

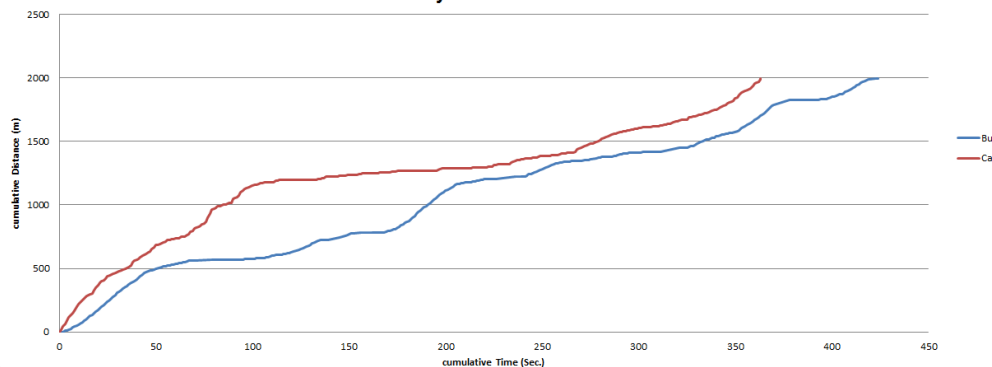
20th Trip BUS DATA

GPS DATA						OUTPUT DATA			
SPEED	N	E	Hour	Min.	Sec.	Speed Classification	Route Length (meter)	1996	Meter
0	3325129.286	325905.028	19	15	37	Start Trip	Total Travel Time (by GPS),(Second)	424	Second
3	3325129.497	325905.707	19	15	38	Stoppage	Total Stoppage Delay (Second)	123	Second
4	3325129.601	325906.191	19	15	39	Stoppage	Total Acc. Delay (Second)	75	Second
5	3325133.943	325912.046	19	15	40	End Stoppage & Start Acc.	Total Dec. Delay (Second)	61	Second
15	3325137.784	325914.518	19	15	41	Acc.	Delay due to stoppage/Acc./Dec. Delay (Second)	258	Second
23	3325142.932	325918.458	19	15	42	Acc.	Travel Time without Delay (by GPS), (Second)	166	Second
25	3325148.741	325922.697	19	15	43	Acc.	Free Flow Travel Time (Velocity=60 Kph.), (Second)	120	Second
26	3325154.201	325927.991	19	15	44	Acc.	Delay due to hardly reach Free Flow Time(Second)	46	Second
27	3325160.761	325933.786	19	15	45	End Acc. & Start Constant	Total Delay (Second)	304	Second
27	3325166.206	325940.044	19	15	46	End Constant & Start Acc.	Number of Total Stops	10	
28	3325171.87	325946.403	19	15	47	Acc.	Number of Stops at Station	0	
29	3325177.871	325952.574	19	15	48	Acc.			
31	3325184.643	325958.951	19	15	49	Acc.			
34	3325193.153	325967.669	19	15	50	Acc.			
36	3325201.564	325975.614	19	15	51	Acc.			
38	3325210.63	325984.245	19	15	52	Acc.			
40	3325219.937	325991.626	19	15	53	End Acc. & Start Constant			
37	3325228.368	325998.414	19	15	54	End Constant & Start Acc.			
40	3325237.458	326005.406	19	15	55	Acc.			
42	3325247.321	326012.699	19	15	56	Acc.			
43	3325257.522	326019.611	19	15	57	End Acc. & Start Constant			
42	3325267.391	326026.518	19	15	58	End Constant & Start Acc.			
44	3325277.809	326033.724	19	15	59	Acc.			
46	3325288.217	326041.604	19	16	0	Acc.			
48	3325298.496	326050.639	19	16	1	End Acc. & Start Constant			
48	3325308.785	326059	19	16	2	Constant			

CAR DATA

GPS DATA						OUTPUT DATA			
SPEED	N	E	Hour	Min.	Sec.	Speed Classification	Route Length (meter)	1996	Meter
0	3325164.884	325932.5	19	16	6	Start Trip	Total Travel Time (by GPS),(Second)	363	Second
17	3325182.436	325944.255	19	16	7	Acc.	Total Stoppage Delay (Second)	51	Second
25	3325198.658	325956.085	19	16	8	Acc.	Total Acc. Delay (Second)	46	Second
27	3325204.682	325960.714	19	16	9	Acc.	Total Dec. Delay (Second)	128	Second
28	3325210.921	325965.828	19	16	10	End Acc. & Start Constant	Delay due to stoppage/Acc./Dec. Delay (Second)	225	Second
27	3325217.048	325970.94	19	16	11	Constant	Travel Time without Delay (by GPS), (Second)	138	Second
27	3325223.624	325975.77	19	16	12	End Constant & Start Acc.	Free Flow Travel Time (Velocity=60 Kph.), (Second)	120	Second
29	3325229.863	325980.884	19	16	13	Acc.	Delay due to hardly reach Free Flow Time(Second)	18	Second
30	3325236.648	325986.488	19	16	14	Acc.	Total Delay (Second)	243	Second
31	3325244.318	325992.204	19	16	15	End Acc. & Start Constant	Number of Total Stops	8	
31	3325251.534	325998.587	19	16	16	End Constant & Start Dec.			
29	3325258.206	326004.383	19	16	17	Dec.			
27	3325264.561	326009.113	19	16	18	Dec.			
25	3325270.367	326013.544	19	16	19	End Dec. & Start Acc.			
24	3325275.617	326018.064	19	16	20	Acc.			
25	3325281.535	326022.401	19	16	21	End Acc. & Start Constant			
24	3325288.334	326027.138	19	16	22	End Constant & Start Acc.			
26	3325294.14	326031.57	19	16	23	Acc.			
31	3325312.179	326047.672	19	16	24	Acc.			
33	3325319.409	326053.188	19	16	25	Acc.			
35	3325327.29	326059.581	19	16	26	End Acc. & Start Constant			
35	3325334.951	326065.875	19	16	27	Constant			
35	3325342.836	326072.076	19	16	28	Constant			
35	3325350.494	326078.562	19	16	29	Constant			
35	3325358.82	326084.866	19	16	30	End Constant & Start Dec.			
30	3325365.611	326090.085	19	16	31	Dec.			

**Gameet El Dewl El Arabyla Street
From El Sudan Street to El Mehwar Bridge
Monday 03-12-2012 At 7:15 PM**



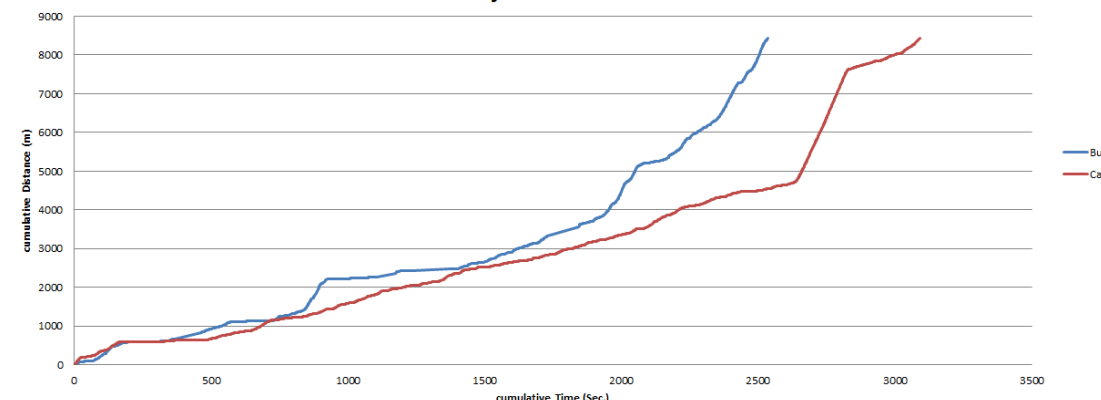
21th Trip BUS DATA

GPS DATA						OUTPUT DATA			
SPEED	N	E	Hour	Min.	Sec.	Speed Classification	Route Length (meter)	8445	Meter
0	3327785.038	335479.436	17	44	30	Start Trip	Total Travel Time (by GPS),(Second)	2535	Second
17	3327795.667	335495.215	17	44	37	Constant	Total Stoppage Delay (Second)	1075	Second
17	3327799.035	335499.798	17	44	38	End Constant & Start Acc.	Total Acc. Delay (Second)	308	Second
16	3327802.182	335504.376	17	44	39	Acc.	Total Dec. Delay (Second)	335	Second
18	3327805.763	335509.54	17	44	40	End Acc. & Start Constant	Delay due to stoppage/Acc./Dec. Delay (Second)	1718	Second
18	3327809.792	335514.422	17	44	41	End Constant & Start Dec.	Travel Time without Delay (by GPS), (Second)	817	Second
16	3327812.609	335518.803	17	44	42	Dec.	Free Flow Travel Time (Velocity=60 Kph.), (Second)	507	Second
15	3327815.44	335522.22	17	44	43	Dec.	Delay due to hardly reach Free Flow Time(Second)	310	Second
14	3327817.491	335525.914	17	44	44	Dec.	Total Delay (Second)	2028	Second
11	3327819.329	335529.027	17	44	45	End Dec. & Start Acc.	Number of Total Stops	30	
10	3327820.953	335531.655	17	44	46	Acc.	Number of Stops at Station	0	
11	3327822.578	335534.186	17	44	47	End Acc. & Start dec.			
10	3327824.642	335537.013	17	44	48	Dec.			
9	3327826.047	335539.445	17	44	49	Dec.			
8	3327827.658	335542.94	17	44	50	Dec.			
7	3327829.296	335544.604	17	44	51	Dec.			
6	3327830.381	335546.163	17	44	52	Dec.			
4	3327830.378	335546.355	17	44	53	End Dec. & Start Stoppage			
0	3327830.378	335546.355	17	44	54	Stoppage			
0	3327830.489	335546.357	17	44	55	Stoppage			
0	3327830.489	335546.357	17	44	56	Stoppage			
0	3327830.489	335546.357	17	44	57	Stoppage			
0	3327830.489	335546.357	17	44	58	Stoppage			
0	3327830.489	335546.357	17	44	59	Stoppage			
0	3327830.489	335546.357	17	45	0	Stoppage			
0	3327830.708	335546.553	17	45	1	Stoppage			

