

on 45%

Rxin

## Chap-8

① Classification (महत्त्वपूर्ण २५)

② " " कि?

③ DT - Gini index, Gain Ratio, Info gain. (331)

- Basic definition क्या, Dataset का simple value calculate (IT) → 9m

→ Full DT (Root node → split) → 12 m Full 30 m.

→ DT Basic Terminology, Basic Term विभिन्न करना  
Attribute select criteria.

④ → Split point निर्धारण (continuous, count) निर्धारण करना,  
Algorithm modify. (335)

⑤ Tree pruning (महत्त्वपूर्ण २५)

→ Prepruning Approach कि (3manus)

→ Post pruning कि " कि?

⑥ Scalability - BOAT Approach. (347)

→ DT real life data set 1m, 2m रूप में, कि विभाजन करना



memory challenge. so Boosting approach statistical machine learning sample distribution. Another example Tree learning, also Tree learning aggregate across sample into sample distribution subset into Tree learning into Tree learning voting technique. Tree learning combine into.

### ⑥ Naive Bayes. (351)

- ID, Name (NB) classification
- Posterior probability? with example
- Prior probability?
- class conditional independence? with example
- Laplace correction. 355 page

### ⑦ Rule Based Classifier

- DT, ~~Table~~ Table
- multiple rules. Decision tree approach
- size order, Rule ordering classifier (358)



→ coverage, Accuracy (356)

→ Rule extraction

→ Rule quality measure. 362 page.

✓ Evaluating classification performance 365 page.

→ confusion matrix. (10x10) (আমার চমক ২০)

→ sensitivity, specificity. (367)

→ Cross validation terminology. (আমার চমক ২০) Accuracy improve

3\* → ROC curve - 375 page. (~~True~~ TP, FP, TPR, FPR)  
Sort by TP, FP

⑧ Ensemble methods.

→ Bagging, Boosting. Ada Boost. - (আমার চমক ২০) class imbalance

TP, Resample data? (384)

→ Random forest.

→ oversampling (384)

→ under sampling (384 page) 8.12 example

→ Threshold moving.



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(4)

## Q. Back propagation

① input ko process karo karo?

3\*\* ② Back propagation.

→ weight, bias hima diti karo, karo karo karo  
(-1, 1) value  
→ dataset karo (Table karo karo karo)

③ SVM - support vector machine (408)

→ SVM karo?

→ SVM karo karo karo karo

Theory → linearly separable karo?

→ n m - separable?

④ Lazy Learning vs Eager Learning

- Naive Bayes karo LL karo EI?

- KNN karo LL?

3\*\* → KNN karo karo karo karo

→



## ⑤ Genetic algorithm.

- Bit string নিচে represent করে?
- নিচি operation করে?

## ⑧ Fuzzy logic:

③ marks → Rule চিত্রা খালা নিচে stack Relax: ১২৪৭৯  
math

## ⑦ multiclass

① marks one - versus all করে নি (১১১) ১৩০৭৯

3x exercises on

## Ch-10 - Clustering

① Clustering কি? supervised নাকি unsupervised?

② Clustering কিসে হয়?

③ Clustering L, L<sub>1</sub>, L<sub>2</sub> Terminology?

④ Kmeans, k-medoid, mad, মানে? ১১৭



11:8 time.

ଉତ୍ତର  
ପ୍ରଦେଶ

Slide

pony - 449 page

- Partitioning method.
- Hierarchical
- Density-based method.

example

- simulation (book) - 451 page

Nominal attribute হলে k-modal দিয়ে কাজ  
করানো যায় না, তখন k-modal method করতে হয়।

- k-means, k-modes mit  $\sigma$  statt  $\sigma^2$  statt  $\sigma^2$   
in nominal, neumonic.

(example 10.2)

- 1c-mem on new book.  
math-prone.

⑧ Hierarchical method / clustering.

- Agglomeration, divisible.



