DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING (Networks)
KAKATIYA INSTITUTE OF TECHNOLOGY & SCIENCE, WARANGAL
(An Autonomous Institute under Kakatiya University, Warangal)

Tutorial -6 (UNIT – II)

Course code - Name	U18AI506 MACHINE LEARNING	Branch- section	5CSM2
Tutorial Sheet posted in CourseWeb on	21-07-2024	Tutorial class scheduled on	26-08-2024 & 30-08-2024
Topics covered	Support Vector Machines		

Tutorial No.	Problem No	Tutorial Problem	CO	CDLL
T-6	1	Design a scenario where PCA can be applied effectively to address a specific problem in a real-world application	CO2	Ap
	2	You have a dataset with 1,000 instances and 50 features. Apply PCA to determine the optimal number of principal components to retain, balancing the need for dimensionality reduction and preserving the information in the data	CO2	Ap
	3	Given a dataset with multiple features, Describe the step-by-step process of applying the PCA algorithm to reduce the dimensionality of the data.	CO2	Ap
	4	Given a dataset with multiple features, Describe the step-by-step process of applying the ICA algorithm to reduce the dimensionality of the data.	CO2	Ap
	5	Given a dataset with multiple features Describe the step-by-step process of applying the LDA algorithm to reduce the dimensionality of the data.	CO2	Ap
	6	Compare and contrast PCA with other dimensionality reduction techniques, such as LDA and ICA, in terms of their underlying principles, applications, and limitations.	CO2	An

Prepared by:
Smt.R.Swetha
Assistant Professor
Dept. of CSE(AIML)
Dept. of CSE-N