

This documents includes the absolute objective values of the experimental studies of paper: “*Ant Colony Optimization Algorithms for Dynamic Problems: A Comprehensive Comparison*”.

TABLE I: Experimental results regarding $\bar{P}_{offline}$ of ACO variations for DTSPs with weight changes

ACO Algorithm	kroA100				kroA150				kroA200			
$f = 500, m \Rightarrow$	0.1	0.25	0.5	0.75	0.1	0.25	0.5	0.75	0.1	0.25	0.5	0.75
Evaporation	20823	21309	21140	21541	26649	26663	27135	27773	29622	29523	30588	30996
Evaporation+PP	21232	21715	21547	21996	27142	27077	27633	28086	29884	29785	30870	30968
Shake-Strategy	20765	21255	21095	21519	26656	26712	27139	27809	29613	29535	30739	31064
Max-Strategy	21071	22103	21869	22274	27416	27720	28184	28587	31011	31082	31877	31956
\mathcal{MMAS}_{caste}	20711	21250	21096	21562	26555	26720	27221	27717	29627	29435	30625	30864
\mathcal{MMAS}_R	21143	22082	21851	22261	27390	27805	28133	28521	30931	31075	31833	31841
\mathcal{MMAS}_A	20686	21340	21167	21708	26672	26796	27476	28001	29605	29626	31043	31367
\mathcal{MMAS}_S	20662	21362	21101	21697	26646	26827	27458	28071	29691	29747	31100	31383
MC- \mathcal{MMAS}	20719	21263	20999	21486	26474	26706	27081	27489	29353	29262	30518	30575
Population	21044	21739	21408	22062	27034	27035	27339	27925	29839	29610	30992	30873
Population+RP	20821	21878	21570	22100	26971	27430	27841	28294	30234	30342	31446	31575
RIACO	21633	22600	22171	22657	28026	28309	28526	28887	31326	31253	32154	32181
EIACO	20665	21344	21234	21803	26675	26851	27400	27876	29508	29466	30875	31055
HIACO	20822	21955	21573	22123	26961	27230	27565	27975	30064	30026	31019	31147
HIACO-II	20822	21955	21573	22123	26962	27230	27565	27975	30064	30026	31019	31147
MIACO	20784	21532	21279	21851	26649	26954	27555	28026	29782	29827	30969	31216
EIIACO	21550	22511	22147	22575	27894	28224	28445	28786	31200	31209	32036	32140
M-PACO	21117	21990	21544	22235	27032	27222	27713	28163	29878	29977	31169	31235
$f = 5000, m \Rightarrow$	0.1	0.25	0.5	0.75	0.1	0.25	0.5	0.75	0.1	0.25	0.5	0.75
Evaporation	20332	20566	20259	20464	25913	25697	25690	25938	28670	28113	28406	28531
Evaporation+PP	20621	20919	20679	20995	26325	26157	26296	26518	28959	28524	29127	29203
Shake-Strategy	20319	20568	20254	20461	25904	25691	25693	25932	28664	28103	28393	28551
Max-Strategy	20220	20700	20390	20676	25786	25829	25970	26220	28703	28265	29041	29019
\mathcal{MMAS}_{caste}	20298	20562	20244	20466	25871	25701	25703	25906	28649	28087	28421	28554
\mathcal{MMAS}_R	20258	20691	20377	20644	25790	25817	25919	26142	28679	28289	28940	28917
\mathcal{MMAS}_A	20218	20549	20221	20448	25826	25683	25698	25962	28589	28050	28484	28665
\mathcal{MMAS}_S	20262	20543	20225	20444	25807	25665	25697	25974	28618	28031	28463	28646
MC- \mathcal{MMAS}	20240	20559	20259	20462	25850	25690	25688	25933	28585	28032	28381	28581
Population	20457	20898	20502	20826	26102	25948	25997	26304	28812	28348	28922	28919
Population+RP	20208	20810	20362	20658	25792	25867	26035	26248	28648	28324	29050	29127
RIACO	20909	21659	21092	21345	27009	27121	27097	27216	30251	29903	30420	30252
EIACO	20237	20602	20259	20494	25856	25684	25787	25996	28579	27932	28573	28720
HIACO	20243	21024	20488	20775	25896	25944	26099	26248	28719	28484	29141	29093
HIACO-II	20243	21024	20488	20775	25896	25944	26099	26248	28720	28484	29141	29093
MIACO	20257	20638	20283	20526	25835	25709	25805	26088	28623	28092	28581	28766
EIIACO	20845	21610	21071	21272	26912	27030	27010	27122	30119	29807	30296	30125
M-PACO	20430	21045	20572	20889	26001	25898	26056	26389	28849	28353	29065	29128

Evaporation refers to the standard evaporation-based framework (i.e., \mathcal{MMAS})

Population refers to the standard evaporation-based framework (i.e., P-ACO)

TABLE II: Experimental results regarding $\bar{P}_{offline}$ of ACO variations for DTSPs with node changes

ACO Algorithm	kroA100				kroA150				kroA200			
$f = 500, m \Rightarrow$	0.1	0.25	0.5	0.75	0.1	0.25	0.5	0.75	0.1	0.25	0.5	0.75
Evaporation	23225	23639	24035	23814	28809	29433	29625	29574	34181	34455	34590	34558
Evaporation+PP	23671	24049	24388	24030	29147	29734	29631	29605	34327	34703	34535	34325
Shake-Strategy	23246	23662	24009	23815	28774	29425	29594	29599	34129	34451	34576	34562
Max-Strategy	23477	23596	23808	23598	28997	29202	29258	29231	34389	34121	34090	34111
\mathcal{MMAS}_{caste}	23227	23649	23997	23792	28714	29424	29564	29506	34080	34425	34519	34512
\mathcal{MMAS}_R	23460	23539	23738	23536	28935	29085	29163	29078	34289	34032	33942	34007
\mathcal{MMAS}_A	23243	23713	23991	23791	28771	29454	29605	29545	34166	34440	34526	34555
\mathcal{MMAS}_S	23287	23617	23937	23722	28846	29392	29483	29466	34263	34409	34422	34485
MC- \mathcal{MMAS}	23198	23605	23965	23742	28639	29327	29460	29458	34048	34304	34413	34457
Population	23337	23706	24048	23750	28789	29387	29315	29332	34038	34344	34177	34143
Population+RP	23408	23761	24038	23827	28840	29391	29514	29447	34214	34338	34334	34377
RIACO	24235	24444	24642	24487	29871	30182	30247	30193	35433	35232	35163	35227
EIACO	23069	23476	23808	23568	28516	29119	29200	29079	33871	34010	34007	34034
HIACO	23443	23812	24057	23874	28922	29470	29532	29449	34368	34446	34400	34454
HIACO-II	23074	23509	23775	23591	28483	29097	29208	29102	33876	34013	34032	34038
MIACO	23152	23596	23912	23684	28632	29270	29348	29255	34045	34172	34212	34203
EIIACO	24166	24371	24573	24421	29764	30112	30152	30129	35269	35102	35072	35102
M-PACO	23729	24040	24431	24107	29278	29777	29762	29735	34594	34815	34702	34635
$f = 5000, m \Rightarrow$	0.1	0.25	0.5	0.75	0.1	0.25	0.5	0.75	0.1	0.25	0.5	0.75
Evaporation	22045	22207	22435	22249	26823	27182	27185	27188	31443	31529	31461	31460
Evaporation+PP	22536	22643	22909	22693	27324	27721	27723	27722	31872	32035	31972	31861
Shake-Strategy	22023	22183	22438	22235	26789	27171	27192	27178	31401	31508	31465	31506
Max-Strategy	22109	22195	22408	22212	26899	27153	27142	27133	31544	31476	31385	31407
\mathcal{MMAS}_{caste}	22037	22191	22449	22245	26778	27184	27162	27186	31355	31463	31421	31416
\mathcal{MMAS}_R	22100	22178	22400	22190	26875	27141	27124	27126	31550	31475	31336	31398
\mathcal{MMAS}_A	22945	23048	23090	22543	28321	28739	28813	28762	33752	33718	33591	33722
\mathcal{MMAS}_S	22035	22181	22411	22199	26870	27273	27217	27183	31786	31757	31669	31788
MC- \mathcal{MMAS}	22019	22245	22486	22272	26814	27262	27230	27233	31378	31593	31560	31603
Population	22266	22434	22650	22464	26969	27443	27421	27455	31569	31783	31712	31667
Population+RP	22366	22568	22729	22556	27343	27788	27685	27611	32442	32348	32222	32316
RIACO	23273	23436	23618	23464	28618	28925	28877	28819	33998	33738	33600	33716
EIACO	21989	22229	22435	22235	26791	27266	27199	27189	31464	31652	31581	31629
HIACO	22186	22430	22614	22436	27108	27639	27587	27488	32233	32239	32107	32275
HIACO-II	21981	22225	22427	22231	26786	27264	27218	27176	31446	31650	31581	31645
MIACO	22029	22246	22445	22252	26788	27288	27243	27253	31452	31695	31628	31723
EIIACO	23201	23373	23542	23385	28535	28814	28776	28716	33863	33644	33470	33587
M-PACO	22464	22625	22834	22612	27290	27785	27758	27714	32147	32295	32171	32218

Evaporation refers to the standard evaporation-based framework (i.e., \mathcal{MMAS})

Population refers to the standard evaporation-based framework (i.e., P-ACO)