**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**-> 32 -> 31 -> **34** -> 27 -> 23 -> 25 -> 16 -> 12 -> **8** -> 12 -> 17 -> **18** | **6833** |
| Park & Choi | No Convergence | **−** |
| Ahn & Ramakrishna | No Convergence | **−** |
| Ali & Kamoun | No Convergence | **−** |
|  |  |  |

Non-Neural Convergent Algorithms

|  |  |  |  |
| --- | --- | --- | --- |
| Source to Multiple Destinations | Dijkstra Algorithm | Bellman Ford Algorithm | Floyd Warshall Algorithm |
| 1 -> 35 | 1910 | 2632 | 1910 |
| 35 -> 34 | 1363 | 2182 | 1363 |
| 34 -> 8 | 1604 | 4251 | 1604 |
| 8 -> 18 | 1065 | 1065 | 1065 |
| Total Cost For Multiple Destination | **5942** | **10130** | **5942** |

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 | **5942** | **10130** | **5942** | **6833** | **−** | **−** | **−** |