



Cairo University
Faculty of Engineering
Credit Hours System
(CCE-C)



CMPN 402 - Machine Intelligence

Performance Report

(Travelling Salesman Problem)

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Compare Algorithms:

with(MST H)

N cities Time taken	Uniform Cost Search	Best First Search	A* Search
N=5	0	0	Less than 0.1
N=10	0.1 to 0.5	Less than 0.1	0.7 to 1 sec
N=15	1 to 5 secs	Less than 0.1	5 to 50 secs
N=20	13 to 20 secs	Less than 0.1	140 to 400 secs

Compare Heuristic Fns:

N cities Time taken	Straight Line	MST	Mine (nextMinDist)
N=5	0	0	0
N=10	1.5 secs	0.005	0.6
N=15	140 to 440 secs	0.017	60 to 255 secs
N=20	480 to 760 secs	0.062	310 to 630 secs

- These numbers depending on my trials for every N ->5 times and getting range between worst and best trials