

St Ann's College of Engineering and Technology  
Department of Computer Science and Engineering  
Lecture Schedule

Subject : MACHINE LEARNING

Year IV CSE B -II SEM

Name of the Faculty: Mastanaih Naidu Y

Academic Year:2019-20

No of Classes per week:4

S.NO	DATE	UNIT	TOPIC
1	19-Nov-19	I	Introduction:
2	19-Nov-19		Tasks: the problems that can be solved with machine learning
3	20-Nov-19		Tasks: Looking for structure,Evaluating performance on a task
4	21-Nov-19		Models:Geometric models,Probabilistic models
5	22-Nov-19		Models:Logical models,Grouping and grading
6	26-Nov-19		Features, the workhorses of machine learning.
7	26-Nov-19		Feature construction and transformation,Interaction between features
8	27-Nov-19		Binary classification and related tasks
9	28-Nov-19		Assessing classification performance
10	29-Nov-19		Visualising classification performance
11	3-Dec-19		Scoring and ranking
12	3-Dec-19		Class probability estimation
13	4-Dec-19		Revision through ppt
14	5-Dec-19		<b>Slip Test I</b>
15	6-Dec-19	II	Handling more than two classes
16	10-Dec-19		Multi-class scores and probabilities
17	10-Dec-19		Regression
18	11-Dec-19		Unsupervised and descriptive learning
19	12-Dec-19		Predictive and descriptive clustering
20	13-Dec-19		The hypothesis space
21	17-Dec-19		Paths through the hypothesis space,Closed concepts
22	17-Dec-19		Beyond conjunctive concepts
23	18-Dec-19		Beyond conjunctive concepts
24	19-Dec-19		<b>Slip Test II</b>
25	20-Dec-19	III	Tree models: Decision trees,
26	26-Dec-19		Ranking and probability estimation trees
27	27-Dec-19		Sensitivity to skewed class distributions
28	31-Dec-19		Tree learning as variance reduction
29	31-Dec-19		Rule models:Learning ordered rule lists
30	1-Jan-20		Learning unordered rule sets
31	2-Jan-20		Descriptive rule learning
32	3-Jan-20		First-order rule learning
33	7-Jan-20		Revision
34	7-Jan-20		Revision
35	8-Jan-20		Revision
36	9-Jan-20		Revision
37	10-Jan-20		Revision
38	21-Jan-20		Revision
39	21-Jan-20		Revision
40	22-Jan-20		Revision
41	23-Jan-20		Revision
42	24-Jan-20		IV
43	28-Jan-20	The least-squares method	
44	28-Jan-20	The perceptron: a heuristic learning algorithm for linear classifiers	
45	29-Jan-20	Support vector machines	
46	30-Jan-20	obtaining probabilities from linear classifiers	
47	31-Jan-20	Going beyond linearity with kernel methods.	
48	4-Feb-20	<b>Distance Based Models: Introduction</b>	
49	4-Feb-20	Neighbours and exemplars	

50	5-Feb-20		Nearest Neighbours classification
51	6-Feb-20		Distance Based Clustering
52	7-Feb-20		Hierarchical Clustering
53	11-Feb-20		<b>Slip Test III</b>
54	11-Feb-20	V	The normal distribution and its geometric interpretations
55	12-Feb-20		Probabilistic models for categorical data
56	13-Feb-20		Discriminative learning by optimising
57	14-Feb-20		conditional likelihood
58	18-Feb-20		Probabilistic models with hidden variables
59	18-Feb-20		Features: Kinds of feature
60	19-Feb-20		Feature transformations
61	20-Feb-20		Feature construction and selection
62	21-Feb-20		Model ensembles: Bagging and random forests, Boosting
63	25-Feb-20		Model ensembles: Boosting
64	26-Feb-20		<b>Slip Test IV</b>
65	27-Feb-20	VI	Dimensionality Reduction:
66	28-Feb-20		Principal Component Analysis (PCA)
67	3-Mar-20		Implementation and demonstration
68	3-Mar-20		Artificial Neural Networks
69	4-Mar-20		Neural network representation
70	5-Mar-20		appropriate problems for neural network learning
71	6-Mar-20	Multilayer networks and the back propagation algorithm	
72	10-Mar-20		Revision
73	11-Mar-20		Revision
74	12-Mar-20		Revision
75	13-Mar-20		Revision
76	17-Mar-20		Revision
77	17-Mar-20		Revision
78	18-Mar-20		Revision
79	19-Mar-20		Revision
80	20-Mar-20		Revision
81	24-Mar-20		Revision
82	26-Mar-20		Revision
83	27-Mar-20		Revision

#### Text Books

1	Machine Learning: The art and science of algorithms that make sense of data, Peter
2	Machine Learning, Tom M. Mitchell, MGH

#### References

1	Understanding Machine Learning: From Theory to Algorithms, Shai Shalev-Shwartz, Shai
2	Machine Learning in Action, Peter Harington, 2012, Cengage.

Faculty

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