CAR DATA

GPS DATA						OUTPUT DATA			
SPEED	N	E	Hour	Min.	Sec.	Speed Classification	Route Length (meter)	8445	Meter
0	3327686.037	335398.119	17	47	4	Start Trip	Total Travel Time (by GPS),(Second)	3092	Second
4	3327686.255	335398.315	17	47	5	End Stoppage & Start Acc.	Total Stoppage Delay (Second)	1092	Second
21	3327691.5	335403.408	17	47	6	Acc.	Total Acc. Delay (Second)	432	Second
25	3327696.858	335408.405	17	47	7	Acc.	Total Dec. Delay (Second)	718	Second
30	3327703.529	335414.483	17	47	8	Acc.	Delay due to stoppage/Acc./Dec. Delay (Second)	2242	Second
33	3327710.518	335421.627	17	47	9	Acc.	Travel Time without Delay (by GPS), (Second)	850	Second
35	3327717.729	335428.677	17	47	10	Acc.	Free Flow Travel Time (Velocity=60 Kph.), (Second)	507	Second
36	3327725.604	335435.833	17	47	11	End Acc. & Start Constant	Delay due to hardly reach Free Flow Time(Second)	343	Second
36	3327733.577	335443.859	17	47	12	Constant	Total Delay (Second)	2585	Second
35	3327741.112	335451.493	17	47	13	Constant	Number of Total Stops	87	
35	3327748.316	335459.025	17	47	14	Constant			
34	3327755.189	335466.456	17	47	15	Constant			
34	3327762.173	335473.888	17	47	16	Constant			
33	3327768.5	335480.828	17	47	17	Constant			
33	3327774.82	335488.155	17	47	18	End Constant & Start Dec.			
32	3327780.812	335495.186	17	47	19	Dec.			
30	3327786.921	335501.834	17	47	20	Dec.			
29	3327792.702	335508.188	17	47	21	Dec.			
27	3327798.161	335513.766	17	47	22	Dec.			
25	3327803.291	335519.146	17	47	23	Dec.			
22	3327807.542	335524.03	17	47	24	Dec.			
20	3327811.578	335528.429	17	47	25	Dec.			
18	3327815.067	335532.338	17	47	26	Dec.			
14	3327818.117	335535.952	17	47	27	Dec.			
10	3327820.075	335538.488	17	47	28	Dec.			
6	3327821.599	335540.343	17	47	29	Dec.			

Salah Salem Street
From El Abasya Bridge to El Kolya El Harbya
Monday 17/12/2012 At 5:45 PM



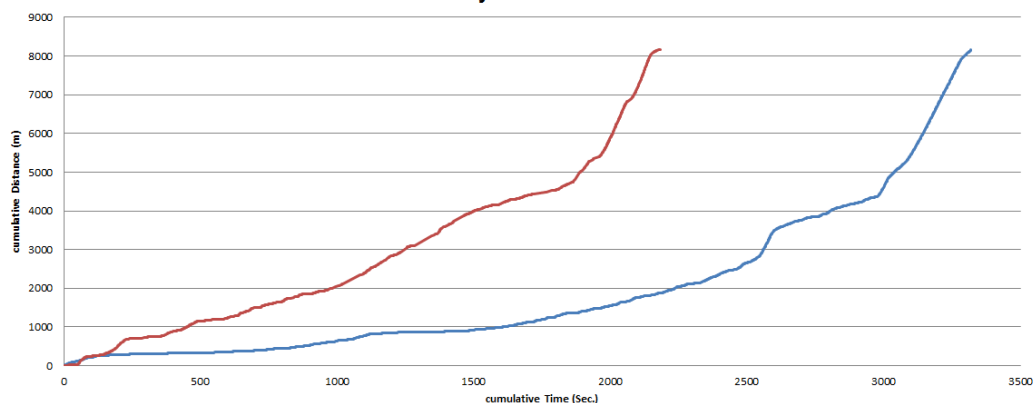
22th Trip BUS DATA

GPS DATA						OUTPUT DATA			
SPEED	N	E	Hour	Min.	Sec.	Speed Classification	Route Length (meter)	8162	Meter
0	3327863.874	335604.708	18	15	51	Start Trip	Total Travel Time (by GPS),(Second)	3318	Second
4	3327864.088	335605.194	18	15	52	Stoppage	Total Stoppage Delay (Second)	1270	Second
4	3327864.189	335605.87	18	15	53	End Stoppage & Start Acc.	Total Acc. Delay (Second)	313	Second
6	3327868.504	335613.841	18	15	54	Acc.	Total Dec. Delay (Second)	958	Second
9	3327869.797	335616.367	18	15	55	Acc.	Delay due to stoppage/Acc./Dec. Delay (Second)	2541	Second
10	3327871.416	335619.284	18	15	56	End Acc. & Start Constant	Travel Time without Delay (by GPS), (Second)	777	Second
10	3327873.144	335622.396	18	15	57	End Constant & Start Acc.	Free Flow Travel Time (Velocity=60 Kph.), (Second)	490	Second
11	3327874.98	335625.605	18	15	58	Acc.	Delay due to hardly reach Free Flow Time(Second)	288	Second
12	3327876.035	335629.188	18	15	59	End Acc. & Start Constant	Total Delay (Second)	2828	Second
12	3327876.978	335632.866	18	16	0	Constant	Number of Total Stops	73	
12	3327878.484	335635.974	18	16	1	End Constant & Start Dec.	Number of Stops at Station	35	
11	3327879.546	335639.076	18	16	2	Dec.			
10	3327882.376	335642.589	18	16	3	Dec.			
9	3327883.446	335645.208	18	16	4	Dec.			
8	3327883.745	335647.431	18	16	5	Dec.			
8	3327885.704	335649.87	18	16	6	End Dec. & Start Acc.			
7	3327886.674	335651.717	18	16	7	Acc.			
8	3327887.309	335653.751	18	16	8	Acc.			
9	3327888.272	335656.08	18	16	9	End Acc. & Start Constant			
9	3327889.345	335658.506	18	16	10	Constant			
9	3327890.194	335661.026	18	16	11	Constant			
9	3327890.49	335663.441	18	16	12	Constant			
9	3327891.01	335665.763	18	16	13	Constant			
9	3327890.967	335668.655	18	16	14	End Constant & Start Acc.			
8	3327891.702	335671.365	18	16	15	Acc.			
9	3327892.765	335674.467	18	16	16	End Acc. & Start dec.			

CAR DATA

GPS DATA						OUTPUT DATA			
SPEED	N	E	Hour	Min.	Sec.	Speed Classification	Route Length (meter)	8162	Meter
0	3327685.275	335389.719	18	16	2	Start Trip	Total Travel Time (by GPS),(Second)	2182	Second
4	3327685.272	335389.912	18	16	3	Stoppage	Total Stoppage Delay (Second)	556	Second
5	3327685.773	335393.487	18	16	4	Start Dec.	Total Acc. Delay (Second)	343	Second
8	3327686.85	335395.624	18	16	5	Dec.	Total Dec. Delay (Second)	531	Second
5	3327687.939	335396.894	18	16	6	End Dec. & Start Stoppage	Delay due to stoppage/Acc./Dec. Delay (Second)	1430	Second
0	3327687.939	335396.894	18	16	7	Stoppage	Travel Time without Delay (by GPS), (Second)	752	Second
3	3327688.05	335396.896	18	16	8	Stoppage	Free Flow Travel Time (Velocity=60 Kph.), (Second)	490	Second
0	3327688.272	335396.899	18	16	9	Stoppage	Delay due to hardly reach Free Flow Time(Second)	262	Second
0	3327688.496	335396.71	18	16	10	Stoppage	Total Delay (Second)	1692	Second
0	3327688.496	335396.71	18	16	11	Stoppage	Number of Total Stops	38	
0	3327688.496	335396.71	18	16	12	Stoppage			
0	3327688.718	335396.713	18	16	13	Stoppage			
0	3327688.718	335396.713	18	16	14	Stoppage			
0	3327688.718	335396.713	18	16	15	Stoppage			
0	3327688.718	335396.713	18	16	16	Stoppage			
0	3327688.718	335396.713	18	16	17	Stoppage			
0	3327688.83	335396.618	18	16	18	Stoppage			
5	3327685.773	335393.487	18	16	19	End Stoppage & Start Acc.			
6	3327683.578	335392.008	18	16	20	Acc.			
7	3327681.944	335390.055	18	16	21	Acc.			
11	3327680.324	335387.234	18	16	22	End Acc. & Start dec.			
8	3327679.246	335385.193	18	16	23	Dec.			
0	3327679.246	335385.193	18	16	24	End Dec. & Start Stoppage			
0	3327679.246	335385.193	18	16	25	Stoppage			
0	3327679.022	335385.287	18	16	26	Stoppage			
0	3327679.022	335385.287	18	16	27	Stoppage			

