

Computational Thinking Lab - I semester - P Batch - Week 10 - 02.02.22

1. Design a traffic control system that is to be installed in a four-way intersection. The algorithm should provide efficient traffic flow, reduce vehicle emissions, reduce rear end collisions and reduce waiting time.

Pointers:

How much time is allocated for each direction?

What happens if there is more traffic in one direction compared to the others?

Can a traffic signal know if there is a vehicle waiting?

What happens if there are VIP vehicles / ambulances / Late buses?

What about pedestrians?

Monitoring of speeding vehicles / violators

In times of calamities?

If there are four traffic signals on a long road, should all the four traffic signals be coordinated? How?

Learn from past experience?

2. Prepare a time schedule for yourself for the next two months.

Pointers:

- a. Less/ high priority jobs for each day / week /month
- b. Towards long term goals
- c. Towards short term goals
- d. Use of social networks

Find tools available for time management (Remember The Milk, Todoist)

3. Design a system that will assign tables in restaurants to customers:

Pointers:

Number of tables

Number of people that can be seated in a table

Details of arriving people

Handling customers who arrive without reserving a table earlier and customers who arrive with prior reservation

Cancelling of reservation

Changing the arrangement of tables based on the reservation