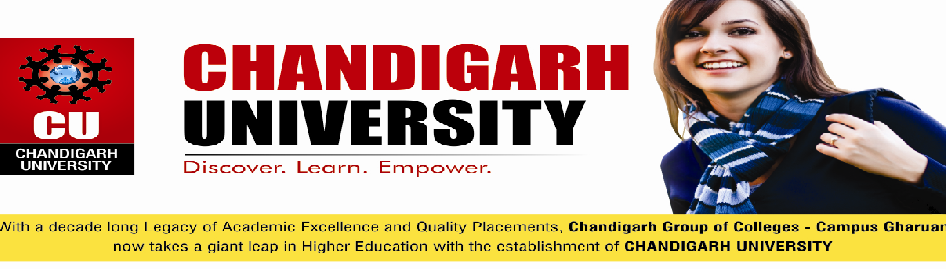
**LAB MANUAL LAB**

**MANUAL**

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**Data Mining Lab**

**University Institute of Engineering –CSE**

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| **Subject Code**  **CSA-376** | | **Data Mining Lab** |
| Total Contact Hours: 30Hours |
| Common to all Specializations of CSE 3th Year |
| Prerequisite:   * Knowledge of basic computer science principles and skills, at a level sufficient to write a reasonably non-trivial computer program. | |
| **Course Objectives** | | | |
| * To formulate data mining problems corresponding to different applications. * To understand a range of data mining algorithms along with their strengths and weaknesses. * To understand the basic theory underlying data mining. * To apply data mining algorithms to solve problems of moderate complexity. | | | |
| **Unit** | **Course Outcome** | | |
| **I** | To gain knowledge of various stages of data mining process &amp; OLAP with its characteristics. | | |
| **II** | Understand Classify Supervised and Unsupervised Learning and concepts of Regression & Classification techniques. | | |
| **III** | Apply regression techniques & ANOVA approaches. | | |
| **IV** | Analyze supervised and predictive learning techniques like K -Nearest Neighbors, Regression and Classification Trees etc. | | |
| **V** | Develop the concept of big data mining with its characteristics &amp; challenges. | | |

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| **Sr. No.** | **PRACTICAL** |
| 1. | Demonstration of preprocessing on .arff file using student data .arff. |
| 2. | To perform the statistical analysis of data. |
| 3. | Demonstration of association rule mining using Apriory algorithm on supermarket data. |
| 4. | Demonstration of FP Growth algorithm on supermarket data. |
| 5. | To perform the classification by decision tree induction using WEKA tools. |
| 6. | To perform classification using Bayesian classification algorithm using R. |
| 7. | To perform the cluster analysis by k-means method using R. |
| 8. | To perform the hierarchical clustering using R programming.. |
| 9. | Study of Regression Analysis using R programming. |
| 10. | Outlier detection using R programming. |

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| CSA-376 | Data /mining LAB | | | | | | | | | | | | | |
| Department Teaching the Subject | Department of Computer Science and Engineering | | | | | | | | | | | | | |
| Program Outcome | **PO1** | **PO2** | **PO3** | **PO4** | **PO5** | **PO6** | **PO7** | **PO8** | **PO9** | **PO10** | **PO11** | **PO12** | **PSO1** | **PSO2** |
| CO-CSA-362.1 | tick Icon | tick Icon | tick Icon | tick Icon |  |  |  | tick Icon | tick Icon | tick Icon |  |  |  |  |
| CO-CSA-362.2 | tick Icon | tick Icon | tick Icon | tick Icon |  |  |  | tick Icon | tick Icon | tick Icon |  |  |  |  |
| CO-CSA-362.3 | tick Icon | tick Icon | tick Icon | tick Icon |  |  |  | tick Icon | tick Icon | tick Icon |  | tick Icon | tick Icon | tick Icon |
| CO-CSA-362.4 | tick Icon |  |  | tick Icon | tick Icon | tick Icon | tick Icon | tick Icon | tick Icon | tick Icon |  | tick Icon | tick Icon | tick Icon |
| CO-CSA-362.5 | tick Icon |  |  | tick Icon | tick Icon | tick Icon | tick Icon | tick Icon | tick Icon | tick Icon |  | tick Icon | tick Icon | tick Icon |
| TOTAL |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Approval | Date of meeting of the Board of Studies…….. | | | | | | | | | | | | | |