Salah Salem Street
From El Abasya Bridge to El Kolya El Harbaya
Monday 17/12/2012 At 6:16 PM



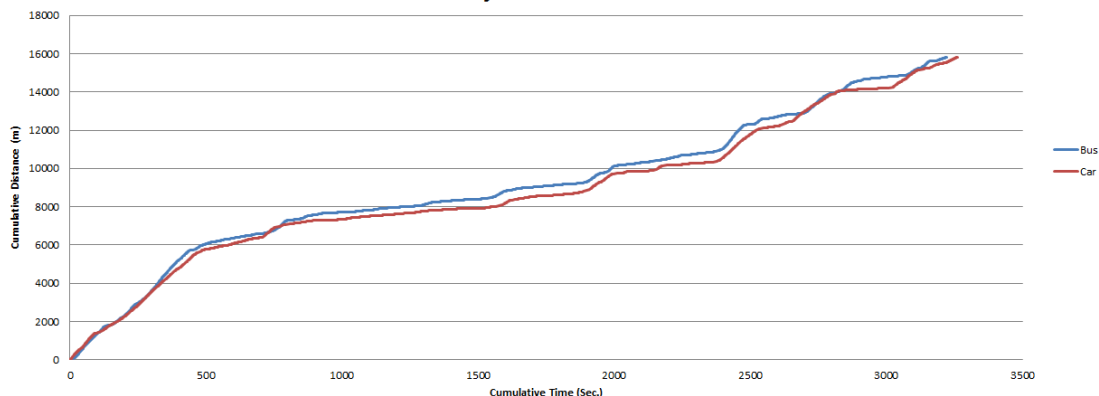
23th Trip BUS DATA

GPS DATA						OUTPUT DATA			
SPEED	N	E	Hour	Min.	Sec.	Speed Classification	Route Length (meter)	15808	Meter
0	3331973.311	343229.469	17	30	15	Start Trip	Total Travel Time (by GPS),(Second)	3222	Second
4	3331973.867	343229.284	17	30	16	End Stoppage & Start Acc.	Total Stoppage Delay (Second)	873	Second
8	3331982.184	343229.113	17	30	17	Acc.	Total Acc. Delay (Second)	497	Second
10	3331986.627	343228.502	17	30	18	Acc.	Total Dec. Delay (Second)	632	Second
11	3331988.571	343232.096	17	30	19	Acc.	Delay due to stoppage/Acc./Dec. Delay (Second)	2001	Second
12	3331990.853	343235.309	17	30	20	Acc.	Travel Time without Delay (by GPS), (Second)	1221	Second
16	3331993.564	343239.588	17	30	21	Acc.	Free Flow Travel Time (Velocity=60 Kph.), (Second)	948	Second
23	3331998.038	343244.568	17	30	22	Acc.	Delay due to hardly reach Free Flow Time(Second)	272	Second
26	3332002.044	343251.275	17	30	23	Acc.	Total Delay (Second)	2274	Second
27	3332006.942	343257.609	17	30	24	End Acc. & Start Constant	Number of Total Stops	50	
27	3332011.619	343263.941	17	30	25	Constant	Number of Stops at Station	10	
27	3332015.949	343271.231	17	30	26	End Constant & Start Acc.			
28	3332021.397	343277.863	17	30	27	Acc.			
29	3332025.61	343285.633	17	30	28	Acc.			
33	3332031.146	343293.904	17	30	29	Acc.			
35	3332036.446	343303.136	17	30	30	Acc.			
36	3332041.626	343313.041	17	30	31	Acc.			
38	3332047.355	343323.338	17	30	32	Acc.			
39	3332052.749	343333.728	17	30	33	Acc.			
42	3332058.358	343344.699	17	30	34	Acc.			
46	3332063.856	343355.572	17	30	35	Acc.			
48	3332070.448	343367.52	17	30	36	End Acc. & Start Constant			
48	3332077.366	343379.956	17	30	37	Constant			
50	3332084.839	343392.302	17	30	38	End Constant & Start Acc.			
49	3332092.423	343404.65	17	30	39	Acc.			
50	3332099.779	343417.477	17	30	40	Acc.			

CAR DATA

GPS DATA						OUTPUT DATA			
SPEED	N	E	Hour	Min.	Sec.	Speed Classification	Route Length (meter)	15808	Meter
0	3332209.83	343551.854	17	32	3	Start Trip	Total Travel Time (by GPS),(Second)	3262	Second
40	3332232.276	343594.869	17	32	6	Acc.	Total Stoppage Delay (Second)	914	Second
62	3332240.033	343610.689	17	32	7	Acc.	Total Acc. Delay (Second)	485	Second
64	3332243.109	343628.274	17	32	8	End Acc. & Start Constant	Total Dec. Delay (Second)	531	Second
61	3332276.362	343690.91	17	32	12	End Constant & Start Acc.	Delay due to stoppage/Acc./Dec. Delay (Second)	1930	Second
62	3332283.561	343706.915	17	32	13	End Acc. & Start dec.	Travel Time without Delay (by GPS), (Second)	1332	Second
61	3332290.976	343723.405	17	32	14	Dec.	Free Flow Travel Time (Velocity=60 Kph.), (Second)	948	Second
60	3332298.619	343739.415	17	32	15	End Dec. & Start Constant	Delay due to hardly reach Free Flow Time(Second)	384	Second
60	3332305.265	343755.412	17	32	16	Constant	Total Delay (Second)	2314	Second
60	3332311.689	343771.406	17	32	17	Constant	Number of Total Stops	40	
62	3332317.882	343788.071	17	32	18	Constant			
62	3332323.64	343804.151	17	32	19	End Constant & Start Acc.			
63	3332329.054	343820.998	17	32	20	Acc.			
64	3332334.356	343837.939	17	32	21	End Acc. & Start dec.			
62	3332339.333	343854.394	17	32	22	Dec.			
59	3332344.093	343870.46	17	32	23	Dec.			
57	3332349.749	343885.961	17	32	24	Dec.			
56	3332354.193	343900.866	17	32	25	Dec.			
54	3332358.42	343915.479	17	32	26	Dec.			
51	3332362.875	343929.613	17	32	27	Dec.			
48	3332366.343	343943.059	17	32	28	Dec.			
47	3332368.707	343956.104	17	32	29	Dec.			
46	3332370.737	343969.336	17	32	30	Dec.			
44	3332370.43	343983.114	17	32	31	Dec.			
40	3332370.593	343995.067	17	32	32	End Dec. & Start Acc.			
39	3332370.986	344006.445	17	32	33	Acc.			

