**Laborator 3**

**Schwefel 1 Function - AE:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **population\_size** | **generations** | **crossover\_rate** | **mutation\_rate** | **Best from 10** | **Average from 10** |
| 100 | 10 | **0.7** | 0.02 | 610614.61 | 541807.32 |
| 1000 | 10 | **0.8** | 0.02 | 607154.39 | 540478.15 |
| 1000 | 10 | **0.9** | 0.02 | 598461.64 | 536045.26 |

- pe de-o parte observam ca pentru mai putine obiecte(ex: rucsac-20.txt), algoritmul tinde sa aiba precizie mai mare cand rata de crossover este in jur de 0.8, iar daca este in extrema inferioara sau superioara, precizia scade

**TSP problem - AE:**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Instanta** | **population\_size** | **generations** | **crossover\_rate** | **mutation\_rate** | **Best from 10** | **Average from 10** |
| pr124.tsp | 1000 | 10 | **0.7** | 0.02 | 610614.61 | 541807.32 |
| pr124.tsp | 1000 | 10 | **0.8** | 0.02 | 607154.39 | 540478.15 |
| pr124.tsp | 1000 | 10 | **0.9** | 0.02 | 598461.64 | 536045.26 |

- la problema TSP, observam ca avem cea mai ridicata precizie cand rata de crossover tinde spre 0.7 insa daca o crestem, precizia incepe sa scada