Week 3 : 18-22 January, 2021

Lab Assignment 3

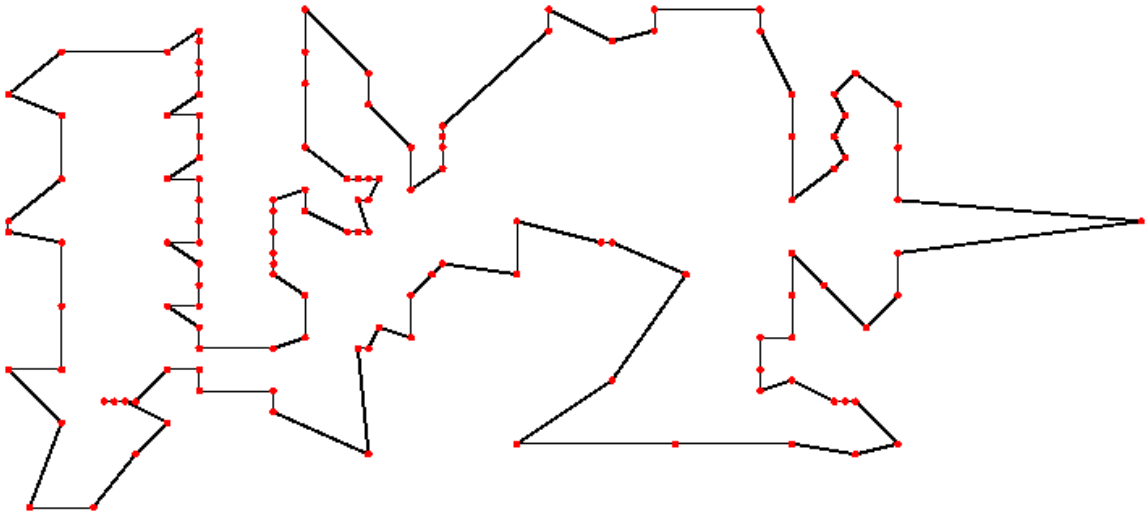
An interesting problem domain with TSP instances:
VLSI: http://www.math.uwaterloo.ca/tsp/vlsi/index.html#XQF131
(Attempt at least five problems from the above list and compare your results.)

We have used

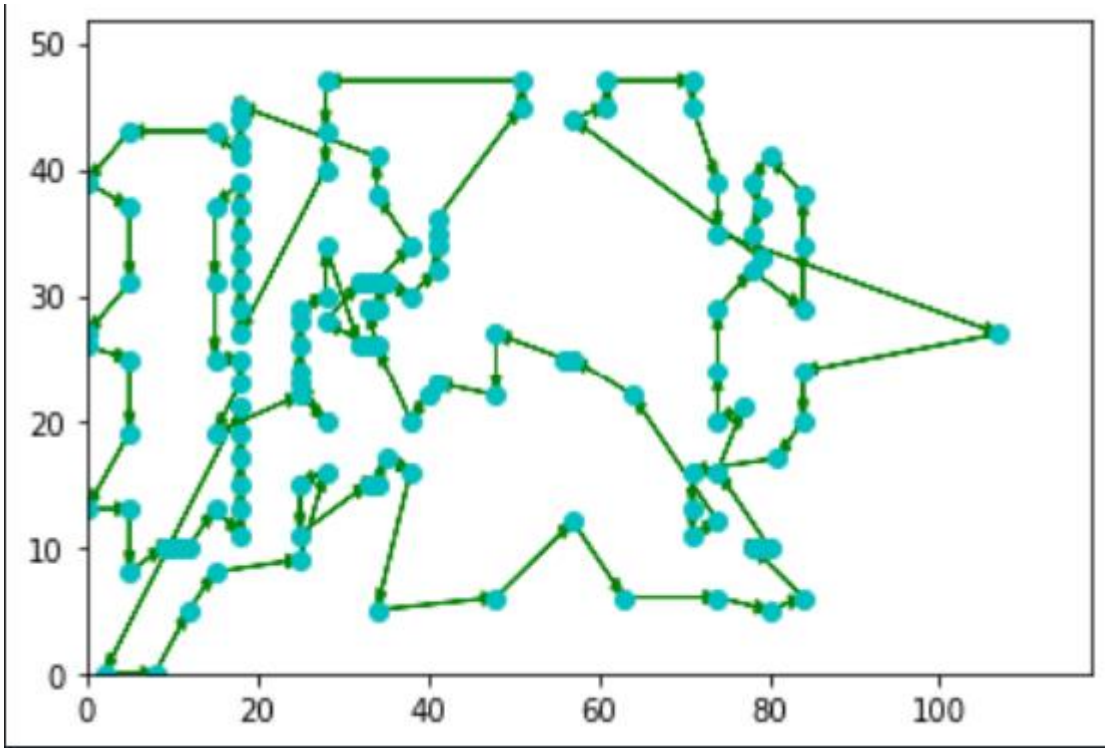
- Greedy algorithm to get an initial solution (closest-neighbour).
- Euclidean distance between two nodes.
- Total distance of the current solution path.
- Probability of accepting if the candidate is worse than current.
- Depends on the current temperature and difference between candidate and current.
- Accept with probability 1 if candidate is better than current.
- Accept with probabilty p_accept(..) if candidate is worse.
- Execute simulated annealing algorithm.
- Visualize the TSP route with matplotlib.

