**Data Analysis** - Sample Date for a **40 Node Network - Single Source to Multiple Destinations**

Hopfield Neural Networks Convergent Algorithms

|  |  |  |
| --- | --- | --- |
| Hopfield Neural Networks | Source to Multiple Destinations | Total Metric Cost |
| Park & Keum | **1**-> 5-> **14**-> 20 -> 21 -> **35** -> 36 -> **37 -> 39** | **3828** |
| Park & Choi | **1**-> 5-> **14**-> 20 -> 21 -> **35** -> 36 -> **37 -> 39** | **3828** |
| Ahn & Ramakrishna | **1**-> 5-> **14**-> 20 -> 21 -> **35** -> 36 -> **37 -> 39** | **3828** |
| Ali & Kamoun | No Convergence | **−** |

Non-Neural Convergent Algorithms

|  |  |  |  |
| --- | --- | --- | --- |
| Source to Multiple Destinations | Dijkstra Algorithm | Bellman Ford Algorithm | Floyd Warshall Algorithm |
| 1 -> 14 | 1338 | 1338 | 1338 |
| 14 -> 35 | 1294 | 1294 | 1294 |
| 35 -> 37 | 528 | 1191 | 528 |
| 37 ->39 | 6 | 6 | 6 |
| Total Cost For Multiple Destination | **3166** | **3829** | **3166** |

Total Results for 40 Node Network - Single Source to Single Destination Metric Cost

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | Dijkstra | Bellman Ford | Floyd Warshall | Park & Keum | Park & Choi | Ahn & Ramakrishna | Ali & Kamoun |
| Total Metric Cost For Multiple Destination | **3166** | **3829** | **3166** | **3828** | **3828** | **3828** | − |