**El Nasr Street
From Sun City to Manshyet El Bakry
Monday 19-12-12 At 3:30 PM**



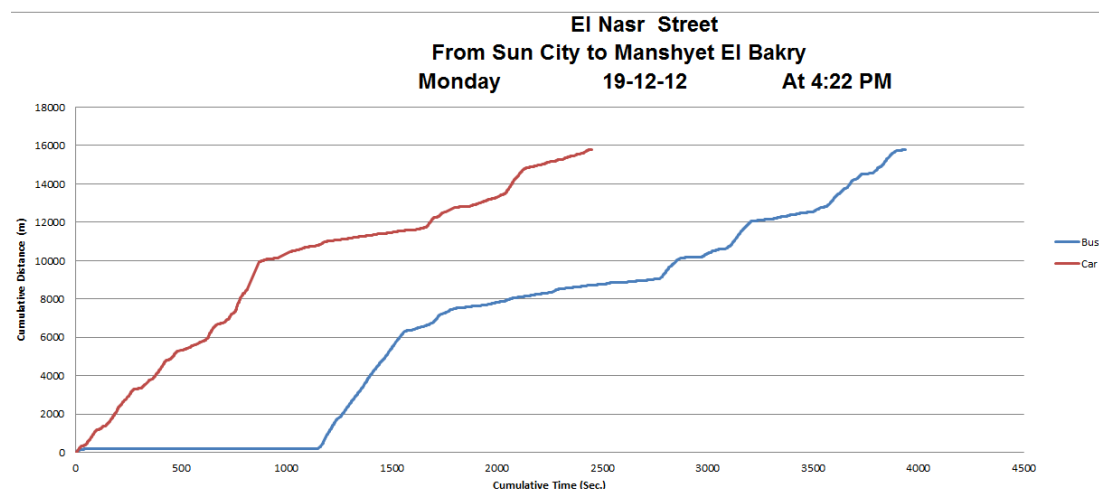
24th Trip

BUS DATA

GPS DATA						OUTPUT DATA			
SPEED	N	E	Hour	Min.	Sec.	Speed Classification	Route Length (meter)	15808	Meter
0	3332011.437	343253.336	16	21	33	Start Trip	Total Travel Time (by GPS), (Second)	3939	Second
8	3332015.767	343260.627	16	21	34	Acc.	Total Stoppage Delay (Second)	1733	Second
15	3332019.321	343268.002	16	21	35	Acc.	Total Acc. Delay (Second)	360	Second
27	3332023.557	343274.135	16	21	36	Acc.	Total Dec. Delay (Second)	614	Second
28	3332027.449	343281.033	16	21	37	End Acc. & Start Constant	Delay due to stoppage/Acc./Dec. Delay (Second)	2707	Second
28	3332030.66	343289.078	16	21	38	Constant	Travel Time without Delay (by GPS), (Second)	1232	Second
28	3332034.086	343297.609	16	21	39	Constant	Free Flow Travel Time (Velocity=60 Kph.), (Second)	948	Second
28	3332037.419	343304.885	16	21	40	Constant	Delay due to hardly reach Free Flow Time(Second)	284	Second
28	3332041.309	343311.976	16	21	41	End Constant & Start Dec.	Total Delay (Second)	2991	Second
27	3332044.864	343319.159	16	21	42	Dec.	Number of Total Stops	46	
25	3332048.879	343325.288	16	21	43	Dec.	Number of Stops at Station	18	
24	3332053.573	343330.366	16	21	44	End Dec. & Start Constant			
24	3332056.58	343337.156	16	21	45	Constant			
24	3332058.369	343343.928	16	21	46	End Constant & Start Dec.			
23	3332061.164	343350.04	16	21	47	Dec.			
22	3332062.94	343357.679	16	21	48	Dec.			
20	3332065.291	343363.784	16	21	49	Dec.			
15	3332067.446	343368.152	16	21	50	Dec.			
11	3332069.278	343371.841	16	21	51	Dec.			
9	3332070.339	343375.229	16	21	52	Dec.			
8	3332071.745	343377.659	16	21	53	End Dec. & Start Constant			
8	3332073.156	343379.799	16	21	54	Constant			
8	3332073.904	343381.737	16	21	55	End Constant & Start Acc.			
6	3332075.32	343383.492	16	21	56	Acc.			
7	3332076.396	343385.821	16	21	57	End Acc. & Start Constant			
6	3332077.254	343387.857	16	21	58	Constant			

CAR DATA

GPS DATA						OUTPUT DATA			
SPEED	N	E	Hour	Min.	Sec.	Speed Classification	Route Length (meter)	15808	Meter
0	3331602.67	344522.288	16	25	48	Start Trip	Total Travel Time (by GPS), (Second)	2448	Second
12	3331592.382	344528.6	16	25	49	Acc.	Total Stoppage Delay (Second)	333	Second
28	3331582.907	344532.321	16	25	50	Acc.	Total Acc. Delay (Second)	406	Second
35	3331553.842	344541.646	16	25	53	Acc.	Total Dec. Delay (Second)	590	Second
38	3331542.249	344546.205	16	25	54	End Acc. & Start Constant	Delay due to stoppage/Acc./Dec. Delay (Second)	1330	Second
37	3331531.096	344550.963	16	25	55	End Constant & Start Acc.	Travel Time without Delay (by GPS), (Second)	1118	Second
39	3331520.159	344556.206	16	25	56	Acc.	Free Flow Travel Time (Velocity=60 Kph.), (Second)	948	Second
43	3331507.344	344560.94	16	25	57	Acc.	Delay due to hardly reach Free Flow Time(Second)	170	Second
45	3331493.98	344565.281	16	25	58	Acc.	Total Delay (Second)	1500	Second
46	3331480.84	344569.433	16	25	59	End Acc. & Start Constant	Number of Total Stops	37	
45	3331467.817	344573.201	16	26	0	Constant			
45	3331455.005	344577.743	16	26	1	Constant			
45	3331442.42	344581.902	16	26	2	Constant			
47	3331428.945	344586.242	16	26	3	Constant			
47	3331415.583	344590.487	16	26	4	Constant			
45	3331402.465	344593.097	16	26	5	Constant			
45	3331389.134	344595.126	16	26	6	End Constant & Start Acc.			
43	3331376.926	344596.11	16	26	7	Acc.			
45	3331363.951	344596.505	16	26	8	End Acc. & Start Constant			
44	3331350.067	344598.429	16	26	9	Constant			
44	3331337.556	344597.289	16	26	10	Constant			
44	3331325.042	344596.437	16	26	11	End Constant & Start Dec.			
47	3331312.925	344590.965	16	26	12	Dec.			
42	3331303.344	344586.492	16	26	13	Dec.			
34	3331295.956	344583.689	16	26	14	Dec.			
29	3331289.45	344581.284	16	26	15	Dec.			



25th Trip

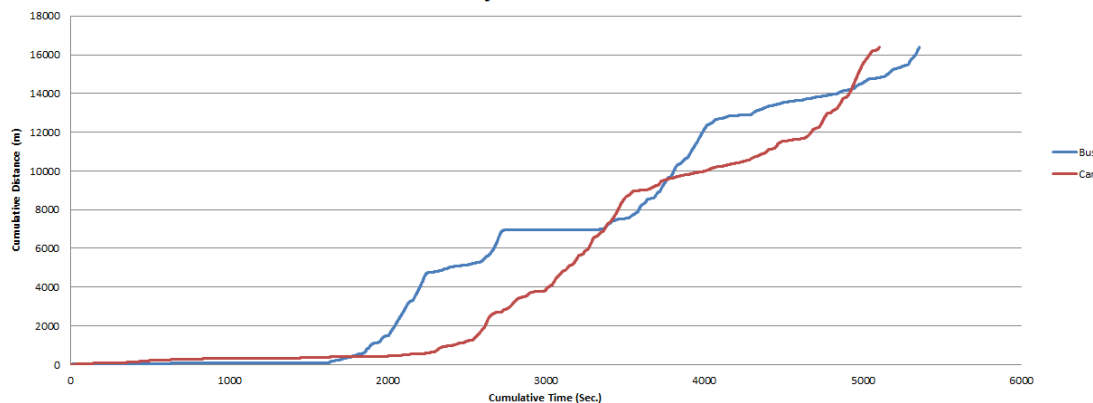
BUS DATA

GPS DATA						OUTPUT DATA			
SPEED	N	E	Hour	Min.	Sec.	Speed Classification	Route Length (meter)	16411	Meter
0	3322781.893	332012.694	17	41	11	Start Trip	Total Travel Time (by GPS),(Second)	5358	Second
10	3322782.393	332016.271	17	41	12	Dec.	Total Stoppage Delay (Second)	2795	Second
9	3322782.9	332019.365	17	41	13	Dec.	Total Acc. Delay (Second)	565	Second
7	3322782.858	332022.162	17	41	14	End Dec. & Start Constant	Total Dec. Delay (Second)	700	Second
7	3322782.936	332024.286	17	41	15	Constant	Delay due to stoppage/Acc./Dec. Delay (Second)	4060	Second
7	3322783.346	332026.511	17	41	16	Constant	Travel Time without Delay (by GPS), (Second)	1298	Second
7	3322783.314	332028.633	17	41	17	End Constant & Start Acc.	Free Flow Travel Time (Velocity=60 Kph.), (Second)	985	Second
12	3322783.262	332032.008	17	41	18	Acc.	Delay due to hardly reach Free Flow Time(Second)	313	Second
15	3322782.747	332036.727	17	41	19	End Acc. & Start dec.	Total Delay (Second)	4373	Second
14	3322782.681	332041.067	17	41	20	Dec.	Number of Total Stops	64	
12	3322783.182	332044.548	17	41	21	Dec.	Number of Stops at Station	21	
9	3322784.14	332047.167	17	41	22	Dec.			
6	3322784.222	332049.098	17	41	23	Dec.			
0	3322784.22	332049.194	17	41	24	End Dec. & Start Stoppage			
0	3322784.22	332049.194	17	41	25	Stoppage			
0	3322784.22	332049.194	17	41	26	Stoppage			
0	3322784.22	332049.194	17	41	27	Stoppage			
0	3322784.22	332049.194	17	41	28	Stoppage			
0	3322784.22	332049.194	17	41	29	Stoppage			
0	3322784.442	332049.198	17	41	30	Stoppage			
0	3322784.442	332049.198	17	41	31	Stoppage			
0	3322784.442	332049.198	17	41	32	Stoppage			
0	3322784.442	332049.198	17	41	33	Stoppage			
0	3322784.442	332049.198	17	41	34	Stoppage			
0	3322784.442	332049.198	17	41	35	Stoppage			
0	3322784.879	332049.59	17	41	36	Stoppage			

