INTRODUCTION

In the real world, initially ants wander randomly, and upon finding food return to their nest while laying down the chemical substance called pheromone trails. If other ants find such a path, they are likely not to keep traveling at random, but to instead follow the trail, returning and reinforcing it if they eventually find food.
Over time, however, the pheromone trail evaporates, thus reducing its attractive strength. The more time it takes for an ant to travel down the path and back again, the more time the pheromones have to evaporate. On shorter path, the back and forth journey of ants takes lesser time, so the pheromone density remains high. Pheromone evaporation has also the advantage of avoiding the convergence to a locally optimal solution. If there were no evaporation at all, the paths chosen by the first ants would tend to be excessively attractive to the following ones. In that case, some nearby food source may remain unexplored.
Thus, when one ant finds a short path from nest to a food source, other ants are more likely to follow that path, and positive feedback eventually leaves all the ants following a single path. The idea of the ant colony algorithm is to mimic this behavior of ants.
Ant colony optimization algorithms have been used to produce near-optimal solutions to Traveling Salesman Problem and hence used in VLSI design. Also it has been able to solve network routing problem effectively. These algorithms are inherently parallel and distributed so they are going to have great impact in design of network routers in the near future. Also these algorithms are going to be used in intelligent search engines.

SCHEDULE

Registration	9.30 – 10.00 am
Inaugural Ceremony	10.00 – 10.30 am
Session I	10.30 – 12.30 pm
Lunch Break	12.30 – 1.30 pm
Session II	1.30 – 3.30 pm
Tea Break	3.30 – 3.45 pm
Session III	3.45 – 4.45 pm
Valedictory	4.45 – 5.15 pm