Lab Exercise/Mini-Project

- Solve travelling salesman problem (TSP) using the following soft-computing techniques. Originally, these algorithms are serial in nature. Your task is to design and implement a parallel version of these algorithms and compare the runtime against the serial algorithm. (choose MPI/OpenMP)

    1. Red deer algorithm, Mohammad A, Mostafa H-K, Reza T-M (2020) Red deer algorithm (RDA): a new nature-inspired meta-heuristic. Soft Comput 24:14637–14665 (all odd roll number student must implement this)
    2. Jahani, Ehsan, and Mohammad Chizari. "Tackling global optimization problems with a novel algorithm–Mouth Brooding Fish algorithm." *Applied Soft Computing* 62 (2018): 987-1002. (all even roll number student must implement this)

You can read the following paper to get an intuition on how to solve the above problem (TSP) using a parallel ant colony optimization algorithm.

https://link.springer.com/chapter/10.1007/11839088_20