

DEPARTMENT OF COMPUTER SCIENCE & DESIGN

Lesson Plan & Work-done Diary for AY:2025-26, EVEN Semester

Course with Code: Machine Learning				Faculty: Dr. Pavithra A C			Semester & Section: 6 th	
Module	Class No.	Date planned (DD/MM)	Topics to be covered	TLP Planned	Date of Conduction (DD/MM)	Topics Covered	TLP Executed	Remarks if any deviation
MODULE 1	1		Introduction: Need for Machine Learning	Chalk and Talk			Chalk and Talk	
	2		Machine Learning Explained, Machine Learning in Relation to other Fields					
	3		Types of Machine Learning, Challenges of Machine Learning, Machine Learning Process,					
	4		Machine Learning Applications.					
	5		Understanding Data-1: Introduction					
	6		Big Data Analysis Framework,					
	7		Descriptive Statistics					
	8		Univariate Data Analysis and Visualization. Bivariate Data and Multivariate Data					

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MODULE-2	9		Understanding Data – 2: Multivariate Statistics,	Chalk and Talk				
	10		Essential Mathematics for Multivariate Data					
	11		Overview of Hypothesis					
	12		Feature Engineering and Dimensionality Reduction Techniques.					
	13		Basic Learning Theory: Introduction to Learning and its Types					
	14		Introduction to Computation Learning Theory					
	15		Design of a Learning System, Modelling in Machine Learning.					
	16		Introduction to Concept Learning, Induction Biases					

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MODULE-3	17		Similarity-based Learning: Introduction to Similarity or Instance-based Learning	Power Point Presentation (PPT) With projection				
	18		Nearest-Neighbour Learning					
	19		Weighted K-Nearest-Neighbour Algorithm					
	20		Locally Weighted Regression (LWR).					
	21		Regression Analysis: Introduction to Regression, Introduction to Linearity,					
	22		Correlation, and Causation,					
	23		Introduction to Linear Regression, Validation of Regression Methods					
	24		Multiple Linear Regression, Polynomial Regression, Logistic Regression.					

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MODULE-4	25		Models Based on Decision Trees: Introduction to Decision Tree, Decision Tree for Classification,	Power Point Presentation (PPT) With projection				
	26		Impurity Measures for Decision Tree Construction					
	27		Properties of Decision Tree Classifier (DTC),					
	28		Applications in Breast Cancer Data					
	29		Regression Based on Decision Tress					
	30		Bayesian Learning: Introduction to Probability-based Learning					
	31		Fundamentals of Bayes Theorem					
	32		Classification Using Bayes Model					



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MODULE-5	33		Clustering: Introduction to Clustering	Power Point Presentation (PPT) With projection				
	34		Clustering of Patterns					
	35		Divisive Clustering					
	36		Agglomerative Clustering					
	37		Partitional Clustering.					
	38		Reinforcement Learning: Overview and Scope of Reinforcement Learning					
	39		Overview and Scope of Reinforcement Learning					
	40		Components of Reinforcement Learning, Q-Learning					

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	Activity	Planned	Actual	Remarks
1	Theory Classes	40		
2	Assignments/Quizzes/ Self study	3/3		
3	Tutorials/ Extra classes	0		
4	Internal Assessments	3		
5	ICT based Teaching (% of usage in Curriculum)	40		
Planning			Execution	
Faculty Signature: Dr. Pavithra A C			Faculty Signature: Dr. Pavithra A C	
HoD Signature:			HoD Signature:	