Faculty of Information Engineering & Technology
The Communications Department
Course: Analysis and Design of Algorithms

Project (Hard Deadline Dec. 3rd 2017)

Build a MATLAB program that does the following

1. Generate a Network with 5 vertices.
    a. Edges should be created randomly
    b. Weights of the edges should be created randomly between 0 and 10
2. The Network should be defined as an adjacency list format
3. You need to verify that the random network created is connected
4. Implement a minimum spanning tree algorithm (Prim OR Kruscal)
5. Plot the resulting spanning tree
6. Repeat with 10, 15, 20, 25, 30, …, plot running time versus, number of nodes and number of edges

The group should not exceed 3 students

Note: The ONLY predefined algorithmic functions of MATLAB you are allowed to use is SORT