Artificial Intelligence for Robotics - Assignment 08

Ashok Meenakshi Sundaram   **Prof. Dr. Erwin Prassler**

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For this assignment, you can work in a team of two. Each one in the team should be able to present all submitted material.

1. Solve the same Travelling Salesman Problem as the previous assignment, but using Simulated Annealing and all cities in the file. Get the best solution for different computation time (say 5, 10, 15 minutes).

2. Consider the following puzzle and represent it as a Constrain Satisfaction Problem. Do not solve/implement it. Provide only the variables, the values of those variables, and the constraints.

   (a) There are five houses.
   (b) The Englishman lives in the red house.
   (c) The Spaniard owns the dog.
   (d) Coffee is drunk in the green house.
   (e) The Ukrainian drinks tea.
   (f) The green house is immediately to the right of the ivory house.
   (g) The Old Gold smoker owns snails.
   (h) Kools are smoked in the yellow house.
   (i) Milk is drunk in the middle house.
   (j) The Norwegian lives in the first house.
   (k) The man who smokes Chesterfields lives in the house next to the man with the fox.
   (l) Kools are smoked in a house next to the house where the horse is kept.
   (m) The Lucky Strike smoker drinks orange juice.
   (n) The Japanese smokes Parliaments.
   (o) The Norwegian lives next to the blue house.

   The question posed by the puzzle is: Who drinks water? Who owns the zebra?