

DATA ANALYTICS LAB

III Year B. Tech CSE (AI & ML) II Sem.

Course Code: A2265E5

Course Outcomes:

At the end of this course, students will be able to:

1. Understand linear regression, logistic regression and the functionality of different classifiers.
2. Implement visualization techniques using different graphs.
3. Apply descriptive and predictive analytics for different types of data.

List of Experiments:

1. Data Preprocessing
 - a. Handling missing values
 - b. Noise detection removal
 - c. Identifying data redundancy and elimination
2. Implement any one imputation model
3. Implement Linear Regression
4. Implement Logistic Regression
5. Implement Decision Tree Induction for classification
6. Implement Random Forest Classifier
7. Implement ARIMA on Time Series data
8. Object segmentation using hierarchical based methods
9. Perform Visualization techniques (types of maps - Bar, Colum, Line, Scatter, 3D Cubes etc)
10. Perform Descriptive analytics on healthcare data
11. Perform Predictive analytics on Product Sales data
12. Apply Predictive analytics for Weather forecasting.

TEXT BOOKS:

1. Student's Handbook for Associate Analytics – II, III.
2. Data Mining Concepts and Techniques, Han, Kamber, 3rd Edition, Morgan Kaufmann Publishers.

REFERENCE BOOKS:

1. Introduction to Data Mining, Tan, Steinbach and Kumar, Addison Wesley, 2006.
2. Data Mining Analysis and Concepts, M. Zaki and W. Meira
3. Mining of Massive Datasets, Jure Leskovec Stanford Univ. Anand Rajaraman