

Comparison of metaheuristics performance with random solution and ad-hoc initial solution heuristic

Algorithms	Objective Function (€)					Execution Time (s)				Iteration number			
	Min	Max	Difference	Mean	STD	Min	Max	Mean	STD	Min	Max	Mean	STD
PSO	571,5482393	1998,60057		1483,834869	270	0,117	0,437	0,184	0,035	42	119	64	10,9
PSO - ST	1805,678166	2000,645575	0,001022173	1981,0703	47,4	0,451	2,288	1,046	0,277	168	872	384	101
EPSO	482,8222564	2000,645441		1579,394765	307	0,597	251,12	27,930	54,814	36	10000	1621	3173,9
EPSO - ST	1875,11834	2000,645575	6,69784E-08	1972,730129	28,4	0,544	181,72	13,168	30,568	33	10000	783	1808,2
QPSO	320,7350118	1998,943579		1231,960536	305	0,026	0,784	0,292	0,116	3	193	61	35,2
QPSO - ST	1730,208333	2000,603042	0,000829481	1939,199948	56,4	0,090	0,634	0,282	0,090	11	192	63	26,0
NPSO-LRS	1416,428571	2000,645575		1762,368403	144	0,033	4,176	1,500	0,466	7	943	363	112
NPSO-LRS - ST	1889,129398	2000,645575	0	1992,054849	20,9	0,866	5,818	1,806	0,499	226	1466	448	122
MPSO-TVAC	1416,616267	2000,645575		1947,158616	133	5,282	28,181	6,841	0,871	398	2000	492	60,2
MPSO-TVAC - ST	1816,711641	2000,645575	0	1873,731161	85,1	3,518	6,185	4,059	0,232	270	340	298	11,4
GA	1545,451332	2000,61882		1971,172973	76,4	5,094	9,226	7,478	0,679	1915	3076	2625	218
GA - ST	1730,208333	2000,624022	2,60019E-06	1992,965007	40,3	0,006	5,544	4,728	0,743	1	1712	1663	255
SA	1781,480543	1927,242146		1884,044958	55,5	0,495	0,868	0,551	0,021	1720	1907	1831	26,1
SA - ST	1945,012082	2000,627211	0,036681029	1988,26509	11,7	0,484	0,889	0,510	0,020	1710	1749	1730	6,4