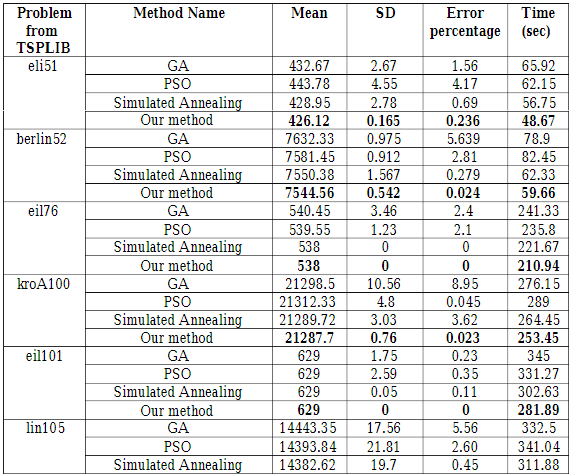
|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Problems**  **From TSPLIB** | **Best**  **solution** | **Optimal Solution** | **Error**  **Rate (%)** | **NGO Time(sec)** | **Best Time(sec)** |
| P015 | 291 | 291 | 0.00 | - | 6.65 |
| GR17 | 2085 | 2085 | 0.00 | 11.89 | 8.83 |
| FRI26 | 937 | 937 | 0.00 | - | 35.72 |
| Bays29 | 2020 | 2020 | 0.00 | 21.76\* | 70.72 |
| DJ38 | 6656 | 6656 | 0.00 | - | 131.68 |
| DANTZIG42 | 699 | 699 | 0.00 | - | 127.46 |
| SWISS42 | 1366 | 1273 | 0.17 | 61.55 | 181.84 |
| ATT48 | 33889 | 33523 | 0.02 | - | 152.29 |
| ELI51 | 442 | 426 | 0.07 | 48.67\* | 239.55 |
| ST70 | 786 | 675 | 0.23 | 121.83 | 373.56 |
| kroA100 | 24386 | 21282 | 0.14 | 253.45\* | 520.36 |
| pr124 | 66286 | 59030 | 0.12 | 349.79 | 686.65 |
| pr152 | 85962 | 73682 | 0.11 | 481.54\* | 826.65 |
| QA194 | 11563 | 9352 | 0.19 | - | 968.36 |
| kroA200 | 41205 | 29368 | 0.20 | 693.5 | 1268.65 |

\*Optimal solution not obtained.

****