CAR DATA

GPS DATA						OUTPUT DATA			
SPEED	N	E	Hour	Min.	Sec.	Speed Classification	Route Length (meter)	16411	Meter
0	3322800.736	332049.349	17	41	28	Start Trip	Total Travel Time (by GPS),(Second)	5105	Second
3	3322800.739	332049.156	17	41	29	Stoppage	Total Stoppage Delay (Second)	625	Second
0	3322800.74	332049.06	17	41	30	Stoppage	Total Acc. Delay (Second)	497	Second
0	3322800.74	332049.06	17	41	31	Stoppage	Total Dec. Delay (Second)	2665	Second
0	3322800.74	332049.06	17	41	32	Stoppage	Delay due to stoppage/Acc./Dec. Delay (Second)	3787	Second
0	3322800.522	332048.863	17	41	33	Stoppage	Travel Time without Delay (by GPS), (Second)	1318	Second
5	3322799.426	332047.979	17	41	34	End Stoppage & Start Constant	Free Flow Travel Time (Velocity=60 Kph.), (Second)	985	Second
6	3322801.293	332049.165	17	41	35	Constant	Delay due to hardly reach Free Flow Time(Second)	333	Second
6	3322802.716	332050.344	17	41	36	Constant	Total Delay (Second)	4120	Second
6	3322803.48	332051.127	17	41	37	Constant	Number of Total Stops	42	
0	3322803.48	332051.127	17	41	38	End Constant & Start Stoppage			
0	3322803.588	332051.322	17	41	39	Stoppage			
4	3322804.25	332051.525	17	41	40	Stoppage			
4	3322804.692	332051.628	17	41	41	Stoppage			
4	3322805.242	332051.926	17	41	42	Stoppage			
4	3322805.904	332052.129	17	41	43	Stoppage			
0	3322805.904	332052.129	17	41	44	Stoppage			
0	3322805.901	332052.322	17	41	45	Stoppage			
0	3322805.897	332052.611	17	41	46	Stoppage			
0	3322805.894	332052.804	17	41	47	Stoppage			
0	3322805.894	332052.804	17	41	48	Stoppage			
0	3322805.443	332053.279	17	41	49	Stoppage			
0	3322805.439	332053.569	17	41	50	Stoppage			
0	3322805.436	332053.762	17	41	51	Stoppage			
0	3322805.436	332053.762	17	41	52	Stoppage			
0	3322805.214	332053.758	17	41	53	Stoppage			

El Nasr Street
From Manshyet El Bakry to Sun City
Monday 19-12-12 At 5:41 PM



26th Trip

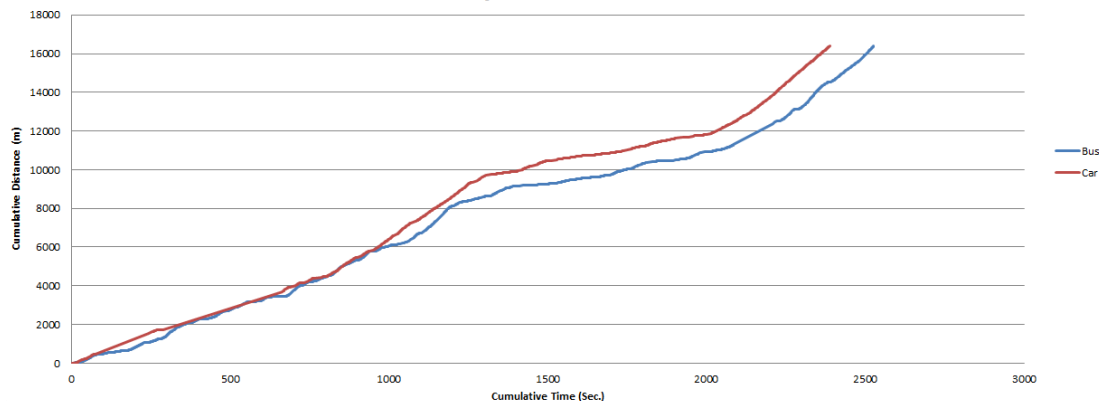
BUS DATA

GPS DATA						OUTPUT DATA			
SPEED	N	E	Hour	Min.	Sec.	Speed Classification	Route Length (meter)	16413	Meter
0	3322783.411	331920.3	18	28	59	Start Trip	Total Travel Time (by GPS),(Second)	2527	Second
0	3322782.963	331920.582	18	29	2	Stoppage	Total Stoppage Delay (Second)	331	Second
0	3322782.519	331920.576	18	29	3	Stoppage	Total Acc. Delay (Second)	499	Second
0	3322782.412	331920.381	18	29	4	Stoppage	Total Dec. Delay (Second)	482	Second
3	3322780.52	331920.834	18	29	9	Stoppage	Delay due to stoppage/Acc./Dec. Delay (Second)	1312	Second
3	3322779.738	331921.208	18	29	10	Stoppage	Travel Time without Delay (by GPS), (Second)	1215	Second
4	3322779.066	331921.681	18	29	11	End Stoppage & Start Acc.	Free Flow Travel Time (Velocity=60 Kph.), (Second)	985	Second
6	3322770.055	331930.997	18	29	12	Acc.	Delay due to hardly reach Free Flow Time(Second)	230	Second
7	3322768.47	331933.192	18	29	13	End Acc. & Start Constant	Total Delay (Second)	1542	Second
7	3322771.373	331939.121	18	29	14	Constant	Number of Total Stops	31	
8	3322768.106	331942.544	18	29	15	Constant	Number of Stops at Station	7	
8	3322768.07	331944.859	18	29	16	Constant			
7	3322769.374	331946.615	18	29	17	Constant			
7	3322770.664	331949.239	18	29	18	Constant			
6	3322771.85	331951.476	18	29	19	Constant			
6	3322774.151	331953.248	18	29	20	Constant			
6	3322775.112	331955.674	18	29	21	Constant			
5	3322776.084	331957.329	18	29	22	End Constant & Start Stoppage			
4	3322776.081	331957.522	18	29	23	Stoppage			
5	3322775.817	331960.315	18	29	24	End Stoppage & Start Acc.			
6	3322777.787	331961.985	18	29	25	Acc.			
8	3322778.401	331965.371	18	29	26	End Acc. & Start Constant			
7	3322778.921	331967.598	18	29	27	Constant			
7	3322779.783	331969.251	18	29	28	End Constant & Start Acc.			
9	3322780.414	331971.479	18	29	29	Acc.			
12	3322781.359	331974.966	18	29	30	Acc.			

CAR DATA

GPS DATA						OUTPUT DATA			
SPEED	N	E	Hour	Min.	Sec.	Speed Classification	Route Length (meter)	16413	Meter
0	3324527.185	333635.267	18	34	58	Start Trip	Total Travel Time (by GPS),(Second)	2390	Second
21	3324573.463	333668.758	18	35	17	Acc.	Total Stoppage Delay (Second)	148	Second
22	3324578.513	333672.017	18	35	18	End Acc. & Start Constant	Total Acc. Delay (Second)	662	Second
22	3324586.36	333681.009	18	35	20	End Constant & Start Acc.	Total Dec. Delay (Second)	320	Second
25	3324590.72	333685.898	18	35	21	Acc.	Delay due to stoppage/Acc./Dec. Delay (Second)	1130	Second
27	3324596.958	333691.296	18	35	22	Acc.	Travel Time without Delay (by GPS), (Second)	1260	Second
29	3324602.967	333697.174	18	35	23	Acc.	Free Flow Travel Time (Velocity=60 Kph.), (Second)	985	Second
32	3324617.203	333708.77	18	35	25	End Acc. & Start dec.	Delay due to hardly reach Free Flow Time(Second)	275	Second
31	3324624.318	333714.857	18	35	26	Dec.	Total Delay (Second)	1405	Second
29	3324631.21	333720.941	18	35	27	Dec.	Number of Total Stops	24	
26	3324637.004	333726.333	18	35	28	Dec.			
24	3324642.144	333731.041	18	35	29	Dec.			
22	3324647.381	333736.617	18	35	30	End Dec. & Start Constant			
22	3324651.737	333741.795	18	35	31	Constant			
23	3324656.659	333746.209	18	35	32	Constant			
23	3324661.931	333749.472	18	35	33	Constant			
23	3324666.759	333752.824	18	35	34	End Constant & Start Dec.			
21	3324672.013	333757.243	18	35	35	Dec.			
19	3324676.609	333761.267	18	35	36	Dec.			
17	3324680.434	333764.893	18	35	37	Dec.			
15	3324683.157	333768.117	18	35	38	Dec.			
12	3324685.884	333771.052	18	35	39	Dec.			
11	3324688.394	333773.694	18	35	40	End Dec. & Start Acc.			
10	3324690.795	333776.238	18	35	41	Acc.			
12	3324693.302	333779.073	18	35	42	Acc.			
14	3324696.586	333781.823	18	35	43	Acc.			

