

UCS 1722 – Social Network Analysis MINIPROJECT

Take any social network dataset and analyse the network using the following parameters.

- a) Use any one of the modern SNA tools apart from what you learned in the course such as GEPHI, GraphViz, nodeXL, Netminer etc. (K3) (5.2.2)
- b) List out the questions for which you are going to find the answers from the network. (K3) (2.1.1)
- c) Identify the nodes, edges, edge direction and edge weight (K3)(1.4.1))
- d) Compute the parameters such as degree centrality, closeness centrality and betweenness centrality to find out the influential node in the network, a node close to all nodes and a node with maximum connections (K3)(1.4.1)
- e) Find out the network level measures such as Network size and Network Density(K3)(1.4.1)
- f) Find out the path level measures such as characteristic path length, average geodesic distance of the network and diameter of the network(K3)(1.4.1)
- g) Identify the connected components and bridges in the network (K3)(1.4.1)
- h) Apply any Community detection algorithm to detect communities in the network (K3)(1.4.1)
- i) Provide a neat visualization of the network using appropriate layouts, colors, links and labels (K3) (2.1.2)

Team Information:

A team of maximum 4 members should take one project. Each team should demonstrate the project. Each team member should contribute towards the project and should explain their part to get their marks. (9.3.1)

Report Details:

One project report per team should be submitted. The report should contain the following information: Objective, Dataset Description, Description about the tool, Visualization of the network wherever necessary with explanation, Analysis or inference about the values of network parameters and conclusion. (10.1.2)