

# DISTRIBUTED OPERATING SYSTEMS

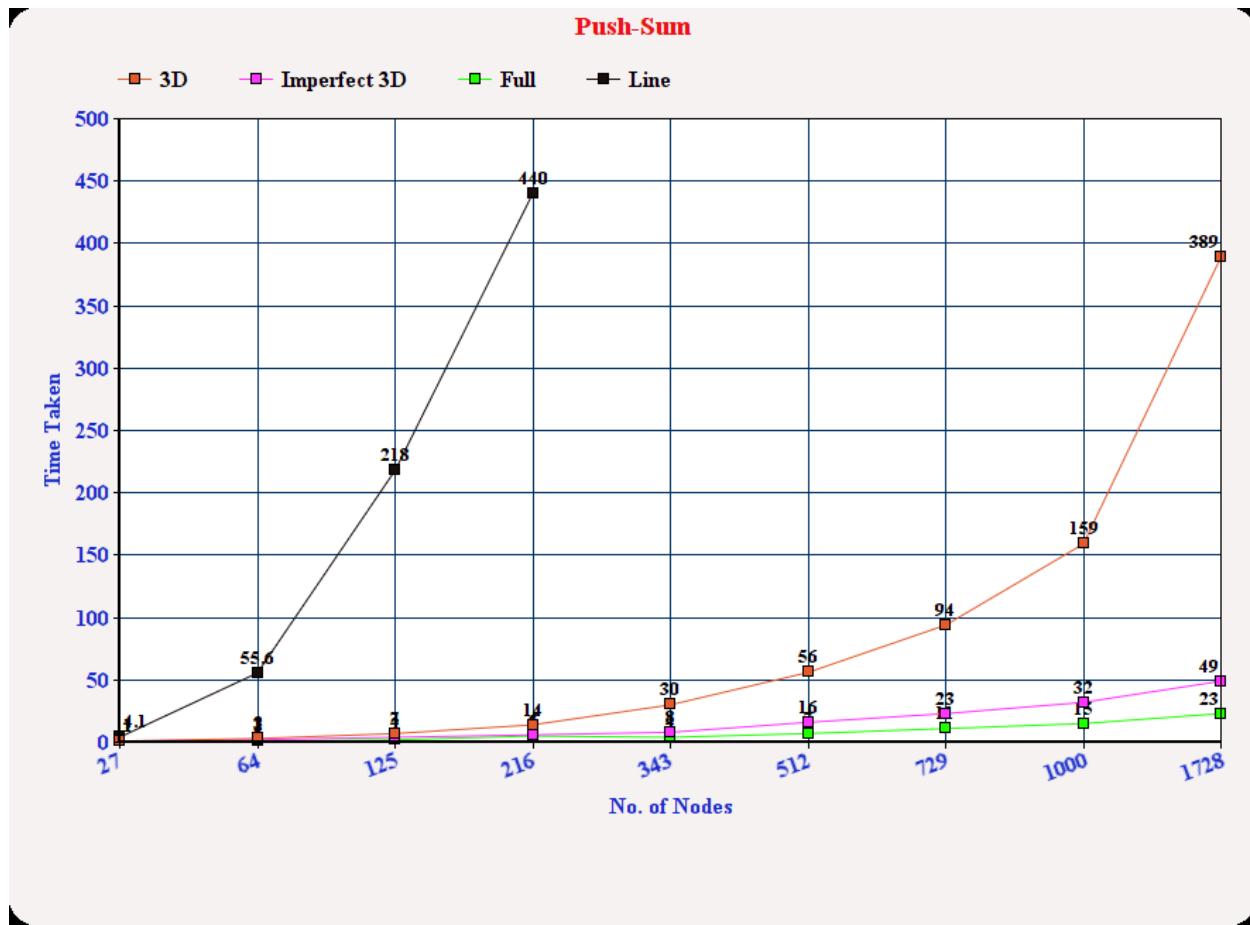
## PROJECT 2 REPORT

### TEAM MEMBERS

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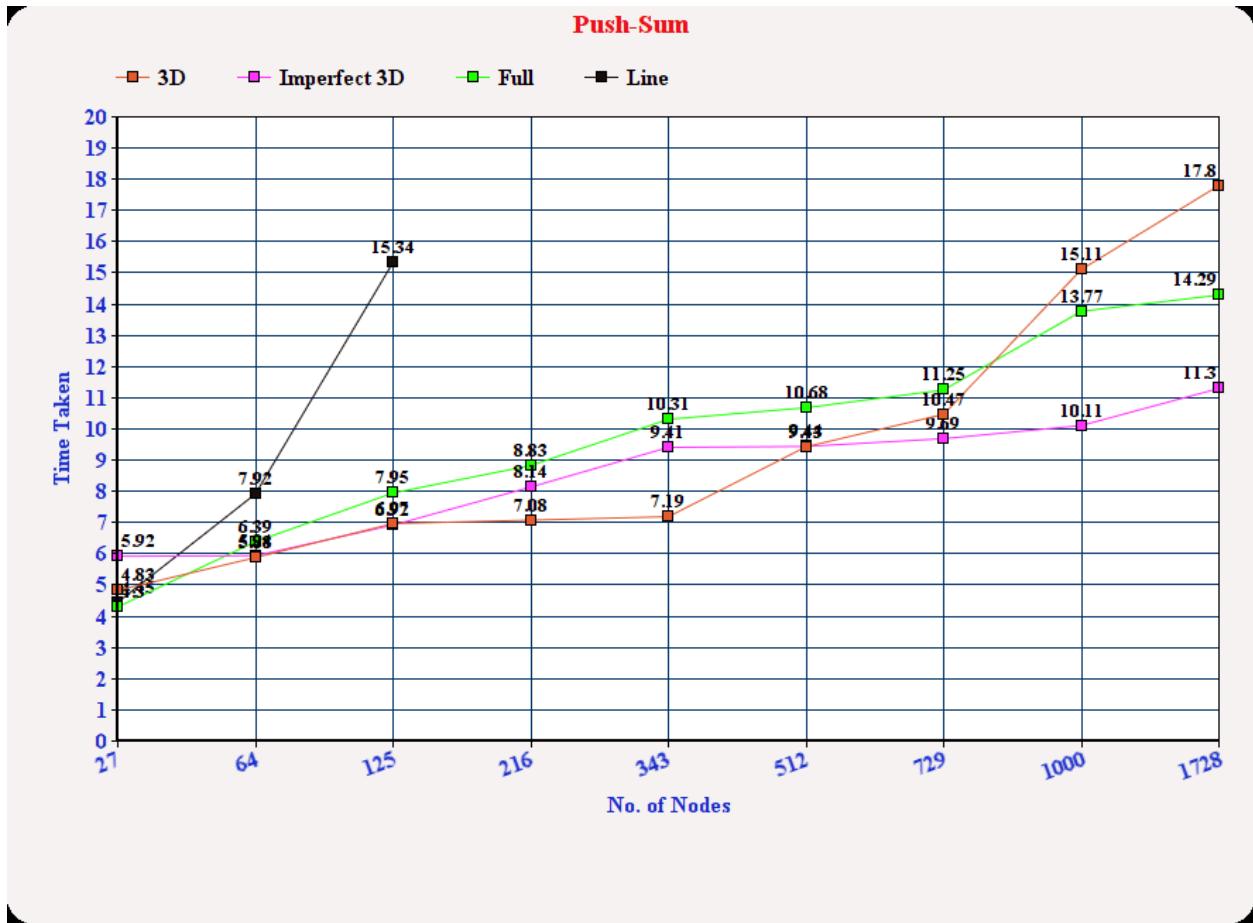
2. Hemanth Pinaka **18118134**

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1. Dependency of convergence time as a function of size of network with Push Sum Algorithm



We can observe from the plot that full topology converges faster than the remaining three topologies and has a running time of roughly  $O(\log n)$ . Then comes imperfect 3D and 3D respectively. Line topology has the highest convergence time and has a running time of roughly  $O(n^2)$ . The output of the program will show information about the convergence ratio and the time taken for that convergence.

## 2. Dependency of convergence time as a function of size of network with Gossip Algorithm



We can observe from the above plot that again line takes the highest time for converging. We can see that imperfect3D and full take lesser time for convergence and 3D follows them.