El Nasr Street
From Manshyet El Bakry to Sun City
Monday 19-12-12 At 6:29 PM



27th Trip

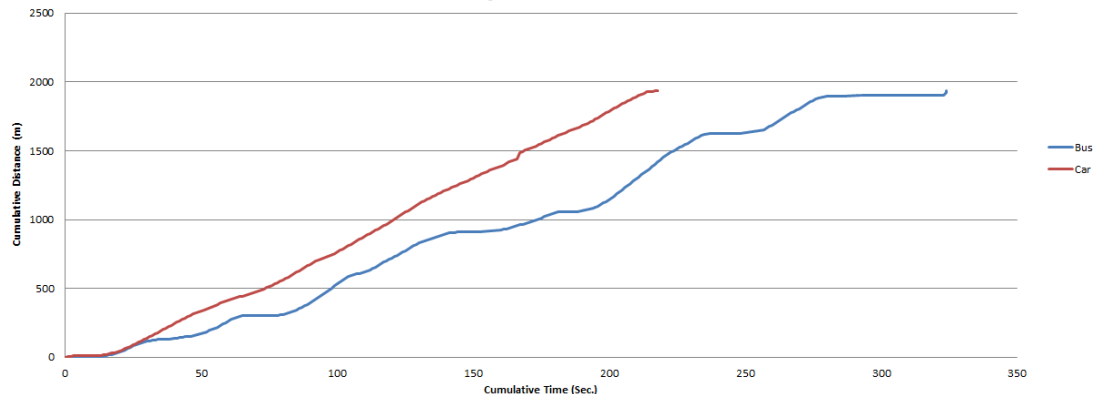
BUS DATA

GPS DATA						OUTPUT DATA			
SPEED	N	E	Hour	Min.	Sec.	Speed Classification	Route Length (meter)	1935	Meter
0	3326839.505	327242.126	10	15	0	Start Trip	Total Travel Time (by GPS),(Second)	324	Second
0	3326839.724	327242.322	10	15	1	Stoppage	Total Stoppage Delay (Second)	61	Second
0	3326839.724	327242.322	10	15	2	Stoppage	Total Acc. Delay (Second)	55	Second
0	3326839.724	327242.322	10	15	3	Stoppage	Total Dec. Delay (Second)	43	Second
0	3326839.721	327242.515	10	15	4	Stoppage	Delay due to stoppage/Acc./Dec. Delay (Second)	159	Second
0	3326839.721	327242.515	10	15	5	Stoppage	Travel Time without Delay (by GPS), (Second)	165	Second
0	3326839.721	327242.515	10	15	6	Stoppage	Free Flow Travel Time (Velocity=60 Kph.), (Second)	116	Second
0	3326839.721	327242.515	10	15	7	Stoppage	Delay due to hardly reach Free Flow Time(Second)	49	Second
4	3326839.713	327242.997	10	15	8	Stoppage	Total Delay (Second)	208	Second
4	3326839.376	327243.281	10	15	9	Stoppage	Number of Total Stops	6	
4	3326838.817	327243.562	10	15	10	Stoppage	Number of Stops at Station	5	
4	3326838.26	327243.746	10	15	11	Stoppage			
4	3326837.706	327243.737	10	15	12	Stoppage			
4	3326837.152	327243.728	10	15	13	Stoppage			
4	3326836.376	327243.716	10	15	14	Stoppage			
5	3326828.312	327241.854	10	15	15	End Stoppage & Start Acc.			
6	3326826.217	327241.146	10	15	16	Acc.			
9	3326823.689	327239.756	10	15	17	Acc.			
14	3326819.855	327236.803	10	15	18	Acc.			
17	3326816.254	327233.082	10	15	19	Acc.			
21	3326811.564	327228.187	10	15	20	Acc.			
26	3326805.111	327222.589	10	15	21	Acc.			
28	3326798.548	327216.893	10	15	22	Acc.			
33	3326790.888	327210.504	10	15	23	Acc.			
35	3326782.441	327204.778	10	15	24	End Acc. & Start dec.			
33	3326774.661	327198.967	10	15	25	Dec.			

CAR DATA

GPS DATA						OUTPUT DATA			
SPEED	N	E	Hour	Min.	Sec.	Speed Classification	Route Length (meter)	1935	Meter
0	3326749.906	327151.517	10	18	37	Start Trip	Total Travel Time (by GPS),(Second)	218	Second
0	3326742.119	327153.227	10	18	38	Stoppage	Total Stoppage Delay (Second)	12	Second
0	3326742.119	327153.227	10	18	39	Stoppage	Total Acc. Delay (Second)	43	Second
0	3326741.671	327153.51	10	18	40	Stoppage	Total Dec. Delay (Second)	21	Second
0	3326741.336	327153.697	10	18	48	Stoppage	Delay due to stoppage/Acc./Dec. Delay (Second)	77	Second
0	3326741.114	327153.694	10	18	49	Stoppage	Travel Time without Delay (by GPS), (Second)	141	Second
4	3326740.448	327153.78	10	18	50	End Stoppage & Start Acc.	Free Flow Travel Time (Velocity=60 Kph.), (Second)	116	Second
6	3326731.244	327153.925	10	18	51	Acc.	Delay due to hardly reach Free Flow Time(Second)	25	Second
8	3326730.276	327151.981	10	18	52	Acc.	Total Delay (Second)	102	Second
11	3326727.965	327150.884	10	18	53	Acc.	Number of Total Stops	1	
13	3326723.325	327149.847	10	18	54	Acc.			
15	3326719.479	327147.665	10	18	55	Acc.			
19	3326714.652	327144.407	10	18	56	Acc.			
24	3326709.063	327140.269	10	18	57	Acc.			
27	3326702.706	327135.636	10	18	58	Acc.			
29	3326695.68	327131.186	10	18	59	Acc.			
32	3326688.561	327125.674	10	19	0	End Acc. & Start Constant			
32	3326680.216	327120.529	10	19	1	End Constant & Start Acc.			
31	3326672.633	327116.263	10	19	2	Acc.			
32	3326665.185	327110.456	10	19	3	Acc.			
33	3326657.847	327104.748	10	19	4	Acc.			
34	3326650.627	327098.559	10	19	5	End Acc. & Start Constant			
34	3326642.735	327092.842	10	19	6	Constant			
34	3326634.847	327086.835	10	19	7	End Constant & Start Acc.			
37	3326626.626	327080.823	10	19	8	Acc.			
39	3326617.861	327074.225	10	19	9	End Acc. & Start dec.			

Gameet El Dewl El Arabya Street
From El Mehwar Bridge to El Sudan Street
Thursday 01-10-13 At 10:15 AM



28th Trip

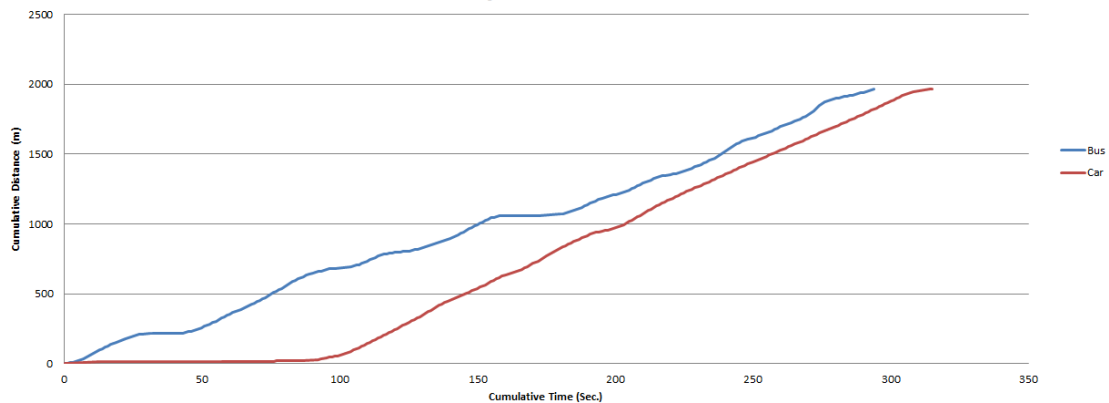
BUS DATA

GPS DATA						OUTPUT DATA			
SPEED	N	E	Hour	Min.	Sec.	Speed Classification	Route Length (meter)	1969	Meter
0	3325251.792	326010.358	10	45	13	Start Trip	Total Travel Time (by GPS),(Second)	294	Second
4	3325251.789	326010.551	10	45	14	Stoppage	Total Stoppage Delay (Second)	26	Second
5	3325254.847	326013.492	10	45	15	End Stoppage & Start Acc.	Total Acc. Delay (Second)	72	Second
14	3325258.905	326016.257	10	45	16	Acc.	Total Dec. Delay (Second)	52	Second
19	3325263.85	326019.036	10	45	17	Acc.	Delay due to stoppage/Acc./Dec. Delay (Second)	150	Second
20	3325268.788	326022.297	10	45	18	Acc.	Travel Time without Delay (by GPS), (Second)	144	Second
23	3325274.601	326026.246	10	45	19	Acc.	Free Flow Travel Time (Velocity=60 Kph.), (Second)	118	Second
27	3325280.507	326031.355	10	45	20	Acc.	Delay due to hardly reach Free Flow Time(Second)	26	Second
37	3325327.007	326070.476	10	45	26	End Acc. & Start dec.	Total Delay (Second)	176	Second
35	3325334.776	326076.964	10	45	27	Dec.	Number of Total Stops	3	
33	3325343.214	326083.27	10	45	28	Dec.	Number of Stops at Station	2	
32	3325351.203	326089.858	10	45	29	Dec.			
29	3325357.532	326096.227	10	45	30	Dec.			
28	3325363.762	326101.919	10	45	31	Dec.			
26	3325369.663	326107.317	10	45	32	Dec.			
24	3325391.094	326119.229	10	45	35	End Dec. & Start Constant			
24	3325396.114	326124.324	10	45	36	End Constant & Start Dec.			
22	3325401.265	326128.07	10	45	37	Dec.			
20	3325405.972	326131.906	10	45	38	Dec.			
19	3325410.791	326135.647	10	45	39	Dec.			
15	3325414.174	326139.076	10	45	40	Dec.			
11	3325416.352	326141.521	10	45	41	Dec.			
0	3325421.085	326143.718	10	45	44	End Dec. & Start Stoppage			
0	3325421.303	326143.914	10	45	45	Stoppage			
0	3325421.521	326144.207	10	45	46	Stoppage			
0	3325421.521	326144.207	10	45	47	Stoppage			

