## INTER IIT TECH MEET



## Agenda

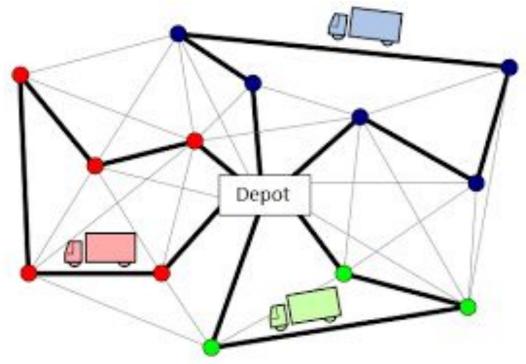
1. To develop a route optimization algorithm that caters to the real time changing demand of customers to determine route and schedule of buses depending on the constraints provided.

2. The algorithm should be able to give optimized routes for 'n' number of constraints, for example the desired output should be achieved with either one of the constraints as well as considering all of them together as per the requirements.

3. Justification and visualization of the method.

## Constraints-

- Time window for pick up and drop off.
- Minimize operational cost.
- Number of buses
- Vehicle occupancy should be at least 85%.





## Sample data

Start time= 6:15 am and End time = 7:35 am (morning) Start time time=4:30 pm and End time = 6:00 pm Bus capacity= 36seater Kms/trip= 59.2

Pick Up Route	Drop Route
Yelachenahalli metro Station	Bosch Bidadi
Sarakki signal	Via Uttarahalli main Road
Iliaz Nagar	Channasandra RNSIT College
Devegowda petrol Bunk	RR Nagar - BMTC Bus depot circle
Kamakya theater stop	RR Nagar Temple
katriguppe Bus stop	Poorna Prajna Layout
Ittamadu VB Bakery	Ittamadu VB Bakery
Poorna Prajna Layout	katriguppe Bus stop
RR Nagar Temple	Kamakya theater stop
RR Nagar - BMTC Bus depot circle	Devegowda petrol Bunk
Channasandra RNSIT College	Iliaz Nagar
Via Uttarahalli main Road	Sarakki signal
Bosch Bidadi	Yelachenahalli metro Station

1 B1 Devegowda Petrol Bunk 2 B2 Hoskeralli 3 B3 Channasandra RNSIT 4 B4 Kathriguppe 5 B5 Kamakya Theatre 6 B6 PESIT Collage 7 B7 Katherguppe Circle 8 B8 HosaKerehalli 9 B9 Bata Show Room 10 B10 Ittamadu 11 B11 Rajarajeshwari temple 12 B12 Jantha Bazar 13 B13 Kuthriguppe 14 B14 Hosakarehalli 15 B15 Rajarajeshwarinagar Double Road 16 B16 Kathriguppe 17 B17 HosaKerehalli 18 B18 Kamakya Theatre 19 B19 Kanthi Sweets RR Nagar 20 B20 HosaKerehalli 21 B21 Chowdeshwari Talkies 22 B22 Jayanagar 23 B23 Kattrigupe 24 B24 Kadirenahallli 25 B25 Kathriguppe 26 B26 Mantri Apartment 27 B27 Channasandra RNSIT 28 B28 Kodipalya (Uttarahalli main Road) 29 B29 Uttarahalli road Kengeri	S.No	Persons	Boarding point
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29 B29 Uttarahalli road Kengeri	27	B27	Channasandra RNSIT
$\mathcal{C}$	28	B28	Kodipalya (Uttarahalli main Road)
	29	B29	