**ST. ANN'S COLLEGE OF ENGINEERING &TECHNOLOGY: CHIRALA**
**DEPARTMENT OF COMPUTERSCIENCE & ENGINEERING**
**LECTURE SCHEDULE**

**Subject: DATA WARE HOUSING AND DATA MINING** **Academic Year: 2018-19**
**No. of Lectures per week : 4+1* (Tutorial)** **Year & Sem/Section: III-I SEM 'C'**

| S.No | Date | Unit No. | Topic to be Covered |
|---|---|---|---|
| 1 | 20.11.2018 | I | Introduction: Why Data Mining? |
| 2 | 22.11.2018 | | What Is Data Mining? |
| 3 | 23.11.2018 | | What Kinds of Data Can Be Mined? |
| 4 | 24.11.2018 | | What Kinds of Patterns Can Be Mined? |
| 5 | 27.11.2018 | | Which Technologies Are Used? |
| 6 | 28.11.2018 | | Which Kinds of Applications Are Targeted? |
| 7 | 29.11.2018 | | Major Issues in Data Mining. |
| 8 | 30.11.2018 | | **Tutorial** |
| 9 | 01.12.2018 | | Data Objects and Attribute Types |
| 10 | 04.12.2018 | | Basic Statistical Descriptions of Data, |
| 11 | 05.12.2018 | | Data Visualization, |
| 12 | 06.12.2018 | | Measuring Data Similarity and Dissimilarity |
| 13 | 07.12.2018 | | **Tutorial** |
| 14 | 08.12.2018 | | **Slip test** |
| 15 | 11.12.2018 | II | **Data Pre-processing:** Data Preprocessing: An Overview, |
| 16 | 12.12.2018 | | Data Cleaning |
| 17 | 13.12.2018 | | Data Integration, |
| 18 | 14.12.2018 | | **Tutorial** |
| 19 | 15.12.2018 | | Data Reduction, |
| 20 | 18.12.2018 | | Data Reduction, |
| 21 | 19.12.2018 | | Data Transformation and Data Discretization |
| 22 | 20.12.2018 | | Data Transformation and Data Discretization |
| 23 | 21.12.2018 | | **Tutorial** |
| 24 | 22.12.2018 | | **Slip Test** |
| 25 | 26.12.2018 | III | **Classification:** Basic Concepts, |
| 26 | 27.12.2018 | | General Approach to solving a classification problem |
| 27 | 28.12.2018 | | **Tutorial** |
| 28 | 29.12.2018 | | Decision Tree Induction: Working of Decision Tree, |
| 29 | 02.01.2019 | | Building a decision tree, |
| 30 | 03.01.2019 | | methods for expressing an attribute test conditions, |
| 31 | 04.01.2019 | | **Tutorial** |
| 32 | 05.01.2019 | | measures for selecting the best split, |
| 33 | 08.01.2019 | | Algorithm for decision tree induction. |
| 34 | 09.01.2019 | | Algorithm for decision tree induction. |
| 35 | 10.01.2019 | | **Revision** |
| 36 | 11.01.2019 | | **Tutorial** |
| 37 | 17.01.2019 | | **Revision** |
| 38 | 18.01.2019 | | **Revision** |
| 39 | 19.01.2019 | | **Revision** |
| 40 | 22.01.2019 | | **Revision** |
| 41 | 23.01.2019 | | **Revision** |

| S.No | Date | Unit No. | Topic to be Covered |
|---|---|---|---|
| 42 | 24.01.2019 | IV | **Classification:** Alterative Techniques |
| 43 | 25.01.2019 | | **Tutorial** |
| 44 | 29.01.2019 | | Bayes' Theorem, |
| 45 | 30.01.2019 | | Bayes' Theorem |
| 46 | 31.01.2019 | | Naïve Bayesian Classification, |
| 47 | 01.02.2019 | | **Tutorial** |
| 48 | 02.02.2019 | | Naïve Bayesian Classification |
| 49 | 05.02.2019 | | Bayesian Belief Networks |
| 50 | 06.02.2019 | | Bayesian Belief Networks |
| 51 | 07.02.2019 | | **Slip Test** |
| 52 | 08.02.2019 | | **Tutorial** |
| 53 | 12.02.2019 | V | **Association Analysis:** Basic Concepts and Algorithms**:** Problem Definition, |
| 54 | 13.02.2019 | | Frequent Item Set generation, |
| 55 | 14.02.2019 | | Rule generation |
| 56 | 15.02.2019 | | **Tutorial** |
| 57 | 16.02.2019 | | Rule generation |
| 58 | 19.02.2019 | | compact representation of frequent item sets, |
| 59 | 20.02.2019 | | FP-Growth Algorithm. |
| 60 | 21.02.2019 | | FP-Growth Algorithm. |
| 61 | 22.02.2019 | | **Tutorial** |
| 62 | 23.02.2019 | | **Slip Test** |
| 63 | 26.02.2019 | VI | **Cluster Analysis: Basic Concepts and Algorithms: Overview** |
| 64 | 27.02.2019 | | What Is Cluster Analysis? |
| 65 | 28.02.2019 | | Different Types of Clustering, |
| 66 | 01.03.2019 | | **Tutorial** |
| 67 | 02.03.2019 | | Different Types of Clusters; |
| 68 | 05.03.2019 | | K-means: The Basic K-means Algorithm, K-means Additional Issues, |
| 69 | 06.03.2019 | | Bisecting K-means, Strengths and Weaknesses; |
| 70 | 07.03.2019 | | Agglomerative Hierarchical Clustering: |
| 71 | 08.03.2019 | | **Tutorial** |
| 72 | 12.03.2019 | | Basic Agglomerative Hierarchical Clustering Algorithm |
| 73 | 13.03.2019 | | DBSCAN: Traditional Density Center-Based Approach, |
| 74 | 14.03.2019 | | DBSCAN Algorithm, Strengths and Weaknesses. |
| 75 | 15.03.2019 | | **Tutorial** |
| 76 | 16.03.2019 | | **Revision** |
| 77 | 19.03.2019 | | **Revision** |
| 78 | 20.03.2019 | | **Revision** |
| 79 | 22.03.2019 | | **Tutorial** |
| 80 | 23.03.2019 | | **Revision** |
| 81 | 26.03.2019 | | **Revision** |
| 82 | 27.03.2019 | | **Revision** |
| 83 | 28.03.2019 | | **Revision** |
| 84 | 29.03.2019 | | **Revision** |
| 85 | 30.03.2019 | | **Revision** |

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|---|---|
| **Text Books**: | |
| 1 | Introduction to Data Mining: Pang-Ning Tan & Michael Steinbach, Vipin Kumar, Pearson. |
| 2 | Data Mining concepts and Techniques, 3/e, Jiawei Han, Michel Kamber, Elsevier. |
| **References:** | |
| 1 | Data Mining Techniques and Applications: An Introduction, Hongbo Du, Cengage Learning. |
| 2 | Data Mining : VikramPudi and P. Radha Krishna, Oxford. |
| 3 | Data Mining and Analysis - Fundamental Concepts and Algorithms; Mohammed J. Zaki, Wagner Meira, Jr, Oxford |
| 4 | Data Warehousing Data Mining & OLAP, Alex Berson, Stephen Smith, TMH. |