CAR DATA

GPS DATA						OUTPUT DATA			
SPEED	N	E	Hour	Min.	Sec.	Speed Classification	Route Length (meter)	1969	Meter
0	3326737.657	327154.99	10	45	27	Start Trip	Total Travel Time (by GPS),(Second)	315	Second
0	3326741.755	327141.07	10	45	40	Stoppage	Total Stoppage Delay (Second)	91	Second
0	3326741.755	327141.07	10	46	24	Stoppage	Total Acc. Delay (Second)	44	Second
0	3326741.755	327141.07	10	46	25	Stoppage	Total Dec. Delay (Second)	27	Second
0	3326741.312	327141.064	10	46	31	Stoppage	Delay due to stoppage/Acc./Dec. Delay (Second)	161	Second
0	3326741.312	327141.064	10	46	32	Stoppage	Travel Time without Delay (by GPS), (Second)	154	Second
0	3326741.201	327141.062	10	46	33	Stoppage	Free Flow Travel Time (Velocity=60 Kph.), (Second)	118	Second
0	3326741.198	327141.255	10	46	34	Stoppage	Delay due to hardly reach Free Flow Time(Second)	35	Second
0	3326740.977	327141.251	10	46	35	Stoppage	Total Delay (Second)	197	Second
0	3326740.974	327141.444	10	46	36	Stoppage	Number of Total Stops	1	
0	3326740.863	327141.442	10	46	37	Stoppage			
0	3326740.64	327141.535	10	46	38	Stoppage			
0	3326740.637	327141.728	10	46	39	Stoppage			
0	3326740.415	327141.725	10	46	40	Stoppage			
0	3326740.412	327141.917	10	46	41	Stoppage			
0	3326740.187	327142.107	10	46	42	Stoppage			
0	3326740.076	327142.105	10	46	43	Stoppage			
0	3326740.075	327142.201	10	46	44	Stoppage			
0	3326739.85	327142.391	10	46	45	Stoppage			
0	3326739.849	327142.487	10	46	46	Stoppage			
0	3326739.624	327142.677	10	46	47	Stoppage			
0	3326739.17	327143.344	10	46	53	Stoppage			
4	3326734.014	327146.928	10	46	59	End Stoppage & Start Acc.			
6	3326723.857	327151.302	10	47	0	Acc.			
11	3326720.708	327147.105	10	47	2	End Acc. & Start Constant			
11	3326717.85	327145.518	10	47	3	Constant			

Gameet El Dewl El Arabyia Street
From El Mehwar Bridge to El Sudan Street
Thursday 01-10-13 At 10:45 AM



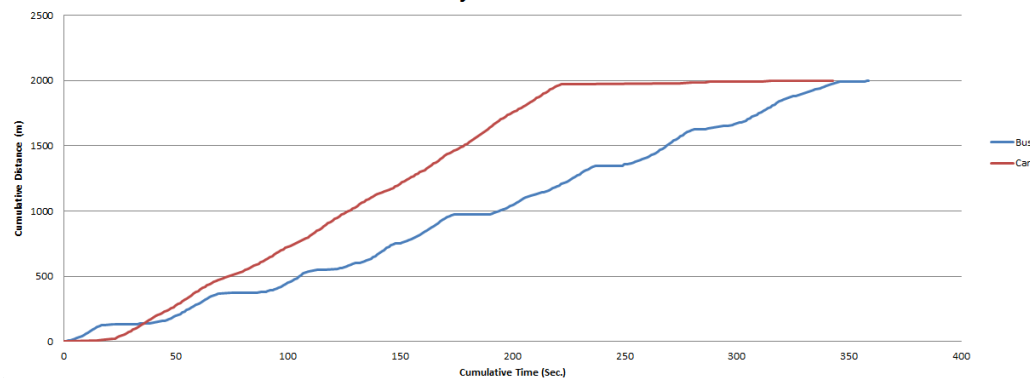
29th Trip BUS DATA

GPS DATA						OUTPUT DATA			
SPEED	N	E	Hour	Min.	Sec.	Speed Classification	Route Length (meter)	1997	Meter
0	3325293.613	326029.826	11	13	44	Start Trip	Total Travel Time (by GPS),(Second)	359	Second
0	3325293.052	326030.299	11	13	45	Stoppage	Total Stoppage Delay (Second)	59	Second
5	3325290.744	326036.05	11	13	46	End Stoppage & Start Acc.	Total Acc. Delay (Second)	92	Second
7	3325293.599	326037.734	11	13	47	Acc.	Total Dec. Delay (Second)	57	Second
12	3325296.563	326039.614	11	13	48	Acc.	Delay due to stoppage/Acc./Dec. Delay (Second)	209	Second
17	3325300.951	326042.576	11	13	49	Acc.	Travel Time without Delay (by GPS), (Second)	150	Second
23	3325306.766	326046.43	11	13	50	Acc.	Free Flow Travel Time (Velocity=60 Kph.), (Second)	120	Second
27	3325312.456	326051.149	11	13	51	Acc.	Delay due to hardly reach Free Flow Time(Second)	30	Second
28	3325318.133	326056.736	11	13	52	End Acc. & Start Constant	Total Delay (Second)	239	Second
28	3325324.481	326061.948	11	13	53	End Constant & Start Acc.	Number of Total Stops	6	
31	3325331.373	326067.844	11	13	54	Acc.	Number of Stops at Station	1	
33	3325338.703	326074.036	11	13	55	Acc.			
35	3325347.808	326080.159	11	13	56	End Acc. & Start Constant			
34	3325355.123	326087.316	11	13	57	Constant			
34	3325362.777	326094.091	11	13	58	End Constant & Start Dec.			
31	3325369.548	326100.564	11	13	59	Dec.			
24	3325374.785	326105.951	11	14	0	Dec.			
19	3325379.165	326109.396	11	14	1	Dec.			
15	3325381.884	326112.718	11	14	2	Dec.			
0	3325386.286	326114.813	11	14	6	End Dec. & Start Stoppage			
0	3325386.286	326114.813	11	14	7	Stoppage			
0	3325386.286	326114.813	11	14	8	Stoppage			
0	3325387.055	326115.211	11	14	9	Stoppage			
0	3325387.713	326115.704	11	14	10	Stoppage			
0	3325387.935	326115.707	11	14	11	Stoppage			
0	3325388.703	326116.201	11	14	14	Stoppage			

CAR DATA

GPS DATA						OUTPUT DATA			
SPEED	N	E	Hour	Min.	Sec.	Speed Classification	Route Length (meter)	1997	Meter
0	3325150.54	325942.209	11	13	45	Start Trip	Total Travel Time (by GPS),(Second)	343	Second
11	3325156.104	325940.85	11	14	0	Acc.	Total Stoppage Delay (Second)	0	Second
15	3325159.698	325944.957	11	14	3	Acc.	Total Acc. Delay (Second)	61	Second
18	3325164.86	325948.029	11	14	7	Acc.	Total Dec. Delay (Second)	76	Second
21	3325169.902	325951.677	11	14	8	Acc.	Delay due to stoppage/Acc./Dec. Delay (Second)	137	Second
25	3325175.819	325956.111	11	14	9	Acc.	Travel Time without Delay (by GPS), (Second)	206	Second
26	3325181.847	325960.546	11	14	10	End Acc. & Start Constant	Free Flow Travel Time (Velocity=60 Kph.), (Second)	120	Second
26	3325188.213	325964.601	11	14	11	Constant	Delay due to hardly reach Free Flow Time(Second)	86	Second
26	3325194.242	325968.94	11	14	12	Constant	Total Delay (Second)	223	Second
29	3325202.489	325973.218	11	14	13	Constant	Number of Total Stops	0	
29	3325210.73	325977.881	11	14	14	End Constant & Start Acc.			
28	3325219.635	325982.651	11	14	15	Acc.			
29	3325226.883	325987.009	11	14	16	Acc.			
32	3325234.574	325991.471	11	14	17	Acc.			
34	3325241.246	325997.171	11	14	18	Acc.			
35	3325249.686	326003.284	11	14	19	Acc.			
36	3325257.906	326009.297	11	14	20	Acc.			
37	3325266.893	326015.901	11	14	21	End Acc. & Start Constant			
36	3325274.89	326022.007	11	14	22	Constant			
36	3325282.868	326029.27	11	14	23	End Constant & Start Acc.			
37	3325291.295	326036.251	11	14	24	Acc.			
38	3325299.499	326043.229	11	14	25	End Acc. & Start dec.			
35	3325308.608	326049.159	11	14	26	Dec.			
29	3325315.507	326054.573	11	14	27	Dec.			
28	3325321.75	326059.397	11	14	28	End Dec. & Start Acc.			
27	3325328.338	326063.456	11	14	29	Acc.			

