

### **Assignment 3 (Submission due on October 9, 2014)**

Write the code for calculating degree, closeness, betweenness and eigenvector centrality for the following networks:

- 1) Small world network from Assignment 2.
- 2) Random Graph from Assignment 2
- 3) Facebook data set (<https://snap.stanford.edu/data/egonets-Facebook.html>)

After calculating each type of centrality rank them according to their values and save them into .txt files. Write the comparative analysis of centralities in each type of networks. You will be given extra credit of 10 % when you will verify the centralities using any social network analysis tool e.g. Gephi, UCINET, NetworkX etc.