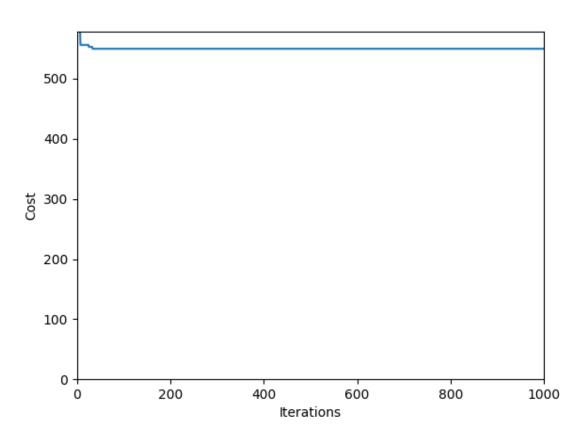
# Implementation of Standard Genetic Algorithm to solve the Traveling Salesman Problem

## Result on 10 cities

GA: Cost of Best Individual for 10 cities



0: (123,108)

3: (123,99)

7: (116,26)

4: (144,197)

1: (129,179)

2: (84,147)

6: (54,119)

9: (30,143)

8: (14,77)

5: (23,5)

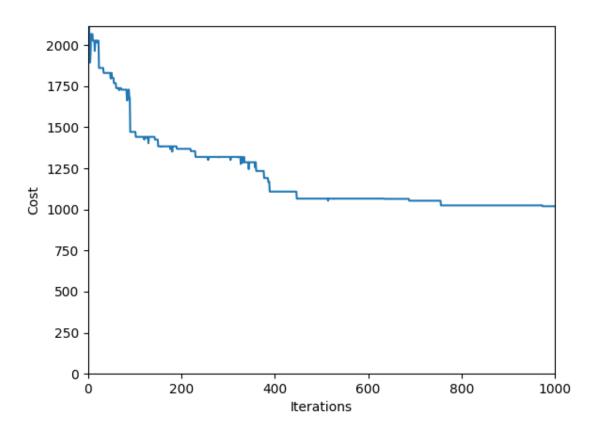
0: (123,108)

Best tour cost: 549.7103044520712

Iterations: 1000
Population size: 200
Mutation rate: 0.01

## Result on 30 cities

# GA: Cost of Best Individual for 30 cities



0: (159,198)

26: (155,187)

24: (153,175)

28: (164,156)

4: (108,183)

2: (105,198)

29: (88,179)

22: (84,155)

8: (72,160)

11: (68,154)

23: (40,160)

10: (2,103)

18: (94,111)

6: (158,110)

14: (173,104)

13: (165,81)

27: (96,93)

7: (74,85)

3: (46,60)

19: (14,53)

9: (2,13)

1: (40,17)

15: (64,5)

25: (91,48)

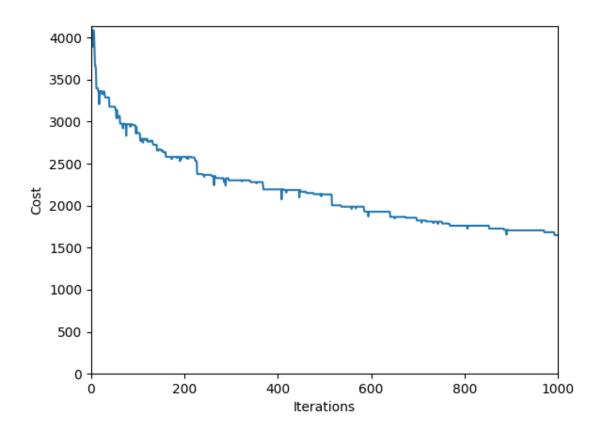
17: (123,67)
5: (173,32)
12: (195,4)
21: (171,1)
20: (163,11)
16: (123,6)
0: (159,198)

Best tour cost: 1019.8094354781998

Iterations: 1000
Population size: 200
Mutation rate: 0.01

## Result on 50 cities

# GA: Cost of Best Individual for 50 cities



- 0: (80,119)
- 16: (82,122)
- 18: (86,123)
- 33: (94,149)
- 25: (95,159)
- 15: (80,162)
- 49: (50,199)
- 31: (34,189)
- 28: (37,151)
- 47: (33,118) 37: (52,107)
- 29: (48,83)
- 34: (65,55)
- 2: (57,37)
- 43: (170,7)
- 22: (135,22)
- 17: (124,30)
- 42: (132,57)
- 9: (155,71)
- 12: (143,84)
- 4: (177,92)
- 3: (193,118)
- 24: (141,137)
- 20: (139,149)

- 26: (196,192)
- 45: (191,147)
- 27: (164,112)
- 41: (160,107)
- 32: (145,93)
- 5: (145,86)
- 30: (98,123)
- 7: (120,85)
- 40: (70,39)
- 10: (59,34)
- 8: (91,13)
- 36: (65,3)
- 21: (37,0)
- 23: (35,42)
- 6: (11,19)
- 46: (7,37)
- 35: (18,77)
- 48: (37,106)
- 19: (18,69)
- 44: (47,46)
- 14: (59,56)
- 13: (92,88)
- 11: (62,153)
- 1: (47,189)
- 39: (127,181)
- 38: (124,185)
- 0: (80,119)

Best tour cost: 1650.1485130790684

Iterations: 1000
Population size: 200
Mutation rate: 0.01