**Gameet El Dewl El Arabyia Street
From El Sudan Street to El Mehwar Bridge
Thursday 01-10-13 At 11:13 AM**



30th Trip

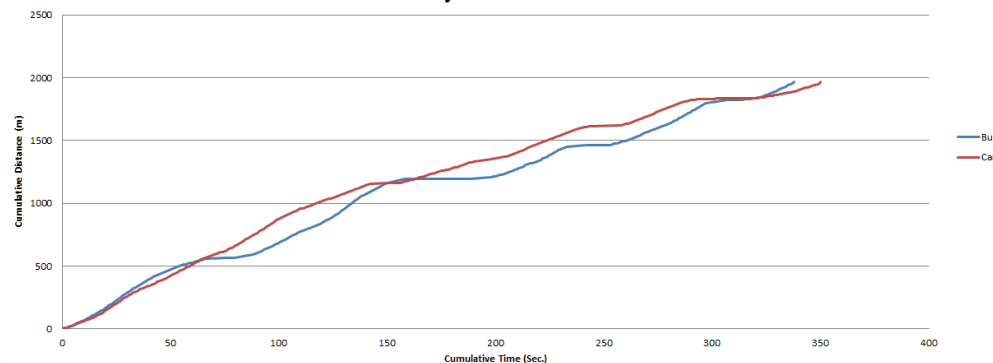
BUS DATA

GPS DATA						OUTPUT DATA			
SPEED	N	E	Hour	Min.	Sec.	Speed Classification	Route Length (meter)	1970	Meter
0	3325131.224	325901.683	11	47	44	Start Trip	Total Travel Time (by GPS),(Second)	338	Second
5	3325135.648	325909.373	11	47	45	End Stoppage & Start Acc.	Total Stoppage Delay (Second)	63	Second
12	3325136.961	325910.454	11	47	46	Acc.	Total Acc. Delay (Second)	72	Second
16	3325141.346	325913.61	11	47	47	Acc.	Total Dec. Delay (Second)	48	Second
19	3325144.961	325916.368	11	47	48	Acc.	Delay due to stoppage/Acc./Dec. Delay (Second)	183	Second
21	3325151.532	325921.487	11	47	49	Acc.	Travel Time without Delay (by GPS), (Second)	155	Second
22	3325157.459	325925.246	11	47	50	Acc.	Free Flow Travel Time (Velocity=60 Kph.), (Second)	118	Second
23	3325163.048	325929.385	11	47	51	Acc.	Delay due to hardly reach Free Flow Time(Second)	37	Second
25	3325168.963	325933.915	11	47	52	Acc.	Total Delay (Second)	220	Second
26	3325175.091	325939.027	11	47	53	End Acc. & Start Constant	Number of Total Stops	4	
26	3325181.528	325945.591	11	47	54	End Constant & Start Acc.	Number of Stops at Station	0	
27	3325187.873	325950.996	11	47	55	Acc.			
29	3325195.881	325956.427	11	47	56	Acc.			
31	3325203.545	325962.528	11	47	57	End Acc. & Start Constant			
31	3325210.893	325967.563	11	47	58	End Constant & Start Acc.			
32	3325218.898	325973.187	11	47	59	Acc.			
35	3325226.563	325979.192	11	48	0	End Acc. & Start Constant			
35	3325234.671	325985.3	11	48	1	End Constant & Start Acc.			
36	3325242.886	325991.602	11	48	2	Acc.			
37	3325250.989	325997.999	11	48	3	Acc.			
39	3325259.97	326004.989	11	48	4	Acc.			
41	3325269.278	326012.273	11	48	5	End Acc. & Start Constant			
40	3325277.7	326019.544	11	48	6	End Constant & Start Acc.			
42	3325287.223	326027.313	11	48	7	End Acc. & Start Constant			
42	3325296.961	326035.472	11	48	8	Constant			
41	3325306.268	326042.853	11	48	9	Constant			

CAR DATA

GPS DATA						OUTPUT DATA			
SPEED	N	E	Hour	Min.	Sec.	Speed Classification	Route Length (meter)	1970	Meter
0	3325300.99	326040.069	11	50	13	Start Trip	Total Travel Time (by GPS),(Second)	350	Second
3	3325301.757	326040.66	11	50	14	Stoppage	Total Stoppage Delay (Second)	46	Second
4	3325303.628	326041.558	11	50	15	Stoppage	Total Acc. Delay (Second)	84	Second
5	3325313.989	326045.386	11	50	16	End Stoppage & Start Acc.	Total Dec. Delay (Second)	59	Second
15	3325319.45	326050.584	11	50	17	Acc.	Delay due to stoppage/Acc./Dec. Delay (Second)	189	Second
24	3325325.684	326055.987	11	50	18	End Acc. & Start dec.	Travel Time without Delay (by GPS), (Second)	161	Second
21	3325331.377	326060.514	11	50	19	Dec.	Free Flow Travel Time (Velocity=60 Kph.), (Second)	118	Second
19	3325337.636	326064.374	11	50	20	Dec.	Delay due to hardly reach Free Flow Time(Second)	43	Second
18	3325343.124	326067.836	11	50	21	Dec.	Total Delay (Second)	232	Second
16	3325347.842	326070.997	11	50	22	End Dec. & Start Constant	Number of Total Stops	4	
16	3325353.333	326074.267	11	50	23	Constant			
16	3325357.823	326077.81	11	50	24	End Constant & Start Acc.			
19	3325363.199	326081.367	11	50	25	Acc.			
21	3325368.683	326085.118	11	50	26	Acc.			
23	3325373.821	326089.732	11	50	27	Acc.			
26	3325379.619	326094.646	11	50	28	Acc.			
29	3325385.846	326100.532	11	50	29	Acc.			
30	3325392.183	326106.418	11	50	30	Acc.			
31	3325399.404	326112.512	11	50	31	Acc.			
33	3325407.247	326121.316	11	50	32	Acc.			
34	3325414.899	326128.188	11	50	33	Acc.			
36	3325430.415	326142.611	11	50	35	End Acc. & Start Constant			
36	3325438.386	326150.356	11	50	36	End Constant & Start Dec.			
35	3325447.357	326157.924	11	50	37	Dec.			
33	3325455.89	326165.196	11	50	38	Dec.			
32	3325463.545	326171.875	11	50	39	Dec.			

**Gameet El Dewl El Arabyia Street
From El Sudan Street to El Mehwar Bridge
Thursday 01-10-13 At 11:47 AM**



الملخص العربي

يعتبر تحديد زمن الرحلة تحديدا دقيقا عنصرا هاما لمعظم تطبيقات أنظمة النقل الذكية. بالإضافة إلي ذلك فتزويد البنية التحتية للشوارع بمجسات وحلقات حث وكاميرات للوصول إلي زمن الرحلة هو أمر باهظ التكلفة مما يزيد من ارتفاع تكلفة جمع البيانات، بل تزداد تلك التكلفة كلما اتسعت مساحة البحث. وبناء علي ذلك فنحن في أمس الحاجة لأساليب بسيطة التكلفة لجمع البيانات التي تساعد في قياس زمن الرحلة. يقدم هذا البحث أكثر من نموذج لحساب زمن الرحلة في الطرق الحضرية بالقاهرة مستخدما الحافلات (أتوبيسات النقل العام) كوسيلة فحص حيث يتم جمع البيانات باستخدام أجهزة نظام الملاحة العالمي (GPS) المثبتة في حافلات تنتقل عبر تلك الطرق. وهو أسلوب بسيط التكلفة مقارنة بالأساليب الأخرى. قام الباحث بتجميع البيانات في أوقات مختلفة من اليوم حرصا علي الوصول إلي أدق حساب لزمن الرحلة. في هذا البحث تمت المقارنة بين زمن الرحلة لكل من الحافلة والمركبة (السيارة) للوصول إلي أوجه التشابه والاختلاف بين سرعة كل منهما. وبناء علي نتيجة المقارنة قام الباحث باعداد نماذج وإحصائيات للحركة التراجعية ليربط بين زمن الرحلة وسرعتها لكل من الحافلة والمركبة. ولقد أظهرت النماذج نتائج دقيقة إلي حد مقبول علميا أخذين في الإعتبار طبيعة المرور الفوضوي في القاهرة العظمي بالإضافة إلي الاختلاف الطبيعي في أوقات التنقل. في النموذج الأول استخدم الباحث متوسط سرعة الحافلة كالمتمغير التابع في حين أن متوسط سرعة المركبة استخدم كالمتمغير المستقل. أما في النموذج الآخر تم استبدال زمن الرحلة بسرعتها. وبنهاية البحث يضع الباحث بين أيدينا نموذجين خطين مثبتا مدي نجاحهما من حيث ملائمتها وقدرتهما علي التنبؤ بالحالة المرورية فتجد أن معامل التحديد R^2 يصل إلي 65.9% في النموذج الأول وإلي 69.3% في النموذج الآخر. ايضا، لم يتعد متوسط نسبة الخطأ ال 17.6% لكل جولة. ويعتبر النموذجين المذكورين هنا خطوة أوليه اتجاه اعداد نظام دائم لجمع المعلومات عن الحالة المرورية وإتاحتها لقائدي المركبات. إذا وجد هذا النظام سيساعد كل مراكز إدارة المرور في الاستخدام الأكفأ للشبكة المرورية خاصة في أوقات التكدس المروري. وعليه فستظل الحاجة للمزيد من البحث لتطوير هذين النموذجين بقدر المستطاع.



الأكاديمية العربية للعلوم والتكنولوجيا والنقل البحري

كلية الهندسة والتكنولوجيا

قسم هندسة التشييد والبناء

استخدام المركبات العامة كمركبة فحص لتقدير زمن الرحلة على الطرق الحضرية

إعداد

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و النقل البحري, مصر.

رسالة مقدمة للاكاديمية العربية للعلوم و التكنولوجيا و النقل البحري لاستكمال متطلبات نيل درجة

الماجستير

في

هندسة البيئة

إشراف

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كلية الهندسة و التكنولوجيا -
الأكاديمية العربية للعلوم و التكنولوجيا و
النقل البحري - فرع القاهرة.