

FAILURE MODEL:

We have tried to implement the following logic:

After covering 10-15% of the total network, 10% of the random nodes are going to be killed .

Once 10% of the nodes are getting killed, the entire system shuts down.

Experiment was conducted on following two model and corresponding algorithms:

1. 2D with Push-sum algorithm:

900 number of nodes were taken for this purpose and once the arguments are passed on, we could observe that system shuts down with dead letter being encountered as a result.

2. Imperfect 2D with Push-sum algorithm:

900 number of nodes were taken for this purpose and once the arguments are passed on, we could observe that system shuts down with dead letter being encountered as a result.

The prime difference here being observed is the time taken before shutting down the 2D with push-sum algorithm is little more than the Imperfect 2D with push-sum for the same size of input of network nodes.