

ITS202: Algorithms and Data Structure

Spanning Tree

Ms. Sonam Wangmo

Gyalpozhing College of Information Technology
Royal University of Bhutan

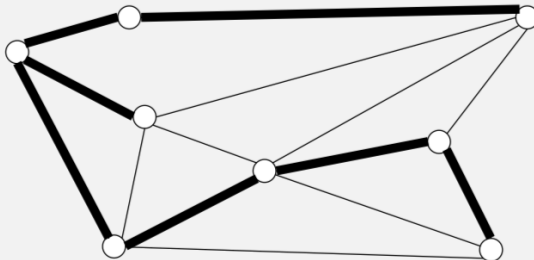
December 16, 2020

Spanning Tree

Definition

A spanning tree of G is a subgraph T that is:

- Connected
- Acyclic
- Includes all of the vertices

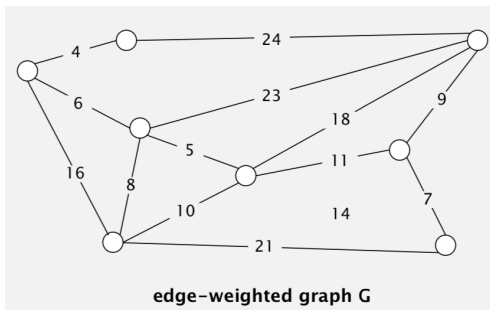


graph G

Spanning Tree

Given. Undirected graph G with positive edge weights (connected).

Goal. Find a min weight spanning tree.



minimum spanning tree T
(cost = 50 = 4 + 6 + 8 + 5 + 11 + 9 + 7)

Implementation of MST

- Kruskal Algorithm
- Prim's Algorithms