

## Abstract

Nowadays, social network has become an effective media for a large number of people to communicate as well as the increased number of the user, one of them is Twitter. The relation between person or actor in Twitter could be represented into a graf. In this paper, the graph that will be used is asymmetric directed-weighted graph. The interaction or relation formed in that graph could be calculated using centrality measurement method. Centrality measurement can be used as parameter to determine the popularity or leverage level of an actor towards other actor. The value of centrality measurement is weighted graph. To maximalize the result, every relation in a graph will be added value form Probabilistic Partnership Index (PPI) method. Furtherly, the analysis and implementation with degree centrality are executed with Kretschmer method using the value from PPI measurement. From the conducted experimantal process value, the writer observed that PPI and Kretschmer could be used as one of the centrality method to find the level of leverage and popular actor of an environment in Twitter.

**Keywords:** *Probabilistic Partnership Index (PPI), social network, degree centrality, Kretschmer.*