**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**-> 7-> **10**-> 12 -> **16** -> 15 -> **24** -> 26 -> **27** | **4191** |
| Park & Choi | **1**-> 7-> **10**-> 12 -> **16** -> 15 -> **24** -> 26 -> **27** | **4191** |
| Ahn & Ramakrishna | **1**-> 7-> **10**-> 12 -> **16** -> 15 -> **24** -> 26 -> **27** | **4191** |
| Ali & Kamoun | **1**-> 7-> **10**-> 12 -> **16** -> 15 -> **24** -> 26 -> **27** | **4191** |

Non-Neural Convergent Algorithms

|  |  |  |  |
| --- | --- | --- | --- |
| Source to Multiple Destinations | Dijkstra Algorithm | Bellman Ford Algorithm | Floyd Warshall Algorithm |
| 1 -> 10 | 366 | 366 | 366 |
| 10 -> 16 | 471 | 471 | 471 |
| 16 -> 24 | 1639 | 1639 | 1639 |
| 24 -> 27 | 1002 | 1002 | 1002 |
| Total Cost For Multiple Destination | **3478** | **3478** | **3478** |

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 | **3478** | **3478** | **3478** | **4191** | **4191** | **4191** | **4191** |