**Project1 – P3**

The folder contains a python file, P3.py and the sampled anonymized edge list, anonymizededges.csv which is the output from Problem1.

P3.py takes the path of the anonymizededges.csv as a command line argument. Use the following commands to execute the script in a command prompt or terminal:

*python P3.py anonymizededges.csv*

**Output**:

* Average Local Clustering : 0.0431384597355
* Global Clustering: 0.00363919069741

The Global Clustering Coefficient is low since Academia.edu is not having many nodes which observe transitivity.

* Page Rank Centrality:

Node Centrality

1. 935 0.000554160364842
2. 35 0.000557941899775
3. 37 0.000563786575318
4. 743 0.000567207456506
5. 22 0.000568357135895
6. 17 0.000606405210184
7. 52 0.000606413574338
8. 1 0.000688860175835
9. 293 0.000701712707248
10. 2 0.000793636462946

* Eigenvector Centrality:

Node Centrality

1. 37 0.116099584935
2. 743 0.116518509332
3. 46 0.11832787195
4. 41 0.123998121218
5. 35 0.148511782397
6. 22 0.154405680583
7. 293 0.161880254193
8. 52 0.166028640603
9. 17 0.181895731278
10. 2 0.284637197991

* Degree Centrality:

Node Centrality

1. 41 0.00298656047785
2. 743 0.00348432055749
3. 37 0.00348432055749
4. 35 0.00348432055749
5. 22 0.00398208063713
6. 52 0.00447984071677
7. 1 0.00447984071677
8. 17 0.00497760079642
9. 293 0.00846192135391
10. 2 0.0109507217521

* Rank correlation between PageRank Centrality and Eigenvector Centrality: 0.996127284189
* Rank correlation between PageRank Centrality and Degree Centrality: 0.5334714388
* Rank correlation between Degree Centrality and Eigenvector Centrality: 0.533124615591
* Nodes with max Jaccard Similarity : 1200 1213

There are many pairs whose Jaccard Similarity is 1. Only one value is shown here.

