

Department of CSE&IT

AY: 2022-23 (ODD Semester)

Lecture Plan

Programme Name: M.Tech (CSE and AI & ML)

Semester: 1st

Course Name & Code: Advances in AI (21M71CS112)

Topic Covered	Scheduled date	Actual date	Teaching Mode
Introduction of AI, introduction of Machine Learning	23/08/2022	23/08/2022	BB/PPT
Significance of AI and ML, Application areas	24/08/2022	24/08/2022	BB/PPT
Model pipelining	25/08/2022	25/08/2022	BB/PPT
Matrices and its operations	06/09/2022	06/09/2022	BB/PPT
Overview of probability theory, Bayes networks	07/09/2022	07/09/2022	BB/PPT
Independence, I-Maps	08/09/2022	08/09/2022	BB/PPT
Undirected graphical models	08/09/2022	08/09/2022	BB/PPT
Bayesian and Markov networks	09/09/2022	09/09/2022	BB/PPT
Learning, Types of learning	20/09/2022	20/09/2022	BB/PPT
Local models	21/09/2022	21/09/2022	BB/PPT
Exact inference	22/09/2022	22/09/2022	BB/PPT
Clique trees, Belief propagation	25/09/2022	25/09/2022	BB/PPT
Tree construction	27/09/2022	27/09/2022	BB/PPT
Applications solving problems	28/09/2022	28/09/2022	BB/PPT
Introduction to optimization	29/09/2022	29/09/2022	BB/PPT
Approximate inference: sampling	11/10/2022	11/10/2022	BB/PPT
Markov chains	12/10/2022	12/10/2022	BB/PPT
MAP inference	13/10/2022	13/10/2022	BB/PPT
Inference in temporal models	13/10/2022	13/10/2022	BB/PPT

Learning graphical models	18/10/2022	18/10/2022	BB/PPT
Parameter estimation	19/10/2022	19/10/2022	BB/PPT
Bayesian networks and shared parameters	27/10/2022	27/10/2022	BB/PPT
Bayesian networks and shared parameters	09/11/2022	09/11/2022	BB/PPT
structure learning	10/11/2022	10/11/2022	BB/PPT
Partially observed data	15/11/2022	15/11/2022	BB/PPT
Dimension reduction: PCA	16/11/2022	16/11/2022	BB/PPT
Dimension reduction: PCA	17/11/2022	17/11/2022	BB/PPT
Dimension reduction: SVD	22/11/2022	22/11/2022	BB/PPT
Gradient descent	22/11/2022	22/11/2022	BB/PPT
Expected Maximization	23/11/2022	23/11/2022	BB/PPT
Hidden variables, HMM	23/11/2022	23/11/2022	BB/PPT
Undirected models	24/11/2022	24/11/2022	BB/PPT
Undirected structure learning	24/11/2022	24/11/2022	BB/PPT
Causalty, Utility functions	29/11/2022	29/11/2022	BB/PPT
Decision problem, Expected utility	29/11/2022	29/11/2022	BB/PPT
KNN	30/11/2022	30/11/2022	BB/PPT
SVM	30/11/2022	30/11/2022	BB/PPT
NN and its types	06/12/2022	06/12/2022	BB/PPT
NN and its types	06/12/2022	06/12/2022	BB/PPT
K-means, FCM	07/12/2022	07/12/2022	BB/PPT
Introduction to Deep learning for classification and segmentation	08/12/2022	08/12/2022	BB/PPT
Introduction to Deep learning for classification and segmentation	09/12/2022	09/12/2022	BB/PPT

Total Lectures: 42

Scheduled: 42

Actual: 42