# California State University, Fresno

# DEPARTMENT OF COMPUTER SCIENCE

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| Class: | **Algorithms & Data Structures** | | | Semester: | **Fall 2021** |
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| Points |  | Document author: | **Ojas Deshmukh** | | |
|  | Author’s email: | **Ojas@mail.fresnostate.edu email** | | |
| Laboratory number: | **Lab 12** | | |
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**1. Statement of Objectives**

We will be providing an implementation of Prim’s and Kruskal’s algorithm for finding the minimal spanning tree of a graph. The graph will be represented by an adjacency matrix. The inputs of our program are the following: the number of vertices of the graph, the index of the starting vertex, the adjacency matrix, arranged line by line.

**2. Experimental Procedure**

A subset of graph that has all vertex that has no cycle and can be connected to all min edges.

An MST is a tree that has minimum weight when compared to all other spanning trees from the same graph they are connected to. There can be several MST.

We will select a starting vertex. Then we setup a MST. From the connecting vertices we look for the edge with least weight and put it in spanning tree.

**3. Analysis**

A screenshot of a computer

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**4. Encountered Problems**

**5. Conclusions**

The MST is the subset of our graph, and the total cost of edges connecting the vertices is minimum.

**6. References**

List the references used in this report.