

Subject

Advanced Machine Learning

Assignment IV

Unit IV

Swarm Methods

Session 12

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1 Activities.

As with the previous week, I want you to remain in groups and work together for this Assignment, you will have multiple tasks,

- 1) Implement for the pso the Von Neumann neighborhood
- 2) Test it compared to the previous implementation (You can use one from the virtual campus) with two of the functions here:
https://en.wikipedia.org/wiki/Test_functions_for_optimization
Explain also the functions that you use and why they are used as test cases
- 3) Build a pseudocode for the ACO for shortest path like we have talked in class
- 4) Solve the TSP with the pseudocode (It doesn't have to work, I want you to give me your logical process) Try to do it without searching on the internet, I want you to show me if you are able to think outside the box for this
- 5) Write a report containing the work done for this assignment, it is important that you try to write the thought process behind your work and critique the solutions.