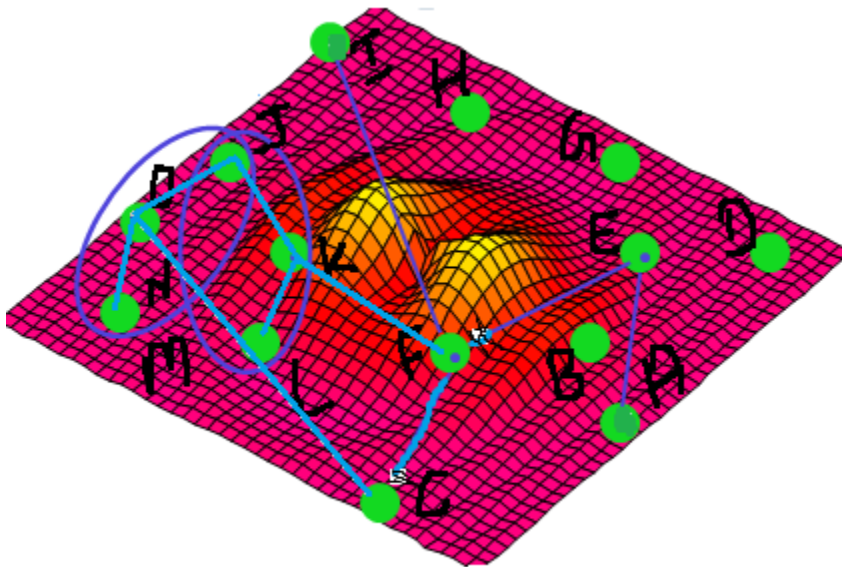


# Artificial and Computational Intelligence

## ASSIGNMENT-6

### Problem statement

A group of birds constitute a swarm. A bird randomly starts searching for food from a food source (represented in the green nodes) by following the trail of the swarm (as shown in the diagram with the blue lines). The sight of the bird is limited to its immediate neighbouring food source. The bird need not remember the previous food sources. The goodness of a food source is determined by the number of other food sources reachable from it.



### Instructions:

1. Explanation of the heuristic and algorithm chosen [20% weightage]
2. Representation of the environment, fringe and the data structures used [20% weightage]
3. Implementation of the algorithm in PYTHON [40% weightage]

4. The details given by the algorithm to aid the bird's search (To be printed). [20% weightage]

Note:

1. Kindly avoid plagiarism
2. Use suitable data structures to represent the environment, the solution space and the solution.
3. Python template is provided for your reference.