision Tree	Lecture
5	Decision Tree Hands-on	Lab
6	Linear Regression & Linear Classifier	Lecture
7	Kernel Machines & SVM	Lecture
8	Linear Regression & SVM	Lab
9	Unsupervised Learning: Clustering	Lecture
10	EM algorithm & Gaussian Mixture Models	Lecture
11	Centroid Clustering from scratch	Lab
12	Hierarchical Clustering	Lecture
13	Perceptron	Lecture
14	Multi-Layer Perceptron (MLP)	Lecture
15	Convolutional Neural Network (CNN)	Lecture
16	CNN Architecture: LeNet Training	Lab
17	Bayesian Learning	Lecture
18	Bayesian Learning Continued	Lecture

Table 1: Data-Driven Intelligence: Techniques and Applications week-wise course layout.