Bhoj Reddy Engineering College for Women: Hyderabad

Department of Information Technology

Lesson plan of faculty member for the academic year 2016–17

Class: IV B Tech Branch-Section: IT-B Semester: II

Subject: Predictive Analytics Lectures per week: 3+1 (Tutorial)

Lecture Number	Topics to be covered	Date (s)
UNIT – I: Introduction to Predictive Analytics & Linear Regression		
1	What and Why Analytics	9 December 2016
2	Introduction to Tools and Environment	10 December 2016
3	Tutorial (G1,G3) - What and Why Analytics	9,10 December 2016
4	Application of Modelling in Business	15 December 2016
5	Databases, Types of data	16 December 2016
6	Variables, Data Modelling Techniques	17 December 2016
7	Tutorial (G2,G1,G3) – Application of Modelling in Business	15,16,17 December 2016
8	Missing imputations	22 December 2016
9	Need for Business Modelling	23 December 2016
10	Regression – Concepts	24 December 2016
11	Tutorial (G2,G1,G3) - Types of data	22,23,24 December 2016
12	Blue property-assumptions-Least Square Estimation	29 December 2016
13	Variable Rationalization, Model Building	30 December 2016
UNIT-II: Logistic Regression		
14	Model Theory, Model fit Statistics	31 December 2016
15	Tutorial (G2,G1,G3)- Model Building	29,30,31 December 2016
16	Model Conclusion	5 January 2017
17	Analytics applications to various Business Domains etc	6 January 2017
18	Regression Vs Segmentation	7 January 2017
19	Tutorial (G2,G1,G3) - Model fit Statistics	5,6,7 January 2017
20	Supervised and Unsupervised Learning ,Tree Building – Regression, Classification	12 January 2017
21	Tutorial (G2) - Model Conclusion	12 January 2017
22	Supervised and Unsupervised Learning ,Tree Building – Regression	19 January 2017
23	Overfitting, Pruning and complexity, Multiple Decision Trees	20 January 2017
UNIT-III: Objective Segmentation		
24	Regression Vs Segmentation	21 January 2017
25	Tutorial (G2,G1,G3) - Tree Building	19,20,21 January 2017
26	Supervised and Unsupervised Learning, Tree Building – Regression	27 January 2017
27	Tutorial (G1) - Overfitting	27 January 2017
28	Classification	23 February 2017
29	Overfitting	25 February 2017
30	Tutorial (G2,G3) - Regression	23,25 February 2017
31	Pruning and complexity	2 March 2017
32	Multiple Decision Trees	3 March 2017
33	Introduction to Knowledge skills & competences	4 March 2017
34	Tutorial (G2,G1,G3) - Pruning and complexity	2,3,4 March 2017
35	Training & Development	9 March 2017
36	Learning & Development	10 March 2017
37	Policies and Record keeping	11 March 2017
38	Tutorial (G2,G1,G3) - Multiple Decision Trees	9,10,11 March 2017
UNIT-IV: Time Series Methods /Forecasting, Feature Extraction		
39	Arima	16 March 2017
40	Measures of Forecast Accuracy	17 March 2017
41	STL approach	18 March 2017
42	Tutorial (G2,G1,G3) - Arima	16,17,18 March 2017

43	Extract features from generated model as Height, Average, Energy etc	23 March 2017
44	Analyze for prediction	24 March 2017
UNIT-V: **Working with Documents**		
45	Standard Operating Procedures for documentation and knowledge sharing	25 March 2017
46	Tutorial (G2,G1,G3) - STL approach	23,24,25 March 2017
47	Defining purpose and scope documents	30 March 2017
48	Understanding structure of documents – case studies	31 March 2017
49	Articles, white papers, technical reports, minutes of meeting etc	1 April 2017
50	Tutorial (G2,G1,G3) - Analyze for prediction	30,31 March,1 April 2017
51	Style and format, Intectual Property and Copyright, Document preparation tools – Visio, PowerPoint, Word, Excel etc	6 April 2017
52	Version Control, Accessing and updating corporate knowledge base	7 April 2017
53	Peer review and feedback	8 April 2017
54	Tutorial (G2,G1,G3) - purpose and scope documents	6,7,8 April 2017
55	Revision	13 April 2017
56	Tutorial (G2)- Version Control	11 April 2017

TEXT BOOKS:

1. Student's Handbook for Associate Analytics-III.

REFERENCE BOOKS:

1. Gareth James • Daniela Witten • Trevor Hastie Robert Tibshirani**.** An Introduction to Statistical Learning with Applications in R

Name and signature of the faculty: **Ms M Jhansi Rani** ----

Name and signature of Head of the Department: **Mr. K Sandeep Kumar** ----