

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING - AI & ML

Lesson Plan & Work done Diary for AY: 2026-27 Odd Semester

Course with Code: DEEP LEARNING – BCA701					Faculty: Dr. Uma Mahesh R N		Semester & Section: VII 'A'	
Module	Class No.	Date planned (DD/MM)	Topics to be covered	TLP Planned	Date of Conduction (DD/MCS)	Topics Covered	TLP Executed	Remarks if any deviation
MODULE-1	1		Introduction: What is a Neural Network?	PPT + Chalk & Board				
	2		The Human Brain, Models of a Neuron	PPT + Chalk & Board				
	3		Neural Networks Viewed As Directed Graphs, Feedback	PPT + Chalk & Board				
	4		Network Architectures, Rosenblatt's Perceptron: Introduction	PPT + Chalk & Board				
	5		Perceptron, The Perceptron Convergence Theorem	PPT + Chalk & Board				
	6		Perceptron, The Perceptron Convergence Theorem Contd..	PPT + Chalk & Board				
	7		Relation Between the Perceptron and Bayes Classifier for a Gaussian Environment.	PPT + Chalk & Board				
	8		Relation Between the Perceptron and Bayes Classifier for a Gaussian Environment contd...	PPT + Chalk & Board				

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MODULE-2	9		Multilayer Perceptrons: Introduction	PPT + Chalk & Board				
	10		Batch Learning and On-Line Learning	PPT + Chalk & Board				
	11		The Back-Propagation Algorithm, XOR Problem	PPT + Chalk & Board				
	12		XOR Problem Contd..	PPT + Chalk & Board				
	13		Heuristics for Making the Back- Propagation Algorithm Perform Better	PPT + Chalk & Board				
	14		Heuristics for Making the Back- Propagation Algorithm Perform Better Contd..	PPT + Chalk & Board				
	15		Back Propagation and Differentiation	PPT + Chalk & Board				
	16		Back Propagation and Differentiation Contd..	PPT + Chalk & Board				

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MODULE-3	17		Regularization for Deep Learning: Parameter Norm Penalties - L2 Parameter Regularization	PPT + Chalk & Board				
	18		Dataset Augmentation	PPT + Chalk & Board				
	19		Semi-Supervised Learning	PPT + Chalk & Board				
	20		Optimization for Training Deep Models: Challenges in Neural Network Optimization – Ill Conditioning	PPT + Chalk & Board				
	21		Optimization for Training Deep Models: Challenges in Neural Network Optimization – Ill Conditioning Contd.	PPT + Chalk & Board				
	22		Local Minima, Plateaus	PPT + Chalk & Board				
	23		Saddle Points and Other Flat Regions.	PPT + Chalk & Board				
	24		Saddle Points and Other Flat Regions Contd..	PPT + Chalk & Board				

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MODULE-4	25		Convolution neural networks: The Convolution Operation	PPT + Chalk & Board				
	26		Motivation, Pooling	PPT + Chalk & Board				
	27		Convolution and Pooling as an Infinitely Strong Prior	PPT + Chalk & Board				
	28		Variants of the Basic Convolution Function,	PPT + Chalk & Board				
	29		Structured Outputs, Data Types	PPT + Chalk & Board				
	30		Efficient Convolution Algorithms	PPT + Chalk & Board				
	31		Convolutional Networks and the History of Deep Learning.	PPT + Chalk & Board				
	32		Convolutional Networks and the History of Deep Learning Contd.	PPT + Chalk & Board				

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MODULE-5	33		Sequence Modeling: Recurrent and Recursive Nets	PPT + Chalk & Board				
	34		Unfolding Computational Graphs	PPT + Chalk & Board				
	35		Recurrent Neural Networks	PPT + Chalk & Board				
	36		Bidirectional RNNs, Encoder-Decoder Sequence-to- Sequence Architectures	PPT + Chalk & Board				
	37		Deep Recurrent Networks	PPT + Chalk & Board				
	38		Recursive Neural Networks	PPT + Chalk & Board				
	39		Recursive Neural Networks Contd..	PPT + Chalk & Board				
	40		The Long Short-Term Memory and Other Gated RNNs	PPT + Chalk & Board				