

Topics / lectures are arranged in sequence - same - as to be taught in the class. Maintain data related to "Date" in its hard copy

S. No.	Lecture No	Topic Description	Teaching Pedagogy	Reference Material	Remarks, if any
1	1	Introduction to Unit 1	TC-1	R1	
2	2	Machine Learning 1 Algorithms	TC-1	R1	
3	3	Machine Learning 1 Algorithms continued...	TC-1	R1	
4	4	Model Selection	TC-1	R1	
5	5	Introduction to Statistical Learning Theory	TC-1	R1	
6	6	Introduction to Statistical Learning Theory continued..	TC-1	R1	
7	7	Ensemble Methods: Boosting	TC-1	R1	
8	8	Bagging	TC-1	R	
9	9	Random Forest	TC-1	R1	
10	10	Class Test 1		R1	
11	11	Introduction to Unit 2	TC-1	R1	
12	12	Dimensionality Reduction	TC-1	R1	
13	13	Dimensionality Reduction continued..	TC-1	R1	
14	14	LDA	TC-1	R1	
15	15	LDA continued..	TC-1	R1	
16	16	PCA	TC-1	R1	
17	17	PCA Continued..	TC-1	R1	
18	18	kernel PCA	TC-1	R1	
19	19	ICA	TC-1	R1	
20	20	ICA Continued..	TC-1	R1	
21	21	Class Test 2		R1	
22	22	Introduction to Unit 3	TC-1	R1	
23	23	Perceptron	TC-1	R1	
24	24	multilayer neural networks	TC-1	R1	
25	25	multilayer neural networks continued..	TC-1	R1	
26	26	neural networks structures	TC-1	R1	
27	27	Deep Learning and Feature Representation Learning	TC-1	R1	
28	28	Deep Learning and Feature Representation Learning continued.	TC-1	R1	
29	29	class test 3		R1	
30	30	Introduction to Unit 4	TC-1	R1	
31	31	Reinforcement Learning	TC-1	R1	
32	32	Reinforcement Learning continued..	TC-1	R1	
33	33	Elements of Reinforcement Learning,	TC-1	R1	
34	34	Generalization in reinforcement learning	TC-1	R1	
35	35	policy search	TC-1	R1	
36	36	adaptive	TC-1	R1	
37	37	adaptive	TC-1	R1	

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38	38	class test 4		R1	
39	39	revision	TC-1	R1	
40	40	revision	TC-1	R1	
41	41	revision	TC-1	R1	
42	42	revision	TC-1	R1	
43	43	revision	TC-1	R1	
44	44	revision	TC-1	R1	
45	45	revision	TC-1	R1	
46	46	revision	TC-1	R1	
47	47	revision	TC-1	R1	
48	48	revision	TC-1	R1	
49	49	revision	TC-1	R1	
50	50	revision	TC-1	R1	

Study Material / Books / Web-resources / Online Courses Links etc.

S. No.	Description
R1	Kevin Murphy, "Machine Learning: A Probabilistic Perspective", MIT Press, 2012
R2	Trevor Hastie, Robert Tibshirani, Jerome Friedman, "The Elements of Statistical Learning", Springer 2009 (freely available online)