## **ASSESSMENT 4**

## **MACHINE LEARNING**

## **WINTER SEMESTER 2022 – 2023**

## **CSE4020**

- 1. Implement Hierarchical clustering.
- 2. Implement Gaussian Mixture Model Using the Expectation Maximization.
- 3. Evaluating ML algorithm with balanced and unbalanced datasets.
- 4. Implement K-means Clustering.
- 5. Implement K-mode clustering.
- 6. Compare the performance of following Machine Learning algorithms for the "National Institute of Diabetes and Digestive and Kidney Diseases" dataset available in the Kaggle database.
  - a. K-nearest neighbour classifier,
  - b. Decision tree classifier,
  - c. Support Vector Machine.
- 7. Implement Principle Component Analysis for Dimensionality Reduction.