1. XQF131 – 131 Points

Optimal Tour:

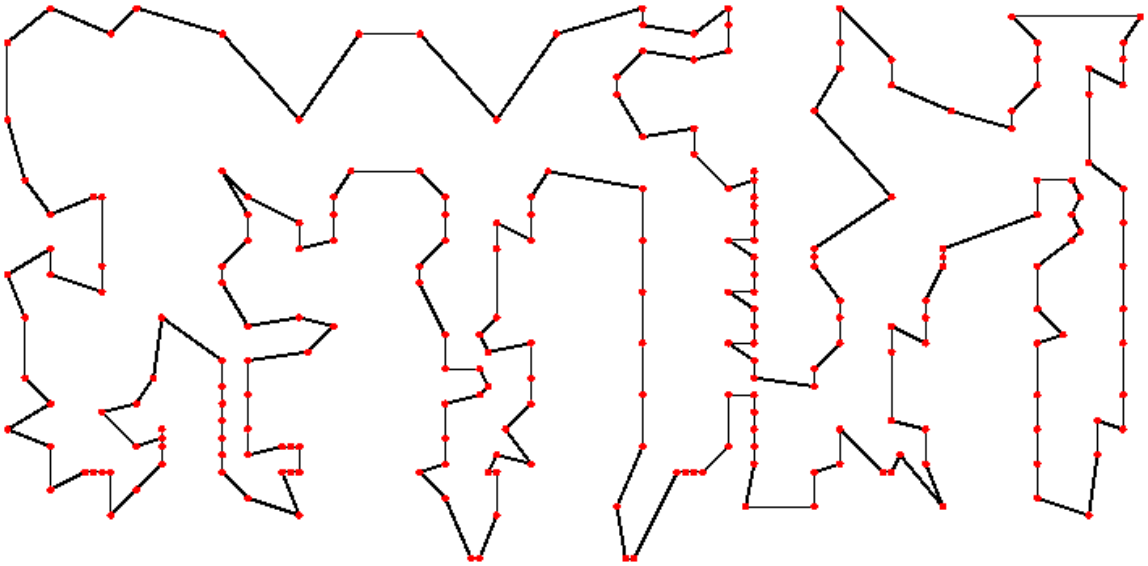


Optimal Tour after our implementation:

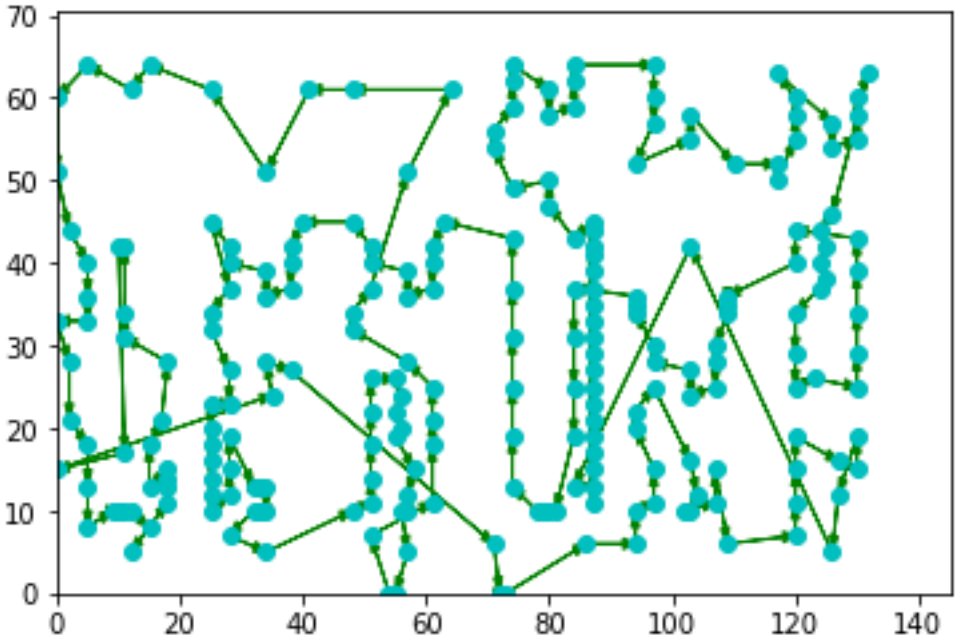


2. xqg237 – 237 Points

Optimal Tour:



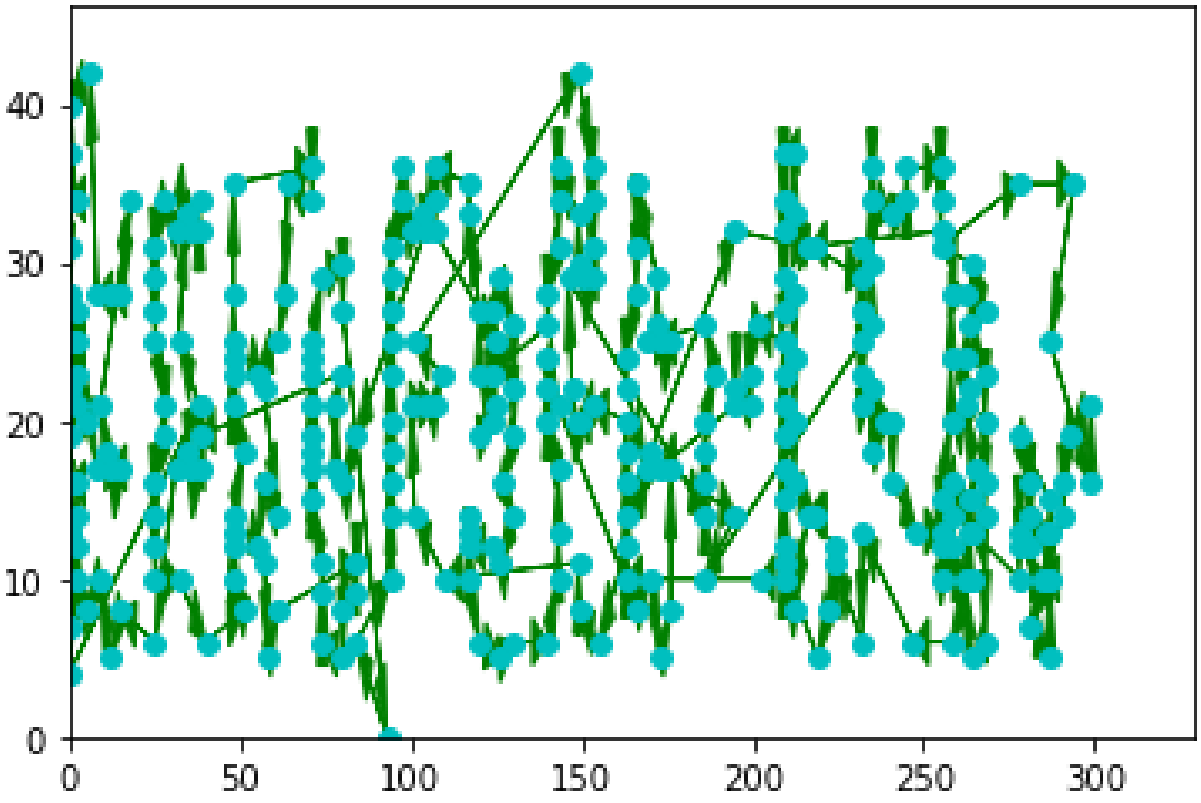
Optimal Tour after our implementation:



3. pma343 – 343 Points

Optimal Tour:

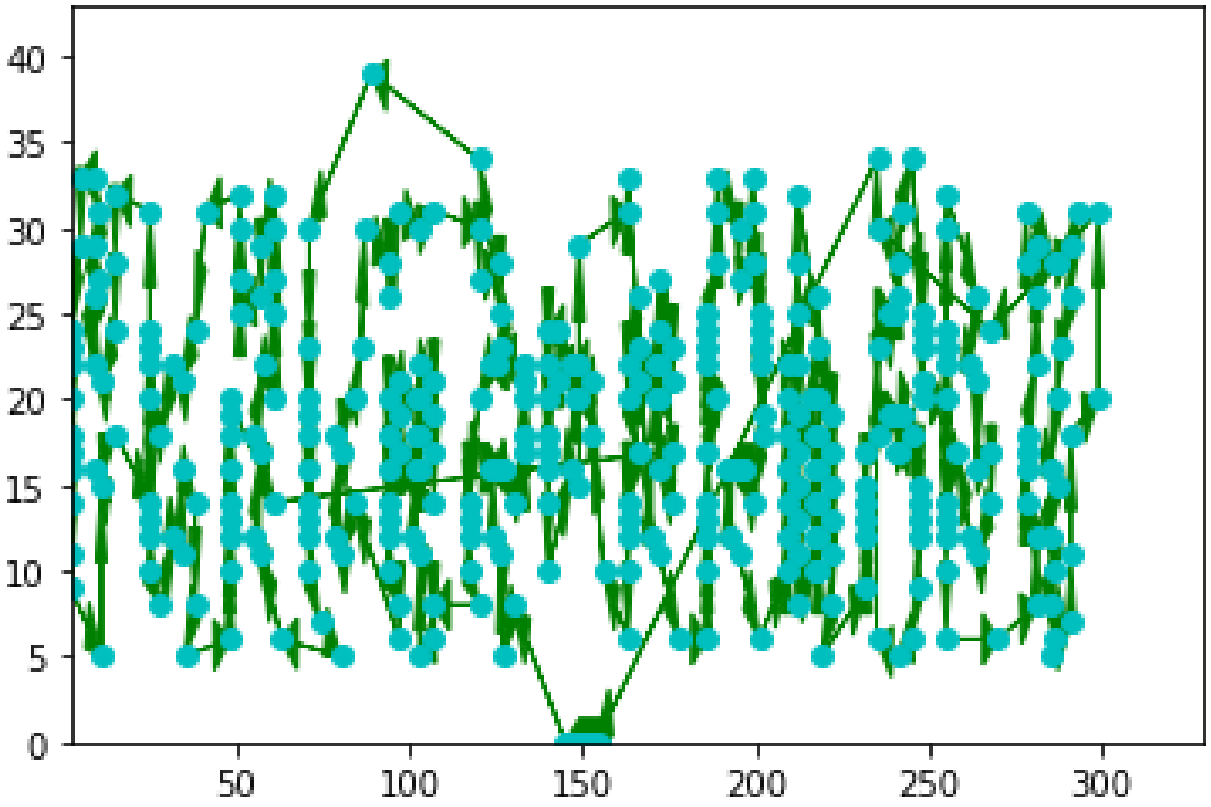
Optimal Tour after our implementation:



4. pka379 – 379 Points

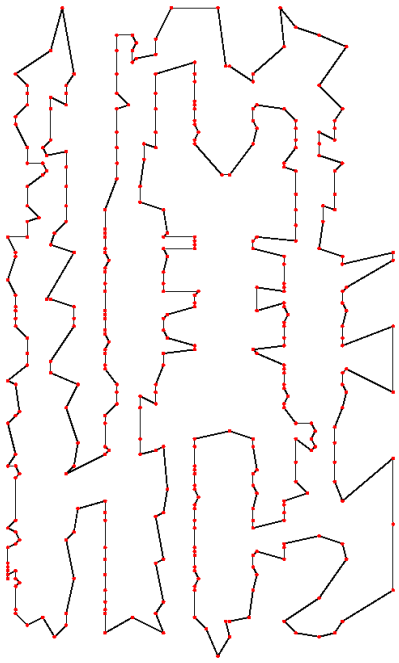
Optimal Tour:

Optimal Tour after our implementation:



5. BCL380 – 380 Points

Optimal Tour:



Optimal Tour after our implementation: